

**THE INFORMAL FUNDING MARKET
FOR NEW BUSINESSES IN THE UNITED KINGDOM**

Ekaterina Murzacheva

University of Strathclyde
Strathclyde Business School
Hunter Centre for Entrepreneurship

Thesis submitted in accordance with the requirements
for the Degree of Doctor of Philosophy

October 2017

Declaration of Authenticity and Author's Rights

This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination which has led to the award of a degree.

The copyright of this thesis belongs to the author under the terms of the United Kingdom Copyright Acts as qualified by University of Strathclyde Regulation 3.50. Due acknowledgement must always be made of the use of any material contained in, or derived from, this thesis.

Parts of this thesis have been presented and published in some academic events during the development of the research:

Murzacheva, E. and Levie, J. (2015) Towards understanding informal investors: individual factors within local communities in England across the macroeconomic cycle. *Institute for Small Business and Entrepreneurship Conference*, Glasgow, UK.

Murzacheva, E. and Levie, J. (2014) Unpacking the black box of informal investments: deal origination, motivation, and context dependence. *Babson College Entrepreneurship Research Conference*, London, Ontario, Canada.

Murzacheva, E. and Levie, J. (2012) Sustaining entrepreneurship in 'unsustainable' communities: informal investment rates in England across the business cycle. *Babson College Entrepreneurship Research Conference*, Fort Worth TX, USA.

Signed:

Date: 27.10.2017

Table of Contents

List of Figures.....	xii
List of Tables	xv
List of Abbreviations	xviii
Acknowledgements.....	xix
Abstract	xx
Chapter 1: Opening and Positioning of the Research	1
1.1 <i>Introduction.....</i>	2
1.2 <i>Defining the boundaries of the informal private venture capital market.....</i>	2
1.3 <i>The context of the research</i>	8
1.4 <i>Research questions.....</i>	10
1.4.1 Understanding the nature of informal funding at the individual level...	11
1.4.2 Exploring the interaction at the dyad-level	11
1.4.3 Drilling into the local context at the community level.....	12
1.4.4 The effect of the business cycle at the macroeconomic level on informal funding	13
1.5 <i>Research method: an abductive reasoning approach.....</i>	14
1.6 <i>The outline of the thesis.....</i>	14
Chapter 2: Professional Private Venture Capital Market versus Informal Private Venture Capital Market	16
2.1 <i>Introduction.....</i>	16
2.2 <i>Professional private venture capital market</i>	16
2.2.1 The scope and size of the market	17
2.2.2 Market description: business angels' profile	17
2.2.3 Market mechanisms: investment process.....	19
2.2.4 Market efficiency	25
2.2.5 Spatial and dynamic variations in the market	26
2.3 <i>Informal private venture capital</i>	28
2.3.1 The scope and size of the market	28
2.3.2 Market description: informal funders' profile	32
2.3.3 Market contextualisation.....	35

2.3.4	Market mechanisms: the nature of funding process.....	38
2.3.5	The role of the market.....	42
2.4	<i>Comparisons between professional private investors and informal funders</i>	
	42
2.4.1	Investment process	43
2.4.2	Peculiarities of informal funders.....	47
2.5	<i>Summary</i>	48
Chapter 3:	Theoretical Development of Informal Funding Process	49
3.1	<i>Introduction</i>	49
3.2	<i>The conceptualisation of the demand for informal funding</i>	49
3.2.1	The effect of individual-level factors on the entrepreneurial finance choice	50
3.2.1.1	Stages of business development and funding options: the finance escalator.....	50
3.2.1.2	Risk profile and entrepreneurial finance choice.....	53
3.2.1.3	Debt versus equity dilemma.....	54
3.2.1.4	Borrower discouragement	56
3.2.1.5	Individual characteristics of entrepreneurs	59
3.2.2	The effect of local-level factors on the entrepreneurial finance choice .	61
3.2.2.1	Financial exclusion.....	61
3.2.2.2	Environmental munificence and resource-based view.....	63
3.2.2.3	Entrepreneurial capital theory	65
3.2.3	Dynamic variations in the demand for entrepreneurial finance at the macroeconomic level	69
3.3	<i>Conceptualising the supply of informal funding</i>	71
3.3.1	Individual-level determinants of informal funders' decision making....	71
3.3.1.1	Theory of altruism.....	72
3.3.1.2	Interpersonal trust.....	74
3.3.1.3	Risk perception.....	77
3.3.1.4	Economic welfare effect	79
3.3.2	The effects of local environment and macroeconomic fluctuations	80
3.4	<i>The interaction of supply and demand at the dyad level</i>	82

3.4.1	Psychological contract	82
3.4.2	Social embeddedness	85
3.5	<i>The interaction of supply and demand at the local level: institutional embeddedness</i>	87
3.6	<i>The interaction between supply and demand at the macroeconomic level</i> 90	
3.7	<i>An integrated theoretical framework</i>	93
3.8	<i>Summary</i>	96
Chapter 4:	Methodology	98
4.1	<i>Introduction</i>	98
4.2	<i>Locating the thesis: research aim and peculiarities</i>	98
4.3	<i>Research on entrepreneurship and entrepreneurial finance: philosophical stance</i>	98
4.3.1	Philosophical paradigms: implications for the research	99
4.3.2	Pragmatism: underlying assumptions and justification	102
4.4	<i>Research strategy: from theory building to theory testing</i>	105
4.4.1	Qualitative research: objectives and limitations	105
4.4.2	Quantitative research: objectives and limitations	109
4.4.3	Bringing the research strategy together	111
4.5	<i>Research design and methods</i>	113
4.5.1	Choosing a mixed-method design: rationale, benefits, and challenges 113	
4.5.2	The case study design: preparation, data collection, and analysis 114	
4.5.2.1	Context and objectives	115
4.5.2.2	Case selection.....	116
4.5.2.3	Data types.....	119
4.5.2.4	Semi-structured interviews.....	119
4.5.2.5	Thematic data analysis	121
4.5.2.6	Triangulation.....	125
4.5.2.7	Ethical considerations	127
4.5.2.8	Quality of the inquiry and limitations	128
4.5.3	Quantitative inquiry: secondary data collection and analysis	130
4.5.4	Aligning objectives and hypotheses formulation.....	130
4.5.4.1	Secondary data types.....	131

4.5.4.2 Operationalisation of the concepts and measurement issues	139
4.5.4.3 Data analysis: descriptive statistics, single-level, and multi-level modeling.....	144
4.5.4.4 Triangulation.....	149
4.5.4.5 Quality of the inquiry and limitations	150
4.6 Summary.....	154

Chapter 5: Unraveling the Nature of Informal Funding Through the Case

Studies.....	155
5.1 <i>Introduction</i>	155
5.2 <i>Case description</i>	155
5.2.1 Case A: Food services business	162
5.2.1.1 Company overview	162
5.2.1.2 Entrepreneur's perspective on informal investment deal.....	163
5.2.1.3 Investor's perspective on informal investment deal.....	167
5.2.1.4 Reconciliation of the perspectives	169
5.2.2 Case B: Electrical devices company	170
5.2.2.1 Company overview	170
5.2.2.2 Entrepreneur's perspective on informal investment deal.....	171
5.2.2.3 Investor's perspective on informal investment deal.....	175
5.2.2.4 Reconciliation of the perspectives	178
5.2.3 Case C: Nursery/primary school	179
5.2.3.1 Company overview	179
5.2.3.2 Entrepreneur's perspective on informal funding deal	180
5.2.3.3 Lender's perspective on informal funding deal	183
5.2.3.4 Reconciliation of the perspectives	185
5.2.4 Case D: Elderly people care.....	188
5.2.4.1 Company overview	188
5.2.4.2 Entrepreneur's perspective on informal funding deal	188
5.2.4.3 Lender's perspective on informal funding deal	191
5.2.4.4 Reconciliation of the perspectives	194
5.2.5 Case E: International recruitment agency	197
5.2.5.1 Company overview	197

5.2.5.2 Entrepreneur's perspective on informal investment deal.....	198
5.2.5.3 Investor's perspective on informal investment deal.....	202
5.2.5.4 Reconciliation of the perspectives	204
5.2.6 Case F: Innovative toys' manufacturer	207
5.2.6.1 Company overview	207
5.2.6.2 Entrepreneur's perspective on informal investment deal.....	207
5.2.6.3 Investor's perspective on informal investment deal.....	211
5.2.6.4 Reconciliation of the perspectives	213
5.2.7 Case G: Recruitment agency	216
5.2.7.1 Company overview	216
5.2.7.1 Entrepreneur's perspective on informal funding deal	216
5.2.7.2 Lender's perspective on informal funding deal	220
5.2.7.3 Reconciliation of the perspectives	222
5.3 <i>Cross-cases analysis: defining dimensions and patterns of relationship</i>	224
5.4 <i>Defining analytical themes and deriving propositions</i>	236
5.4.1 Deal origination.....	236
5.4.2 Kinship relations and trust	237
5.4.3 Informal capital as an option of 'last resort'	239
5.4.4 Controlling mechanisms in the after-investment interaction	241
5.4.5 Expectations and risk perception	242
5.4.6 Non-pecuniary outcome	244
5.5 <i>Summary</i>	246
Chapter 6: Integrating the Context and Macroeconomics Effects Through Quantitative Measurements.....	248
6.1 <i>Introduction</i>	248
6.2 <i>Consolidated theoretical model</i>	248
6.3 <i>An overview of the informal funding market in the UK</i>	250
6.3.1 The size of the informal funding market in the UK	250
6.3.2 The prevalence of informal funders among adult population	252
6.3.3 The structure of the expected demand for financial sources by early entrepreneurs	253
6.4 <i>Hypotheses testing: informal funding demand factors</i>	256

6.4.1	Informal demand factors at the individual level of analysis	256
6.4.1.1	Single-level modelling	256
6.4.1.2	Multilevel modelling.....	259
6.4.2	Informal demand factors at the local level of analysis.....	260
6.5	<i>Hypotheses testing: informal funding supply factors.....</i>	262
6.5.1	Informal funding supply factors at the individual level of analysis....	262
6.5.1.1	Single-level modelling	263
6.5.1.2	Multilevel modelling.....	267
6.5.2	Informal funding supply factors at the local level of analysis	280
6.6	<i>Hypotheses testing: the interaction between the demand and supply sides at the local level</i>	281
6.6.1	Multilevel modelling at the individual level of analysis	282
6.6.2	Multilevel modelling quality tests.....	288
6.6.2.1	ROC-curves.....	288
6.6.2.2	Rare events correction.....	289
6.6.3	Local-level modelling	290
6.7	<i>Hypotheses testing: the effect of the individual-level factors at the local level</i>	292
6.8	<i>Hypotheses testing: the interaction between the demand and supply sides at the macroeconomic level.....</i>	293
6.9	<i>Results overview.....</i>	294
6.10	<i>Summary.....</i>	299
Chapter 7:	Discussion.....	301
7.1	<i>Introduction.....</i>	301
7.2	<i>Linking qualitative and quantitative inquiries together.....</i>	301
7.3	<i>A social, demographic, and psychological portrait of the informal funder</i>	310
7.4	<i>Implicitly demand-led supply of informal funding</i>	312
7.5	<i>The finance escalator re-visited.....</i>	313
7.6	<i>The interaction between demand and supply at the dyadic level.....</i>	316
7.6.1	Observation and interaction	316
7.6.2	Deal origination.....	318

7.6.3	Deal structuring	320
7.6.4	Post-funding activity	321
7.6.5	Future perspectives	322
7.7	<i>The scope and determinants of informal funding in local communities ..</i>	322
7.8	<i>The effect of the business cycle on informal funding at the macroeconomic level ..</i>	325
7.9	<i>Theoretical model of informal funding process ..</i>	328
7.10	<i>Summary ..</i>	334
Chapter 8:	Conclusions ..	336
8.1	<i>Introduction ..</i>	336
8.2	<i>Key findings ..</i>	336
8.2.1	<i>The nature of informal funding ..</i>	337
8.2.2	<i>The role of informal funding in the early entrepreneurial activity ..</i>	339
8.3	<i>Theoretical contribution ..</i>	341
8.3.1	<i>Contribution to the entrepreneurial finance theory ..</i>	341
8.3.2	<i>Contribution to financial exclusion theory ..</i>	343
8.4	<i>Implications for policy makers ..</i>	344
8.4.1	<i>Policy interventions and market inefficiencies ..</i>	345
8.4.2	<i>Local initiatives to encourage informal funding ..</i>	346
8.4.3	<i>Monetary incentives versus managing socio-emotional wealth ..</i>	348
8.5	<i>Implications for practitioners ..</i>	350
8.5.1	<i>Implications for entrepreneurs ..</i>	351
8.5.2	<i>Implications for informal funders ..</i>	352
8.6	<i>Methodological limitations ..</i>	355
8.7	<i>Directions for future research ..</i>	357
8.8	<i>Summary and conclusion ..</i>	361
References ..	362	
Appendices ..	427	
<i>Appendix 1 An overview of the studies, where definitions of informal investors were introduced ..</i>	427	
<i>Appendix 2 An overview of the studies, where definitions of informal investors were introduced ..</i>	433	

<i>Appendix 3 The business angels' portrait – the evolution of definitions</i>	438
<i>Appendix 4 A review of Global Entrepreneurship Monitor studies on the informal funders.....</i>	444
<i>Appendix 5 Sampling procedures and outcomes</i>	449
<i>Appendix 6 Cover letter to 'Gate Keepers'.....</i>	451
<i>Appendix 7 Covering letter to participants.....</i>	452
<i>Appendix 8 Participant Information Sheet for Entrepreneur</i>	453
<i>Appendix 9 Participant Information Sheet for Informal Funder</i>	455
<i>Appendix 10 Consent form for the participants</i>	457
<i>Appendix 11 Interview guidelines for entrepreneurs</i>	458
<i>Appendix 12 Interview guidelines for informal funders.....</i>	460
<i>Appendix 13 Follow up questionnaire</i>	462
<i>Appendix 14 IMD adjusted scores matched with the postcodes in the GEM dataset 2007-2012</i>	463
<i>Appendix 15 Original GEM variable list used in the analysis.....</i>	464
<i>Appendix 16 Modified GEM variable list used in the analysis.....</i>	467
<i>Appendix 17 Sample sizes and frequencies.....</i>	470
<i>Appendix 18 Normality tests for the quantitative variables.....</i>	471
<i>Appendix 19 Descriptive statistics of continuous ratio variables used in the analysis.....</i>	472
<i>Appendix 20 Frequencies of nominal and ordinal variables used in the analysis for the sample of informal funders.....</i>	474
<i>Appendix 21 Frequencies of nominal and ordinal variables used in the analysis for the sample of early entrepreneurs.....</i>	475
<i>Appendix 22 The distribution of informal funders and early entrepreneurs among adult population across 50 IMD clusters (1 – the lowers level of deprivation, 50 – the highest level of deprivation)</i>	476
<i>Appendix 23 The distribution of informal funders, early entrepreneurs, early entrepreneurs expecting to attract informal funding across IMD deciles</i>	478
<i>Appendix 24 The list of main Stata® commands used in the analysis.....</i>	480
<i>Appendix 25 Robustness check for the basic logistic regression estimates.....</i>	481

<i>Appendix 26 Estimates for different numbers of integration points reported with the percentage difference between each estimate and that based on 15 integration points</i>	481
<i>Appendix 27 The distribution of socio-demographic and entrepreneurial characteristics of individuals across the communities with different levels of deprivation</i>	482
<i>Appendix 28 Kruskal-Wallis equality-of-populations rank test across 50 communities of different levels of deprivation</i>	483
<i>Appendix 29 Mixed-effects two-level logistic regression: final model with contextual effects for Sample 1</i>	483
<i>Appendix 30 Logistic regression: the community effects of early entrepreneurial activity, individual characteristics, and macroeconomic cycle on the probability of an individual to become an informal funder</i>	484
<i>Appendix 31 A list of government funding initiatives to support early-stage entrepreneurial activity in the UK: selected active programmes</i>	485
<i>Appendix 32 An appraisal of government intervention into informal funding market in the UK</i>	488

List of Figures

Figure 1-1 The definitional model of venture capital market	7
Figure 2-1 Percentage of UK nascent entrepreneurs who have reported being refused funding, by type of funding, 2006-2015	30
Figure 2-2 Gross Domestic Product in the UK: quarterly growth (%), seasonally adjusted	32
Figure 3-1 The dynamic representation of the contemporary finance escalator*	53
Figure 3-2 An overview of the initial theoretical model.....	95
Figure 4-1 The position of the research within the Burrell and Morgan (1979) philosophical framework.....	102
Figure 4-2 Pragmatism paradigm in the context of the current research	103
Figure 4-3 Research Strategy: Integration of methodology, research questions, and theoretical perspectives	112
Figure 4-4 Time-lapse in the measurements of early entrepreneurial and informal funding activities according to the GEM methodology	135
Figure 4-5 Socio-demographic variables used in the analysis	139
Figure 4-6 Identification variables used in the analysis	140
Figure 4-7 Variables characterising entrepreneurial attitudes	141
Figure 4-8 Operationalisation of entrepreneurial aspirations.....	142
Figure 4-9 Operationalisation of entrepreneurial motivation.....	142
Figure 4-10 Operationalisation of entrepreneurial finance choice.....	143
Figure 5-1 The process of informal funding: entrepreneur's perspective.....	233
Figure 5-2 The process of informal funding: informal funder's perspective.....	234
Figure 6-1 The consolidated theoretical model for testing	249
Figure 6-2 Estimations of the size of the informal funding market in the UK	250
Figure 6-3 The amount of entrepreneurial funding raised through different sources in the UK (2009-2013)	251
Figure 6-4 The prevalence rates of informal funders and new business owners among adult population in the UK.....	252
Figure 6-5 The structure of the demand for funding (as a % of early entrepreneurs) in the UK in 2007-2012.....	254

Figure 6-6 The structure of the demand for informal funding (as a % of early entrepreneurs) in the UK in 2007-2012	255
Figure 6-7 The theoretical model for informal funding demand factors	256
Figure 6-8 The relationship between the percentage of early entrepreneurs who expect to attract informal funding and the level of deprivation of the local area (across the macroeconomic cycle)*	261
Figure 6-9 The theoretical model for informal funding supply factors	262
Figure 6-10 The relationship between the deprivation level of an area and the probability (%) of an individual to become an informal funder by gender	266
Figure 6-11 The relationship between the deprivation level of an area and the probability (%) of an individual to become an informal funder by education categories.....	267
Figure 6-12 The predicted log-odds of being an informal funder for each person, based on the individual (socio-demographic, entrepreneurial, and macroeconomic) characteristics and community of residence	270
Figure 6-13 The relationship between the percentage of informal funders among adult population and the level of deprivation of the local area across the macroeconomic cycle*	280
Figure 6-14 The theoretical model for the interaction between the demand and supply sides at the local level	282
Figure 6-15 The predicted probabilities of becoming an informal funder based on individual characteristics, macroeconomic cycle, and contextual effects across the communities of different levels of deprivation	285
Figure 6-16 ROC curve: the accuracy of prediction of the likelihood to become an informal funder based on individual characteristics, macroeconomic cycle, and contextual effects across the communities with different levels of deprivation	289
Figure 6-17 The relationship between the number of early entrepreneurs per informal funder and the level of deprivation of the local area across the macroeconomic cycle*	291
Figure 6-18 The theoretical model for the effect of the individual-level factors at the local level	292

Figure 6-19 The theoretical model for the interaction between the demand and supply sides at the macroeconomic level.....	293
Figure 6-20 The hypotheses testing results: the determinants of the informal funder rate at the individual, local, and macroeconomic levels	295
Figure 7-1 The relationship between the proliferation of entrepreneurial activity, and the supply of informal funds at the local level in the UK	313
Figure 7-2 Re-visited finance escalator	315
Figure 7-3 The relationship between the demand and supply of informal funds at the local level in the UK	325
Figure 7-4 The relationship between the demand and supply of informal funds at the local level in the UK across the macroeconomic cycle.....	327
Figure 7-5 Final holistic theoretical model of informal funding process.....	329
Figure 7-6 The process of informal funding across four levels of analysis: theory building and testing	330

List of Tables

Table 2-1 Business Angels' decision-making criteria, based on the post-hoc research methods, ranked in the ascending order (from 1 – the most important factor)	20
Table 2-2 An overview of the informal funding market in the UK, based on UK GEM reports in 2006-2015	29
Table 3-1 Characteristics of the small business demand for the bank lending in the UK in 2007-2015	57
Table 4-1 Philosophical assumptions of the research, their contextualisation, and emerging themes	100
Table 4-2 The settings of the research within Burrell and Morgan (1979) and Pragmatism philosophical frameworks	104
Table 4-3 Qualitative Research Methods: comparison in relation to the research objectives.....	106
Table 4-4 Quantitative Research Methods: comparison in relation to the research objectives.....	110
Table 4-5 Summary of the cases selected for the analysis, across the theoretical sampling categories	118
Table 4-6 The alignment of the interview guideline with the theoretical framework	120
Table 4-7 A worked example of the three-level coding procedure.....	124
Table 4-8 Region Codes in England	133
Table 4-9 Community-level deprivation domains in England, Wales, Scotland, and Northern Ireland	136
Table 4-10 Estimations of the regression models for the Indices (Measurements) of Multiple Deprivation in England, Scotland, Wales, and Northern Ireland.....	137
Table 5-1 Descriptive statistics of the ventures	156
Table 5-2 Financial performance of the companies before, during, and after economic slowdown.....	157
Table 5-3 Socio-demographic characteristics of the respondents.....	159
Table 5-4 The main parameters of informal funding deals across the cases	161
Table 5-5 Timeline for Company A	164
Table 5-6 Timeline for Company B	172

Table 5-7 Timeline for Company C	181
Table 5-8 Timeline for Company D.....	189
Table 5-9 Timeline for Company E	199
Table 5-10 Timeline for Company F	208
Table 5-11 Timeline for Company G.....	217
Table 5-12 Cross-cases analysis	226
Table 5-13 Eight dimensions of informal funding process	232
Table 6-1 Binominal stepwise logit model: the propensity to attract informal funds by early entrepreneurs across macroeconomic cycle	257
Table 6-2 Binominal stepwise logit model: the propensity to attract informal funds by early entrepreneurs across communities of different levels of deprivation	258
Table 6-3 Random-intercept logistic regression: the null two-level model predicting the probability of an early entrepreneur to attract informal funding.....	259
Table 6-4 Poisson regression model: the relationship between the percentage of early entrepreneurs who expect to attract informal funding and the level of deprivation of the local area	261
Table 6-5 Binominal stepwise logit model: the propensity to become an informal funder and individual characteristics	264
Table 6-6 Binominal stepwise logit model: the propensity to become an informal funder and the deprivation level of an area	265
Table 6-7 Random-intercept logistic regression: the null two-level model predicting the probability of an individual to become an informal funder	268
Table 6-8 Random-intercept logistic regression: Individual effects of the parameters on the probability to become an informal funder across communities with different levels of deprivation	269
Table 6-9 Random-intercept two-level logistic regression: the impact of demographic and entrepreneurial characteristics, macroeconomic cycle, and community variations on the probability of an individual to become an informal funder	275
Table 6-10 Predicted cluster-specific and population-averaged probabilities of becoming an informal funder	276
Table 6-11 Random-intercept two-level logistic regression: contextual effects across communities of different levels of deprivation	277

Table 6-12 Random-intercept two-level logistic regression: final model with contextual effects	279
Table 6-13 Poisson regression: the relationship between the percentage of informal funders among adult population and the level of deprivation of the local area	281
Table 6-14 Two-level random intercept vs random slope logistic regression: the community effects of early entrepreneurial activity on the probability of an individual to become an informal funder (the simplest possible model)	283
Table 6-15 Poisson regression: the relationship between the number of early entrepreneurs per informal funder and the level of deprivation of the local area	292
Table 6-16 The summary of the hypotheses testing results	296
Table 7-1 Outline of hypotheses deduced from the theoretical framework and supported in Chapter 6	302
Table 7-2 Outline of propositions derived from the qualitative analysis in Chapter 5	303
Table 7-3 The impact of individual-level factors on the propensity of an individual to become an informal funder	323
Table 7-4 The impact of the macroeconomic cycle on propensity of an individual to become an informal funder	326

List of Abbreviations

BBA: British Bankers' Association

BBB: British Business Bank

BIS: Department for Business Innovations and Skills

EIS: Enterprise Investment Scheme

GEM: Global Entrepreneurship Monitor

GDP: Gross Domestic Product

GLS: Generalised Least Squares

GMM: Generalised Methods of Moments

GOR: Government Offices for the Regions

IMD: Index of Multiple Deprivation

LM: Lagrange Multiplier

LSOA: Lower Layer Super Output Areas

MLM: Maximum Likelihood Method

NIMDM: Northern Ireland Multiple Deprivation Measure

OECD: Organisation for Economic Co-operation and Development

ONS: Office of National Statistics

SIMD: Scottish Index of Multiple Deprivation

SME: Small and Medium-sized Enterprises

TEA: Total Early-Stage Entrepreneurial Activity

VPA: Verbal Protocol Analysis

WIMD: Welsh Index of Multiple Deprivation

Acknowledgements

The PhD process has certainly broadened my perspectives, where this (prolonged) journey has led me through a range of milestones both professionally, and personally. I have met amazing colleagues, and made friends for life.

It would not be possible without my supervisor, Professor Jonathan Levie, who opened this world to me. Without his endless patience, continuous support, insightful advice, and encouraging positivity this journey would not see an end. My thank you extends to Dr Nina Rosenbusch for her valuable feedback, and Professor Colin Mason for his contribution. I would also like to express my gratitude to the Hunter Centre for Entrepreneurship and the University of Strathclyde for a Strathclyde Research Studentship Award. I also wish to thank the participants of this study for their time and openness, and all my PhD friends, and staff in Hunter Centre for Entrepreneurship.

My acknowledgement extends to Dr Olga Obraztsova and Professor Alexander Chepureenko, who encouraged me to start this PhD, and who believed in me and in its success till the end. Thank you to my friends both in Russia and UK for bearing with me during all these years. A special thank you goes to my parents, who put up with the fact that I left my home country, and supported me in every step, and decision. For this I will always be in their debt. And, finally, thank you to my dear husband – Tassos, whom I happened to meet during the challenging times in Glasgow, who rescued me from devastation, and who has been with me through my up and downs, struggles and enlightenments for the last three years of this journey.

There is no way to express my gratitude in words to all of you. Looking back my PhD took a significant part of my life, and people, whom I met, lost, or kept in touch have made it richer, and me – wiser and more confident. Thank you.

Abstract

Informal funding is a part of the informal venture capital market, provided by individuals who are not professional investors, such as family and friends. Despite being a widespread source of small-scale finance for starting businesses, it has not been investigated holistically both from the demand and supply perspectives. This thesis brings the two sides together at four levels of analysis. Individual experiences of both entrepreneurs and their informal funders are explored, and further integrated at the dyadic level. The relationship is then embedded into the context of local communities, and macroeconomic environment.

The exploratory part of the research draws on seven case studies of informal funding deals in Scotland. Both entrepreneurs and their informal funders were interviewed separately between July 2012 and September 2013. Further information from secondary sources was collected to complement the case material. Using a thematic analysis method, the perspectives were reconciled, and propositions about the nature of informal funding relationship were developed. The embeddedness effects were subsequently empirically validated at the local and macroeconomic levels using the UK Global Entrepreneurship Monitor data, and Indices of Multiple Deprivation from Official Statistics for the 2007-2012 period.

This thesis contributes to the entrepreneurial finance literature, distinguishing three types of informal capital users who implicitly initiate a deal (demand factor): bootstrappers, discouraged, and rejected borrowers/investees. Non-pecuniary motives are important for funders, but are restrained by income factor. The interaction of the demand and supply leads to an equilibrium at the local level for the communities which are neither deprived, nor munificent. However during a macroeconomic downturn, the demand factor dominates, resulting in double equilibria – both for the least and most munificent areas. The findings also lead to implications for policy makers (regarding the formalisation of informal cash flows), and for practitioners – around structuring the funding process.

Chapter 1: Opening and Positioning of the Research

For most starting companies, financial capital is a key concern. The lack of finance is recognised as a major challenge for business development at its early stages. For example, the recent UK Government green paper on industrial strategy acknowledges “though the UK has an excellent record in creating businesses, many of them face barriers to scaling up – including a lack of finance to support growth” (HM Government, 2017, p.61). Scholars, practitioners, and policy makers have attempted to investigate the factors that restrict the flow of financial capital into new ventures, and propose ways to address gaps in the market (Chittenden *et al.*, 1996; Winborg and Landström, 2001; Greene *et al.*, 2015).

From the other side, a growing stream of literature suggests that understanding and management of demand-side attributes are equally important to bridge the gap (Mason and Harrison, 2004; Cowling *et al.*, 2012; Cowling *et al.*, 2016). Entrepreneurs tend to overestimate the difficulties associated with raising finance, and seek easier ways through their close social networks first. Additionally, the level of risk of new ventures is unacceptably high for professional market participants due to their nature, rather than the lack of efforts to decrease uncertainty (Aldrich, 1999; Cassar, 2004). As a result, funds from family, friends, and other non-professional (informal) funding providers have been traditionally placed at the first step of the finance escalator (North *et al.*, 2013; Baldock and Mason, 2015).

Informal funding is a finance option which has been less researched compared to traditional forms of bank credit, business angel and venture capital investments (Chemmanur and Fulghieri, 2014). Along with microfinance, crowdfunding, and peer-to-peer lending it represents a funding type which has received scarce attention in the academic literature despite their wide (and in some cases – growing) use (Bruton *et al.*, 2015; Lee and Persson, 2016). Both online alternative funding models and informal funding present a mechanism to fill in finance gaps for seed ventures. The former ones have been proliferating rapidly for the last five years, attracting more interest from researchers (e.g. Baeck *et al.*, 2014; Zhang *et al.*, 2016a; Zhang *et al.*, 2016b), while the latter has always been present in the entrepreneurial choice, but has, surprisingly,

received limited attention from academics (Bygrave and Hunt, 2007; Burke *et al.*, 2010; Burke *et al.*, 2014). Research to date is limited to descriptive and macroeconomic analysis that does not account for supply-side contingencies, demand-related choices, and contextual surrounding. This is the area where this thesis aims to contribute.

1.1 Introduction

Starting with the seminal works of Wetzel (1981; 1983), the academic literature has traditionally represented the private venture capital market as composed of professional investors. While ‘altruistic investors’ were first mentioned in 1996 (Sullivan and Miller) the category of informal funders was only distinguished as a separate segment since the launch of Global Entrepreneurship Monitor (Reynolds *et al.*, 2000; Reynolds *et al.*, 2002; Bygrave *et al.*, 2003). More recent studies reveal that the mechanisms within this segment are fundamentally different from the investment processes of professional private investors. Mainly driven by non-economic motives (Steier, 2003; Maula *et al.*, 2005; Szerb *et al.*, 2007a; Kwon and Arenius, 2010b; Ding *et al.*, 2015), and guided by informal structures (Klyver *et al.*, 2016), informal funding co-exists along with formal sources, but the ultimate outcome and the role of such a relationship still remains ambiguous (Lee and Persson, 2016). Additionally, informal funding has been recognised as a funding source that is responsive to the business environment at the macroeconomic level (Burke *et al.*, 2014). Together all the studies so far throw the light on certain aspects of informal funding process. However, there is a need for further conceptualisation and contextualisation of the phenomenon, a more holistic comprehension of its nature, and evaluation of its role by consolidating all the levels of analysis.

Consequently, our knowledge about informal funding remains fragmented, calling for the necessity for a more complete understanding of the entrepreneurial finance market.

1.2 Defining the boundaries of the informal private venture capital market

The definitional issue appears to be one of the main challenges in informal venture capital research, making the boundaries of the population vague, and comparisons

between the studies onerous (Farrell *et al.*, 2008). While it is clearly distinguished from the formal venture capital market, presented by institutional investors (Haar *et al.*, 1989; Freear and Wetzel, 1990; Freear *et al.*, 1994; Mason and Harrison, 2000a; Harding, 2002; Van Osnabrugge and Robinson, 2002; Madill *et al.*, 2005; Shane, 2012; Hsu *et al.*, 2014), the internal structure of the informal venture capital market remains ambiguous and controversial. The invisibility of the market stands out as the major reason for our limited understanding (Harrison and Mason, 1992). A relatively recent tendency towards syndication of business angels increased visibility of this subset of the market, enabling researchers to draw samples from easily identifiable networks, associations, and angel groups (Stevenson and Coveney, 1994; Stedler and Peters, 2003; Wiltbank *et al.*, 2005; Mason and Harrison, 2010; Mason and Harrison, 2011; Mitteness *et al.*, 2012a; Carpentier and Suret, 2015). Other studies use business registries or population surveys in pursuit of a representative image of the phenomenon (Ehrlich *et al.*, 1994; Freear *et al.*, 1994; Farrell, 1998; Farrell, 2000; Riding, 2005; Riding, 2008).

In the first studies conducted in the US, the informal venture capital market was synonymous with business angels, defined as wealthy individuals who invested into someone's business on a regular basis (Wetzel, 1981; Wetzel, 1983; Wetzel, 1987). In his work, Wetzel (1983) explicitly positioned friends and family funding outside the external risk capital, treating it as an internal source. Soon after that, Haar *et al.* (1989) in their research of the East coast of the USA also referred to informal venture investors, named as business angels. However, this time friends and family were included into a broader definition, which comprised investments made by private individuals into a young company. In a subsequent range of studies in the US (Aram, 1989; Freear *et al.*, 1997), Canada (Short and Riding, 1989; Duxbury *et al.*, 1996), and the UK (Harrison and Mason, 1992), the detailed attributes of informal investors, still interchangeably associated with business angels, were identified, while other types of informal funders were not mentioned, or even implied. Since then, the boundaries of the business angels population started becoming more discrete as definitions became tighter, and other categories of informal investors were revealed (Landström, 1992). As a result, the research expanded into cross-national comparisons, not only between the US (Freear *et al.*, 1994) and the UK (Mason and Harrison, 1997; Coveney and

Moore, 1998; Kelly, 2000; Paul *et al.*, 2003), but also among other countries: e.g. Sweden (Landström, 1998), Germany (Stedler and Peters, 2003), Japan (Tashiro, 1999), and Canada (Madill *et al.*, 2005). In all those studies, friends and family funding is either treated separately, excluded from the definition, and considered as a step prior to the venture capital market, or not brought up at all. The majority of these authors (either explicitly or implicitly) treat friends and family investments separately from business angels (who are often referred to as informal investors), excluding them from the analysis. The rationale stems from different motives, behavioural patterns, and deal arrangements underlining family and friends funding (Mason and Harrison, 2000b; Landström, 2007). For a detailed breakdown of studies on informal investors and their definitions, see Appendix 1.

One reason for this minor interest in family and friends funding might originate from the belief that its volume is insignificant compared to the totality of other investments. However, this is not the case, as their scale is comparable with business angel cash outflow, and even surpasses institutional venture capital infusions (Bygrave *et al.*, 2003; Riding, 2008). Another reason lies in a coincidental blurring of the lines as business angels might be friends or relatives at the same time. However, there is actually little evidence of this (Farrell *et al.*, 2008).

With the launch of the Global Entrepreneurship Monitor (GEM) project in 1999, and with the first report published in 2000 (Reynolds *et al.*, 2000), informal venture capital was characterised by the individuals (private investors) who provided money to a starting or growing business in the last three years, without specifying the conditions of the deal, and affiliation with the entrepreneur. The category ‘strangers’ introduced among such capital providers as family members, friends, neighbours and colleagues implicitly referred to (and interpreted in the later studies, for example, in Szerb *et al.* (2007a), Burke *et al.* (2010; 2014), and (Ding *et al.*, 2015)) business angels without subsequent clarification of the deal parameters. In other research where GEM dataset was used (e.g. Maula *et al.*, 2005; O’Gorman and Terjesen, 2006; Wong and Ho, 2007; Burke *et al.*, 2014) the same definition of informal investor was adopted, expanding the boundaries set up in the earlier research. Carpentier and Suret (2007) summarised

that informal investors can be divided into those who provide money to the ventures of the strangers – business angels, and of friends and family – ‘love money’.

Thus, many authors agree that business angels represent a fundamentally different cohort from friends and family funders. The former are defined as high net-worth individuals who invest (not lend) their own funds into growing businesses (with high growth potential) run by individuals with whom they have no previously relationship or family connection, in expectation of mainly financial returns. According to Wetzel (1983), the distinctive feature of business angels is that they invest on a regular basis, and demonstrate high competence in business and management. These two features: investing with the purpose of economic gain, and having certain skills - are prevalent in the literature across different countries. One point of difference is that Politis (2008) characterises business angels as professionals, and their relationship as ‘formal’, rather than ‘informal’, contrary to the conclusion of Farrell et al. (2008).

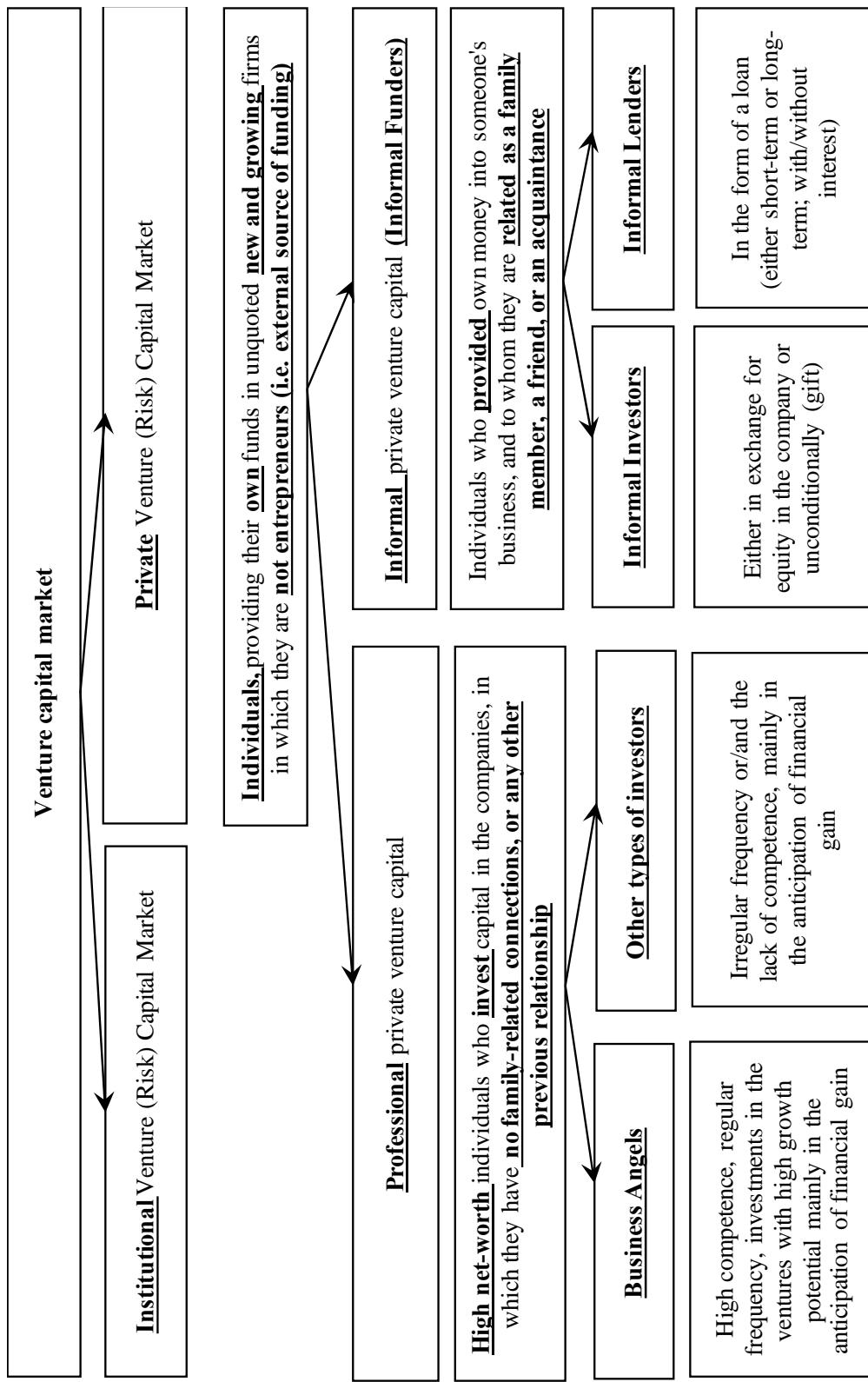
The literature is unclear regarding the form of informal investment provided by friends and family. While different assumptions are made that informal venture capital is represented by equity investments, in some cases – convertible debt (Tashiro, 1999; Carpentier and Suret, 2007), and occasionally by a mixture of equity funds and loans (Aram, 1989; Harrison and Mason, 1992; Tashiro, 1999), there are no empirical grounds that this applies also to ‘love money’. Moreover, the informal and intrinsic nature of such relationships would not imply a clear setting of the deal, structured in accordance with professional standards. The definition set for informal investors by the originators of GEM project allows for these flexibilities by not specifying whether it is an equity or a debt deal. However, confusion occurs when the notion of informal investors unintentionally implies equity as per the commonly accepted definition of an investment.

Another ambiguity in the literature is associated with the differentiation between internal and external capital. For example, friends and family funding can be referred to as an internal source, often aggregated with bootstrapping, and own funding (Brush *et al.*, 2006). The rationale stems from the fact that the capital is provided by individuals related to the entrepreneur, and thus cannot be separated from the venture.

Arguably, unless the researchers deal with family businesses (as an independent research area), or partnerships (as a legal form for the sampling purposes), ‘love’ money providers are not associated with the business venture they are providing money to, only to the person whom they are supporting. Unlike other internal capital providers, as, for example, employees – they are officially involved neither in running the business, nor in its governing.

Thus, for the purpose of this research, terminology on the venture capital market is formulated in Figure 1-1 to, on one hand, resolve ambiguities by introducing definitions which clearly identify the boundaries between the populations, and, on the other hand, remain consistent with the mainstream literature in the field. As can be seen from Figure 1-1, informal financing sources include debt or equity from family, friends, and other individuals who are personally affiliated with the business owner, whereas formal financing is represented by banks, institutional venture capital, and business angels (Robb and Robinson, 2012). As such, the venture capital market consists of the institutional venture capital market and the private venture capital market. The word ‘venture’, often replaced or complemented by the word ‘risk’, refers to the fact that the market is oriented towards young and growing firms, which theoretically exhibit high levels of risks (Aldrich, 1999). Drawing on the previous considerations, the private venture capital market (commonly referred as the informal venture capital market in the literature) is external in relation to the businesses it targets, and can be sub-divided into the professional private venture capital market, and the informal venture capital market (presented by informal funders). The former, comprising of business-angels, has been extensively researched in the literature. These people typically invest in (not lend to) the business mainly in pursuit of financial gain. The latter, informal market, represents the object of the current research, focusing on individuals who provide money for the business of someone with whom they have a personal relationship (either as a family member, or an acquaintance). Theoretically this cohort can be further sub-divided into informal investors and informal lenders, to accommodate the different types of deal arrangement.

Figure 1-1 The definitional model of venture capital market



The scheme is designated as a model for present research purposes to define boundaries between populations and specify the object of the study. It is acknowledged that there are gaps (for example, crowdfunding activities or business angel syndicates and networks which can be viewed as a hybrid between private and institutional venture capital), or overlaps (for example, a friend who also fits the category of a business angel). Moreover, the picture can be dynamic, where transitions from and to different groups can take place over time.

1.3 The context of the research

The majority of businesses in the UK do not use formal means of funding, and rely on bootstrapping, informal support, or other internal resources (BMG Research, 2013; Department for Business Innovation and Skills, 2015; BDRC Continental, 2016; Department for Business Innovation and Skills, 2016). From the supply side, the amount of bank lending peaked by the end of 2008, and reduced by 2.8% by the third quarter of 2014 in the wake of the financial crisis (Bank of England, 2012; Bank of England, 2015). Overall, tightening credit conditions further restrained access to debt finance for starting entrepreneurs due to the combination of both demand and supply factors (Lee *et al.*, 2015; Cowling *et al.*, 2016). Furthermore, the annual survey of British Business Bank consistently demonstrated since 2012 that only around 1% of small businesses use equity finance (British Business Bank, 2014). Syndication trends observed in the business angel market provide a structural response to the increased risks (Mason and Botelho, 2014), having as a result more rigorous selection procedure in place, and higher expectations of returns (Mason *et al.*, 2016b). In the light of such considerations, informal funding represents a widespread, and potentially important financing source for starting ventures.

Informal funding has received minimal attention in the academic literature, perhaps because of the small size of individual deals, and their informal nature. The launch of Global Entrepreneurship Monitor project for the first time allowed measurement of the frequency of this phenomenon at the national level, and investigate its individual socio-demographic parameters, as well as its relationship with entrepreneurial activity

(Bygrave *et al.*, 2003). Thus, a range of studies emerged demonstrating that informal funders represent a fundamentally different category of capital providers in comparison with other market participants. The research provided scattered insights into the altruistic nature of such deals (Kwon and Arenius, 2010b; Klyver *et al.*, 2016), and their potential compatibility (or rivalry) with formal means of funding (Bhide, 2000; Szerb *et al.*, 2007b). Recently, the scope and the role of informal funding was investigated at the national level in comparison with venture capital investments (Burke *et al.*, 2010; Burke *et al.*, 2014). However, the nature of the relationship has only been explored theoretically (Lee and Persson, 2016), being exposed to a limited empirical testing and validation, especially from the demand side. Moreover, the allocation of informal funding has only been investigated at the national level. As a result, while at the individual level some robust findings were established in relation to the supply side, the demand side perspectives remain unexplored. Besides, the interaction between the demand and supply appear to be only tentatively formulated at the national level, where the ultimate effects and outcomes are captured, but the processes and their evolution are not considered. Regional distribution, and factors pertaining to it have not been researched, as well as their simultaneous embeddedness into a wider macroeconomic context. A holistic picture of informal funding would then shed some light on informal capital cash flows, which can be further mapped against formal financial capital usage and dissemination, ultimately allowing for more tailored policy interventions to be made, and a more informed decision making to be implemented by practitioners.

Therefore, the thesis aims to fill in the gap in the entrepreneurial finance literature by providing an overview of the informal funding market in the UK, revealing its nature, mechanisms, and establishing its role spatially. Focusing on the process, and environmental embeddedness, the study contributes to our understanding of the role of informal funding, the patterns of its allocation, and consequences of such deals, developing some guidance on how it can be managed, and accounted for.

1.4 Research questions

In this thesis the informal funding phenomenon is investigated at four levels of analysis to capture individual determinants, motivations, and expectations in relation to the deal (individual level), the interaction between the entrepreneur and their informal funder (dyadic level), the factors affecting the distribution of informal funds across different communities (local level), and the impact of the macroeconomic cycle on the proliferation of informal funding in the economy (macroeconomic level). Consequently, the research objective is to understand the nature of informal funding, evaluate its role in early-stage entrepreneurial activity, estimate the impact of context on dyadic interaction, and analyse patterns across a business cycle in the UK. The following assumptions constitute the basis of the study:

- 1) Informal funding is a phenomenon which is different from informal professional capital provided by business angels (professional investors). Informal funders are represented by private individuals who are related to the entrepreneurs as a family member, friend, or any other individual, where social relationship precedes economic relationship.
- 2) An informal funding deal happens when an informal funder provides financial capital from their own savings, or from their household's savings for a family member or acquaintance's business purposes.
- 3) Informal funding activity is measured by the prevalence of informal funders among the adult population, where informal funding is measured as the occurrence of an informal funding deal in a defined time period.

Four research questions are formulated in application to each level of analysis. They stem from gaps identified in previous research in Chapter 2, where their relevance, as well as potential theoretical and practical implications are outlined.

1.4.1 Understanding the nature of informal funding at the individual level

RQ 1: What are the drivers behind the decision-making process, motivations, and expectations of both entrepreneurs and their informal funders surrounding informal funding?

While this question has been widely addressed in the literature with regard to professional private investors (e.g. Mason and Rogers, 1996; Maxwell *et al.*, 2011; Rostamzadeh *et al.*, 2014), only limited insights are provided in relation to informal funding phenomenon. The available research suggests that trust, altruistic behaviour, and minimal expectations of returns are the parameters characterising informal funders (Bygrave and Bosma, 2011; Klyver *et al.*, 2016; Lee and Persson, 2016). From this perspective, such reasoning might potentially distort market mechanisms, and provide counter-productive stimuli (Kerr *et al.*, 2014). However, following the argument about demand generating its own supply (Burke *et al.*, 2010), informal funding can substitute unavailable formal financial resources, being the only means of keeping the business afloat. In this way, further exploration of the decision-making process, and expectations of the deal by both informal funders and entrepreneurs will provide a better understanding of the principles of such a relationship.

1.4.2 Exploring the interaction at the dyad-level

RQ 2: How does the informal funding process evolve as an economic deal that is incorporated in the context of a social relationship?

This question draws on the previous one, by combining both the demand and supply perspectives at the dyadic level. From one side, informal funding extends finance options available to an entrepreneur. From the other side, it is intersected with the aspect of the relationship that is dominating by definition - the social aspect. Similarly, since informal funders are not professional investors, they can be expected to have a different approach to managing the economic side of the relationship. The interaction of both determines the outcome of the deal – the occurrence of informal funding. This, the most crucial part of the phenomenon, has not been investigated in the literature so far. Considering the minimal negative effect of information asymmetry in such a

setting (Landström, 1992; Schulze *et al.*, 2003; Steier, 2003; Karra *et al.*, 2006), several questions arise: are there any means of formalisation of the deal and its separation from the social interactional dimension? Are the perspectives of both parties balanced and reconciled? Assuming a high level of relational trust (Williamson, 1993; Gulati, 1995; Malhotra and Murnighan, 2002; Poppo *et al.*, 2016), are there any mechanisms of control over the use of financial resources, and the business progress? What value is sought for by entrepreneurs in such a deal, and what value is offered to them? And, finally, since non-pecuniary motives have been proposed to be the pillar of such a relationship – does it imply the lack of any economic or business-related interests/incentives involved into such a decision?

1.4.3 Drilling into the local context at the community level

RQ 3: What effects does environmental munificence have on the allocation of informal funding across different communities?

The thesis contributes to the on-going discussion about the complementarity of informal funding to available market resources, by addressing its dynamics from 2007 to 2012 (a full macroeconomic cycle) in the UK at the local and macroeconomic levels. It extends the argument of Burke *et al.* (2010) that the demand for informal funding by entrepreneurs creates its own supply, by making use of a natural experiment of the economic crisis, in which formal sources of finance were rapidly and drastically reduced at a time when entrepreneurial activity was accelerating. Drawing on the concept of the embeddedness of economic behaviour (Granovetter, 1985; Polanyi, 2001), and environmental munificence (Castrogiovanni, 1991a; Tang, 2008; Bacq *et al.*, 2016) of a local area, where an informal funders are ‘embedded’, the relationship between the potential demand for informal capital and its supply is investigated.

Informal funding can help tackle the increasing financial gap for entrepreneurs in so called ‘unsustainable’ communities (McIntyre and McKee, 2012). Businesses and entrepreneurs in disadvantaged areas of England are relatively unaware of their local community finance infrastructure, and as a result community finance initiatives struggle to achieve sustainability (Nick and Craig, January 2013). This issue is also recognised in legislation which aims to promote an appropriate level of financial

services provision regarding the needs of small enterprises for affordable loans, savings and insurance products (Financial Services (Banking Reform) Bill, 2013; HM Treasury, 2013). This problem was exacerbated in England during and after the financial crisis: the number of overdraft and loan facilities for small businesses dropped dramatically in 2008-2009 with a slow recovery in 2010 (Gibbons, 2012). Although measures to tackle the increasing financial gap for entrepreneurs were introduced in the wake of the great recession (e.g. Community Development Finance Institutions, National Loan Guarantee Scheme), and new forms of lending institutions emerged (e.g. credit unions, social banks, and crowdfunding) - they either did not cover deprived communities, or were slow to become fully functional. As a result, an increasing gap in resources was observed in more deprived locales. Hence, local social relationships may be critical sources of the resources needed to support the functioning of communities, complementing market institutions. Yet little is known about whether or how they fill this gap.

1.4.4 The effect of the business cycle at the macroeconomic level on informal funding

RQ 4: What is the impact of the macroeconomic environment on the prevalence of informal funding in the economy?

The macroeconomic perspective on informal funding has been only partly investigated. This source of finance may complement existing market options, or substitute market mechanisms where local market failures exist (Bhide, 2000). Szerb et al. (2007b) identified for a sample of 31 countries in 2001-2003 that informal capital operates in parallel to professional investment relations. Burke et al. (2010) bolstered this finding for another set of countries in 2002-2006, identifying both individual and macroeconomic drivers, and emphasising that with the growth of entrepreneurial activity in an economy the positive relationship between venture capitalists and informal investors (where informal funders were included) becomes stronger. None of these studies addressed the evolution of informal funding rates through time, drawing their conclusions mainly on cross-cultural comparisons. As a result, there is still little

understanding of the dynamics of informal funding, their susceptibility to short-term economic fluctuations, and their role in the economy.

1.5 Research method: an abductive reasoning approach

Given the intrinsic social nature of informal funding, and our lack of understanding of this phenomenon, an exploratory approach to data collection and an abduction logic is adopted for this research. While theoretical foundations rooted in the entrepreneurial finance, management, economics, sociology, and psychology literature provide pillars for framing the research questions, it is necessary to strengthen existing theory with a qualitative inquiry. The propositions derived from the latter are built on with relevant theoretical insights, and further complemented by hypotheses which are tested empirically, and the results fed back to enrich understanding of the theoretical and qualitative inputs to design an integrated model of informal funding across the four levels of analysis.

1.6 The outline of the thesis

The thesis comprises eight chapters. Chapter 1 outlines the objectives, the background, and the context of this research, positioning it in the array of academic literature. Chapter 2 reviews entrepreneurial finance studies of the phenomenon of informal funding. The conceptual framework is outlined across the four levels of analysis in Chapter 3. First, the demand is conceptualised at the individual level. In a similar vein, factors affecting individual supply of informal funds are disentangled through the prism of altruism, trust, risk perception, and disposable income effects. Consequently, the two sides are consolidated by looking at the interaction as a form of a psychological contract, resulting from the social and institutional embeddedness of the deal. Pragmatism forms the philosophic foundation of the research methodology in Chapter 4. The phenomenon is viewed as a sequence of habits and routines, which are susceptible to changes as a result of interactions and contextualisation. This discussion is followed up by the justification of the mixed-method research design, data collection methods, and the means of their analysis. Chapter 5 outlines the results of the qualitative inquiry, where a range of propositions are developed in conjunction with the conceptual framework outlined earlier. In Chapter 6, the hypotheses developed in

Chapter 3 are tested using the secondary quantitative data of Global Entrepreneurship Monitor for the UK for 2007 to 2012, complemented by local Indices of Multiple Deprivation across the UK. Chapter 7 brings the results together, proposing a novel theoretical model of the informal funding process. The key implications of this model are highlighted in Chapter 8, including implications for theory, methodology, policy makers, and practitioners. On a final note, future research avenues are signposted, which would further test the proposed theoretical model, and establish its connection with the alternative funding options available in the market, and business growth.

Chapter 2: Professional Private Venture Capital Market versus Informal Private Venture Capital Market

2.1 Introduction

This chapter reviews the literature on private venture capital, and identifies gaps in our understanding. Private venture capital (including business angels' investments as well as friends and family support) is an important source of small scale finance at the early stage of business development (Wetzel, 1987; Blanchflower and Oswald, 1990; Harrison and Mason, 1992; Bygrave *et al.*, 2003; Riding, 2008). Although internal sources are the first to be considered by entrepreneurs, equity is the most favoured funding option in the light of its added values, and the avoidance of personal liabilities (Paul *et al.*, 2003; Paul *et al.*, 2007a). Moreover, the recent tightening of the UK banking system since 2008-2009, and the introduction of the Basel III regulations, forced banks to restrict their portfolio of loans to small businesses (Armstrong *et al.*, 2013). In this vein, the private venture capital market, including both professional and informal segments, represents an inherent part of the supply of entrepreneurial finance for starting firms.

In this chapter the argument is made that the two segments should be clearly differentiated: professional private investors (mostly labelled as 'business angels' in the literature), and 'non-professional' helpers (referred to as informal funders in this study). With the course of a review of the private venture capital market literature, the rationale for the professional and informal division is developed. Previous research on the subject is summarised in a way to identify what is known about both segments to date, how they differ from each other, and what their role is in business finance. As a result, the peculiarities of the population of interest, and its position in the entrepreneurial finance market, are determined.

2.2 Professional private venture capital market

Most research in the area is focused on the professional segment of private investors, and either extrapolates findings to informal funders, or completely neglects them. In this section the parameters of business angels, as well as the overall market

mechanisms are considered in order to draw a clear distinction with the informal funding market later on.

2.2.1 The scope and size of the market

The size of the UK business angel market has been indirectly estimated at £1.1billion in 2012 (Business Angels Europe, 2015). This is believed to be the closest approximation of its value, as it is based on Enterprise Investment Scheme (EIS) statistics (HM Revenue & Customs, 2013). This is four times larger, than crowdfunding market in 2012 (Baeck *et al.*, 2014). However, it is five times smaller than institutional venture capital market in the UK (British Private Equity & Venture Capital Association, 2013), and 35 times smaller than gross lending to small and medium enterprises (excluding overdrafts), which was almost £38 billion in 2012 (Bank of England, 2012).

Remarkably, such comparisons do not take into account the sequence of funding sources, as well as their simultaneous use by entrepreneurs. Moreover, the estimations of the professional venture capital market only refer to the operations that are visible. Most relevant for this thesis, informal funding activities, angel deals that did not go through the EIS, and deals that were undertaken by angels outside associations, are not included.

2.2.2 Market description: business angels' profile

The original definition of Wetzel (1987) has been widely utilised in subsequent studies (see Appendix 2) on business angels: private individuals who provide equity-type finance to starting and new ventures (Harrison and Mason, 1992), most often with high-growth potential (Freear *et al.*, 1997), and with the following characteristics:

- High net worth;
- Business and financial experience, entrepreneurial orientation (Lindsay, 2004);
- Competence in evaluating prospective investments;
- Non-personal affiliation with portfolio ventures;

- Risk-seeking behaviour (Freear and Wetzel, 1990), avoiding bad investments (Mason and Harrison, 2002c);
- Long-term expectations of returns (Freear and Wetzel, 1990).

The first generation of studies on business angels (Mason and Harrison, 2000a) aimed to explore and describe the market. A consensus was reached on their profile: predominately male, middle-aged, educated, wealthy individuals (Riding and Short, 1988; Freear and Wetzel, 1989; Gaston, 1989; Haar *et al.*, 1989; Reitan and Sørheim, 2000), with prior entrepreneurial background, who invest in start-up and growing businesses (Short and Riding, 1989; Freear and Wetzel, 1990; Duxbury *et al.*, 1996; Tashiro, 1999; Hindle and Lee, 2002; Stedler and Peters, 2003), taking mostly an active role in the financed venture as a board member, or less structured consulting and mentoring roles (Wetzel, 1983; Gaston, 1989; Harrison and Mason, 1992; Landström, 1993; Freear *et al.*, 1997; Mason and Harrison, 2000a; Hindle and Lee, 2002; Madill *et al.*, 2005).

Professional knowledge and skills in the form of prior entrepreneurial and managerial experience of business angels appear to be of value to entrepreneurs in addition to the financial capital provided (Aernoudt, 1999; Politis and Landström, 2002; De Clercq *et al.*, 2006). Consequently, these investors are not philanthropists: they are equipped to make professional judgment about the ventures they are going to fund, consciously take on risks, and contribute to the entrepreneurial business processes (Politis, 2008).

Prior to the call of Mason and Harrison (2000a) for deeper analysis of the business angels market, different categorisations of business angels were proposed, based on their competence, the amount of investments, and the frequency of the deals (Gaston, 1989; Landström, 1992; Landström, 1993; Freear *et al.*, 1994; Stevenson and Coveney, 1994; Sørheim and Landström, 2001).

Sullivan and Miller (1996) proposed segmenting the private venture capital market by investor motivation. The authors distinguished:

- Economic motivations, which originate from economic theories of profit maximization and risk-return analysis;

- Hedonistic motivations – decision making in pursuit of multiple goals, including non-economic ones ('psychic income') (Simon, 1959);
- Altruistic motivations – a moral dimension to economic behaviour (Etzioni, 1988), feeling an obligation to give back to the society, contribute to wealth or job creation, support businesses with social purpose, etc.

Business angels are also classified on their degree of post-involvement in the venture, ranging from passive ('hands-off') investors – those who provide only financial support, to active ('hands-on') investors – those who provide non-financial support as venture develops (Sætre, 2003; Harding and Cowling, 2006; Mason and Harrison, 2008; Politis, 2008; Macht, 2011a).

Appendix 3 illustrates a changing profile of business angels. Co-investment practices, which reduce the amount of investment required per individual to get a deal done, are growing in frequency. This allows business angels to diversify their portfolios by making more investments per year with shorter exit horizons. Co-investment is often mediated by a gate-keeper organisation, resulting in the relationship between entrepreneur and investor becoming increasingly more detached in nature. The personalised and close relationship, noted by early researchers, has been increasingly replaced by a more 'arm-length' approach.

2.2.3 Market mechanisms: investment process

Another stream of studies on professional venture capital segment turned to the investment process (Mason and Harrison, 2000a), where decision making criteria, and motivation of business angels became a primary focus of the research.

Table 2-1 Business Angels' decision-making criteria, based on the post-hoc research methods, ranked in the ascending order (from 1 – the most important factor)

Author	Haar <i>et al.</i> , (1989) USA	Bachher and Guild, (1996b) Canada	Landström, (1998) Sweden	Feeeney and Riddig, (1999) Canada	Haines <i>et al.</i> , (2003) Canada	Sudek, (2006) USA	Paul <i>et al.</i> , (2007b) Scotland	Maxwell <i>et al.</i> , (2011) Canada	Rostamzadeh <i>et al.</i> , (2014) Malaysia
Country									
Method		Survey administered through interviews	Questionnaire plus conjoint method	Telephone interviews	Focus Groups and survey	Interviews	Interviews	Dragons' Den reality TV show	VIKOR method, selection of the city as an investment opportunity
Person-related criteria:									
Leadership potential				1				5	
Management abilities	1			4	1				
Realistic expectations					2				
Personal qualities				3	1				
Track record	3		3			2	5	3	
Enthusiasm						3			
Business related criteria:									
Product potential	4						1		
Management team				2	4	2			
Profit potential					5	3	6	1	
Fit with the investor's interests	4		4		6				
Capitalisation					7				
The quality of the information provided			5	8					
Location and industry						1		2	
Current status							3	3	4
Protectability								4	2
Market potential	2	3				2	3	4	
Exit option						4			

Table 2-1 summarises all the ‘post-hoc’ criteria used by business angels in their decision-making process, as highlighted in the literature. Personal-related criteria were of major importance up to 2011, followed by business-related and market-related factors. However, while profit and market potential, and product-associated features came out as the first criteria in the later studies, individual characteristics of entrepreneurs still remained important. Hsu et al. (2014) compared investment criteria of institutional venture capitalists and business angels (who are part of a professional association), revealing that the latter (compared to the former) are more concerned with agency risk, rather than economic risk.

Mason and Harrison (2002c), based on the survey of 127 business angels in the UK, were the first to analyse the returns on private venture capital investments compared to institutional venture capital. This study stems from the argument made by Benjamin and Margulis (1996) about the distinction between these two types of investors, where the latter are defined as portfolio managers unlike private investors. Mason and Harrison partly supported this view, explaining the fundamental differences in the approach of business angels. Small number of investments does not allow them to form portfolios, where the risk is statistically diversified. However, a personal approach enables them to avoid bad investments, rather than concentrating on winners, to receive returns from each deal. As a result, the profile of returns is different for these two types of markets. Lindsay (2004) elaborated on this matter further, stating that in order for business angels to be successful they need to be ‘consummate entrepreneurs’ when seeking investment opportunities. It implies being proactive, innovative, and risk-taking, so that they not only minimise type I error (avoiding bad investments), but also avoid type II error by not missing out successful ventures.

Business angels put greater emphasis on human capital factors, such as investment readiness, and passion (aspirations). For example, Becker-Blease and Sohl (2015) found that entrepreneurial ventures with quality top management teams, advisors and developed products, are viewed more favourably by angel investors and likely to have better access to these investors. Top management team industry experience and venture-specific education, as well as established revenue streams, and having a legal counsel is positively related with business angels’ evaluations.

The models employed in those studies mostly stem from the economic approach (either explicitly or implicitly adopting an agency theory perspective), and based on qualitative and quantitative techniques where respondents (business angels) were asked either to prioritise their investment criteria, or name them (usually ‘post hoc’). The problem of these methods, admitted by Wiltbank *et al.*, (2009), lies in the difficulty in recalling cognitive processes related to individuals (Nisbett and Wilson, 1977).

An alternative technique – Verbal Protocol Analysis (VPA), based on real-time evaluations was first proposed by Mason and Rogers (1996) in relation to the business angel investment decision making process. The results revealed for English business angels replicated previous findings in other countries, where investors prioritised their fit with the entrepreneur and the industry, the venture’s growth potential, and expected returns, including psychic income, which includes interest and fun (Mason and Stark, 2004). The same method was used for business angels in Scotland (Smith *et al.*, 2010), where the fit turned out to be the first criterion for an experienced investor, compared with financial potential for ‘novice’ angels.

Shifts in market structure, such as the growing impersonalisation of investment relationships invoked further changes in screening approaches, and in the research techniques utilised to capture the decision-making heuristics. In this vein, the VPA method neglects the multiple stages in project selection processes which have proliferated among business angel associations and syndicates. Smith *et al.*, (2010) found that when using VPA, angels mostly reject the products, focus only on a screening stage, and may feel uncomfortable or self-conscious, while the method itself involves subjectivity in the subsequent analysis, and ignores the role of the funding opportunity.

As a result, a range of studies (Clark, 2008; Mitteness *et al.*, 2012a; Mitteness *et al.*, 2012b; Parhankangas and Ehrlich, 2014; Carpentier and Suret, 2015; Croce *et al.*, 2016) differentiated among pre-screen, screen, and interview stages, targeting business angels who are part of networks. Mitteness *et al.*, (2012b) determined that investment criteria vary by stage of the screening process. For business angels in the US they

found that an entrepreneur's passion, knowledge, and motivation are important factors at the screening stage (before due diligence), as well as fit with the investor and opportunity quality (Mitteness *et al.*, 2012a).

Maxwell *et al.* (2011) pointed out that behavioural decision theories, studying the heuristics of decision-making processes, are mainly accurate. They demonstrated that the compensatory model (where business angels do not evaluate each attribute in isolation but take a more holistic approach), adopted as an assumption in previous studies, does not work well during the initial selection (screening) stage. Instead, the Elimination-By-Aspects model better explains the process by which angels evaluate incoming projects, where investors look at the reasons to reject an opportunity.

In their analysis of the rejection reasons articulated by business angel group members in North America, Carpentier and Suret, (2015) discovered that market, product, and financial prospects are of major importance at the pre-screen step, while person-related characteristics mainly drive the decision during the subsequent stages. A slightly different sequence was discovered in the study of rejection criteria of Italian business angels (Croce *et al.*, 2016), where business proposals brought in by institutional venture capitalists are more likely to get through the pre-screening stage, while characteristics of the entrepreneurs and management team are of high importance during the screening stage, and profitability is of high importance - during due diligence.

Jeffrey *et al.*, (2016) drew on data from the Dragons' Den reality TV show in Canada to investigate rejection criteria in relation to the attributes of risk and return, which were found to be non-compensatory: each attribute was assessed in isolation. Supporting the signal detection theory model, the results suggest a decreasing convex function: the likelihood of rejection increases at an increasing rate (i.e. the negative slope becomes steeper) as the value of either attribute approaches the cut-off point from above (the likelihood of rejection increases as the level of a relevant attribute approaches its threshold from above).

The variations in the results to a great extent can be explained by the heterogeneity of the business angels population (Harrison and Baldock, 2015), whose decision-making

process relies on three types of heuristics, originating from the work of Tversky and Kahneman, (1974):

- 1) *Availability heuristic* - refers to immediate memories of events, and associations related to them. For example, the more experienced a business angel is, the more confident they are in evaluating the proposals based on the memories of the previous deals and their outcomes.
- 2) *Representativeness heuristic* - refers to the ability to identify the most salient features, and apply them to alternative contexts. For example, a systematic approach to decision-making with the aim to improve its effectiveness.
- 3) *Anchoring and adjustment heuristic* - refers to the process of assimilation towards an anchoring value, and adjusting from the initial point. For example, the dynamic decision-making approach where the criteria vary with the experience of a business angel, and changing circumstances.

Finally, trust is another non-pecuniary factor that has been frequently touched upon in the business angels research, although mostly explored in isolation to other criteria (Harrison *et al.*, 1997; Shepherd and Zacharakis, 2001; Kelly and Hay, 2003; Sørheim, 2003; Paul *et al.*, 2007b; Fairchild, 2011; Bammens and Collewaert, 2012a; Ding *et al.*, 2015). It is acknowledged as an important aspect of the angel-entrepreneur relationship, both at the screening stage, where a positive impact on the decision-making process was identified (Shane and Cable, 2002; Fairchild, 2011; Maxwell and Lévesque, 2014), and at post-investment stages, where the focus on maintaining trust in the relationship a lock-in to a pattern of behaviour causing both positive and negative effects (Korsgaard, 1996; De Clercq *et al.*, 2006; Bammens and Collewaert, 2012a). The latter aspect mirrors the results of the study of institutional venture capital firms in 15 European Union countries (a survey on the first rounds of investment in 1998-2001), where it was found that trust positively predicts the venture capital firm's investment decision, but is negatively associated with a successful exit (Bottazzi *et al.*, 2016).

2.2.4 Market efficiency

Entrepreneurial finance, like corporate finance, is characterised by information asymmetry (principal-agent) problems, such as adverse selection and moral hazard (Kaplan and Strömberg, 2003; Denis, 2004). Both arise from the difference between expected returns and the levels of risk. If a rational investor was aware of the riskiness linked to the desired return, less finance would be provided. Consequently an over-supply of venture investment funds arises compared to the socially efficient level (De Meza and Webb, 1987). Investors encounter higher costs in undertaking due diligence – the protection against adverse selection risk (Harrison *et al.*, 2004), and monitoring activities – to minimise moral hazard implications (Venkataraman, 1997).

The business angel market in its early development was found to be inefficient, invisible, and fragmented, where efficiency results from a state in which entrepreneurs and investors are fully informed, and there is a free flow from less productive markets to more productive ones (Wetzel, 1983; Wetzel, 1987; Harrison and Mason, 1992; Lumme *et al.*, 1996; Freear *et al.*, 1997; Van Osnabrugge and Robinson, 2002). These circumstances may give rise to a discouragement effect: potential investees (would-be entrepreneurs) are reluctant to seek such capital, and potential investors are not interested in picking relevant projects up. Hence the under-investment of the private venture capital is also observed (Wetzel, 1987; Landström, 1993; Lerner, 1998).

While the trend towards formalisation of professional private venture capital market mitigates asymmetry information, and agency problems, it exacerbates moral hazard challenges for investors. Those who seek professional venture capital are not always successful, facing high rejection rates (Haines *et al.*, 2003; Maxwell *et al.*, 2011; Brush *et al.*, 2012; Mitteness *et al.*, 2012b). A range of studies showed that the majority of applicants for business angels investments do not meet the requirements (Stedler and Peters, 2003), or in other words, are not investment ready, including the lack of knowledge and expertise, unrealistic expectations, personal qualities, poor management team, and poor profit potential (Douglas and Shepherd, 2002; Mason and Kwok, 2010; Mason *et al.*, 2016b).

However, there are features that work in favour of the private venture capital market. One of them is the search for projects through personal networks which lead to quality projects, where the referral person potentially influences investor's judgement (Landström, 1993; Riding, 1993; Sørheim and Landström, 2001; Politis and Landström, 2002). Apart from that geographical proximity, the selectivity of entrepreneurs in their choice of an investor to work with, and the learning curve (especially for serial investors) observed in the investors' behaviour compensate for the asserted inefficiencies, making up a viable market place (Landström, 1993; Kelly and Hay, 1996; Sørheim and Landström, 2001; Sætre, 2003; Sørheim, 2003).

The value-added is another crucial dimension of market efficiency. It was shown that institutional venture capital in the US (measured as perceived effectiveness of investor's involvement weighted by its perceived importance) adds value to highly innovative technical ventures, subject to the intensity and the frequency of involvement (Sapienza, 1992). Research demonstrated that the more experienced and resourceful a business angel is, the more non-financial value they provide to supported businesses (De Noble, 2001; Sætre, 2003; De Clercq and Fried, 2005). However, irrelevant involvement or active ('hard') involvement by inexperienced business angels diminishes the value of investments (Mason and Harrison, 1996; De Noble, 2001; Macht, 2011a). Certain forms of involvement, such as provision of contacts, and facilitation of further funding, are key benefits of business angels as perceived by the owners of the funded businesses (Macht and Robinson, 2009).

2.2.5 Spatial and dynamic variations in the market

Geographical location and spatial effects receive little attention in entrepreneurial finance research despite their particular relevance to financial systems (Martin, 1999; Mason, 2010). Three types of geographical effects are distinguished by Mason (2010): the effect of space, place effects, and flows of capital.

Geographical proximity (*the effect of space*) facilitates the involvement of professional private investors in the investees' ventures, although a direct effect on the company's performance (through the contact and interaction) was not confirmed (Landström, 1992). Meanwhile, the local nature of venture capital investments was noted as crucial

in several studies, since it ensures the collection of ‘soft information’, which is mainly possible only through personal contacts (Martin *et al.*, 2005; Mason, 2007; Cumming and Dai, 2010; Lutz *et al.*, 2013).

At the regional level, it was found that the local supply of venture capital in the US (including both institutional and professional private venture capital) positively affects entrepreneurial activity, employment, and aggregate income levels in the area (Samila and Sorenson, 2011). In the light of syndication and co-investing processes among business angels, the supply of venture capitals tend to be localised in specific areas (*place effects*), forming economic clusters and sustaining equity gaps elsewhere; this tendency was spotted in the US (Sorenson and Stuart, 2001; Sohl, 2012), Europe overall (Martin *et al.*, 2002), and separately in the UK (Mason and Harrison, 2002b; Harrison *et al.*, 2010; Mason and Pierrakis, 2013), and Sweden (Avdeitchikova, 2009). The deficit in venture capital availability was identified in ‘undeserved communities’ located in rural and distressed regions of the USA (Rubin, 2010). Inequality in the supply of venture capital was also discovered in the UK during the post 2000s period (Mason and Pierrakis, 2013).

Research on the regional aspect of equity gaps (uneven *flows of capital*) has found geographical proximity and natural clustering of venture capital providers (both institutional venture capital and professional private investors) to be its major determinants. Comparing two financial systems in the UK and Germany Klagge and Martin (2005) came to the conclusion that spatially centralised stock and venture capital markets in the UK tend to gravitate towards economically prosperous regions, dynamically sustaining their competitive advantage at the expense of other regions. In another study the authors focused specifically on the regional equity gaps in the UK venture capital market (Martin *et al.*, 2005), represented by institutional venture capital organisations (from the supply perspective, based on the perceptions of capital providers). It was found that geographical distance reduced ‘relational proximity’, which determines communication, information flow, and trust. They argued that the spatial allocation of venture capital supply follows the demand, which is geographically differentiated based on the economic development of the region.

Equity gaps can be defined not only at the regional level, but at the transactional level, where there is a mismatch between the demand and supply sides, originating from the difference between the criteria or interests of professional investors and the characteristics or aspirations of entrepreneurs (Harding, 2002; Sohl, 2003). Equity gaps are coupled with debt gaps, where the UK banking system has been transformed towards a centralised one in the recent decades under the changing regulatory initiatives, resulting in restricted capital flows (Klagge and Martin, 2005). As a result, centralisation tendencies are not solely driven by the supply side, but also the local environment context, and the demand for the capital.

2.3 Informal private venture capital

Friend and family support, while often mentioned alongside other sources of finance, is rarely a subject of separate investigation, mainly due to data restrictions. However, with the launch of Global Entrepreneurship Monitor (GEM) project this issue has been resolved, allowing researchers to tap into this segment of the private venture capital market. As a result, a range of studies have been initiated where informal funding activity is the object of analysis.

2.3.1 The scope and size of the market

The parameters of informal funding market in the UK have been summarised in Table 2-2 and Figure 2-1, based on the GEM UK reports (Harding *et al.*, 2007; Levie and Hart, 2008; Levie and Hart, 2009; Hart and Levie, 2010; Levie and Hart, 2011; Levie and Hart, 2012; Levie *et al.*, 2013; Hart *et al.*, 2014a; Hart *et al.*, 2015). The supply of informal funds went up since 2010 (informal funder rate), levelling off at 2%, and rising to 3% in 2016 (Hart *et al.*, 2016).

Table 2-2 An overview of the informal funding market in the UK, based on UK GEM reports in 2006-2015

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Sample size*	43033	42713	32007	30003	10403	10573	11191	11017	10750	9405
Nascent + new owner-manager rate	5.80%	5.60%	5.50%	5.80%	6.50%	7.60%	9.80%	7.30%	8.60%	7.10%
The informal funder rate	1.57%	1.30%	1.40%	1.16%	2.90%	2.40%	2.60%	2.10%	1.90%	2.30%
Relationship of latest investee (% of latest investments):										
- close family member (spouse, parent, sibling)	48	45.9	39.8	41	37	50.2	57.5	46.8	40.3	38
- other relative (kin, or blood relations)	2	5.5	4.5	4.5	7.5	6.2	2.2	6.6	11.1	0.4
- work colleague	9.3	8.9	15.7	8.3	2.2	7.4	8.9	3.9	5.1	0.5
- friend or neighbour	33.7	34.3	32.3	35.5	48.5	28.4	23.4	38.7	25.5	39.2
- a stranger with a good business idea	7	3.8	7.1	8.6	4.5	7.9	4.1	4	17.9	16.3
- other	0	1.7	0.6	2.1	0.4	0	3.8	0	0.1	5.7
Percentage of nascent entrepreneurs expecting funding from (%):										
- no funding needed	5	5.1	5.1	5	10.3	6.2	4.4	6	7.3	4.8
- all funded by entrepreneur	45.8	54.7	51.2	50.7	43.8	47	39	40.5	46	52.5
- none funded by entrepreneur	3.5	2.8	2.2	3.9	8.5	4.9	6.7	1.1	1.6	1
- close family member (spouse, parent, sibling)	8	8.8	12.1	10.1	8.6	3.5	8.9	3.2	9.1	19.6
- other relatives (kin, or blood relations)	3.7	4.3	8	6	1.7	2	8.2	2.3	6	4.5
- work colleagues	7.5	6.1	9.9	6.8	5	10.1	8.3	6.4	5.7	5.3**
- a stranger	4.3	2.2	3.6	3.7	0.7	1.1	5	2.9	1.6	12.5***
- friends or neighbours	4.7	3.2	6.1	4.5	6.9	2.5	5.6	6.7	4.9	4.9
- banks or other financial institutions	23.5	19.3	18.6	20	18.2	18.6	22.3	11.1	8.8	22.1
- government programmes	15	12.1	17.2	15.1	17.7	11.1	15.9	9.6	7.2	22.2****
- online crowdfunding	N/A	7.9								
- any other source	7	6.4	5.9	8.8	5	7.2	13.2	8.9	8.2	6.7

* Adults aged 16-80 years old

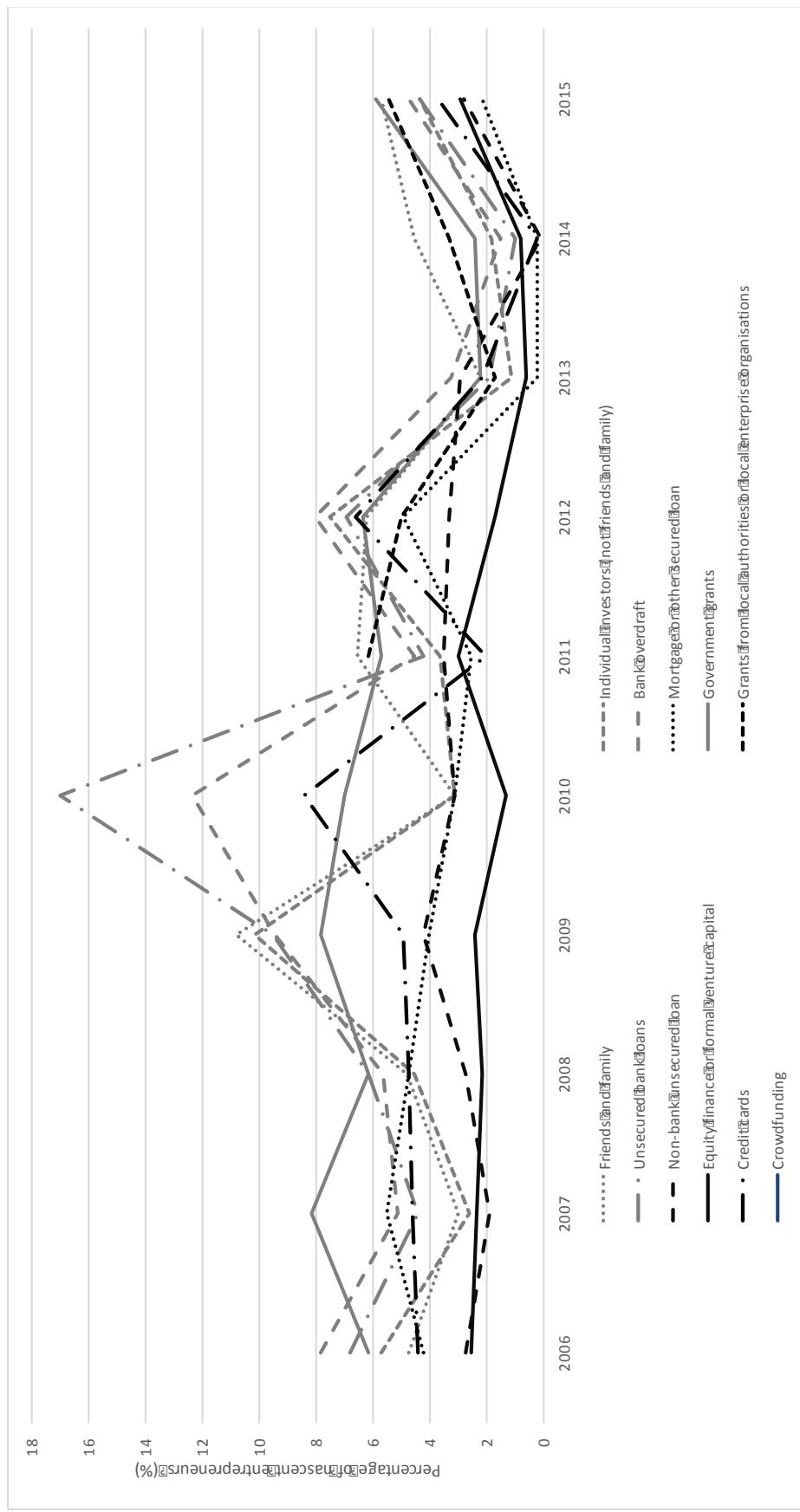
** Or employer

***Private investor or venture capital

****Including donations or grants

Source: Global Entrepreneurship Monitor

Figure 2-1 Percentage of UK nascent entrepreneurs who have reported being refused funding, by type of funding, 2006-2015



Source: Global Entrepreneurship Monitor

While the majority of helpers supported businesses of relatives, friends, work colleagues, or neighbours, only a minor percentage provided money to strangers throughout the observation period. The expectations to get help from family funds increased in 2008-2009, dropped in 2011 and 2013, and rose in 2015. Noticeably, online crowdfunding was offered as an option to choose in 2015, revealing that 7.9% of nascent entrepreneurs in the sample intended to make use of this source.

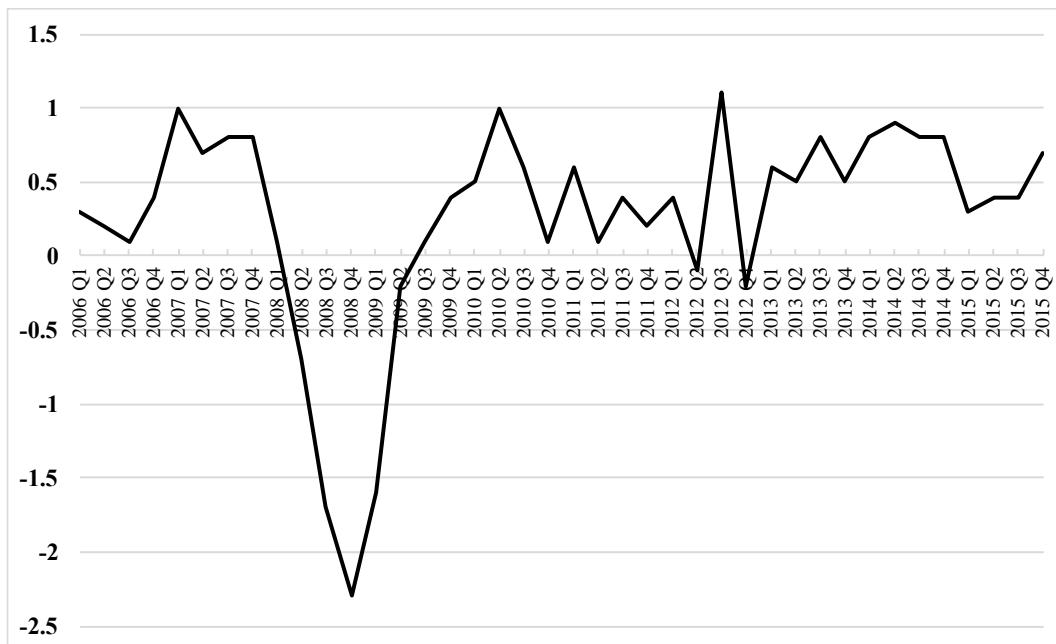
It is useful to compare intentions against actual actions throughout 2006-2015. Three cut-off years can be distinguished: 2009, 2011, and 2013. In 2009 there was a peak in the use of bank overdrafts, friends, and family funds by nascent entrepreneurs, which compensated the reduction in the use of credit cards. In 2011 the reliance on any suggested funding source (friends and family, individual investors, bank loans (both secured and unsecured), overdrafts, credit cards, equity finance, and government grants) reduced dramatically, in particular for informal support, and bank bootstrapping options. After a short recovery, a further drop took place in 2013. Since 2010 the reliance on friends and family considerably outweighed bank overdrafts – the second popular choice, while equity finance, unsecured bank loans, and government grants were steadily demanded by the minority.

Surprisingly, entrepreneurs who turned to professional equity finance (both private and institutional) experienced the lowest rejection rates along with those who applied for non-bank unsecured loans. In 2009 there was an increase in the percentage of nascent entrepreneurs who had been refused friends and family funding as well as equity finance from other private investors. Both returned to their pre-crisis levels in 2010, compensating for the tighter conditions in accessing overdrafts, credit cards, and unsecured bank loans. While the dynamics of friends and family rejections followed the dynamics of private equity investors, in 2011 the refusal rates diverged.

When compared against the macroeconomic cycle (Figure 2-2) nascent entrepreneurs reacted with an increased demand for friends and family support, other private equity investments, overdrafts, and unsecured bank loans, at the expense of the decreased use of credit cards in 2009. After the turbulence of 2011 followed by the economic slowdown at the end of 2012, the percentage of nascent entrepreneurs who used all

types of funding sources rose, where only friends and family support reached the levels of pre-2009 period, while the use of other options was characterised by a declining trend. As far as the supply side is concerned, the percentage of informal funders among adult population more than doubled in 2010, and grew by 8% in 2012 after a minor decline.

Figure 2-2 Gross Domestic Product in the UK: quarterly growth (%), seasonally adjusted



Source: Office for National Statistics

2.3.2 Market description: informal funders' profile

The advantages of GEM, such as longitudinal data, multiple levels of analysis, harmonisations across nations, and comparability with other major datasets (Levie *et al.*, 2014), gave rise to a chain of studies devoted to the informal funding market (see Appendix 4). The research on informal funding market using GEM conceptual framework and data can be divided into three streams. The first one explores micro-level determinants of informal funders, capturing their socio-demographic characteristics, entrepreneurial status, and attitudes in an attempt to categorise, and differentiate them from the rest of adult individuals. The second one investigates informal funders at the regional and national levels, matching them with the

institutional and macroeconomic contexts. Finally, the third stream addresses the nature of the phenomenon in order to consolidate the mechanisms driving this market.

Reynolds *et al.* (2002) launched the first stream of queries. They estimated that the informal venture capital market for the 37 nations participating in GEM constituted \$298 billion against \$59 billion provided by institutional (in this work – ‘formal’) venture capital market. Maula *et al.* (2005) calculated that the informal market made up 1% of GDP for those countries, whereas the formal market represented only 0.2%. Drawing on previous research informed by GEM data (Reynolds *et al.*, 2000; Bygrave *et al.*, 2003), the authors adopted the definition of informal funders pursued in this work (with the exception of calling them ‘investors’ as in all the subsequent studies, although in this case the type of the deal was not controlled for). Theirs was the first attempt to predict the propensity of an individual to become an informal funder in Finland. The authors differentiated between family and more distant funders, expecting that the former may be driven by the altruistic motivation and by the ‘need to invest’, as opposed to the latter, whose choice is based on the rational decision making, arising from the theory of planned behaviour, and the economic theory on risky assets in the household portfolios. As a result, several key determinants of informal funding were identified:

- Personal familiarity with entrepreneurs;
- Status as an owner manager in a firm;
- Perceived skills in starting a business;
- Gender.

Demographic characteristics, such as income, age, or education were not found to be significant. However, the model better predicts the occurrence of informal deals between entrepreneurs and more distant informal funders.

A similar study in another context (Singapore) was conducted by Wong and Ho (2007) with the aim of identifying the determinants of an individual becoming an informal funder (or investor – as referred to in the original work). The novelty of this research compared to the previous one is not only in differentiating funders based on their

relationship with an entrepreneur, but also based on the amount of their funding (investment): low value or high value. Similar to the Finnish informal funders, socio-demographic characteristics (including income) do not play much role in driving the propensity of an individual to support their family and friends (note that strangers were also included in the sample). Entrepreneurial experience and perceived self-efficacy came out as major factors, underpinned by the social capital and planned behaviour theories.

In the same stream, informal funding (investment) activity was explored in Croatia, Hungary, and Slovenia by Szerb et al. (2007a). These countries are characterised by low investment rates, and small amounts of funding driven by personal acquaintances with an entrepreneur as well as entrepreneurial experience, where the role of age, gender, education, and employment status remained marginal. Strangers make up a minor share of informal funders, contributing larger amounts than family and friends.

In the study conducted for the sample of 38 countries (GEM participants) in 2008 (de la Vega García-Pastor and Coduras, 2011), it was found that the propensity to become an informal funder was predicted by entrepreneurial training at the individual level. The authors distinguished between professional investors – business angels (strangers as indicated in the sample), and informal funders. A positive effect was discovered particularly in innovation-driven economies, with the highest impact in efficiency-driven ones. The status of a business angel matters (in demonstrating a stronger relationship between entrepreneurial training and financing someone's business) only in factor-driven nations. Moreover, age and income level were also found to be significant determinants of the propensity to become an informal funder, as well as involvement into entrepreneurial networks, positive self-perceptions in terms of skills and knowledge to start a new venture, and positive perception of entrepreneurial opportunities.

An investigation of gender differences with respect to the social factors among the informal funders in Chile in 2007-2008 was carried out by Romani et al. (2012), who found that proportionally there were more men funders with university-level

education, and who are working full time. There are significant differences in the amount of investments, where women provide less money than men.

The importance of informal funding did not diminish through the time according to another piece of research which shed some light on the informal investor activity in Ireland in 2006-2011, using a GEM dataset (Diaz-Moriana and O'Gorman, 2013). It was estimated that informal funders who are related to the entrepreneur provided €195 million in total to new businesses, and €80 million were invested by strangers (referred to as business angels). It was estimated that for every €1 of formal venture capital there was approximately €5 of informal funding.

2.3.3 Market contextualisation

The first study to incorporate macroeconomic parameters during the period of 2001-2003 in 31 countries, and flag up the second stream of GEM informal funding research was published by Szerb et al. (2007b), who distinguished among the following groups of informal investors (and funders):

- 1) 'Classic love money' - no previous entrepreneurial experience and finance close relative's business;
- 2) 'Outsider' - no previous entrepreneurial experience but finance other than close relative's business;
- 3) 'Kin owner' - with previous entrepreneurial experience and finance close relative's business;
- 4) 'Classic business angel' - with previous entrepreneurial experience and finance other than close relative's business.

In their analysis these authors combined country-level environmental variables (sourced from Organisation for Economic Cooperation and Development (OECD), World Bank, Hofstede's cultural index, and GEM interviews with country experts), and individual-level parameters to predict one of the four outcomes in the sample of adult individuals. It was found that:

- Countries with higher levels of GDP per capita tend to have higher rates of ‘outsiders’ and ‘classic business angels’, while those with higher levels of GDP growth have higher rates of ‘kin owners’ and ‘classic business angels’;
- Countries with higher income taxes have lower rates of informal funders;
- Countries with higher start-up costs tend to have higher rates of informal funders, represented by ‘classic love money’, ‘outsiders’, and ‘classic business angels’;
- Higher availability of debt funding is negatively related to ‘outsider’ rates, and positively with ‘kin owner’ rates.

The authors pointed out that the study could be complemented by local and regional analyses to identify clusters of informal investment activities, and capture knowledge spillover effects.

Later this call was addressed by Jones-Evans and Thompson (2009) who explored spatial variations in the informal funding deals made in the UK across regions in 2005 using the GEM dataset, combined with the data from British Venture Capital Association for the same time period. The authors used the questions, where respondents, who were identified as informal funders, were asked to reflect whether they perceived themselves as business angels, or not, and used the term ‘self-confessed business angels’. The data demonstrated the relative importance of informal funders for small companies at the early stage of their development (Aernoudt *et al.*, 2007), which are, although present everywhere, not evenly spread across different regions. The total amount of informal funding is mainly concentrated in prosperous areas, whereas the relative prevalence of informal deals (as a share of gross value added) tends to be higher in less prosperous regions, while formal venture capital appeared to be even more geographically concentrated.

Using the pooled dataset across three years (2002, 2003, and 2004) for 45 participating GEM countries – Burke *et al.* (2010) explored the determinants of informal funding (investment) deals at the cross-national level. The key objective of the study is to investigate the effect of entrepreneurial activity on the supply of informal funds, unravelling the argument that an increase in entrepreneurial activity leads to an

increased demand for institutional venture capital (referred to as formal venture capital in the original work), and, thus causes a shortage in its supply. As in the previous research, it was found that entrepreneurial management skills, the ability to spot entrepreneurial opportunities, and entrepreneurial self-efficacy (reputation) determine the propensity of an individual to become an informal funder (investor). Interestingly, wealth, which was measured not directly as in previous studies, but through involvement into entrepreneurial activity (assuming the person planning to start a business is (overly) optimistic, and expects to get richer) demonstrates a positive effect on the dependent variable. The strength of these effects, coupled with the time and wealth constraints, determines the net outcome at the national level.

A substantial positive effect was also discovered of the extent institutional (formal) venture capital market on the probability of becoming an informal funder (investor) in economies with high levels of entrepreneurial activity, and a more moderate impact for economies with low levels of entrepreneurial activity. It is argued that in the former countries the existence of a developed institutional (and possible private professional) venture capital market encourages engagement into informal funding as a part of the financing escalator (one as a stepping stone to the other). In this way, these two markets complement each other. In contrast, in the latter countries where few investment opportunities exist, institutional (formal) and informal markets are in competition with each other, partly due to an often incomplete and disintegrated venture finance supply chain.

In their later study Burke et al. (2014) moved their focus from the determinants of the rate of informal investors to the determinants of the volume of informal venture capital at the national level, subsequently reinforcing the argument about the demand-driven nature of informal investments. The authors drew on the GEM sample of adult individuals in 21 highly developed nations for the period of 2002-2006. The two-equation model (to estimate the supply of informal funds, and the prevalence of informal investors) included individual-level parameters and macro-level variables. Previous or past involvement into entrepreneurial activity positively determines the probability to become an informal investor, whereas those who currently own a business (primarily applying to women), and demonstrate high levels of self-efficacy

(primarily applying to men) tend to invest larger sums of money. The level of entrepreneurial activity increases the informal investors' rate, but decreases the total volume of informal investments at the national level, where the overall effect is dominated by the prevalence of informal investors (with a stronger effect for men). Moreover, it was shown that higher levels of formal venture capital investments lead to higher volumes of informal venture capital. A similar interaction of the effects is observed: the positive effect of formal venture capital on the informal investor rate (complementarity effect) overrides the negative effect of the former on the amount of informal venture capital invested per informal investor (substitution effect), which is mainly female driven.

The recent study of Ding et al. (2015) based on the dataset of 27 GEM countries (combined for the 2005-2007 period) attempted to determine the relationship between the level of trust and the prevalence of business angel investments ('strangers') at the national level, employing a multilevel modelling design. The study revealed that social trust exhibits direct effects at the national level on business angel activity, as well as cross-level moderating effects (through interactions between social trust and individuals' self-perception of entrepreneurial skills, and their ability to perceive opportunities). Social trust increases the investment propensity of individuals with positively perceived entrepreneurial skills. However, it reduces the likelihood of individuals who are alert to the opportunities to invest into a stranger's business (discouragement effect, direction of the capital to another class of assets, which are potentially more profitable and/or reliable).

2.3.4 Market mechanisms: the nature of funding process

Studies above threw some light on the differences between professional private investors, and informal funders, as well as on the relationship between formal and informal venture capital flows. The authors below referred to the third stream, elaborated further on the nature of informal funding process.

An integrative view was offered in the study of Nofsinger and Wang (2011), who investigated start-up firms (defined as those that are less than six months old) in order to determine factors that explain the entrepreneurial financing strategy at this stage of

business development. In particular, authors differentiate between informal funders and business angels, where the former differ from the latter in terms of their relationship with the entrepreneur, the level of involvement and professionalism. They worked with the 2003 GEM dataset for 27 countries. The authors used the questions referred to the past activity of start-ups who reported from which sources they obtained finance. As a result, they dealt with two main indicators: external financing ratio, characterising the fraction of external investment in the total amount of investment, and external financing diversity, representing the number of external sources used. It was shown by means of regression analysis that start-ups involved in new technology businesses with prior entrepreneurial experience tend to have higher external financing ratio. Moreover, the findings suggested that institutional investors are less likely to finance businesses offering new products than informal investors; the latter are less likely to value investor protection. Entrepreneurial experience does not matter as much to informal investors as institutional investors. Generally, firm growth increases the chances of securing external finance.

Prior literature proposed some non-economic aspects in informal investment processes, mainly arising from social capital theories, and theories of altruistic behaviour (Sullivan and Miller, 1996; Paul *et al.*, 2003; Steier, 2003; Maula *et al.*, 2005; Szerb *et al.*, 2007a; Kwon and Arenius, 2010b; Ding *et al.*, 2015; Klyver *et al.*, 2016). Kwon and Arenius (2010b) were the first to explore the relationship between social capital and weak-tie investments into an entrepreneur, using the pooled 2001-2003 cross-national GEM dataset combined with other sources. To measure the weak-ties investment the concept of an informal funder (investor) was used, where the type of relationship with the entrepreneur was specified: a close family member; another relative; a friend or a neighbour; a work colleague, or a stranger. It was found that an increase in generalised trust at the national level (as one of the dimensions of the social capital) led to a decrease in the probability of an individual investing in a family member, followed by an increase in the probability of investing in a stranger. Women tended to provide 'close-ties' investments more than men, while younger individuals with high income levels were more likely to invest into a stranger. At the macroeconomic level, the GDP level of the country had a positive impact on the

occurrence of ‘weak-tie’ investments. They proposed that social capital at the individual level complements social capital at the national level.

Klyver *et al.*, (2016) further addressed the tension between economic and altruistic reasoning of an informal funder. Altruistic investment behaviour is defined as funding a business project without any positive payback (Piliavin and Charng, 1990). The study was carried out on the 2003-2008 GEM dataset in four industrialised countries: USA, France, Spain, and UK, where the payback on the investment provided by an informal funder in the next ten years was assessed. It was found that the strength of relational social capital (measured as strength of the ties between investor and entrepreneur) increased the likelihood of altruistic behaviour, and more for men than for women. However, women were more likely to engage in altruistic behaviour than men.

The nature of friends and family investments (funding) was further elaborated at the theoretical level by Lee and Persson (2016). The authors question why the low price of such a funding for the entrepreneur (mostly interest-free) does not meet the stylised facts about its minor preference, and often negative required returns – the findings that contradict the information/cost theories, predicting that the features of informal investors (greater risk aversion, monitoring costs, social penalties) should be associated with a premium on the required return. The proposed new model suggests that the informal funding relationship is characterised by social preferences – the only difference from the formal funding, where informal funder does not have informational or cost disadvantages. It is argued that although family funding increases access to funds, it leads to the reduced risk taking, so called ‘stifled’ investment. The value of impersonal transactions is made up by channelling the risk out of the entrepreneur’s social circle and immunity to social tensions. The drawback of mixing social relation with the financial transaction is articulated.

A first characterisation of their model implies that family members demonstrate altruistic preferences, which form ‘intrafamily’ insurance (to protect against low consumption). The shadow cost is specified as the cost of using an ‘intrafamily’ insurance fund for the purpose of a risky project, undermining the initial ‘implied’

arrangement. Altruism also makes family funders willing to support the project with potentially negative expected returns, making this source occasionally cheaper than an outside one. However, shadow costs prevent an entrepreneur from using family funds, unless needed, and in the amount sufficient to secure an external funding.

In the second characterisation informal finance is modelled as a gift exchange: entrepreneurs who are valued below the market and received funding from family and friends are willing to reciprocate by working harder (Akerlof, 1982), paying off even if the projects fails to compensate the disappointment - a violation of the market principle (Levine, 1998). In this specification shadow costs arise from the moral obligation in front of the informal funder in case of default, with the prospect of harming a personal relationship. This model predicts that, as a result, entrepreneurs will reluctantly use such a source of funding.

While the study demonstrates implications for the institutions that harness social relationships, it draws on a range of assumptions:

- Coexistence of informal and formal sources of funding;
- Financial deepening and negative returns: projects negatively evaluated by the market, but supported by family members;
- Co-signing and pecking order: informal funding comes before the formal, and facilitates the latter;
- Risk taking: entrepreneurs might forgo the opportunity unless formal funding is also attracted.

The first assumption (complementarity of informal and formal funding sources in certain circumstances) and the third assumption (the finance escalator) are supported by the evidence (see section 3.2.1.1), however the second assumption although theoretically justified by the reasoning, stemming from the inefficiency of the professional private venture capital markets considered earlier, does not account for the demand side of the deal. Moreover, the risk-taking assumption contradicts the previous arguments about a substitution effect noted by Szerb *et al.*, (2007b) for debt finance and strangers' investments, by Jones-Evans and Thompson, (2009) for less

prosperous regions, Burke (2010) for economies with lower levels of entrepreneurial activity, and by Kwon and Arenius, (2010b) and Ding *et al.*, (2015) for the countries with lower levels of generalised trust at the national level.

Therefore, the nature of informal funding still remains unexplored, where theoretical understanding of the phenomenon is limited, is sometimes contradictory to the previous empirical findings, and does not take the demand-related, and contextual factors into consideration.

2.3.5 The role of the market

The role of the non-professional venture capital market (informal funding) is twofold. On the one hand, it is often a source of last resort especially in the early stages of business development (Bygrave *et al.*, 2003; Shane *et al.*, 2003). Being classified as occasional investors (Feeney and Riding, 1999), friends and family complement, rather than substitute professional investors. On the other hand, if there are some shortcomings preventing companies from gaining finance from formal investors, such as unsuitable attributes of the owner, poor management team, poor profit potential, or insufficient fit with the investor's interests (Freear and Wetzel, 1990; Harrison and Mason, 1992; Mason and Kwok, 2010), these businesses are not accepted by the market. As a result, provided that economic incentives are not major drivers of their actions (Madill *et al.*, 2005), informal funders may substitute formal investment sources for businesses 'rejected' by the market. Consequently, the availability of formal investment institutions and professional private investors does not unambiguously explain the prevalence of informal funders.

2.4 Comparisons between professional private investors and informal funders

When analysing the two segments of the private venture capital market, similar socio-demographic characteristics of individuals, and comparable level of exposure to the external environment can be outlined. However, it is clear that entrepreneurs tend to differentiate these two types of funders. Moreover, the previous studies identified non-pecuniary incentives and dismal returns as key attributes of the informal funding

market. As a result, the nature of the relationship and its context mark out the differences in the investment (funding) processes, with implications for the whole market.

2.4.1 Investment process

Business angels' investment process has been a subject of several studies, originating from the five-stage model of the venture capital investment process suggested by Tyebjee and Bruno, (1984), later re-visited by Fried and Hisrich, (1994), and subsequently validated by (Van Osnabrugge and Robinson, 2002) and Haines *et al.*, (2003). Ultimately, it can be summarised into the following steps:

- 1) Deal origination
- 2) Deal evaluation:
 - Screening
 - Due diligence
- 3) Deal structuring
- 4) Post-investment activity
- 5) Exit (harvesting)

However, recent studies drew clear distinctions between business angels and informal funders (Madill *et al.*, 2005; Klyver *et al.*, 2016; Lee and Persson, 2016), where some similarities with the professional private equity segment are found among friends, and those with weaker social ties (Maula *et al.*, 2005; Szerb *et al.*, 2007b; Ding *et al.*, 2015). As a result, the process undertaken by informal funders is likely to be different from the one dictated by professional private investors (Barnet-Verzat and Wolff, 2002; Steier, 2003). Steier (2003) demonstrated the following attributes of the family funding process across different stages, which he positioned along an altruistic/market rationality continuum:

- Sources of funds: mobilised family resources versus formal pool of funds for investment purposes;
- Deal origination: investor of last resort vs competition on the basis of economic criteria (among other users of the pool);

- Deal screening and evaluation: relational proximity vs formal due diligence;
- Deal structuring: informal verbal agreement – formal written arrangement;
- Post investment activity: informal monitoring from the personal interaction – reporting, involvement in the management team, scheduled meetings;
- Goal/exit strategy: altruism and trust vs returns/profit.

As highlighted in the section 2.2.2 above, business angels are mostly approached by entrepreneurs through personal networks, and, more recently, ‘gatekeepers’ of business angel associations and syndicates. Investors first screen the proposals, and then make a more elaborated decision, based on developed procedures, trying to avoid adverse selection problem (Van Osnabrugge, 2000; Mason and Stark, 2004). The deal takes the form of a legal investment agreement, where business angels provide personal finance in exchange for a stake in the company, anticipating a considerable return at a future date (Paul *et al.*, 2007b). At the evaluation stage business angels try to minimise moral hazard (Venkataraman, 1997; Elitzur and Gavious, 2003), that is, minimise the probability of the entrepreneur pursuing opportunistic behaviours that would not be in the business angel’s best interest. Although it has been asserted that business angels do not have clear plans about their exit strategies (Van Osnabrugge and Robinson, 2002), and their returns tend to be overstated (Shane, 2009a), they keep their investment up to five years, typically exiting through a trade sale (Mason *et al.*, 2015).

In friends and family funding the deal origination is likely to come from the demand side (Hancock, 2009; Burke *et al.*, 2010). Loyalty to a particular group of people (family, close friends) forms the basis for altruism, which can be defined as an action aimed to provide benefits at the social level at the expense of individual interests (Simon, 1993). In this regard, informal funders do not have any alternative investment opportunities to choose amongst and have no intention to generate this choice. Hence, the origination of a deal from the helper’s prospective is not an intentional action; it is rather a response to a request.

It became apparent that friends and family deals do not fit economic theories (Nofsinger and Wang, 2011; Klyver *et al.*, 2016; Lee and Persson, 2016), and are

better explained by procedural justice theory (Sapienza and Korsgaard, 1996), and social exchange theory (Molm *et al.*, 2000). The former examines the impact of the decision-making process on the quality of relationships. Even when an individual expects adverse outcomes, personal relations might guarantee that, over time, a benefit will be received. The latter implies that actors initiate exchange without knowing what they are getting in return, and with no expectations of the other's reciprocity. In the informal funder-entrepreneur relationship both parties seem to be highly vulnerable to each other, so none of them is interested in deception, suppression, or misleading behaviour (Shepherd and Zacharakis, 2001). As a result, trust is the basis of such relationships which have no explicit negotiations or binding agreements. Moreover, such relations are context dependent, where the impact of the local environment defines the scope and the nature of the phenomenon (Boettke and Coyne, 2009).

Such an informal approach makes it difficult to identify certain funding criteria or reveal the motivation and reasoning behind a deal. Instead, informal funders do not spend their time evaluating proposals because they focus on the relationship they have with the entrepreneur (Lee and Persson, 2016). At this stage professional private investors try to reduce the probability of the adverse selection problem. On one hand, the information available about the entrepreneur is much more complete for informal funders than for business angels. Therefore, 'love capital' providers have an opportunity to mitigate (or even eliminate) the adverse selection risk, thus making the relations more transparent and efficient. On the other hand, the absence of evaluation procedures as well as the limitation of available proposals results in economically unattractive businesses (from the market perspective) being supported. Finally, a problem of one-way relations (forced by the demand side) arises: there is no competition for the resources of friends and family.

Business angels have to try to defend their interests by spending time formulating a contract that will best to protect them (Kelly and Hay, 2003). It appears that informal funders have a trust relation that will work as an insurance against opportunistic behaviours. The entrepreneur knows that they will bear a cost if this trust is lost. However, in some cases the loss of trust might not be a compelling enough incentive for an entrepreneur to allocate the resources efficiently. The existence of strong social

ties and moral biases could form a specific context, where friends and family helpers either do not expect anything in return for their input, or even do not anticipate that money will come back. From an economic perspective it can be treated as irrecoverable losses for them, which are inevitable in this kind of relationship. As a result, the entrepreneur is fully aware of this, and might feel no responsibility to the funder (Granovetter, 1973; Walker *et al.*, 1997; Steier and Greenwood, 2000). From the other side, especially as far as close family members are concerned, the opposite effect can be triggered. Once the capital comes out of the loved ones' budget, the potential unsustainability of a business may have an impact on the overall household welfare. In this regard, trust and personal interrelations can ensure a stronger protection against moral hazard than contracts in business angel investments (Maula *et al.*, 2005).

It is believed that business angels possess the knowledge and experience in a particular industry and are interested in some sort of involvement in the business activity (Appendix 3). Informal funders frequently provide smaller value added for businesses than business angels (Riding, 2008). On one hand, the lack of essential professional attributes makes the 'amateur' investors purely capital providers – 'passive love money' (Riding, 2008). Given the assumption that economic incentives are not major drivers of their actions, they are not able to distinguish whether the business is potentially viable or not. On the other hand, informal funders may have an interest in the entrepreneurial activity they support – 'Active Love Money'. Moreover, they might be willing to participate in the business process, take some responsibilities, or just be close to the entrepreneur by providing help. Since they are not professionals, and more often do not have any prior business experience, this might complicate the situation for a starting entrepreneur even more, bringing about confusion or unnecessary actions/inactions (Gompers and Lerner, 2003).

Compared to business angels, informal funders have inferior returns because the former primarily have economic incentives to invest (Riding, 2008). Altruistic behaviour issues in these relations ensure that the length of the informal funder relationship with an entrepreneur is not defined and can be prolonged as long as the funder has an opportunity to provide financial support. In this regard, the harvesting

stage has no significance for friends and family, as they associate themselves with their investee in the long-run.

2.4.2 Peculiarities of informal funders

The distinction between the two segments of the private equity market was described above from a theoretical level and based on the evidence from GEM and other data. The key differences can be summarised as follows:

- 1) While business angel investment processes can be decomposed into distinct stages, a deal with an informal funder is not so structured or consistent.
- 2) Informal funders are not professionals, driven mainly by non-pecuniary motives (such as trust and altruism). As a result, economic theory appears to work smoothly for business angels, whereas social theories are superior for informal funders.
- 3) Informal funders provide smaller value-added to the businesses, compared to professional private investors in terms of their industry knowledge, and expertise.
- 4) Informal funders' motivation, reasoning, investment process, and relations with the entrepreneur might be substantially different from those observed for business angels. Therefore, there is no reason to imply that they pursue gain in their activity.
- 5) Bounded rationality issues: adverse selection and moral hazard risks might be mitigated and almost eliminated in family and friends funding when compared to business angel investments. At the same time, problems of another kind materialise: the lack of selection choice and biased relations outweigh economic reasoning, increasing the likelihood that potentially non-viable businesses are supported.

Most new ventures usually do not have access to all the resources they need, especially financial ones. As a result, to balance this limitation, entrepreneurs need to rely on and make use of what they possess: human capital (their knowledge, experience, skills, inspiration) and social capital, incorporating both professional and private networks (Hart *et al.*, 1997; Brush *et al.*, 2001). This imposes non-market implications for

interpersonal communications, expectations, and arrangements. In this regard, the informal funding process cannot be considered within the same frame as the classical business angel investment process with its clear structures and procedures.

2.5 Summary

In this chapter the segments of the venture capital market were defined, and the boundaries of its informal part were outlined. The latter is composed of informal funders – individuals who financially support starting and new businesses of their friends, family, others, to whom they are related personally, in the form of equity, debt, or a gift exchange. This source of funding, while constituting a minor share of all start-up capital, is, however, quite common and widespread – especially at the very early stages of business development. However, its role goes beyond that, as it can also accompany formal investment deals, and complement bank finance.

In this way, although the socio-demographic profile of informal funders tends to be similar to that of business angels, their funding process, as well as the motivation behind it appear to be considerably different, especially for the informal funders with close ties. As a result, they represent a different market, where various forces drive their behaviour, depending on the local context and the relationship with the entrepreneur.

This chapter showed that there is limited amount of studies that explain the nature of informal funding relationship specifically, and take the context of this type of deal into account. The research aims to fill in the following gaps:

- 1) The role of demand and context-related factors;
- 2) Altruistic versus economic motives of informal funders;
- 3) Informal funding process at the dyadic level;
- 4) Market efficiency at the macroeconomic level.

In the next chapter, an initial attempt is made to generate a theoretical framework of the informal funding process.

Chapter 3: Theoretical Development of Informal Funding Process

3.1 Introduction

In the previous chapter, few studies were identified that throw light on the nature of informal funding relationship specifically, only indirectly taking the context of such a deal into account. This chapter builds further on the argument about the distinctiveness of informal funding compared to the professional private venture capital market. While no holistic theoretical framework for the informal funding process has emerged so far, this chapter will view the phenomenon through a range of perspectives to highlight gaps to be explored through qualitative inquiry, and to consolidate existing theory and research to develop a set of testable hypotheses.

Alternative explanations of the entrepreneurial choice towards informal funding are developed in response to the inconclusive outcomes of the pecking order and trade-off theories. Informal funders' behaviour is viewed in terms of altruism (Steier, 2003), sympathy (Van Osnabrugge and Robinson, 2002), psychological income (Wetzel, 1983; Shane, 2009a), and other socio-psychological factors (Au *et al.*, 2016). And finally, the interaction prerequisites between demand and supply are elaborated upon, incorporating their socially and institutionally embedded nature at the individual, local, and macroeconomic levels of analysis.

3.2 The conceptualisation of the demand for informal funding

Although entrepreneurs tend to launch their businesses relatively small – both in terms of the start-up capital (Freear and Wetzel, 1990), and the number of employees (Aldrich, 1999; Anyadike-Danes *et al.*, 2015), due to the 'liability of newness' such firms are typically under-resourced, making them mainly rely on personal resources, and friends and family support (Evans and Jovanovic, 1989; Freear and Wetzel, 1990; Aldrich and Fiol, 1994; Berger and Udell, 1998; Bhide, 2000; Harrison *et al.*, 2004). In this section, the drivers of demand for finance are discussed in context, with the aim of throwing light on the nature of informal funding from the entrepreneurial perspective.

3.2.1 The effect of individual-level factors on the entrepreneurial finance choice

In this subsection, the determinates of entrepreneurial finance choice are considered at the individual level, including business attributes, risk profile, capital structure trade-off, as well as owner's perceptions and characteristics. Although entrepreneurial choice is considered as a whole, an emphasis is made on the informal funding option to identify its place in entrepreneurial decision-making.

3.2.1.1 Stages of business development and funding options: the finance escalator

Financial needs and options available to entrepreneurs change through the business life-cycle (Berger and Udell, 1998; Mac an Bhaird and Lucey, 2011).

First, the purpose of funding defines the demand for financial capital, determining its size. Bachher and Guild (1996b) linked financial needs with the three stages of initial business development: seed stage financing (to prove a concept or to develop a prototype); start-up stage financing (for product development and initial marketing); and first-stage financing (to initiate full production and sales). Mason and Harrison (2011) slightly modified the classification by defining the boundaries of third stage more clearly (when the company has started generating sales, completed the product development, and requires further funding to launch commercial manufacturing and sales), and adding an expansion/development stage, where the company makes profit, and requires finance for further growth and expansion.

Second, the level of risk associated with the business activities may be unacceptably high for professional investors and lending institutions, thus limiting the supply of external funding (Cassar, 2004). The more developed a business is (in terms of its size and age), the less risky it is considered by external investors/lenders (Mac an Bhaird and Lucey, 2011; Hechavarría *et al.*, 2016). Hence, the availability of spare personal funds imposes a major restriction on entrepreneurial activity, but human and social capital can potentially compensate by providing access to alternative resources (Casson, 1982).

Both aspects are integrated in the finance escalator - a version of the financial growth cycle model, depicting the transitions between different types of funding to ensure a smooth and sustainable business development, depending on company's needs, from one side, and available market infrastructure from the other side (North *et al.*, 2013). As such, the finance escalator is a dynamic and versatile structure, varying across time, and types of firms, suggesting indicative phases across the two dimensions: the amount of funding, and the stage of the business development. The relationship between the two parameters is represented as an exponential curve. It implies a slower increase in the amount of funding at the early stages of business development, and an accelerated rise in the demand for external capital at the later stages – an assumption that may be valid for growth-oriented firms in the short-term (Weinzimmer *et al.*, 1998; Delmar, 2006).

The original representation of the finance escalator mentioned in the work of (Van Osnabrugge, 2000), and further adapted by Reitan and Sorheim (2000) included four consecutive non-overlapping steps: funds from founders, friends and family, informal investors (implied business angels), banks and institutional venture capital, and initial public offering.

North *et al.* (2013) further advanced the model for technology-based small firms, where public grants at the seed (pre-trading) stage of business development constitute the initial external capital for businesses which are still too risky for both bank and equity finance. Later on, but still during the pre-trading period, entrepreneurs can reach out to professional private investors (business angels), subsequently utilising larger scale venture capital. And once the revenue income is established, lending options become possible. Yet when relating the model to the evidence in the UK, the authors emphasised the malfunctioning of the escalator, and identified several funding gaps:

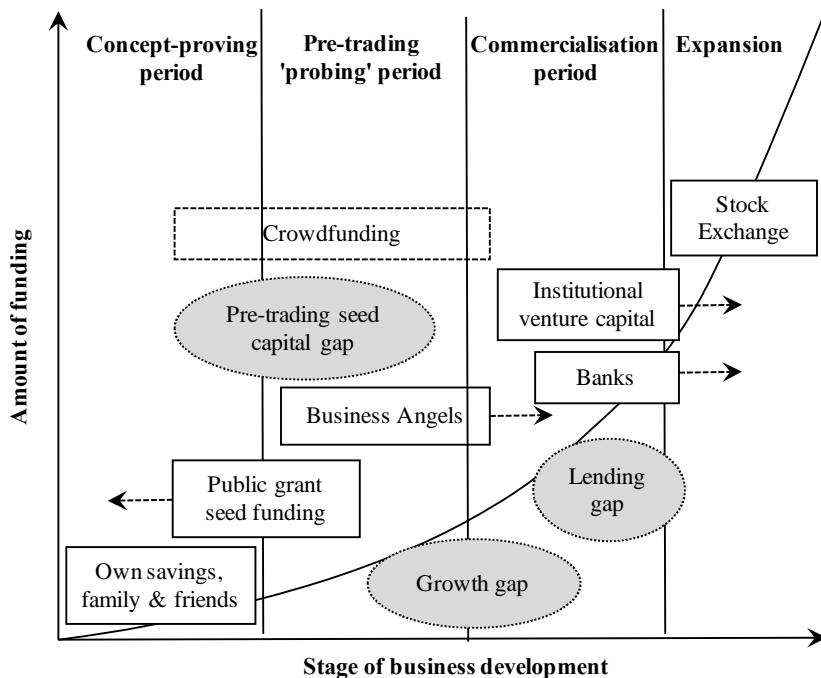
- High failure rates during the pre-trading period resulted in a greater reliance on public grants, and informal finance;
- A widening gap between professional private investors and institutional venture capital;
- Increasing difficulties in obtaining bank loans;

- Companies relying mostly on long-term equity capital tend to experience a greater shortage of capital.

Harrison (2013) noted the increasing funding gap at the commercialisation stage during the post-2010 period, when bank finance and institutional venture capital (both in the UK and US) were deferred even further along the timeline of business development (see Figure 3-1). The rapid growth of crowdfunding, microfinance, and peer-to-peer lending mechanisms during the post 2008-2009 economic crisis period partly addressed the gaps for starting and growing ventures (Bruton *et al.*, 2015). At the same time these sources greatly rely on the social capital of entrepreneurs (Colombo *et al.*, 2015), tapping back into the pool of family and friends support.

Remarkably, the position of family and friends in the finance escalator as the first choice of starting entrepreneurs was challenged. Robb and Robinson (2012) using the data from the Kauffman Firm Survey in the US attempted to describe patterns in the capital structure choices made by entrepreneurs when launching their business in 2004 (from the birth till the early years of operation). They developed a two-way classification scheme with the aim of separating risk bearing and liquidity provision, where one dimension is represented by debt/equity ratio, and the other by the relational distance between the owner and the funder. It was found that newly formed firms mainly use formal debt finance, suggesting that entrepreneurs seek capital where it is the most available – for example, lower rejection rates, and cheaper price (Cosh *et al.*, 2009). The reliance on formal funding sources (banks, institutional venture capital, and business angels) turned out to be higher than on informal sources (some forms of bootstrapping, and friends and family support) even for the smallest firms at early stages of their development in terms of the amount of money secured. Entrepreneurs which were indirectly shown to possess a reliable collateral counted more on bank loans, and ultimately had a greater chance of success. The authors concluded that entrepreneurial financial choice is driven both by demand and supply sides.

Figure 3-1 The dynamic representation of the contemporary finance escalator*



*Adapted from (Reitan and Sørheim, 2000), (North *et al.*, 2013), and (Harrison, 2013)

Therefore, the position of informal funding in the finance escalator still remains controversial, mainly because of the invisible nature of the market, and the lack of data. To understand the nature of demand for informal private venture capital at the individual level, its position in entrepreneurial life-cycle needs to be established during the qualitative inquiry.

3.2.1.2 Risk profile and entrepreneurial finance choice

Entrepreneurial ventures are characterised by a skewed risk profile, likened by Astebro (2003) to buyers of unfair lotteries, where the expected returns are negative, with a minor chance to achieve very large gains (see also Parker, 2003). Bygrave *et al.* (2003) positioned business owners across a spectrum bounded by necessity- and opportunity-based entrepreneurs. At the bottom end are self-employed and micro companies from impoverished areas, pushed in to entrepreneurship, and who mainly rely on self-finance. At the top end are firms with high growth potential, attractive enough for private professional and sometimes institutional investors (who occasionally combine formal capital with 'love money'). Aspirational viable ventures with robust prospects

for the future development sit in the middle of the spectrum, and represent the main ‘customer group’ for informal funders.

Brush et al. (2006) focused on female entrepreneurs in the US, and the role of bootstrapping in their financing strategy (one dimension of which was referred to as friends and family funding). They found that growth-oriented businesses were more likely to seek for equity investments, but they were also using bootstrapping options more often than other ventures.

Therefore, there is scattered evidence in the literature so far to establish the role of informal funding in the business development, and its importance depending on the type of the venture, and aspirations of its owner. As a result, it is crucial to understand the context within which the decision to use informal capital is made – a gap to be addressed as a result of the qualitative inquiry. This context is further conceptualised by means of economic approach (debt versus equity dilemma), borrower discouragement effects, and individual attributes of entrepreneurs to distinguish a typology of informal funding users.

3.2.1.3 Debt versus equity dilemma

Entrepreneurs are more likely to seek equity investments if they are growth-oriented (Chittenden *et al.*, 1996; Howorth, 2001; Oakey, 2007; Cosh *et al.*, 2009; Vanacker and Manigart, 2010). Pecking order theory (Myers, 1984) provides an explanation: the finance choice of entrepreneurs is driven by the net cash flow, accommodating financial costs, arising from the riskiness of new ventures. As such, firms will prefer first to seek finance from debt, and then, out of necessity, from equity. However, high leverage will have a negative impact on the companies’ profitability, thus limiting their growth potential (Fama and French, 2002). In this way, growth-oriented entrepreneurs, provided they understand the role of different sources of finance in business development, would consider equity finance, rather than debt (Mason, 2010; Hechavarría *et al.*, 2016).

The evidence suggests that informal funds do not only precede external risk capital, but also complement any other sources of finance as long as the venture progresses in

its development (Katz and Gartner, 1988; Petty and Bygrave, 1993; Bhide, 2000). As a result, friends and family capital, regardless of their structure (debt or equity) does not fit the pecking order theory of entrepreneurial finance choice.

Cassar (2004) investigated the determinants of start-up financial capital structure using a representative sample of registered businesses in Australia. He was the first to question the nature of lending from private individuals outside the banking sector, comparing it with equity (against a classic equity-debt perspective), speculating that these lenders might be less interested in the commercial aspect of the relationship (as opposed to 'arms-length' transactions) and have a more non-pecuniary interest in the entrepreneur (the use of network resources). His findings were consistent with agency theory, information asymmetries, and transaction costs issues. The larger the start-up is, the more likely it relies on external (including bank) finance due to the signalling effects of tangible (fixed) assets (see also Berger and Udell (2002) and Black and Strathan (2002)) and legal incorporation. However, Cassar found that entrepreneurs that intend to grow are more likely to use bank finance, supporting the trade-off theory of debt against the pecking order perspective (Frank and Goyal, 2008).

A wider range of factors which determine the capital structure of the firm might account for this discrepancy. For example, Winton and Yerramilli (2008), investigating entrepreneurial choice between institutional venture capital and bank credit, suggest that the decision depends on the expected level of monitoring and the expected risk of the firm. Assuming that venture capitalists are better monitors than banks, if the firm's level of risk is low, then lower price and lower monitoring of a bank is optimal. Alternatively, venture capital is a more favourable entrepreneurial choice.

The literature on entrepreneurial finance choice suggests that 'love money' is often a choice of last resort (see section 2.3.4). However, growth-oriented companies, though theoretically better off with formal equity finance, mainly rely on debt and bootstrapping (where informal funds are also included) to retain ownership. As such there is evidence that informal funding fits neither the pecking order theory (due to its complementarity effects), nor the trade-off theory (being the choice of a last resort).

This indicates that there are implicit costs to this source which are not economically defined and which need further exploration during the qualitative inquiry.

3.2.1.4 Borrower discouragement

Bank lending has remained a widespread source of finance for entrepreneurs since the deregulation of the banking system (in the 1970s and 1980s in the UK, and 1990s – in the US) (Davies *et al.*, 2010). The financial crisis of 2008 had a negative impact on the UK banking market, but did not change preferences in the capital structure of new businesses, where bank loans and overdrafts remained the most demanded sources of external finance with the percentage of successful applications reaching 81% in 2015 (see Table 3-1).

Moreover, access to finance is not seen as an obstacle to success for the majority of the business owners. During the period 2005-2007 only a minor share of small businesses in Scotland (23.6%), who participated in the UK-wide Annual Small Business Survey (which is even slightly higher than the share in the UK overall) reported problems in accessing debt finance (North *et al.*, 2010). Overall, the British Bankers' Association (BBA) data suggest that 90 loans were approved per 10,000 SMEs in the UK (except Northern Ireland), and the amount of borrowing among business owners at any stage of venture development (both loans and overdrafts) constituted £100.3 billion by the end of 2012 (BBA, 2013). Hence, the volume of the business lending more than 10 times exceeds the value of the venture capital market that decreased from £8.2 billion in 2010 to 5.8 billion in 2012 (British Private Equity & Venture Capital Association, 2016).

Table 3-1 Characteristics of the small business demand for the bank lending in the UK in 2007-2015

Annual Small Business Survey indicators	2007/2008	2010	2012	2014	2015
Number of businesses interviews	7783	4580	5723	5115	15502***
The percentage of businesses, planning to grow in the 2-3 years	65%	74%	68%	73%	69%
The percentage of businesses, reported growth (in turnover) in the past year	40%	28%	29%	40%	38%
The percentage of businesses, who tried to obtain finance in the past year:					
- <i>the percentage of those, who did not experience any difficulties in obtaining finance</i>	74%	51%	53%	61%	81%***
- <i>the most popular sought for source of funding</i>	Bank loans (46%)	Bank loans (40%)	Banks loans (48%)	Banks loans (48%)	Bank overdrafts (47%)
- <i>the most common sought for amount of money</i>	£10,000-£25,000 (25%)	Less than £10,000 (17%)	£10,000-£25,000 (26%)	£10,000-£25,000 (22%)	£10,000-£50,000 (33%)
The percentage of start-ups in the sample (those trading for less than 4 years, and which have not changed ownership in the last three years):					
- <i>the percentage of those, who anticipate growth in employment in the next year</i>	34%	40%	91%*	84%*	n/a
- <i>the percentage of those, who tried to obtain finance in the last year</i>	n/a	32%	33%	n/a	n/a
The percentage of businesses who reported obtaining finance as an obstacle to achieving business success	3%	8%	7%	5%	22%***

The proportion of businesses in the deprived areas (for England only) that aimed to grow compared to the national average	71% vs 67%	n/a	n/a	n/a
The percentage of businesses in deprived areas (for England only) that sought for external finance compared to the percentage of the businesses elsewhere	19% vs 16%	n/a	n/a	n/a
The percentage of businesses in deprived areas (for England only) who had no difficulties in obtaining external finance compared to the national average	69% vs 73%	n/a	n/a	n/a

*The percentage of businesses, that are less than 3 years old, and aim to grow over the next 2-3 years

** Sampling methods have changed from the previous years

***The percentage of the successful applications

****Multiple answers were allowed

Source: Annual Small Business Survey (Williams and Cowling, 2009; Department for Business Innovation and Skills, 2011; BMG Research, 2013; Department for Business Innovation and Skills, 2015; Department for Business Innovation and Skills, 2016)

In the light of availability of lending products, high rejection rates appear to be a myth, rather than a reality (Cosh and Hughes, 2003; Fraser, 2004), initiating the investigation of a “discouragement phenomenon” (Levenson and Willard, 2000; Kon and Storey, 2003). Kon and Storey (2003) specified two conditions in which potential discouraged borrowers can exist: demand side (application costs), and supply side (imperfect screening); both are triggered by information asymmetry, opaqueness, and incompleteness (Han *et al.*, 2009). Although some studies showed that the discouraged borrowers tend to be smaller, younger, and riskier than applicants (Freel *et al.*, 2012; Chakravarty and Xiang, 2013), the occurrence of discouragement proved to be twice as high as the occurrence of rejection in the UK, in particular for female entrepreneurs (Freel *et al.*, 2012).

According to the typology developed by Carter and Mwaura (2014) based on the dataset of SME Finance Monitor, the pool of potential and partial borrowers who were identified as discouraged, as well as the groups of declined borrowers and indifferent non-borrowers make up a latent demand for informal funding. The authors discovered that mostly non-bank factors determine discouragement from borrowing, such as media, self-diagnosed likelihood of rejection, unsuitable bank products, a prior unattractive process, gender and ethnicity effects.

Therefore, it still remains unclear whether borrower discouragement from market finance sources contributes to the demand for informal funding. This dimension is to be explored during the qualitative inquiry to determine drivers behind entrepreneur’s decision-making process.

3.2.1.5 Individual characteristics of entrepreneurs

Personal traits of the business owner tend to signal their venture’s credibility through risk preferences, control desire, exposure to business networks, background and experience (Bates, 1991; Bates, 1997; Haynes and Haynes, 1999; Coleman, 2000).

One study found that the sector (manufacturing), location (rural area), and the young age of an entrepreneur negatively affect the ability to attract bank funding (Deakins *et al.*, 2010). Ethnic minority entrepreneurs represent a vulnerable group, especially

when access to credit is concerned (Ram and Jones, 2008; Ram *et al.*, 2011; Carter *et al.*, 2013). Although the impact of ethnicity proved to be implicit, it exhibits effects through the firm's performance, or discouragement from accessing finance (Fraser, 2009).

Female entrepreneurs tend to use less start-up capital compared to male business owners, suggesting that women face certain difficulties in accessing finance both through lending (Carter and Rosa, 1998) and equity (Amatucci and Sohl, 2004). This is often related to the perception of difficulties in their life (Fabowale *et al.*, 1995; Roper and Scott, 2009), as well as the exclusion from social networks (Brush *et al.*, 2002). As a result, women are less likely to seek for finance from banks (Haines *et al.*, 1999; Marlow and Patton, 2005; Hughes *et al.*, 2012), and venture capital (Brush *et al.*, 2001; Greene *et al.*, 2001). Female entrepreneurs were shown to be risk-averse in relation to their business funding strategy (Coleman and Robb, 2012), however, this perspective was challenged. Marlow and Swail, (2014) argued that risk-avoidance among women is a reflection of shifting socio-economic norms, which is translated in their entrepreneurial endeavours and actions.

Due to individual constraints, start-ups are greatly dependent on internal funding, which is consistent with the financing life cycle (Berger and Udell, 1998; Huyghebaert, 2001). Resource mobilisation and equity distribution by entrepreneurs were investigated using the Panel Study for Entrepreneurial Dynamics dataset in the US, targeting individuals who are in the process of a new venture formation and their helpers (Kotha and George, 2012). It was shown that entrepreneurs with prior start-up experience and whose networks are industry-formed are able to retain more equity, and select their helpers from professional resources. Remarkably, entrepreneurs with prior start-up experience tend to rely on the funders from the personal networks more than those with industry experience. It was found that with the increase of family ties in the pool of helpers, an entrepreneur's retained equity decreases, and the entrepreneur is less likely to distribute the equity selectively (the more equal the distribution of equity among helpers).

Au *et al.* (2016) studied socio-psychological factors in entrepreneurial finance strategy, testing their hypotheses on a sample of undergraduate students in Hong Kong. The results demonstrated that relational proximity alone, as well as ‘house money effect’ do not explain why individuals seek help from their family members. However, they found that interactional effects of relational proximity and venture risk influence the decision of prospective entrepreneurs to seek help from family and outsiders: individuals whose venture risk is high are more likely to turn to family if they have close relational proximity, and to outsiders otherwise.

This evidence suggests that age, ethnicity, gender, business sector, and location of an entrepreneur influence their ability and likelihood to attract bank funding by revealing their risk profile, and discouragement effects. On the other hand, previous professional and start-up experiences, as well relational proximity were shown to determine the use of personal networks directly. Therefore, the first group of individual determinants is to be taken into consideration for during both qualitative and quantitative inquiries where possible. Yet, the impact of professional background, and the role of social ties in the decision making process of a business owner is to be unravelled during the qualitative inquiry.

3.2.2 The effect of local-level factors on the entrepreneurial finance choice

In this subsection factors at the local level, such as financial exclusion and environmental munificence, are discussed in relation to entrepreneurial finance choice.

3.2.2.1 Financial exclusion

Moving up from the individual level of analysis, the uneven distribution of entrepreneurial activity (as an indication of the demand for finance) across local communities in England is well known (Storey and Johnson, 1987). One reason for this may be access to resources, and, in particular, funding (Brush *et al.*, 2001). For example, entrepreneurs in deprived areas are less likely to raise finance from formal institutions and organisations (Kempson and MacKinnon, 2002). Demand for professional private venture capital is spatially concentrated in core economic regions with the highest number of new firms (Keeble and Walker, 1994), compared to

peripheral areas which are often dominated by manufacturing industry (Mason and Harrison, 2002b).

Supporting this, Thompson et al. (2008) showed that generally the more deprived a local area is, the lower the level of entrepreneurial activity is in Wales. However, the effect is not straightforward: while most domains of deprivation have a negative effect on business activity, infrastructural deprivation increases the likelihood of an individual to start a business. Also, high levels of unemployment in the area is associated with the lack of market for new products and services (Storey and Johnson, 1987; Blanchflower and Oswald, 1990). The level of deprivation tends to restrain entrepreneurial activity through a lack of business skills (Taylor and Plummer, 2003), as well as necessary infrastructure and support (Slack, 2005). At the same time, necessity pushes individuals into entrepreneurial activity, either to overcome unemployment, or to improve living conditions (Evans and Jovanovic, 1989; Grilo and Thurik, 2005).

Access to finance is viewed as one of the major impediments to entrepreneurial activity in disadvantaged areas (Bates, 2010; Rouse and Jayawarna, 2011; Williams and Williams, 2011), where entrepreneurship is treated as an instrument to tackle social exclusion (Blackburn and Ram, 2006; Williams and Williams, 2012). The effect was proved to be indirect. First, variations in the characteristics of entrepreneurs across different areas of deprivation, such as education, income level, creditworthiness, and ethnic background (Fraser, 2009; Bates, 2010; Irwin and Scott, 2010; Jayawarna *et al.*, 2011; Rouse and Jayawarna, 2011; Williams and Williams, 2011; Bates and Robb, 2013) explain the accessibility of external capital. Second, the parameters of ventures, for example, their size and growth orientation also tend to range depending on the level of deprivation of an area (Lee and Cowling, 2013).

The financial crisis (in 2007 in the West Midlands, UK) was shown to intensify the finance gap for small and medium enterprises, and invoked new geographical areas of financial exclusion, which is broadly defined as a ‘lack of access to affordable financial products and services’ (Appleyard, 2013, p. 870). Notably, Lee and Drever (2014) found no differences in obtaining finance by business owners in deprived and

munificent areas using the Small Business Survey data 2012, obtained from the Department for Business, Innovation, and Skills (BIS). Firms in deprived areas appeared to be more likely to perceive access to finance as a problem, and more likely to apply in order to get it. One explanations for this is the closure of the regional finance gap due to intensive policies (despite the reduction in public funding since 2010), and the financial constraints of individuals in deprived areas, forcing them to be more active in their search for finance. The study mainly refers to bank lending as the major source of funding, as most of the respondents were relating to their bank experience, when asked about access to finance.

Therefore, there is mixed evidence suggesting that financial exclusion and deprivation impede access to finance, thus limiting entrepreneurial finance choices. In relation to demand for informal funds, environmental munificence offers a further theoretical perspective to conceptualise such effects.

3.2.2.2 Environmental munificence and resource-based view

The availability of resources in local communities is strongly associated with the degree of environmental munificence - a scarcity or abundance of critical resources needed by a firm (firms), operating within certain environment (Staw and Szwajkowski, 1975; Dess and Beard, 1984; Randolph and Dess, 1984; Castrogiovanni, 1991b; Pfeffer and Salancik, 2003).

The impact of environmental munificence on new venture creation, development, and performance was widely investigated at different levels of analysis (Miller and Friesen, 1983; Chandler and Hanks, 1994; Tang, 2008; Rosenbusch *et al.*, 2013). Gnyawali and Fogel (1994) aggregated earlier studies, and introduced a framework to describe the 'entrepreneurial environment' relevant for shaping entrepreneurial activity: government policies and procedures, socio-economic conditions, entrepreneurial and business skills, financial and non-financial assistance. Later Tang (2008) defined the concept of 'entrepreneurial munificence', described by the availability of government incentives, developed financial infrastructure, the strong presence of businesses, and a diversified economy.

The notion of entrepreneurial munificence can be informed by the resource dependence model (Pfeffer, 1972; Aldrich and Pfeffer, 1976; Dess and Beard, 1984; Pfeffer and Salancik, 2003). The resources comprise all assets, capabilities, processes, information, and knowledge that are controlled by a firm, and that enable an entrepreneur to develop and implement strategies that improve business efficiency and effectiveness (Daft, 1983; Greene and Brown, 1997; Venkataraman, 1997; Shane and Venkataraman, 2000). In this perspective, entrepreneurs at their early stage of development need to mobilise resources to form a resource pool, which will subsequently feed into their capabilities and value creation - the ability known as entrepreneurial bricolage (Rumelt, 1984; Wernerfelt, 1984; Brush *et al.*, 2001; Baker and Nelson, 2005; Wiklund and Shepherd, 2008). As a result, resource heterogeneity comes from the abilities of an entrepreneur to combine those resources and put them in use, and is commonly considered to be key to the company's survival and success in terms of its sustained competitive position (Barney, 1991; Carter *et al.*, 1997; Hite and Hesterly, 2001; Alvarez and Barney, 2005; Foss and Ishikawa, 2007).

Summarising previous findings, the value of informal finance for high-growth companies is to protect their ownership, for self-employed businesses to cover their initial start-up costs, and for other types of businesses to compensate for the riskiness of the venture, or limited access to alternative forms of capital due to other reasons, such as borrower discouragement, financial exclusion, and individual characteristics (Covin *et al.*, 1990; Hanks *et al.*, 1993; Greene and Brown, 1997)..

Organisations relate to the environment in a responsive way in order to obtain the resources they need. They both account for environmental constraints and at the same time affect the environment by imposing new social structures. Therefore, once a new firm experiences a lack of munificence in one of its dimensions, it seeks to compensate by exploiting the munificence of the alternative resource pool. Thus, the lack of developed financial infrastructure will result in exploiting informal resources. The theory predicts that the firm's integration into social networks is a function of uncertainty, munificence, and the degree of concentration of the industry (Pfeffer and Salancik, 1976; Bygrave, 1988). At the local level in communities where entrepreneurs face scarcities of available formal finance, they will be likely to offset the deficit in

funding by further exploiting the munificence of other resource pools, for example through informal, or illegal mechanisms (Staw and Szwajkowski, 1975). At the same time, most professional investors (both institutional and private) are not oriented toward seeking opportunities in deprived communities - they are focused on attractive, high demand locations (Landström, 1993) and seek high potential, resource-consuming ventures with ambitious, causative strategies (Zider, 1998) (section 2.2.5).

Therefore, informal funds will substitute unavailable institutional and private professional venture capital in deprived communities which are not economically attractive, and characterised by the low levels of entrepreneurial activity, especially represented by businesses without growth aspirations. As a result, entrepreneurial munificence (or deprivation – as an opposite construct) will affect the incentives of entrepreneurs to utilise informal funding:

Hypothesis 1a: The more deprived an area is the higher the probability that an early entrepreneur will seek informal funding.

Therefore, alternative (informal) sources might be of particular importance in deprived communities.

3.2.2.3 Entrepreneurial capital theory

Capital theory, originating from Bourdieu, (1986), offers an augmented view on the notion of capital, representing the structure of social world more holistically. The theory was adapted for entrepreneurial process by Firkin, (2001) through the lenses of the resource-based view, where financial resources constitute the notion of economic capital on par with human, social and cultural dimensions. The previous findings about interdependence and interconnectedness were conceptualised as the convertibility of capital – an inherent attribute of creation and development of a new firm. Economic capital represents all the assets, directly transferrable into money, and is largely defined by income levels derived from employment (Staehle, 1943; Mincer, 1958; Schultz, 1998), and also closely associated with human capital dimensions, such as education and health (Becker, 1962; Stronks *et al.*, 1997; Fernandez and Rogerson, 1998; Blakely *et al.*, 2000; Wilkinson and Pickett, 2006). Moreover, economic capital

is viewed as the basis from which other forms of capital can be obtained at a certain cost, including the costs (time, care, and concern) of the long-term development of social relationships and social obligations (Bourdieu, 1986).

The concept of social capital in its individual orientation captures an access to resources available through social networks and other social structures which have a certain personalised implication to entrepreneurial actions (Portes, 2000; Lin, 2001). Entrepreneurs tend to utilise a wide range of relationships to acquire certain benefits, opening the doors to other resources, and the company's success (Aldrich and Zimmer, 1986; Birley, 1986; Brüderl and Preisendorfer, 1998; Greve and Salaff, 2003; Casson and Della Giusta, 2007; Khayesi *et al.*, 2014; Leyden *et al.*, 2014; Arregle *et al.*, 2015).

Researchers have developed various views on the hierarchy of different types of capital, especially on the precedence of social or human capital. For example, while Erikson, (2002) considered human capital as the main prerequisite of entrepreneurial capital, for Coleman, (1988) it was social capital. However, studies dealing with the nature of the relationship between an investor and an entrepreneur see both of them as inseparable (Ehrlich *et al.*, 1994; Adler and Kwon, 2002; Davidsson and Honig, 2003; Sætre, 2003; Kwon and Arenius, 2010a). Other authors explored the interrelationship between human and economic (financial) capital and its impact on the occurrence of entrepreneurial activity, and its quality (Cooper *et al.*, 1994; Burke *et al.*, 2000; Berge *et al.*, 2014).

Two types of connections arise from previous research in relation to the external entrepreneurial finance: 1) human capital determines social capital, which opens up an access to the financial resources; and 2) already existing social capital leads to financial capital. In both cases, social capital, emerging from relationships between social actors (Jones *et al.*, 2014), determines the variety and the type of financial sources available for an entrepreneur. At the same time, social relationships are formed through social networks, which constitute a structural dimension of social capital (Burt, 1992; Nahapiet and Ghoshal, 1998). Similar to any other type of capital, social capital requires investments and constant development with a view to reaping benefit in the long-term (Burt, 1984; Lin and Dumin, 1986; De Graaf and Flap, 1988; Marsden

and Hurlbert, 1988; Portes, 1998; Adler and Kwon, 2002; Glaeser *et al.*, 2002; Bosma *et al.*, 2004; Mosey and Wright, 2007).

Arguably, informal funders represent the closest set of dyadic ties for an entrepreneur, which already exists before the intention to start a venture. Therefore, to convert this type of capital into financial capital is much faster and cheaper than investing in development of professional networks especially when timing matters. Similarly, the lack of appropriate human capital (for example expertise or experience) might limit accessibility to more ‘valuable’ social networks, thus resulting in informal interactions out of the market.

At the individual level the focus lies on how entrepreneurs are able to obtain financial capital necessary for the business start-up, through their embeddedness in networks. Therefore it is appropriate to consider social networks as a relational asset (Lin, 1999), which is distinguished from a collective asset within a society, and shaped by culture, norms, and trust.

Bourdieu’s theory (1986, p. 22) describes the mechanism of developing social networks aimed at establishing or maintaining social relationships that are ‘directly usable’. This can be achieved by transforming contingent relations (such as kinship or friendship) into necessary relations, invoking the feelings of moral obligation. Exchange facilitates the development of mutual relations, which underpin the identity of the social group. While studies of social capital in its collective perspective concentrate on two aspects: density and closure (Bourdieu, 1986; Coleman, 1990; Putnam, 1995), there is no need to identify the boundaries between social networks to understand the transformation mechanism from social to financial capital within a relational perspective (Lin, 1999). Research in this area stresses the importance of bridges between networks, the strengths of ties, and structural holes (Granovetter, 1973; Lin *et al.*, 1981; Lin and Dumin, 1986; Lin, 1999; Burt, 2009). In this approach, there are three assumptions: 1) entrepreneurs are structurally embedded into social relationships; 2) as a result, certain resources become accessible to them; and 3) they can use those resources for business purposes. The informal funding pool represents both close social ties (family members and close friends) and weak ties (acquaintances,

neighbours and other individuals who are not professional investors). Close social ties do not require deliberate investment, as such relationships are deeply integrated into the entrepreneur's personal life. The pool of weak ties might imply some short-term investments into relationships, determined by the urgent need to obtain external finance.

It was asserted that to obtain resources, one should reach out to weaker ties, as they provide an access to better network and contact resources (Granovetter, 1973; Burt, 1984; De Graaf and Flap, 1988; Marsden and Hurlbert, 1988). Overall, the benefits of social networks (as a dimension of social capital) are mainly represented by two dimensions: economic return and social return (Lin, 1999). For networks with close ties, economic returns can be potentially higher as they imply minimal costs on building and maintaining the relationship. However, the social returns are potentially greater for more distant ties as they may contribute more intangible value, such as reputation, additional contacts, and moral support (Gimeno *et al.*, 1997; Aldrich, 1999; Hite and Hesterly, 2001; Vissa, 2011). Moreover, social exchange, unlike economic exchange, does not entail symmetric expectations of reciprocity in the short term. The recognition of social debt under the condition of a strong need to maintain the relationship (from the perspectives of both sides involved) invokes reputational consequences in the long-term (Coleman, 1988; Portes and Sensenbrenner, 1993; Lin, 1999). Provided the need to maintain the relationship is less strong for family and close friends, as they are more forgiving in nature, and do not rely on economic reasoning when making funding decisions (Luo and Chung, 2005; Piskorski and Anand, 2005), the reputational risks are higher for more distant relationships, which make them socially more costly to exploit by entrepreneurs.

Researchers argue that at the early business development stage, an entrepreneurs' personal networks are merged with his or her organisational networks (Aldrich *et al.*, 1987; Larson and Starr, 1993; Hite and Hesterly, 2001). As a result, new business owners are characterised by a help-seeking behaviour driven by close relational proximity (Nadler, 1991; Schroeder *et al.*, 1995; Au *et al.*, 2016). Thus they are more likely to seek help from their close social networks, such as friends and family, as the costs of search, negotiation, and potential rejection are minimal (Shapiro, 1980;

Coleman, 1990; Larson and Starr, 1993; Walker *et al.*, 1997; Bhide, 2000; Hofmann *et al.*, 2009). Additionally, in times of uncertainty or urgency, individuals tend to rely on someone with whom they have been in an exchange relationship previously, as trust has already been established (Granovetter, 1985; Gulati, 1995). Similarly, liability of newness and the lack of alternative options also induce an entrepreneur to turn to their closest social circle (Baum, 1996).

The alternative view postulates that close social ties constrain potential benefits, so that entrepreneurs need to reach to more distant networks, and work on overcoming structural holes in order to gain the desired resources and associated competitive advantage (Burt, 1992; Portes and Sensenbrenner, 1993; Burt, 1997; Woolcock, 1998). Moreover, cognitive biases of an entrepreneur (such as overconfidence, illusion of control, and representativeness) can be reinforced by reliance on a dense social network with strong ties (De Carolis and Saparito, 2006). On the other hand, according to the ‘house money effect’ (Thaler and Johnson, 1990) entrepreneurs will perceive potential losses as someone else’s, if the finance came in externally, thus enabling them to take on more risk (Mullins and Forlani, 2005). As a result, provided the risk of the venture is high, entrepreneurs might not be willing to expose their close social ties to such a risk – an argument recently rejected in the study of Au *et al.*, (2016), based on a sample of undergraduate students in Hong Kong.

Thus, the notion of convertibility of capital, and the role of social networks offer an alternative perspective to explain entrepreneurial choice towards informal funding with an ambiguous outcome. It is to be further explored during the qualitative inquiry.

3.2.3 Dynamic variations in the demand for entrepreneurial finance at the macroeconomic level

Several studies highlighted the susceptibility of entrepreneurial finance choice to macroeconomic conditions. Specifically, equity issues vary pro-cyclically across the macroeconomic cycle, suggesting that during the economic slowdown firms will prefer debt finance, which is a counter-cyclical variable (Choe *et al.*, 1993). Large businesses are more responsive to the macroeconomic variations than small

companies, whereas the latter exhibit a flat level of debt finance regardless the stage of the business cycle (Gertler and Gilchrist, 1991; Gertler and Gilchrist, 1993).

Referring back to the theories raised in section 3.2.1.3, trade-off theory implies procyclical leverage (during the economic upturn bankruptcy costs are reduced, and firms have more taxable income to shield). In this sense, unconstrained firms would favour debt, rather than equity (Jensen and Meckling, 1976; Graham, 1996; Zwiebel, 1996). In contrast, pecking order theory predicts that leverage is a counter-cyclical parameter, especially for financially unconstrained firms: during the expansion periods companies have more internal funds to rely on, which is their preferred means of finance (Myers, 1984; Levy and Hennessy, 2007). Korajczyk and Levy (2003) argued that companies facing financial constraints demonstrate a different pattern in defining their financial structure. Their evidence suggests that financial leverage is a counter-cyclical variable for unconstrained firms – a result consistent with later findings of Levy and Hennessy (2007). However, the result is the opposite for financially constrained companies, suggesting that such firms borrow more when the values of their assets and collateral is the highest (Kiyotaki and Moore, 1995; Lown and Morgan, 2006).

Early-stage businesses can be related to the constrained group of firms, who are mindful about their resource-acquisition strategy (see section 3.2.2.2). Therefore, in developed economies during economic slowdowns a reliance on external debt will be diminished in favour of increased equity (in line with the argument of Korajczyk and Levy, (2003) for financially constrained firms). Provided that individual welfare also deteriorates (while the use of internal funds is less possible), and that such businesses are too immature to enter the professional venture capital market (Berger and Udell, 1998; Martin and Rogers, 2000), entrepreneurs will rely more heavily on informal funding to compensate for the lack of formal resources:

Hypothesis 1b: *The probability that an early entrepreneur will seek informal funding is a counter-cyclical variable: it increases during economic slowdown, and decreases during economic upturn.*

As a result, entrepreneurial choice towards informal funding is expected to be susceptible to overall macroeconomic conditions.

3.3 Conceptualising the supply of informal funding

Studies of informal funders (see section 2.3) utilise a growing stream of theoretical frameworks, to explain behaviour at the individual level, stemming from economic and socio-psychological backgrounds, with the latter dominating in recent research. The theory of planned behaviour, originating from the works of Ajzen (1985; 1991) is often invoked for studies on the decision making process (e.g. Maula *et al.*, 2005; Wong and Ho, 2007). It relies on assumptions that informal funding behaviour implies some sort of planning and predisposition towards action, and focuses on beliefs about potential consequences, perceived social norms, and the level of expected control. Beliefs form an intention, which is realised into action in the presence of an opportunity. However, this perspective clashes with the argument about help-seeking behaviour of entrepreneurs (see section 3.2.2.3), where informal funding is a choice of last resort in the situations of urgent necessity, caused by both individual and environmental factors (see sections 3.2.2.2 and 3.2.3). In this section, the conceptualisation of supply is developed in a way to capture its reactive nature, restrained not by intention, but by the availability of spare funds at hand. Ultimately, this section contributes to advancing understanding of the essence of informal funding from the supplier's perspective at the individual, local, and macroeconomic levels of analysis.

3.3.1 Individual-level determinants of informal funders' decision making

Studies of individual-level determinants of the decision-making process of informal funders have not advanced beyond the studies, based on GEM datasets, described in section 2.3.2. The findings are limited to socio-demographic profiles, complemented with such characteristics as involvement in entrepreneurial activity, previous entrepreneurial background, and general attitudes towards entrepreneurship. A deeper understanding of the motives, conditions, and expectations of informal funders remains only partially explored (see section 2.3.3), leaving a gap in knowledge. Yet, the notions of altruism, trust and risk come across in the research on informal funders.

This logical skip in the research stream is further unravelled in this section, with the aim of establishing a theoretical foundation for the informal funding process.

3.3.1.1 Theory of altruism

While Cacioppo and Petty, (1982) originally demonstrated that individuals differ in terms of their reliance on affect when making decisions, later studies stated the importance of emotions in economic behaviour (Barrett *et al.*, 2007; Mitchell *et al.*, 2007; Seo and Barrett, 2007; Foo, 2011; Mitteness *et al.*, 2012a). Informal funders represent the closest networks for an entrepreneur, and thus, the bond between them is defined predominantly through emotions, such as affection and empathy (Portes, 1998; Portes, 2000). Therefore, such a setting can induce altruistic actions in the context of business decisions.

The altruistic behaviour of an informal funder benefits another person - an entrepreneur, is performed voluntarily with an intention to help for the sake of it, and without any expectations of rewards (Bar-Tal, 1986; Sober, 1988). This definition stems from the 'evolutionary altruism' perspective (Sober, 1988), which emphasises the consequences of such behaviour both for the entrepreneur and the funder: the lack of expectations of rewards, and the presence of costs associated with the action.

Altruistic behaviour can be viewed as a mechanism to obtain a deferred self-interest, or so called 'psychic good', and, thus, can be considered as an investment in social capital (Phelps, 1975). This idea illustrates an economic approach formulated by Becker (1976). He considered altruism as a form of social income – a person's own income as well as the value arising from certain characteristics of other related individuals, so that the welfare of others is included in the utility function. Extending Becker's theory to the informal funding phenomenon, one can expect that once an entrepreneur receives financial help from their family or close social networks where everyone cares about each other, this personal benefit (utility) will automatically take into account the effect it will have on people in these networks.

The assumption of altruism as a utility function, connecting individual welfare with someone else's welfare, became dominant in the economic literature (Schulze *et al.*,

2003). As a result, from the economic point of view, a problem of externality effects arises. ‘The Samaritan’s Dilemma’, introduced by Buchanan, (1975) illustrates a potential for the distortion of market mechanisms as a result of altruistic behaviour, where entrepreneurs will prefer not to make additional effort to secure professional venture capital, but instead will rely on informal funders’ support.

The idea of reciprocity in altruistic behaviour, driven by the beliefs of individuals about each other’s intentions was further developed in economic theory. For example, Dufwenberg and Kirchsteiger, (2004) predict that positively perceived action will be followed by a positive response in the form of a sequential game, while acknowledging the existence of other contextual variables that can intervene in this relationship. At the same time a concept of ‘reciprocal altruism’ was developed, which implied that an individual might receive some benefits in the long-term for short-term pro-social behaviour (Alexander, 1987; Dyer, 2003; Panchanathan and Boyd, 2004; Rockenbach and Milinski, 2006).

This position was criticised for its narrow definition of altruism, and the assumption of (deferred) ultimate gain from altruistic behaviour by Monroe (1994), who suggested a cognitive-perceptual approach, where altruism originates from empathy and moral reasoning. One year earlier Simon (1993) also pointed out that economic theory, implying economic gain as a major incentive towards action, under-estimates the role of altruism. His assumptions allowed altruistic behaviour to be dependent on the evolution of social relationships. Almost ten years before that, it was observed that altruistic behaviour is more likely to take place in kin relationships, where the stimuli occur in a natural setting (Weigel, 1981; Vine, 1983), and can be triggered by the perceived expectations of the social surrounding (Hill, 1984).

If informal funding is driven by affection as a result of strong social bonds and kinship, then informal funders demonstrate altruistic behaviour on the grounds of willingness to help (intention), and the lack of expectations of financial returns (the cost of the behaviour) (Piliavin and Charng, 1990; Sandefur and Laumann, 1998). Previous research showed expectations of returns by informal funders were low (Bygrave and Hunt, 2007), a finding which was regarded as a sign of altruistic behaviour in informal

funders' decision making (Bygrave and Bosma, 2011). Klyver et al. (2016) recently empirically demonstrated how social capital (through the strengths of social ties) determines altruistic behaviour within the informal funding context. In this light, once informal funder's decision is driven by altruistic motives and willingness to help, the deal is either triggered by the entrepreneur's behaviour implicitly, or their direct ask, thus implying a demand-driven nature of informal funding. At the individual level, informal funders are not engaged in a search for funding opportunities, but respond to a call for help:

Hypothesis 2a: The potential demand for informal funds defines the propensity of an individual to become an informal funder.

Meanwhile, there is little evidence whether altruism alone determines informal funder's decision-making, and to which extent it drives not only motivation to help, but also the expectations of the deal. This will be addressed during the qualitative inquiry.

3.3.1.2 Interpersonal trust

Kramer et al., (1986) found that individuals who consistently demonstrated altruistic behaviour were more likely to exhibit faith and trust in people (Kramer *et al.*, 1986). Trust is considered as a fundamental part of social capital, which ensures its sustainability, and subsequent transformation into other forms of capital (Coleman, 1990; Putnam, 1995; Inglehart, 1997). Moreover, trust is a bonding material of the relational dimension of social capital, which focuses on the nature of relationships within networks (Gulati, 1998; Nahapiet and Ghoshal, 1998).

The concept of trust was applied at different levels of analysis and in relation to different subjects, such as trust in individuals – interpersonal trust (e.g. Rotter, 1971), trust in social groups (e.g. Lewis and Weigert, 1985), or inter-organisational trust (e.g. Mayer *et al.*, 1995). Broadly, two forms of trust are mainly distinguished (Welch *et al.*, 2005; Glanville and Paxton, 2007; Freitag and Traunmüller, 2009): trust in individuals within a narrow circle (specific or personalised trust), and general (or generalised) trust, relating to unfamiliar individuals. The latter was recently applied to

explain the proliferation of private professional investments into new ventures, where its high levels lead to a higher chance of investment (Ding *et al.*, 2015), along with a lower chance of a successful exit (Bottazzi *et al.*, 2016). Informal funding relationships are more likely to be formed based on interpersonal specific trust, where its narrow radius and strength determine its presence and high amount (Fukuyama, 2001; Delhey *et al.*, 2011).

Economic approaches acknowledge trust as a mechanism of protection against opportunistic behaviour at the firm level (Williamson, 1985), and recognise its importance for economic exchange by means of solving agency problems and improving market mechanisms (Arrow, 1974; Granovetter, 1985; Gulati, 1995; Jones, 1995). However, it neglects the role of interpersonal trust in investment decision-making at the individual level (Kelly and Hay, 2003; Maxwell *et al.*, 2011; Au *et al.*, 2016). Moreover, informal funding relationships were originally excluded from economic analysis by Williamson, (1993) who referred to personal (in the context of specific) trust as inherent only to close social ties (friends and family), and thus left it out of consideration.

Transaction economics implies two parties engaged in economic exchange in the situation of incomplete information, so that individuals are not fully aware of the intentions of each other, but exhibit certain beliefs, based on signals or previous history. In this perspective, trust is defined as an orientation of the behaviour of both parties towards their expectations of each other's behaviour, inevitably implying that at least one party is exposed to behavioural risk, i.e. vulnerable to opportunistic behaviour (Williamson, 1985). Therefore, a party is defined as trustworthy if they choose to refrain from opportunistic behaviour, and characterised as trusting if they believe in the trustworthiness of the other. Mutual trust arises when both parties are trustworthy and trusting.

A socio-psychological definition of trust highlights the orientation of behaviour towards another person given possible negative consequences of a particular situation, where the individual exposed to such a risk has 'a feeling of relative security' (Jøsang

and Presti, 2004, p. 135). Within this perspective, the concept implies vulnerability, and positive expectations (Mayer *et al.*, 1995; Rousseau *et al.*, 1998).

If trust is viewed as a way to bond individuals, arising from social relations, norms, and affectual behaviour, then the socio-psychological concept of trust better suits the current purpose of describing informal funding decision-making process. To characterise informal funding behaviour within such a perspective, two types of (interpersonal) trust represent the most interest (Zucker, 1986): process-based trust (emanating from a history of previous trustworthy behaviour); and characteristics-based trust, tied to identifiable attributes, such as kinship. Rousseau *et al.*, (1998) combine these two types in the notion of 'relational trust', underpinned by emotions and repeated interactions. Unlike a contractual investment agreement, the following outcomes are expected in the informal funding relationship driven by the socially-oriented trust mechanism (Lyons and Mehta, 1997; Rousseau *et al.*, 1998; Malhotra and Murnighan, 2002):

- 1) The lack of formal agreements and monitoring procedures, where all the contingencies and consequences are accounted for, as they might undermine the social bond;
- 2) One of the parties might be willing to make extra concessions outside the agreement in the occurrence of unforeseen circumstances;
- 3) The end of the economic exchange won't terminate the social relationship.

This view underpins the cognitive dimension of social capital (Nahapiet and Ghoshal, 1998), where, the bond, shared values, expectations, and meanings ensure adherence to unwritten (and unspoken) principles on which agreement has been reached.

In this light, it is proposed that trust is important both for professional and informal private venture capital (see section 2.4.1). However, its role in managing the parameters of the informal funding deal remains uninvestigated, and requires some empirical evidence. The qualitative inquiry aims to address this gap when exploring decision-making factors considered by informal funders.

3.3.1.3 Risk perception

The relationship between risk and trust received considerable attention in the literature of economic exchange, where the former is a necessary condition of the latter (e.g. Ring and Van de Ven, 1994; Chiles and McMackin, 1996; Dyer and Singh, 1998; Molm *et al.*, 2000; Parmigiani and Rivera-Santos, 2011; Poppo *et al.*, 2016). In dyad relationships, risk is a subjective measurement of the possibility of losses in a situation of uncertainty (Chiles and McMackin, 1996; Shepherd *et al.*, 2000; Simon *et al.*, 2000), and is an underlying condition of trust (Lewis and Weigert, 1985; Coleman, 1990; Williamson, 1993). Along with financial losses, risk is associated with non-pecuniary costs, such as cognitive dissonance (Marlow and Swail, 2014), and the jeopardy of social relationships (Au *et al.*, 2016).

In informal funding relationships, the strong presence of relational trust protects both parties against behavioural risk (Ring, 1996; Bromiley and Harris, 2006), which can be characterised as a goodwill risk – a possibility that one party will act contrary to the predefined terms, and/or against joint interests in the situation of unforeseen circumstances (Lyons and Mehta, 1997). However, considering the lack of professionalism in such investment activities, informal funders are mainly exposed to economic risk (a possibility of financial losses), arising from misevaluation of the business venture (Tyebjee and Bruno, 1984; Fama and Jensen, 1985).

Although ventures differ in their risk levels, depending on their type and industry (Headd, 2003), early-stage businesses are often risky in terms of failure rates (Watson and Everett, 1996; Anyadike-Danes *et al.*, 2015). Moreover, it was acknowledged that risk aversity of an entrepreneur plays an importance role in opportunity recognition and the propensity of an enactment, indirectly defining the choice of financial source (De Meza and Southey, 1996; Åstebro and Bernhardt, 2003; Marlow and Swail, 2014). In this vein, it appears that informal funders objectively deal with high risk ventures. This high risk can be a result of their status (industry, the stage of development, location, entrepreneurial experience, socio-demographic factors), overconfidence, or previous rejection by professional funders.

A predisposition towards risk avoidance (or its mitigation) - an inherent nature of most individuals - has been translated into professional private investors' processes (Fiet, 1995; Mason and Stark, 2004; Paul *et al.*, 2007b). Informal funders are dealing (mostly unconsciously) with even greater levels of risk, as they are exposed to both potential financial and socio-psychological losses. Therefore, their perception of risk and tolerance to it matter in the decision-making process.

Economic approaches dictate that individual risk attitude in a particular situation will define the expected probability of success of the transaction, which can be adopted as a measure of a trust (Jøsang and Presti, 2004). This approach ensures that having high trust in someone is not a sufficient condition for entering the deal. The research on professional private investors showed that socio-demographic characteristics (including gender, age, and education), as well as industry experience, positive entrepreneurial attitudes, and previous (or current) engagement in entrepreneurial activity are related to the perception of risk and increased tolerance to it, resulting in an increased likelihood to invest (see section 2.2.2 and Appendix 3). In this way, if informal funders share the features of professional market, then the same factors would determine informal funders' risk propensity, and ultimately their inclination to help high-risk ventures. Indeed, there is empirical evidence that characterises informal funders in developed economies as predominantly male, middle-aged, educated individuals (Maula *et al.*, 2005; Szerb *et al.*, 2007a; Burke *et al.*, 2010) with prior or ongoing entrepreneurial experience (Wong and Ho, 2007; Burke *et al.*, 2014), and positive entrepreneurial attitudes (de la Vega García-Pastor and Coduras, 2011). Therefore, the following hypothesis can be formulated:

Hypothesis 2b: Socio-demographic factors, previous (or current) involvement into entrepreneurial activity, and positive entrepreneurial attitudes define the propensity of an individual to become an informal funder.

However, emotions can alter favourably the perception of risk, as they can provide additional information in the situations of high uncertainty and close social bonds (Ellsworth and Smith, 1988; Forgas and George, 2001; Ellsworth and Scherer, 2003; Finucane *et al.*, 2003; Lerner *et al.*, 2006). Positive emotions (including affect) are

shown to be associated with more positive evaluations and greater risk taking (Johnson and Tversky, 1983; Fredrickson, 2001; Isen and Labroo, 2003). In such a scenario, the supply of informal funding can be mainly explained by the presence of demand, the closeness of social ties, and the availability of spare capital.

As a consequence, a non-compensatory relationship between risk and return (Einhorn, 1970) is expected in informal funding relationships to a greater degree than for business angel investments (Jeffrey *et al.*, 2016). They are likely to evaluate risk in relation to its cognitive and social, rather than economic, implications.

Therefore, the non-pecuniary dimension of informal funding relationships will be explored through the qualitative inquiry to complement the economic approach in explaining the propensity to become an informal funder.

3.3.1.4 Economic welfare effect

Being private individuals, informal funders are constrained by the amount of available resources that they are willing to provide without considering potential returns. It is reasonable to assume therefore that the funding is coming from their disposable income after final consumption expenditures. The concept of disposable income is derived from the definition proposed by Hicks (1946), and widely adopted in the System of National Accounts (2008). It represents a maximum value that a household can consume, and derived as income from wages and salaries, self-employment, private pensions and investments less direct taxes. This view can be transferred to an individual level, which is consistent with the definition of Adam Smith, who proposed to define wealth through income and wages (Smith, 1991). This definition further evolved into the notion of ‘marketable wealth’ (Wolff, 1998) – the difference between total assets and total liabilities as a store of value, available for potential consumption. Expenditures incurred for business purposes or as a gift are excluded from final consumption (System of National Accounts, 2008), and are drawn from the disposable income. Therefore, the volume and the availability of informal funding is defined by the value of savings and final consumption.

Previous empirical research ascertained the relationship between household disposable income of an individual, and their propensity to become an informal funder for a range of countries (e.g. de la Vega García-Pastor and Coduras, 2011). However, other studies established the lack of a direct income effect on the occurrence of informal funding deals, for example, in Finland (Maula et al., 2005), and Chile (Romaní et al., 2012).

Such findings can be explained by the interdependence among general wealth-related factors: education, employment, and income. Much personal finance (which constitutes personal wealth, and forms an economic welfare of an individual) is accrued in employment (Wynarczyk et al., 1993) and earning power (Marlow et al., 2003), which in its turn is determined by the educational attainment of an individual.

The role of education in personal income distribution has been explored in the light of overall income inequalities in the economy (Staehle, 1943; Mincer, 1958; Schultz, 1998). At the individual level, these results are consistent with the empirical evidence on professional private investors, who consistently demonstrate high educational attainment, and, by definition, are characterised by high net worth (e.g. Mason and Botelho, 2014).

Therefore, consolidating the factors of economic welfare (education, employment, and income) at the individual level, the following hypothesis is developed:

***Hypothesis 2c:** The higher the economic welfare of an individual is (in terms of education, work status, and disposable income) the more likely he or she is to become an informal funder.*

3.3.2 The effects of local environment and macroeconomic fluctuations

While the effect of personal wealth was explored from the entrepreneurial side, both at the individual level, dealing with the liquidity constraint (Evans and Jovanovic, 1989; Berger and Udell, 1998), and at the local level with regard to disadvantaged areas (Rouse and Jayawarna, 2006), no links have been established between personal wealth and the supply of informal funds within local communities. Jones-Evans and Thompson, (2009) when considering a category of ‘self-confessed business angels’,

identified their uneven regional distribution, where their relative contribution turned out to be larger in less prosperous regions. However, business angels are, by definition, high net-worth individuals (see section 2.2.2). Meanwhile, accommodating the disposable income effect (see section 3.3.1.4), one would expect that with increasing levels of deprivation, the economic welfare of individuals deteriorates, making less savings available for informal funding purposes. Indeed, empirical evidence suggests uneven disposable income distribution across regions in the UK (Office for National Statistics, 2017), and disparities in terms of deprivation levels across local communities in particular (Department for Local Communities and Local Government, 2015). Therefore:

***Hypothesis 2d:** The more deprived an area is the lower the probability that an individual will become an informal funder.*

From the demand side the theory refers to a debt-to-equity dilemma in times of economic turbulence (see section 3.2.3). Financially constrained businesses increase their debt finance during economic upturns, whereas unconstrained ones boost their equity. Assuming that informal funding is an option of last resort, financially constrained ventures are the main target group for informal funders. While during the booming period they are more likely to secure debt finance, which is their first preferable option, such businesses are more likely to turn to their close social networks during crisis. As a result, demand will increase during the downward trend of the economic cycle, driving informal funding forward (if informal funding is demand-led).

From the supply side, the risk positions of household portfolios (and consequently, individuals) rise with economic upturns, and fall with economic downturns (Bucciol and Miniaci, 2015). Moreover, according to the Keynesian business cycle model (Keynes, 1936) disposable household income (arising from employment) is also a pro-cyclical variable (Kydland, 1984; Castaneda *et al.*, 1998). Apart from that, individuals tend to maintain their level of consumption regardless of the economic situation (Houthakker and Taylor, 1966; Oksanen and Spencer, 1972; Campbell, 1999). Hence, savings are the most vulnerable to the business cycle fluctuations, and their diminishing amount will cap the informal funding propensity. The UK evidence

demonstrates that gross disposable household income fluctuates pro-cyclically (Office for National Statistics, 2017), suggesting that less funds are available to be provided to a risky venture during economic slowdowns, and more during economic upturns:

Hypothesis 2e: The probability of an individual becoming an informal funder is a pro-cyclical variable: it decreases during economic slowdowns, and increases during economic upturns.

3.4 The interaction of supply and demand at the dyad level

The nature of informal funding relationships at the dyadic level has not been explored. It is argued that entrepreneurs employ impression management tactics (Bozeman and Kacmar, 1997; Bolino and Turnley, 1999; Ellis *et al.*, 2002) to raise business angel investments, by both directly and indirectly guiding information flows to construct a desirable image (Parhankangas and Ehrlich, 2014). Similarly, the evolution of the relationship with an informal funder is expected to be led by the entrepreneur. However, as elaborated in section 3.3, different mechanisms ensure the occurrence of the deal and its development. From one side, close social ties ensure high levels of relational trust, substituting due diligence and monitoring procedures in the professional market. From the other side, informal funders, being driven by altruistic and kinship motives in the first place are exposed to financial losses, as well as facing the risk of a damaged social relationship. In this section, therefore, interaction between demand for and supply of informal funding is viewed as a psychological contract, where embeddedness in social networks guarantees compliance to its implicit terms and conditions.

3.4.1 Psychological contract

Psychological contract originally refers to the ‘employee’s perceptions of what they owe to their employers, and what employers owe to them’ (Robinson, 1996, p. 574). More generally the term can be defined as individual’s beliefs about the terms and conditions of an exchange, perceived obligations and commitments in relation to it at the dyadic level (Rousseau, 1989; Guest, 1998). In its original formulation, the notion is different from expectations, defined as general beliefs, resulting from past

experiences, knowledge, and socio-cultural norms; psychological contract relates to perceptions emanating from specific interactions in a particular situation (Lucero and Allen, 1994; Robinson, 1996). Consequently, a breach of psychological contract would arise from an individual's perception as a subjective experience, rather than an actual violation of terms and conditions. As a result, it is also specific to the social and psychological factors adherent to the interaction, such as trust, leading to an emotional reaction (Morrison and Robinson, 1997; Coyle-Shapiro and Kessler, 2000; Robinson and Morrison, 2000). The more individuals identify themselves with the institution (an organisation, or a social network) the stronger the power of a psychological contract is, resulting in its sustainability (Masterson and Stamper, 2003; Stamper *et al.*, 2009; Epitropaki, 2013).

The psychological contract concept is based in social exchange theory (Rousseau, 1995), and its management application is rooted in understanding of workplace behaviour (Cropanzano and Mitchell, 2005). Its main assumption involves a series of actions, bringing about certain obligations (Emerson, 1976), or alternatively, a set of interdependent actions, where actions of one person are contingent on the actions of another one (Molm, 1994). However, the social exchange (unlike an economic exchange) arises without explicit negotiation of terms, and without knowing whether the person will reciprocate in return (Molm *et al.*, 2000). It is implied that the relationship evolves through the time, leading to certain mutual commitments, based on trust, loyalty, shared values, and fairness (Emerson, 1976). Therefore, each exchange situation is accompanied by a specific set of rules, or definitive norms which guide this process and are adopted by both participants (Cropanzano and Mitchell, 2005).

Within this context, the informal funding relationship can be viewed as an exchange of financial resources (money), where one side receives economic outcome (funding), and the other side receives socio-emotional outcome or symbolic benefit (satisfaction and/or happiness depending on how close the funder is to the entrepreneur). Those outcomes are determined by unspecified exchange rules both in the short and long term, including trust, gratitude and feelings of obligation. Social exchange gives rise to social exchange relationships, connecting the parties after the transaction takes

place. Transactions in strong relationships, which are fair and advantageous, generate a positive environment and effective behaviour.

According to the framework of Cropanzano and Mitchell, (2005), the informal funding relationship represents a mismatch between the types of transaction and its context: an economic transaction in a social relationship. As a result, it can demonstrate both rewards (the decreased likelihood of duplicity, high levels of relational trust, higher commitment, and effectiveness) and risks (exposure to psychological injury and potential damage to the social relationship). Moreover, causal ambiguity between transactions and relationships is not applicable to the situation of informal funding, where social relationship precedes the economic one by definition. However, two possible implications arise: relationships change the nature of transaction, and the nature of the exchange can alter the relationship. Therefore, while social relationship shapes the arrangement of the deal, the economic one might trigger certain consequences for the social relationship itself. As a result, it reinforces the argument about the reluctance of entrepreneurs to seek informal funding, and about the non-pecuniary motives of informal funders themselves, who under other circumstances (within an economic relationship) would not make an investment. Thus clear boundaries can be defined between professional private investors, and informal funders.

An economic approach to the funder-entrepreneur relationship, dealing with moral hazard (Amit *et al.*, 1990; Cable and Shane, 1997) and adverse selection (Bowden, 1994; Sapienza and Korsgaard, 1996), was questioned by several researchers in relation to professional venture capital investments (Sapienza and Korsgaard, 1996; Shepherd and Zacharakis, 2001; Shane and Cable, 2002). Increased certainty (through increased control) cannot resolve the problems of un-cooperative behaviour from both sides. As a result, the development of a social relationship appeared to be a solution to opportunistic behaviour in economic exchange through open communication, fairness, and justice (Larson, 1992; Sapienza and Korsgaard, 1996; Cable and Shane, 1997; Shepherd and Zacharakis, 2001; Sørheim, 2003; Politis, 2008).

According to procedural justice theory (an extension of equity theory) trust is the core element of such a relationship, which is developed through a sense of obligation, which is repeatedly fulfilled (Kumar, 1996; Sheppard and Sherman, 1998; Whitener *et al.*, 1998). As a result, the implemented procedures shape attitudes, responses, and how the parties engage in the deal and interact with each other. Behavioural integrity, equitable allocation of rewards, and reciprocity facilitate the positive perception of fairness and justice, which in turn contributes to the trust building process (Larson, 1992; Ring and Van de Ven, 1992; Mayer *et al.*, 1995; Whitener *et al.*, 1998).

In informal funding, co-operation is achieved through high trust and low control, resolving agency problems and moral hazard risks which are present in the professional relationship. On the downside, both parties are highly vulnerable to each other, exposing their social relationship. From the entrepreneur's side, the allocation of rewards and the flexibility of the process (from the perspective of justice) are optimal compared to the market alternative. From the funder's side, the only mechanism to ensure justice of the procedure is trust (guaranteed through reciprocity rules). Given the altruistic nature of the action, informal funders do not consider material rewards in their decision-making process, and are only limited by the amount of disposable income available for funding purposes. As a result, the actual benefits of the interaction are asymmetric, while the perceived outcomes are reconciled by means of non-market social structures.

Therefore, at the dyadic level it is proposed that informal funding relationship is bound by the psychological contract, which guides the subsequent interaction. The peculiarities of this interaction are further explored during the qualitative inquiry.

3.4.2 Social embeddedness

Previously social capital was considered at the individual level, where an entrepreneur relies on the external networks to extract resources for the own benefit. Informal funders, being part of such a network (with the strongest social ties), respond to the need of their close ones on the basis of trust, reciprocity and altruistic motives. An informal funding deal therefore represents an exchange, a transfer, or a gift, characterising social relations as one of the dimensions of the social structure

underlying social capital. Within this perspective, social capital can be classified as ‘bridging’ or ‘linking’ dimension of social structure (Adler and Kwon, 2002). However, when the interaction process between an entrepreneur and an informal funder is under consideration at the dyad level, it is the internal nature of such a relationship that is of interest. Following the distinction of Adler and Kwon, (2002), the linkages between individuals within a group in a pursuit of common benefits define the ‘bonding’ or ‘collective’ social capital. While the first perspective echoes with the psychological contract asymmetry argument at the individual level, the second view consolidates this asymmetry at the dyad level, where informal funders find benefits in helping out their friends and family, thus sharing potential awards (or losses). These authors consolidated the two perspectives, offering a definition of the social capital as a goodwill, available to individuals or groups, embedded in the structure and content of social relations (Adler and Kwon, 2002, p. 23).

The informal funding relationship therefore represents a relational dimension of social capital, where the focus lies on the economic relationship, embedded into the social relationship (Nahapiet and Ghoshal, 1998). The social relationship in this context is manifested in strong ties, characterised by emotional intensity, reciprocity, (relational) trust, free information flow, and knowledge transfer (Granovetter, 1985; Uzzi, 1997; Gulati, 1998; Dacin *et al.*, 1999; Uzzi, 1999; Rowley *et al.*, 2000; Jack and Anderson, 2002). Ultimately, the notion of social embeddedness consolidates theories considered at the individual level. While embeddedness can be crucial for early-stage business development, it is not sufficient for further growth, where ‘arms-length’ ties are more beneficial and accessible due to decreased uncertainty and increased capabilities (Larson and Starr, 1993; Uzzi, 1997; Hite and Hesterly, 2001). Moreover, social embeddedness is not sustainable long-term due to the financial constraints faced by informal funders, as well as continuous exposure of social relationships to the asymmetric terms of psychological contract.

In summary, the appropriateness of psychological contract and social embeddedness perspectives to informal funding, while promising, require further exploration in the qualitative inquiry, especially in light of the potential asymmetries arising from the interactions, and their long-term effects on the social relationship.

3.5 The interaction of supply and demand at the local level: institutional embeddedness

Context is defined as situational opportunities and constraints that affect the occurrence and meaning of organisational behaviour as well as functional relationships between variables (Johns, 2006). It comprises situational and environmental features, their strengths and cross-level effects on the activities and behaviour. As a result, it is important to estimate the impact of the context, rather than just acknowledge its presence. Johns distinguishes between two levels of context: discrete context, referring to particular situational factors, is nested in omnibus context, which can be broadly represented by the aggregate environmental stimulants, affecting both social and economic relationships, and, consequently, organisational behaviour.

Institutional conditions, forming part of context, are recognised to have an impact on the accumulation of entrepreneurial activity (Shane and Venkataraman, 2000; Davidsson and Wiklund, 2001; Wennekers *et al.*, 2002; Busenitz *et al.*, 2003; Phan, 2004; Davidsson *et al.*, 2006; Boettke and Coyne, 2009), ultimately leading to increased investment in human and social capital (Levie and Autio, 2011). Regulatory effects (e.g. Djankov *et al.*, 2010; Levie and Autio, 2011; Estrin *et al.*, 2013), along with capital constraints (e.g. Aghion *et al.*, 2007; Bowen and De Clercq, 2008) have been the main focus of entrepreneurship research on context.

Following institutional theory, any activity is embedded into economic, social, political, and cultural arrangements, which determine the collective understanding of rules and set out a pool of choices available to actors (DiMaggio and Powell, 1991; Scott, 2001; Dacin *et al.*, 2002; Hitt *et al.*, 2004; Thornton and Ocasio, 2008). These arrangements are a two-way street, as they can either create new opportunities, or impose barriers. Normative and cognitive institutions (as opposed to regulatory ones) represent informal structures that define roles and actions and affect resource mobilisation (Scott, 2001). The argument of Desa, (2012) about institutional transformation through bricolage (Baker and Nelson, 2005) highlights the entrepreneurial nature to confront institutional environment and to balance institutional gaps. Institutions not only impose constraints, or facilitate actions, but

play a key role in forming attitude and beliefs. The cumulative effect of both regulatory and social norms were shown to determine the quality of entrepreneurial context (Meek *et al.*, 2010).

At the local level, the concept of social embeddedness coupled with the institutional environment, forms both the social and institutional contexts. As a result, it is possible to detail the institutional mechanisms both at the local and macroeconomic levels (Bruton *et al.*, 2010). In this way, the present study fits into the sociology/organisational branch of institutional theory, where “the principal driving force is the effort to achieve legitimacy and stability in uncertain situations” (Bruton *et al.*, 2010, p. 429). This view stems from the assumption that people make decisions based on heuristics instead of a disposable set of rules and agreements. Organisations adjust to conform to the prescriptions imposed by institutions within a society, rather than adapt to the structures imposed by external institutions. Considering the previous discussion about the availability of bank credit, and its preference over informal means of funding, discouragement from borrowing, determined by individual perceptions causes alterations in the entrepreneurial choice (see section 3.2.1.4). Thus, the habits formed by perceptions of inaccessibility of debt finance (as a formal institution), developed historically, fosters informal funding (an informal cognitive institution) – a set of rules that is difficult to break through, regardless of changes in regulatory institutions. In this way, institutions arise and stabilise to achieve certainty, when they are socially effective, while those which are not will be abandoned, as prescribed by the efficient institutions view (Boettke and Coyne, 2009).

Financial exclusion (in its broad definition – see section 3.2.2.1) within the institutional theory perspective limits entrepreneurial finance choices because financial institutions and support are unavailable (see section 3.2.2.1), or through entrepreneur’s perceptions of exclusion (see section 3.2.1.4), or individual determinants (see section 3.2.1.5). The context of the local environment is most relevant to local communities, often defined as enduring relationships among the actors within geographical bounds (Freeman and Audia, 2006; Marquis *et al.*, 2011; Jennings *et al.*, 2013). Developing the argument further, financial exclusion and equity gap allocation will be linked with the deprivation level of a local area, expressed

through multiple domains, related mainly to income, employment, and education (see section 3.2.2.2). Some studies investigated the relationship between deprivation and reliance on social networks by entrepreneurs through bootstrapping (Jones and Jayawarna, 2010), emphasising the importance of bonding social capital in smaller (rural) communities (Jones et al., 2014), and informal social capital as a competitive advantage to overcome deprivation effects (Frankish et al., 2014). Considering the demand-led nature of informal funding within the social embeddedness perspective (see sections 3.2.2.3 and 3.4.2), entrepreneurs are more likely to refer to their social networks in more deprived communities, boosting the supply of informal funds. On the other hand, for entrepreneurs in more prosperous areas who are in pursuit of more value-added benefits (Davidsson and Honig, 2003; Jones-Evans and Thompson, 2009), the use of market resources (including private professional venture capital) is the first choice. Therefore, the relationship between the potential demand for informal funding and its supply is not expected to be the same across those areas:

***Hypothesis 3:** The relationship between the potential demand for informal funds and the probability that an individual will become an informal funder varies across communities of different levels of deprivation.*

To specify this effect, two factors should be considered: the demand one (driven by entrepreneurs) and the income one (defining the availability of informal funds). It was shown in section 3.3.1.4 that the deprivation level of the community will also have an impact on the amount of disposable income that informal funders can set aside. Therefore, in areas suffering from a labour market disadvantage, low earning power, low education attainment, or poor health care facilities (Rouse and Jayawarna, 2011), informal funds will be less available for entrepreneurs due to insufficient disposable economic capital:

***Hypothesis 3a:** In more deprived areas, the individual economic welfare factor is dominant over the demand factor leading to decreased informal funder rates.*

On the other hand, considering the demand-led nature of informal funding discussed in section 3.3.1.1, and greater availability of informal funding in more munificent areas, the effect of the former will stimulate the supply even in the presence of formal (and more preferable by entrepreneurs) market resources:

***Hypothesis 3b:** In less deprived areas, the demand factor is dominant over the individual economic welfare factor leading to increased informal funder rates ('imposed' funding vs necessity funding).*

Meanwhile, factors contributing to greater risk tolerance at the individual level (as discussed in section 3.3.1.3) are not expected to be susceptible to changes in the deprivation level, as they refer to the specific situational context. Therefore, socio-demographic factors, previous (or current) involvement into entrepreneurial activity, and positive entrepreneurial attitudes are idiosyncratic determinants of informal funder's risk propensity (as formulated in Hypothesis 2b), the impact of which is not expected to vary across areas of different deprivation levels:

***Hypothesis 4:** The deprivation level of a local community does not affect the relationship between an individual's socio-demographic characteristics, current or past involvement in entrepreneurial activity, and entrepreneurial attitudes, and the probability of being an informal funder.*

3.6 The interaction between supply and demand at the macroeconomic level

In this section, the demand and supply effects are considered at the macroeconomic level, incorporating the impact of business cycle fluctuations on the prevalence of informal funders in the economy.

While the level of deprivation defines the discrete context of informal funding activity, business cycle dynamics represents an omnibus context, incorporating national environmental changes. Similarly, the rationale of the mechanisms can be explained through a blending of social embeddedness and institutional perspectives, where constraints feed into the development of alternative institutions based on heuristics and existing social structures.

The impact of the business cycle on entrepreneurial activity has been widely acknowledged in the literature, in particular with regard to the access to finance during crisis periods, outlining its pro-cyclical dynamics (e.g. Rampini, 2004; Parker, 2009; Lee *et al.*, 2015). Looking more closely, a dual countervailing tendency can be observed, conceptualised as a recession-push countercyclical effect, and prosperity-pull pro-cyclical effect (Congregado *et al.*, 2012). These concepts chime with the argument about heterogeneity of entrepreneurial activity, and its different response to the fluctuations in the macroeconomic environment. Specifically, high-potential, innovative entrepreneurs tend to dominate during the economic upturn, whereas the owners of low-value added (marginal) ventures exhibit the opposite dynamic (Faria *et al.*, 2009; Koellinger and Thurik, 2012; Lee *et al.*, 2015).

Burke *et al.* (2010) demonstrated that at the macroeconomic level a country's rate of entrepreneurial activity increases the supply of informal funders, specifying in their subsequent study (Burke *et al.*, 2014) the complementary effect of informal funding deals to the professional (mainly institutional) venture capital market. In their explanation they view the level of total early-stage entrepreneurial activity as a set of investment opportunities that exists in the economy, as such assuming that early-stage businesses are supported by informal funders, and later enter the institutional venture capital market with a higher value.

This argument reinforces the conclusion about demand creating its own supply at the macroeconomic level. Regardless of the embeddedness of informal funding relationship, and its internal parameters, expectations are that agents will change with a downward trend of a macroeconomic cycle. If *Hypothesis 1b* and *Hypothesis 2a* are not rejected, then the counter-cyclical nature of the demand for informal funding will proportionally stimulate its supply during recession:

Hypothesis 5: The macroeconomic cycle linearly affects the relationship between the potential demand for informal funds and informal funder rates across communities of different levels of deprivation.

To disentangle this effect, both demand and income factors should be considered at the macroeconomic level, similarly to the analysis at the local level. From one side,

the supply of informal funding is capped by the availability of disposable income to be withdrawn from personal savings, forming the basis for *Hypotheses 2d and 2e*. Thus, both constrained local conditions, and adverse macroeconomic environment will have a double negative impact on the informal funding rates, which one could call a ‘double-whammy effect’:

Hypothesis 5a: In the more deprived areas the impact of the individual economic welfare factor is enhanced during the economic slowdown phase leading to a further decrease in informal funder rates.

The demand for informal funding is in its turn shaped by the entrepreneurial munificence of the area (*Hypothesis 1a*) and susceptible to the business cycle fluctuations (*Hypothesis 1b*). Referring to the argument about necessity-push entrepreneurship proliferated in deprived areas (Williams and Williams, 2014), the rise in necessity (presumably low value-added) entrepreneurial activity during the economic downturn will stimulate the demand for informal funds:

Hypothesis 5b: In the more deprived areas the demand factor is enhanced during the economic slowdown phase leading to an increase in informal funder rates.

As far as the combination of these two effects is concerned, changes in macroeconomic conditions have a substantial effect on the income size distribution through employment and wages (Nolan, 1987). At the level of local communities, first, declining profits will attract fewer entrepreneurs to enter the market, or make them switch to more attractive areas, thus resulting in a fall in the informal funder rate (see section 3.2.2.2). Second, as employment exclusion rises, incomes will drop, leading to less wealth being available for informal investors (see section 3.2.2.1). It is proposed that environmental scarcities at the local level have the strongest influence on the munificence of the next – macro level (Castrogiovanni, 1991a). In this vein, local communities that have already experienced a lack of economic capital munificence will deteriorate even further during the downswing of the cycle:

***Hypothesis 5c:** During economic slowdown the impact of the individual economic welfare factor still dominates the demand factor in more deprived areas, leading to decreased informal funder rates.*

Entrepreneurial munificence facilitates entrepreneurial activity rates, which is further boosted during periods of economic upturn (see section 3.2.3), stimulating overall demand for entrepreneurial finance, where informal funding is assumed to be the least preferable option. However, adverse economic situations force entrepreneurs to seek informal funding (*Hypothesis 1b*), which is more available in munificent areas (*Hypothesis 2d*). Specifying the effects, in more munificent areas, predominantly populated by prosperity-pull entrepreneurs who rely mostly on formal funding sources, economic downturn will lead to a reduction in their rates, but to an increase in the number of necessity-pull entrepreneurs, who are more likely to resort to informal funds, and be successful given their availability:

***Hypothesis 5d:** During economic slowdown the impact of demand factor still dominates the individual economic welfare factor in less deprived areas, leading to increased informal funder rates.*

3.7 An integrated theoretical framework

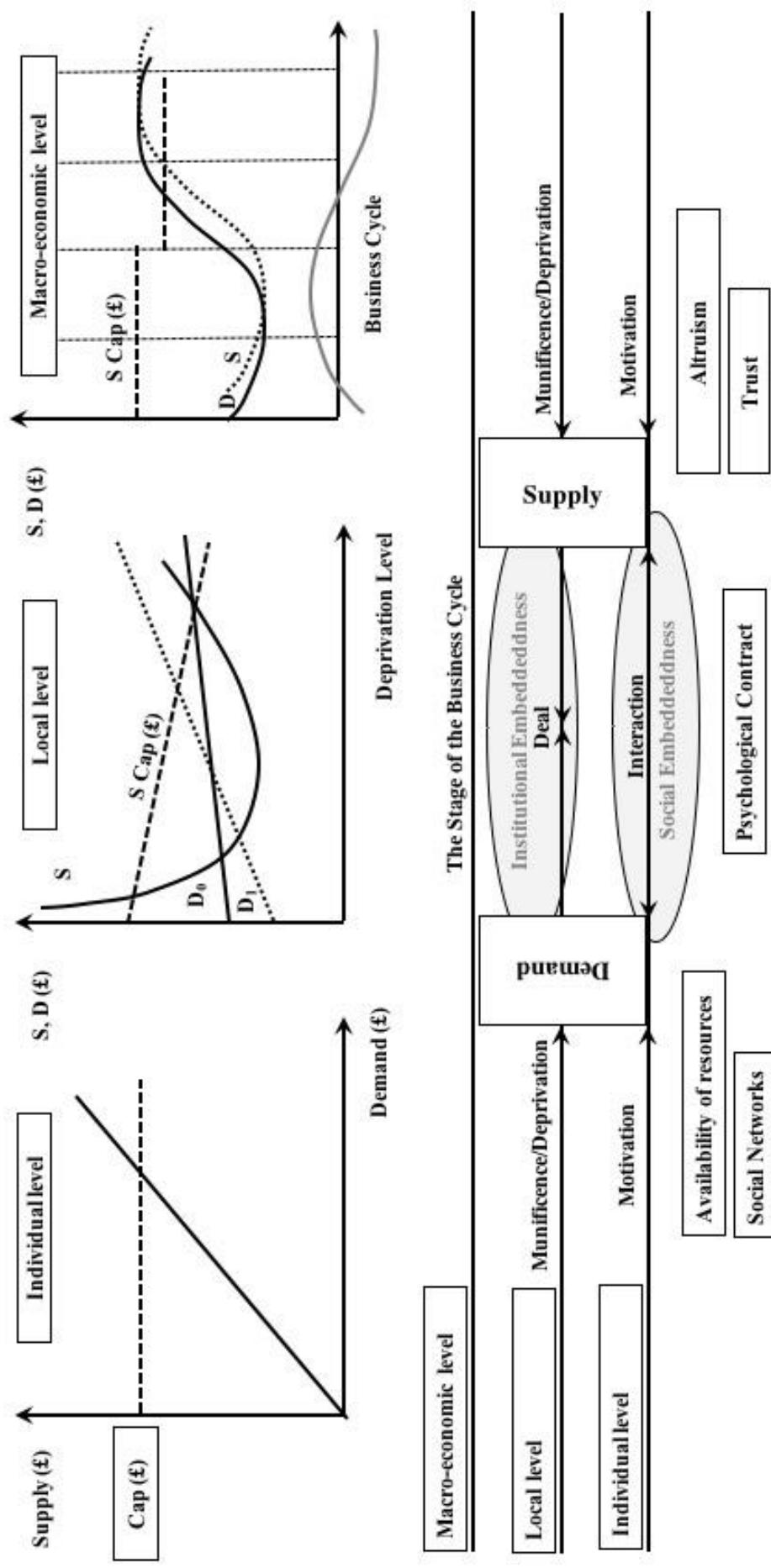
This study adopts a mixed embeddedness perspective (Kloosterman, 2010) across the four levels of analysis: the individual level (comprising both the demand and supply sides, as well as their dyadic interaction), the local level (based on the munificence/deprivation of an area), and the macroeconomic level (incorporating the stage of the economic development). At the individual level, the motivation of entrepreneurs is driven by resource constraints and the presence of social networks, while the motivation of informal funders is a response to demand, reinforced by trust, and altruistic reasons. As a result, an excessive risk exposure (from the supply side) and the lack of competitive advantage (from the demand side) are compensated by a psychological contract, rooted in the social structures that surround an economic deal. At the local level, the deprivation of an area fosters demand for informal funds as a choice of last resort, and as a substitute for unavailable (and unattainable) professional venture capital. Moreover, the role of normative and cognitive institutions intersects

with regulatory institutions, enhancing reliance on social networks, and general discouragement from applying for bank finance. From the other side, informal funders in deprived areas have less disposable income at hand, thus putting a cap to the capital supply. The effects are accentuated by business cycle fluctuations at the macroeconomic level.

As a result, supply and demand can be described in different ways, depending on the level of analysis (see Figure 3-2). The relationship between demand and supply runs through all the levels of analysis. At the individual level, there is a positive linear relationship between demand and supply, where the former determines the latter (*Hypothesis 2a*) along with other entrepreneurial oriented factors (*Hypothesis 2b*), and supply is limited by the availability of disposable income left after consumption (*Hypothesis 2c*).

At the local level, munificence affects both the demand and the supply sides (*Hypothesis 3*). With increasing deprivation, the demand for informal funding increases (*Hypothesis 1a*), but this rise is tempered by an overall reduction in entrepreneurship rates. At the same time, the supply of informal funding goes down to a level (*Hypothesis 3a*) where the demand starts pushing the provision of capital more, stretching the supply up at a slower rate (*Hypothesis 3b*). Meanwhile, the limit of the supply also decreases with the level of deprivation (*Hypothesis 2d*), countervailed by other factors, not dependent on the location (*Hypothesis 4*). As a result, there are two scenarios. The first one implies two points of equilibria: in the most munificent areas – depicting the complementary role of informal funding, and in the most deprived areas – characterising the substituting role of informal funding. In the second scenario only one point of equilibrium is reached in the least munificent communities (due to the nature of demand).

Figure 3-2 An overview of the initial theoretical model



At the macroeconomic level, both demand and supply are affected by macroeconomic changes regardless of their location (*Hypothesis 5*). Considering the two effects separately, demand clearly demonstrates counter-cyclical fluctuations - the grey line on the graph is for the business cycle (*Hypothesis 1b*), while the supply demonstrates pro-cyclical dynamics (*Hypothesis 2e*). However, considering the demand-led nature of informal funding, and the context-dependence of the phenomenon, the supply is expected to be lagged, responding to prior changes in demand – especially in the most deprived areas (*Hypothesis 5b*). However, in the most deprived areas, regardless of the demand, there is a limit to supply in terms of its availability (*Hypothesis 5a*). As a result, under such conditions the welfare factor will prevail over the demand factor in the most deprived communities (*Hypothesis 5c*), while the demand factor will be dominant in the least deprived communities (*Hypothesis 5d*).

3.8 Summary

In this chapter, the demand for and supply of informal funding, as well as their interaction were conceptualised at the individual, local, and macroeconomic levels. Previous research indicates that informal funding is the choice of last resort for entrepreneurs, mostly at the business start stage, and utilised by all types of ventures, regardless of their growth-orientation, size, and potential.

Demand for informal funding is determined by individual characteristics, integration into social networks, local conditions, and economic fluctuations. From the resource-based perspective, informal funding does not bear professional value for an entrepreneur. However, the entrepreneurial capital framework suggests it represents the transformational value of social capital in the form of moral support, sympathy, and encouragement, thus revealing a socio-psychological role of informal funding. This implies that informal funding might generate greater economic returns for an entrepreneur (compared to the professional venture capital market), but smaller social returns (as it invokes long-term consequences in terms of reciprocity for the sake of short term benefits).

Demand is determined by previous start-up experience, relational proximity with the helpers, and the level of venture risk. Gender, age, and ethnicity also foster the choice towards 'love money'. As a result, the demand for entrepreneurial finance at the regional level is likely to be determined by the scale of entrepreneurial activity in the area, the type of the businesses, characteristics of the entrepreneurs, and the availability of the essential infrastructure. Financial exclusion, caused by uneven regional development, as well as dips in the macroeconomic cycle foster the substituting effect of informal funds.

Demand, conceptualised through a help-seeking behaviour driven by relational proximity, creates its own supply, which is constrained by the availability of spare resources. Strong social (and kinship) bonds encourage affection and empathy, resulting in altruistic actions in economic settings. High levels of relational trust resolve agency problems of opportunistic behaviour, enhancing positive expectations, and vulnerability of the parties. The latter comprises financial risk, cognitive dissonance, and the potential jeopardy of the social relationship. Ultimately, a psychological contract binds the exchange relationship, where money is swapped for a symbolic benefit or a deferred reward. Consequently, the economic benefits are asymmetric, but reconciled through social structures. This demonstrates that social embeddedness of the economic deal is not sustainable long-term in the situation of financial constraints, and a continuous exposure of the social relationship to risk. Institutional context also affects resource mobilisation through the balance of formal and informal institutions. Aggregating the levels, informal funding illustrates a complementary effect to the market means of funding in favourable economic conditions and munificence, and a substituting effect in circumstances of adverse environment and deprivation.

In Chapter 4, this theoretical framework is built on to design a qualitative methodology to explore the nature of informal funding at the dyad level, and a quantitative methodology to test hypotheses at the local and national levels over a business cycle.

Chapter 4: Methodology

4.1 Introduction

Drawing on the theoretical framework in Chapter 3 in combination with the adopted philosophical paradigm of pragmatism, the development of the research methodology is outlined in this chapter. After elaborating the philosophical stance, a mixed-method research design is proposed, and justified by the theoretical framework adopted. Two approaches (qualitative and quantitative) are considered separately, as complementary to each other, relating to different research questions, and their appropriate research objectives. For each approach, technical procedures are explained, followed by a discussion of quality and limitations of the inquiries.

4.2 Locating the thesis: research aim and peculiarities

The proposed research questions pertain to understanding the nature of informal funding at the individual level, the interaction between an entrepreneur and their informal funder at the transactional (dyad) level, the effects at the local level, and the impact of the macroeconomic cycle. The ultimate objective is to understand the mechanisms of informal funding market, its context, and identify the antecedents of an informal funding deal which lead to the observed outcome, by providing an opportunity for generalisation.

4.3 Research on entrepreneurship and entrepreneurial finance: philosophical stance

This section outlines the philosophical stance taken in this research. If research is a systematic way of acquiring knowledge (Ghauri and Grønhaug, 2005), a paradigm is a philosophical stance which guides research through assumptions about the nature of reality, knowledge, human behaviour, and social world (Burrell and Morgan, 1979). In other words, it is a system of beliefs which constructs and orientates a scientific investigation (Guba and Lincoln, 1994; Krauss, 2005). Grant and Perren (2002) identified

the predominance of the functionalist paradigm (Burrell and Morgan, 1979) in entrepreneurship and small business studies up to 2000.

Objectivism, as an ontological position, pervades much of the research, placing the financial issue separately from the observer, who looks for rational explanations of economic behaviour. Despite the view that financial decisions can be driven by irrational motivation, which might be revealed through the meanings attached by the actors (Seymour, 2006), the field is still dominated by objective reasoning.

4.3.1 Philosophical paradigms: implications for the research

The duality of the Burrell and Morgan framework (1979), further clarified in the work of Morgan and Smircich (1980), is suggested to be too restrictive to fit the ongoing complex discussions in social science (Davies, 1998), and especially in entrepreneurship research (Pittaway, 2005).

For example, considering the philosophical assumptions for the current research (presented in Table 4-1 below), the multiplicity of criteria becomes evident.

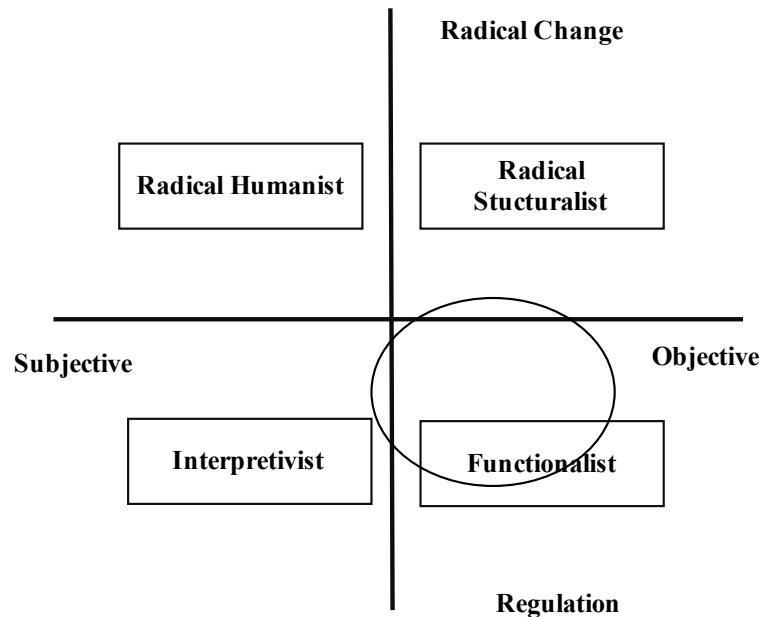
Consequently, if one tries to fit those assumptions in a two-dimensional framework (Figure 4-1), there are clear overlaps between ‘objective’ and ‘subjective’, as well as ‘radical change’ and ‘regulation’. For example, the selected research paradigm touches upon positivism in efforts to measure the phenomenon and understand what predicts its occurrence (Johnson and Duberley, 2000). The importance of meaning originates from the interpretivist position (Leitch *et al.*, 2010), while the context-dependence of those meanings and their interpretations take their roots in constructivism (Seidman, 2012).

Table 4-1 Philosophical assumptions of the research, their contextualisation, and emerging themes

Philosophical assumptions	Morgan and Smircich (1980) criteria	Contextualisation of the criteria	Emerging themes
<i>Ontological assumptions (realist vs nominalist)</i>	Reality as a construction	Individual experiences construct the reality	Individual prerequisites, actions, and expectations
	Reality as a realm of symbolic discourse	The reality is perceived differently by entrepreneurs and their informal funders	Interaction effects (personal relationship vs economic relationship)
	Reality as contextual fields of information	Social and economic contexts define boundaries for the perception of the reality	Contextual effects
<i>Epistemological assumptions (positivist vs anti-positivist)</i>	To understand patterns of symbolic discourse	To identify patterns in the perception of informal funding deal	Decision-making process: reconciliation of different perspectives
	To map contexts	To characterise the conditions, which induce the occurrence of informal funding	Social and economic embeddedness
	To study systems, processes and change	To systemise the factors (both internal and external) which determine the informal funding event	Informal funding as a market
<i>Axiological assumptions (nomothetic vs ideographic)</i>	Values are manifested through reasoning both at the cognitive and emotional levels		
<i>Assumptions about human nature (determinism vs voluntarism)</i>	Man as an actor, the symbol user	Entrepreneurs' and informal funders' implicit behaviours	Signals interpretation
	Man as the information processor	Different perceptions result in different anticipated outcomes	Expectations formation
	Man as an adaptor	External changes impose certain implications on both perceptions and outcomes	Adaptation to the changes
	Man as a responder	Modified behaviour and expectations as a result of the actual outcome	Self-corrected perceptions and behaviour as a result of the previous outcomes

<p><i>Assumptions about the nature of society (regulation vs radical)</i></p>	<p>The relationship between an entrepreneur and an informal funder is based on the reflection of the experiences, formation of habits, and actions within the social structures, which shape future behaviour</p>	<p>Every element in society is subject to incremental but continuous change</p>	<p>The changes in the socio-economic environment invoke changes at other levels</p>	<p>Changing profile of the market</p>
<p><i>Assumptions about change to society</i></p>	<p>Every element in society facilitates change to the existing social order <i>to society</i></p>	<p>Informal funding process and outcome define perspective actions</p>	<p>Changing profile of the financing strategy</p>	
<p><i>Assumptions about the structure of society</i></p>	<p>Every element in society responds to change imposed upon it</p>	<p>Informal funding is context-dependent, and it contributes to the formation of the context</p>	<p>The interaction between formal and informal markets</p>	
<p><i>Assumptions about the degree of conflict in society</i></p>	<p>Every element in society displays surface flux which obscures general structural principles</p>	<p>Each deal is unique, but falling into certain patterns</p>	<p>Informal deals/funders/recipients categorisation</p>	
<p><i>Assumptions about the nature of conflict in society</i></p>	<p>Every element in society is part of an organic system</p>	<p>Each deal is integrated in the sequence of actions</p>	<p>Informal funding as a part of the financial escalator</p>	
<p><i>Assumptions about the nature of the relationship between conflict and society</i></p>	<p>Every element of society is determined by power relationships between individuals and groups</p>	<p>Dynamic power of social relationships</p>	<p>The nature of the relationship</p>	
<p><i>Assumptions about the nature of the relationship between conflict and society</i></p>	<p>Every functioning social structure is based on negotiation between the demands of its stakeholders</p>	<p>Multi-stage approach to the deal: from initiation till the deal structuring</p>	<p>Demand and supply interaction</p>	

Figure 4-1 The position of the research within the Burrell and Morgan (1979) philosophical framework



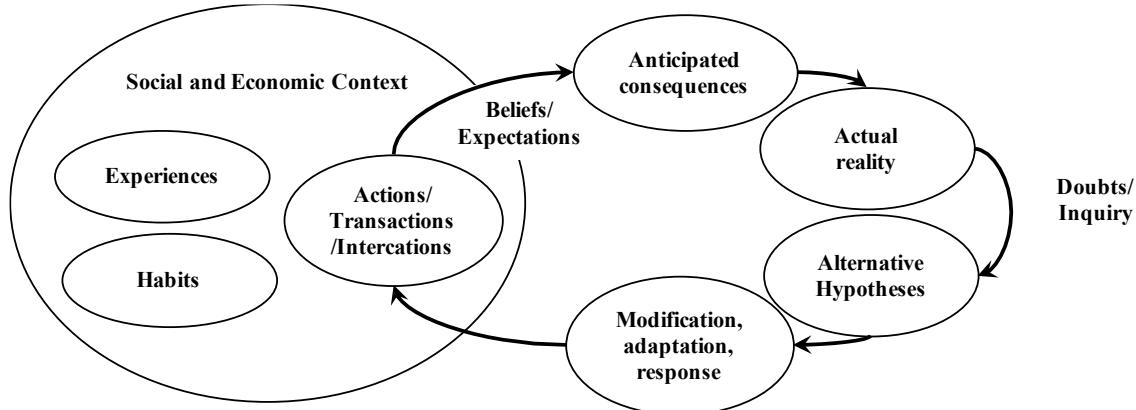
However, it is not sufficient to allocate the research in the middle, and accept the assumption of multiple perceptions of a single reality offered by critical realists (Archer *et al.*, 1998; Stake, 2005). While their paradigm acknowledges the social conditioning of the phenomena, as well as the existence of structures and mechanisms, it lacks the transactional dimension - an important link connecting the two worlds, found in the works of pragmatists (Shalin, 1986; Johnson and Duberley, 2000). Hence, while the essence of reality can be understood by means of conceptual resources (cognitive abilities), it is possible, through a ‘theory-laden’ observation (Sayer, 2010), to distinguish reliable concepts and cognitive practices to understand the phenomena.

4.3.2 Pragmatism: underlying assumptions and justification

This study adopts the perspective of pragmatists, whose interpretation of reality is visually presented in Figure 4-2. Pragmatism suggests that meaning of reality is generated in actions that are important for future experiences, and that social dynamics is essential in revealing this meaning. It is through reflective engagement with others and with the

external world that new habits are formed which subsequently inform future actions and expectations. An individual engages with the environment and with other actors both at cognitive and emotional levels (James, 1907; Barbalet, 2004); this contributes to the formation of meaning, which is further transformed into stable social structures.

Figure 4-2 Pragmatism paradigm in the context of the current research



Peirce (1905) was the first who introduced an *abduction method*, utilised in this study, when consequences are observed, reflected upon, and asserted as a theory which further defines the possible prerequisites of the observed result, and outlines alternative future outcomes. The key assumptions are based on four themes demonstrated to be essential for research design within the philosophy of pragmatism: experience, inquiry, habit, and transaction (Elkjaer and Simpson, 2011).

The research setting is considered in Table 4-2, drawing on ontological assumptions where the relationship between an entrepreneur and their informal funder shapes their agreements and constructs an intrinsic social context. The adoption of an objectivist stance puts forward informal financing as a transaction, evolving through the social interaction process. It encompasses moral values, economic reasoning, and expectations, which in case of continuous re-occurrence, constitutes the market of informal funding.

Table 4-2 The settings of the research within Burrell and Morgan (1979) and Pragmatism philosophical frameworks

	<i>Burrell and Morgan (1979) framework</i>	<i>Pragmatism framework</i>
<i>Goals</i>	To describe, explain, systemise, and search for regularity to predict and control	To understand reality through transactions, where consequences determine future actions
<i>Theoretical Concerns</i>	Interaction, process, contextual effects, patterns, and relationships	Informal funding as a set of emotional, context-dependent actions, and a socially-constructed structured phenomenon
<i>Theory Building Approaches</i>	Discovery through code analysis, disclosure through critical analysis, refinement through cause analysis	Exploration of patterns by analysing a transaction, and systemising them across different levels

It is believed that both supply and demand sides of informal funding are determined by the context in which they are involved, and the interrelationships between them can be observed distantly as a social system of economic transactions (Granovetter, 1985). The research is designed in order to formulate the reasoning behind the actions, controlling for changes in the local context and macroeconomic environment.

As a result, the thesis is positioned in a slightly alternative but complementary conceptualisation framework compared to the dominant stream in this field, expanding the viewpoint of critical realists. The essence of informal funding is deeply rooted into social structures, imposing a challenge for generalisability and identification of causality. However, it is still regarded as an economic transaction, embedded into networks, interactions, and external environment. Consequently, the adopted philosophical framework shapes the research design, underpinning the choice of methods, and filling a gap in entrepreneurship theory.

4.4 Research strategy: from theory building to theory testing

An overview of the overall research strategy is followed by the discussion of both qualitative and quantitative approaches in relation to the research objectives. The methodological part is integrated with the theoretical and conceptual aspects to provide a holistic perspective on the research.

4.4.1 Qualitative research: objectives and limitations

The purpose of the qualitative data in the current study is to establish meaning from the view of the participants, to identify shared patterns, and explore the range of perspectives, experiences, and judgements (Creswell, 2013). Being conducted in a natural setting, the methods involve active involvement of the participants and evolve around personal interpretation of the meanings with the aim of establishing a holistic picture and fully understand the phenomenon (Leech and Onwuegbuzie, 2007). The use of qualitative data aims to provide rich, holistic, and contextualised information centred on lived experiences (Miles and Huberman, 1994b). In this sense, five appropriate qualitative methods were considered, and compared to each other in relation to their applicability to the research questions, and philosophical viewpoint (see Table 4-3).

The challenge for all qualitative methods is the intrinsic nature of the informal funding relationship, based on personal and intimate experiences. Therefore, the choice of the method should account for them (in terms of ethical considerations and implications), and, most importantly, capture the meaning of those aspects in order to identify their role in the transaction.

Table 4.3 Qualitative Research Methods: comparison in relation to the research objectives

Methods	General Focus	Advantages in relation to the current research setting	Limitations in relation to the current research setting
<i>Ethnography</i>	Understanding of the patterns of the human activity by means of participant observation (Taylor <i>et al.</i> , 2015)	<ul style="list-style-type: none"> • Integration into the social group • Obtaining insights • Interpretation of the phenomenon in the same way as the participants • Dynamic perspective 	<ul style="list-style-type: none"> • Intimate and dyadic nature of the informal funding relationship
	Problem-solving by means of bringing about change within a certain context (Gummesson, 2000)	<ul style="list-style-type: none"> • Applied nature of the research - practical contributions • Dynamic perspective from the origination till the outcome • Understanding and planning of change 	<ul style="list-style-type: none"> • Limited scope for external intervention • The existence of the practical problems is not established/raised
<i>Action research</i>	Exploration of a single phenomenon within its context in order to obtain in-depth knowledge (Yin, 2009)	<ul style="list-style-type: none"> • Detailed investigation • Longitudinal perspective allows for the analysis of the context and processes 	<ul style="list-style-type: none"> • Retrospective • Ethical considerations • Investigation of few units of analysis
	The use of group interaction to explore a specific set of issues (Barbour and Kitzinger, 1998)	<ul style="list-style-type: none"> • Collective activity: fostering attitudes, opinions, and preferences • Capturing multiple viewpoints 	<ul style="list-style-type: none"> • The lack of dynamic perspective • The impact of the peer group • The private nature of informal funding
<i>Case studies</i>	Investigation of the mental processes (reasoning) behind decision-making and a task (Bainbridge and Sanderson, 1995)	<ul style="list-style-type: none"> • Understanding of the cognitive processes • Evidence-based approach 	<ul style="list-style-type: none"> • Limited scope for implementation • Based on the self-perception of the participants

Moreover, an informal funding deal implies a very close social setting, where it is not possible to determine the moment of its occurrence beforehand. From the research perspective, it is valuable to consider the path towards the deal, and the evolution of the relationship after it took place drawing on the perceptions of both sides, rather than concentrating on the outcome and its implications. In this way, ethnography and action research are restrictive in design, and would invade the personal space of the participants. The same reasoning applies to verbal protocol analysis, where the decision-making process should be recorded in its natural setting, which would also be constrained in time. On the other hand, focus groups and case studies adhere to the research objectives, but only the latter ensures the privacy for the participants.

Therefore, multiple case study appears to be the most appropriate research method to capture the nature of the phenomenon, explore the dynamic aspect of the informal funding transaction, its prerequisites and contextual background. On one hand, it makes the researcher step aside and analyse the situation from the ‘outside’ without intervening into the sensitive area of personal relationships. On the other hand, by posing the questions of *how* the relationship has developed, and *why* the informal funding deal has taken place within its context, it allows the capture of insights about the phenomenon from the ‘insider’ perspective.

Given the lack of a holistic theoretical foundation in the areas of informal finance, a theory building approach by means of case study was adopted (Stake, 2005; Yin, 2009) with the aim to construct propositions, which will subsequently contribute to the theoretical understanding of the phenomenon. Undertaking multiple case study design ensures the fulfilment of the replication logic (Eisenhardt, 1989b) essential for identification of patterns constituting concepts and the relationships. The evidence from multiple cases is believed to be more compelling, and the overall study is therefore regarded as being more robust (Herriott and Firestone, 1983). The abduction approach to theory building (Dubois and Gadde, 2002) implies starting from an established theoretical basis, referring to the case studies to ascertain patterns (matching process), and returning back to the theory to formulate profound propositions (direction and re-direction processes).

Each qualitative method comprises a specific systematic procedure towards data collection, however, all of them can utilise various tools for data analysis depending on the ultimate goal (Leech and Onwuegbuzie, 2007). For the purpose of this study, the following analysis techniques were considered: constant comparison analysis to investigate general questions (Glaser and Strauss, 1967); keywords-in-context (Fielding and Lee, 1998) to capture actual words; word count to summarise the frequency of expressions (Carley, 1993); content analysis (Stemler, 2001) to study the frequency of codes; and domain analysis to explore cultural meaning (Spradley, 1979), including taxonomic analysis to identify the relationships between the domains, and componential analysis to identify components associated with cultural symbols. Constant comparison analysis was chosen to explore the richness of the qualitative data and identify the underlying themes through iterative coding. The other analytic tools would be more appropriate for future research, where the way the participants express themselves and utilise symbols could be an object of the study with the aim of uncovering semantic relationships in reasoning.

While qualitative methods produce findings which are context-dependent, tentative, and not generalisable (Stake, 2005; Leech and Onwuegbuzie, 2007), they enable deeper comprehension of subtle processes, and richer interpretations. However, limited generalisation provokes inability to address causality, and evaluate the contextual effects on the informal funding decision-making reasoning. The problem of making inferences, subjective judgment issues, and external validity curtails the opportunities of qualitative methods. Furthermore, the method does not allow one to address the research questions fully, delving into the scope and nature of informal funding viewed as a self-sustainable marketplace. Therefore, quantitative methods are considered necessary complementary tools to explain the mechanism of informal funding as a part of a wider socio-economic system.

4.4.2 Quantitative research: objectives and limitations

Quantitative methods deal with statistical data (mostly relying on numerical information) with the aim of developing knowledge by means of establishing appropriate measurements and testing hypotheses (Creswell, 2013). Drawing on the post positivist worldview, data are viewed as the body of evidence which justify rational considerations shaping the knowledge, testing laws and theories that govern behaviour (Phillips and Burbules, 2000). Quantitative data is numerical information, drawn from empirical observations by means of systematic data collection procedures. Validity and reliability are considered to be key attributes with the goal of creating a reduced set of variables (representing measurable constructs) to examine relationships between (and among) those variables, and, ultimately, achieve an accurate and unbiased interpretation of the data. In this way, the quantitative methods analysed in Table 4-4 extend the possibilities of qualitative techniques.

The methods in Table 4-4 aim to investigate relationships, either in isolation, or within a pre-defined (static and dynamic) context, offering opportunities for generalisation, provided the data collection procedures ensure the sample is representative of the population of interest. Experimental study design implies the research is being focused on a particular relationship, which needs to be investigated separately, and within different sets of contexts. While it presents a valuable opportunity to investigate the ‘pure phenomenon’, first, it does not comply with the philosophical stance of the current study, where the interest lies in the outcome of the transaction occurred as a result of the interaction with the ‘outer’ world and personal habits (prerequisites). In this sense, ‘manipulation’ of the context is detached from the individual ‘natural’ position within the loop presented in Figure 4-2. Second, the interconnected and embedded structure of the relationship does not allow separation of certain determinants. Moreover, the nature of the relationship itself does not permit deliberate intervention by a third (external) party.

Table 4-4 Quantitative Research Methods: comparison in relation to the research objectives

Methods	General Focus	Advantages in relation to the current research setting	Limitations in relation to the current research setting
<i>Experimental Study</i>	Investigation of the relationship, where the independent variable is deliberately manipulated in a predefined context (Collis and Hussey, 2014)	<ul style="list-style-type: none"> Control of confounding variables An opportunity to investigate a 'pure' phenomenon 	<ul style="list-style-type: none"> Difficult to impose the artificial settings of the design A big number of confounding variables Difficult to separate the effects Self-reporting might lead to biases
<i>Survey</i>	Collecting data from the sample in order to generalise results to the population (Davidsson, 2006)	<ul style="list-style-type: none"> Used both to describe the phenomenon and analyse relationships Generalisability Practicality 	<ul style="list-style-type: none"> Intrinsic nature of the phenomenon might result in low responses Difficult to define the boundaries of the population for the sampling procedures
<i>Cross-Sectional Study</i>	Investigation of the phenomenon across different contexts over the same period of time (Ghauri and Grønhaug, 2005)	<ul style="list-style-type: none"> Provide a snapshot of the phenomenon Comparison (and control for) different settings of interest Generalisability 	<ul style="list-style-type: none"> Sampling issues Difficult to separate confounding effects Does not explain the background and reasons for the identified differences
<i>Longitudinal Study</i>	Investigation of the phenomenon over the long period of time (Adams and Schvaneveldt, 1985)	<ul style="list-style-type: none"> Capturing the dynamic perspective Examination of change processes Generalisability 	<ul style="list-style-type: none"> Comparability of the data across years Availability of the longitudinal data Challenging to conduct at the individual level

The survey method involves self-reported personal information collected in a structured and consistent way from a sample of participants that are representative of the population of interest to obtain a set of characteristics that describe this population through a set of measurements (Sapsford and Jupp, 2006; Rea and Parker, 2014). The limitations stem from the fact that the phenomenon under investigation is personal and sensitive, especially in relation to the financial and emotional sides of the informal funding deal. A cross-sectional investigation of the phenomenon would fit into both theoretical and philosophical frameworks, where the definition of the context should be specifically articulated and controlled for. A longitudinal study would also contribute to the research objectives, offering a dynamic perspective on the possible evolution of the market,

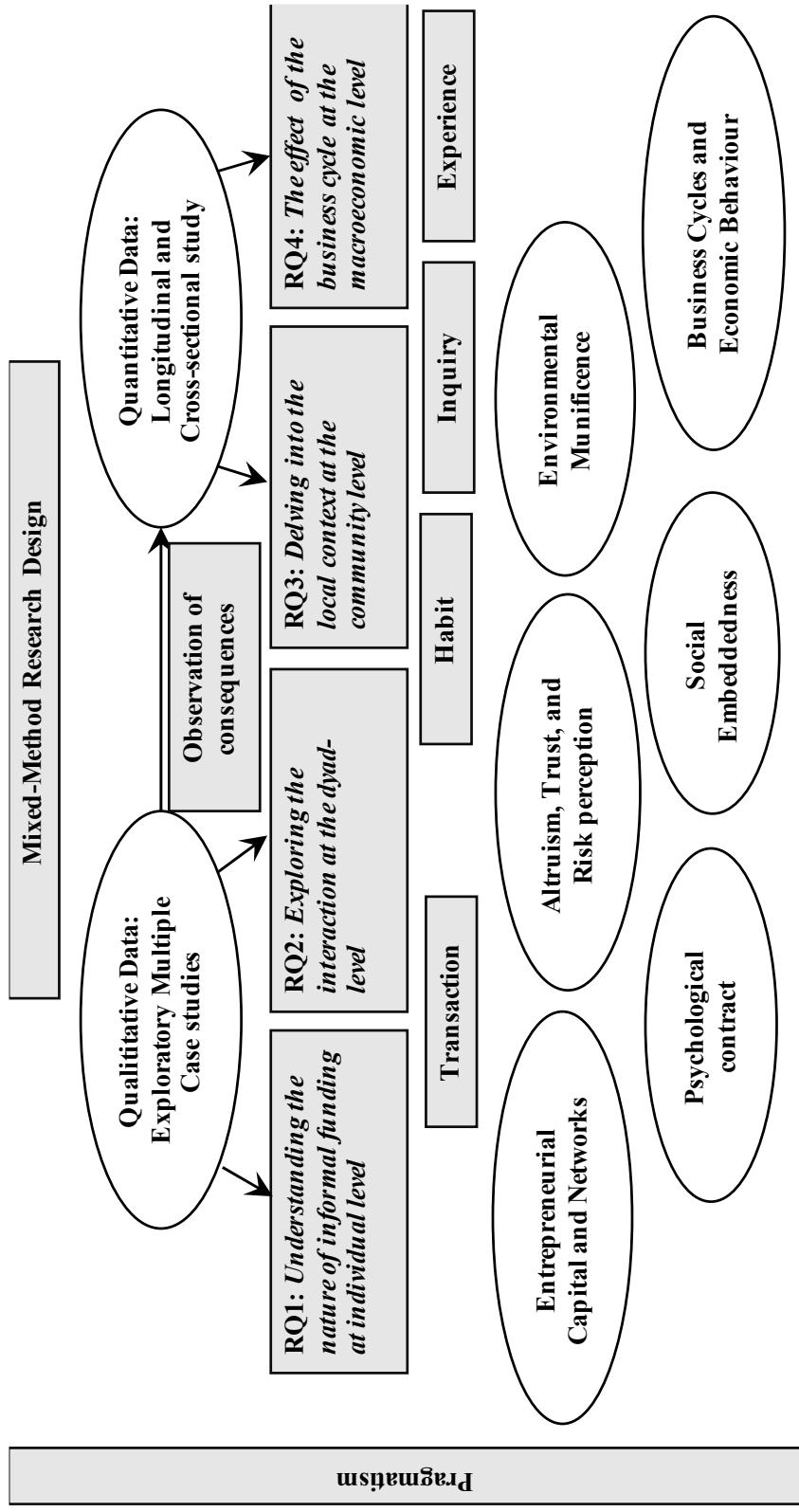
provided that comparability across time periods is ensured. Therefore, the cross-sectional longitudinal survey represents the most appropriate method for this study.

4.4.3 Bringing the research strategy together

Drawing on the philosophical framework, it is argued that a clear separation between the two considered approaches is not appropriate (Onwuegbuzie and Leech, 2005). While the qualitative data aim to capture the intrinsic nature of the relationship (research question one) and consider it at the transactional level (research question two), quantitative data will allow the measurement of the scope of the phenomenon, incorporating community-level (research question three) and macroeconomic-level effects (research question four). This mixed-methods design does not come from a desire for triangulation within the same paradigm. Instead, this combination of methods ensures that the qualitative inquiry complements the quantitative inquiry, addressing different research questions at different levels of analysis. This approach acknowledges the transactional nature of informal funding, which means it cannot be tightly placed in the continuum of paradigms (Morgan and Smircich, 1980; Perren and Ram, 2004). Ultimately, in order to capture the phenomenon, understand its nature in dynamics and within the context, given the assumptions articulated in Table 4-1, the research strategy adopts the pluralist approach (Curran and Blackburn, 2000).

Figure 4-3 consolidates the philosophical framework and the research design with the objectives and conceptual theoretical development of the study. While social and environmental prerequisites (experiences) drive individuals towards a transaction, one can observe its consequences, either in the form of a habit, or an inquiry as a trigger of change. The qualitative inquiry builds on entrepreneurial capital theory to explain entrepreneurial finance choice, non-pecuniary motives of informal funders, and explore social and psychological factors behind the interaction, to develop propositions on the nature of this relationship. By observing the consequences of the informal funding phenomenon, hypotheses (derived from the theories) are further tested by means of quantitative data to determine effects at the local and macroeconomic levels.

Figure 4.3 Research Strategy: Integration of methodology, research questions, and theoretical perspectives



4.5 Research design and methods

In this section, the rationale behind the mixed method research design is further elaborated, taking the scope and reasoning of the research methodology into account. Then, the case study method employed in the study is explained. Finally, the implementation of the quantitative inquiry is described, covering the construction of the working database and applied analysis techniques.

4.5.1 Choosing a mixed-method design: rationale, benefits, and challenges

Mixed-method research design, also referred to in the literature as multi-methods (Brannen, 1992), multi-strategy (Bryman, 2004), or mixed methodology (Tashakkori and Teddlie, 1998) research, represents quite a controversial approach in the literature, which requires a solid rationale behind its implementation (Yauch and Steudel, 2003; Bryman, 2006; Edmondson and McManus, 2007; Creswell, 2013). Following the justification criteria conceptualised by Bryman (2006) (first started by Morgan (1998) and Morse (1991) in health research), this design implies simultaneous collection of qualitative and quantitative data, where both have an equal value and pursue different objectives in order to create a holistic picture as determined by the research questions, and the philosophical stance. The availability of the quantitative data before the collection of the qualitative data ensured that the latter complemented the former, where the former addresses research questions at the local and macroeconomic levels, and the latter at the individual and dyadic levels of analysis. Both qualitative and quantitative data were analysed at the same time. The intention of such a design is to eliminate potential biases that might emerge from one inquiry, and potentially affect the course of the other inquiry if implemented successively (Guercini, 2014). Therefore, the interpretation of the results, first, pertain to the appropriate levels of analysis, and, second, allow for the partial cross-validation, where similar concepts arise.

The design serves a purpose of complementarity (Greene *et al.*, 1989), addressing different levels of analysis, and tackling different aspects of the research. Although on

certain occasions (as will be shown later in section 7.2) it can be used as a triangulation, where some propositions subsequently are linked with hypotheses through relevant theories, this is not the primary intention of the design. While the qualitative data delve into the process, quantitative data allow the establishment of structures within the informal funding market as an observed outcome of those processes. The combination of both methods increases the credibility of the findings, and provides an enhanced contextual understanding of the phenomenon behind the generalised results (Bryman *et al.*, 2008).

Although originally coming from different philosophical backgrounds, both methods can be successfully combined under the umbrella of pragmatism. Investigating a dynamic and intrinsic phenomenon, which couples economic exchange with an interpersonal relationship, and functions not only at the individual, but also community and macroeconomic levels requires different approaches that fit together, and represent a coherent whole.

4.5.2 The case study design: preparation, data collection, and analysis

Case study design has been repeatedly used to develop theory in entrepreneurship and small business research, notwithstanding the dominance of quantitative enquiries (Chandler and Lyon, 2001; Perren and Ram, 2004; Molina-Azorín *et al.*, 2012; Hlady-Rispal and Jouison-Laffitte, 2014). The need for increased validity in an attempt to build an ‘objective’ theory from ‘subjective’ data has strengthened this approach, suggesting structured procedures to setting the design, implementing data collection, and conducting analysis. While a convincing rationale and grounding in the related literature remain essential attributes of any empirical research, theoretical sampling, diversity of data sources, and multiple case study design increase the robustness of the qualitative results, and the theories they constitute (Eisenhardt and Graebner, 2007). At the same time, multiple cases design ensures the replication logic can be tracked, provided a systematic approach is adopted to identify patterns and relationships (Yin, 2009).

4.5.2.1 Context and objectives

The purpose of the inquiry is to identify basic pillars of the decision making process in informal funder-entrepreneur relationships. The phenomenon of informal funding is considered from both the demand and supply sides of the relationship. The perceptions of entrepreneurs are coupled with those experienced by their informal funders to reconcile perspectives, validate facts, and capture the nature of the relationship at the transactional level. An additional aim is to uncover the impact of external factors on behaviours, reflections, and processes at local and macroeconomic levels of analysis. Stemming from the first two research questions and the theoretical framework established earlier, the objectives of the analysis at this stage are:

- To characterise the decision-making process, and define its context (at the individual, local, and macroeconomic levels);
- To identify any features in the informal funding relationship, which are similar to those observed in the professional private investors market;
- To explore the drivers of informal funding relationship at the individual and transactional levels;
- To disentangle the post-deal interaction and expectations at the individual and transactional levels.

Therefore, the embedded design is employed as the most appropriate one to adhere to the research objectives, where the informal funding deal as a relationship is a unit of analysis at the dyadic level, consisting of entrepreneurs and their informal funders as observation units. Six cases (dyads) were initially targeted (subsequently resulting in seven cases), which is considered to be sufficient to provide in-depth insights into the phenomenon (Stake, 2005).

4.5.2.2 Case selection

The boundaries of the *theoretical sample* are defined in accordance with the theoretical framework presented in Chapter 3. In this way, such categories as the stage of business development (see section 3.2.1.1), the use of alternative finance sources (see section 3.2.1.4), gender, ethnicity, personal background, business type (see section 3.2.1.5), and location (see section 3.2.2.1) are varied in order to achieve heterogeneity across these dimensions.

An *entrepreneur* as an observation unit of analysis is defined as an individual, who at the moment of observation is:

- Someone who is between 18 and 64 years old;
- Someone who is an active owner manager of the business that has paid wages or salaries for more than three months, or who has discontinued their business for the last 12 months;
- Someone who has attracted the funds from relatives, friends, neighbours, work colleague, or other third parties (either from one of these sources or from several of them at once) at any point to support the business activity;
- Someone who is ready and willing to refer to their informal funder for the subsequent investigation.

An *informal funder* as an observation unit of analysis is defined as:

- Someone who has personally provided own funds for a new business started, excluding any purchases of stocks or mutual funds;
- Someone who is related to the entrepreneur as a friend, an acquaintance, or a family member;
- Someone who was between 18 and 64 years old at the moment of the informal funding deal.

Both definitions are consistent with Global Entrepreneurship Monitor methodology (Bosma, 2013), and adopted for the purpose of the whole study. An open sampling procedure (Strauss and Corbin, 1990), incorporating snowball and networking sampling methods (Collis and Hussey, 2014), was used from July 2012 till September 2013 in Scotland. At the first stage, 'Gatekeeping' organisations were identified, the contacts of which were obtained through the University and personal networks (see the detailed procedure in Appendix 5). Once those organisations were contacted via email (see Appendix 6), face-to-face meetings with key people were arranged to seek references to business owners who might potentially comply with the sampling criteria. Afterwards, the suggested entrepreneurs were contacted via email (see Appendix 7) with a short introduction and an invitation to participate in the study, provided all the sampling requirements were met. As soon as all the details were clarified, further information on the study was sent (see Appendix 8 and Appendix 9). If the participant agreed to take part in the investigation (see Appendix 10), further arrangements were made for data collection.

Table 4-5 summarises 15 cases selected for the study, which represent different industries, and different stages of development. Most cases are located in predominantly deprived areas (with one example of a more munificent location). There is one instance of an entrepreneur from an ethnic minority background ('Other White').

Eight cases were not included in the analysis, because the participants did not meet one or several criteria. The majority of the rejected cases did not provide a connection with the informal funder, or an agreement for that person to be contacted was not reached. On some occasions, the definition of informal funding was misinterpreted, and included the inheritance of the business from a family member, or crowdfunding (specifically peer-to-peer lending).

Table 4-5 Summary of the cases selected for the analysis, across the theoretical sampling categories

Data Zone	SIMD 2012 Rank	SIMD Decile	Gender of the entrepreneur	Ethnic minority	The stage of the business at the moment of the informal funding deal	Division of Economic Activity	Use in the Study
S01003716	186	1	Male	No	Start-up	Food and beverage service activities	No
S01003373	555	1	Female	No	Start-up	Sports activities and amusement and recreation activities	No
S01003303	1552	3	Male	No	Start-up	Other professional, scientific and technical activities	No
S01004909	4056	7	Male	No	Start-up	Manufacture of electrical equipment	Yes
S01003133	5099	8	Male	No	Early-Stage	Other manufacturing	No
S01006691	5610	9	Male	No	Start-up	Manufacture of beverages	Yes
S01001711	5790	9	Female	Yes (Asian)	Start-up	Food and beverage service activities	No
S01001960	6217	10	Male	No	Early-Stage	Real estate activities	Yes
S01000111	6241	10	Female	No	Start-up	Employment activities	Yes
S01001833	6328	10	Female	No	Start-up	Education	Yes
S01003568	6334	10	Male	No	Early-Stage	Real estate activities	No
S01003589	6366	10	Female	No	Start-up	Accommodation	No
S01002248	6367	10	Male	No	Start-up	Travel agency, tour operator and other reservation service and related activities	No
S01002023	6368	10	Male	Yes (Other White)	Early-Stage	Other manufacturing	Yes
S01002177	6425	10	Female	No	Early-Stage	Employment activities	Yes

* SIMD: *Scottish Indices of Multiple Deprivation (The Scottish Government, 2012)*

4.5.2.3 Data types

A variety of information sources were used to collect different types of data in order to contextualise the deals, verify facts through triangulation, and explore alternative perspectives. The data for each case were drawn from:

1. *Semi-structured interviews* with both entrepreneurs and their informal funders separately – the core information source utilised to reveal the underlying concepts in the informal funding transaction (considered in detail in the following section);
2. *Company documentation* provided by the participants to evidence the arrangements, financial indicators, and other relevant facts;
3. *Company website*: to have a full understanding of the company's activities, and to verify certain operational aspects, like product/service line, target market, price, location, and vision;
4. *Profiles on LinkedIn*: to validate the personal background information of the participants, career growth, and educational attainment;
5. *Media news* (from NEXUS - news articles archives): to track the company's dynamics perceived by the market, as well as to track the business progress;
6. *Registration information and financial statements* from the Companies House: to characterise the companies' performance, status, and compare objective indicators with the subjective interpretations and perceptions of the participants.

4.5.2.4 Semi-structured interviews

The multiple case-study design aims to reveal the nature of the informal funding relationship at the individual and dyadic levels. Within the pre-defined research scope, using *semi-structured face-to-face interviews* of maximum 60 minutes long in a natural setting (either company's office or participant's house) was the most efficient way to achieve the set objectives (Yin, 2009; Brinkmann, 2014). To facilitate the interview process and ensure consistency, guidelines were developed (see Appendix 11 and Appendix 12). The match between the content of the guideline and the theoretical framework is presented in Table 4-6.

Table 4-6 The alignment of the interview guideline with the theoretical framework

Reference to the Theoretical Framework (Entrepreneur's perspective)	Interview Guideline Section	Objectives	Reference to the Theoretical Framework (Informal Funder's perspective)
Finance Escalator (section 3.2.1.1)			Individual characteristics (section 3.3.1)
Individual characteristics (section 3.2.1.5)	General Information	To set up the context of informal funding deal	The effects of local environment (section 3.3.2)
Financial exclusion (section 3.2.2.1)			
Environmental munificence (section 3.2.2.2)			
Debt versus equity dilemma (section 3.2.1.3)	Financial Information	To define the volume of funding and financial parameters of the deal	Triangulation purposes (verification of the amount and other parameters)
Borrower discouragement (section 3.2.1.4)			
Social embeddedness (section 3.4.2)	The nature of the decision/business supported	To identify intrinsic motives behind the decision	Social embeddedness (section 3.4.2)
The demand-led nature (section 3.3.1.1)			Altruism (section 3.3.1.1)
Investment process (section 2.4.1)	Control	To uncover the process of informal funding	Economic welfare effect (section 3.3.1.4)
Risk profile (section 3.2.1.2)	Risk	To evaluate risk perceptions	Investment process (section 2.4.1)
Entrepreneurial capital (section 3.2.2.3)	Trust	To establish the role of trust	Risk perception (section 3.3.1.3)
Psychological contract (section 3.4.1)	Outcome	To determine individual expectations, and attitudes towards the deal	Interpersonal trust (section 3.3.1.2)
			Psychological contract (section 3.4.1)

At the end of the interview the participants were asked to fill in the questionnaire (see Appendix 13), which took no longer than three minutes to complete. The purpose was to consolidate the socio-demographic information for the subsequent contextualisation, including age, location, educational attainment, employment status, and household income level.

4.5.2.5 Thematic data analysis

When considering which qualitative data analysis methods are appropriate to achieve the research objectives, and suitable for the selected data types, it is useful to classify them according to their focus. Reviewing the most common methods used in business research (Collis and Hussey, 2014), it is possible to distinguish three groups:

- 1) Those that deal with meanings to draw conclusions, making up theoretical propositions: for example, the general analytic procedure suggested by Miles and Huberman (1994b), grounded theory techniques developed by Glaser and Strauss, (1967), and further adapted by Strauss and Corbin (1990); or thematic analysis (Boyatzis, 1998);
- 2) Those that investigate symbols (language, gestures, and other forms of expressions) – for example, discourse analysis (Cunliffe, 2008);
- 3) Those that aim to quantify qualitative data, mainly presented by content analysis (Mostyn, 1985) and repertory grid technique (Stewart and Stewart, 1981).

While the last two groups do not fit the research objectives conceptually, general analytical, grounded theory, and thematic analysis procedures appear to be appropriate within the scope of the study. The first one is the most effective when dealing with processes, and especially to distinguish the determinants of change. The current study, albeit focusing on informal funding as an interactional process, aims to construct its foundations, and define its implications both on the relationship, and the venture development. In this way, a more tentative approach, where data collection and analysis work in dynamics, allowing for the new concepts to emerge, be compared, and referred to the theory, and then related again to the new cases, fits both the abduction approach, and

the nature of the phenomenon well. Grounded theory in its original representation of Glaser and Strauss, (1967) avoids the use of literature to allow for an in-depth non-biased exploration of data. Given a semi-structured setting of the data collection process adherent to the conceptual framework established in Chapter 3, a more flexible thematic analysis method is adopted in this research, following the guidelines of Braun and Clarke, (2006). Systematic data collection and a set of analytic procedures ensured the robustness of the results through iteration, coding, theorising, making comparisons, and taking advantage of the depth of the observations in line with recommendations of Strauss and Corbin, (1990). Consequently, the chosen data analysis method contributed to theory building as intended.

The data analysis process included the following steps:

- 1) Data transcription: all interviews were audio recorded and fully transcribed by the author. The transcription procedure was implemented twice to correct inaccuracies.
- 2) Data cleaning: the data were screened for relevance, and suitability. This included editing transcribed texts, and corrections of the information based on the evidence from multiple sources.
- 3) Data consolidation: summary tables and timelines were constructed for each case, aggregating all data sources.
- 4) Data structuring: NVivo software (version 10)¹ was used to import all the raw data, and systemise the information across different sources, annotate it, and classify into nodes in preparation for data coding.
- 5) Data coding: implemented by means of NVivo software (version 10), and the outputs exported to Excel coding book.

¹ Nvivo is a software for qualitative data analysis. It was used for the purposes of data storage, data systematisation, annotation, and classification of the sources to assist the process of coding and subsequent analysis.

- 6) Matching theoretical concepts: mapping out patterns, dimensions, and their features against the theoretical framework established in Chapter 3.

In the last two stages, categories were derived from the observed patterns by means of theoretical sensitivity, and related back to the relevant literature. The procedure followed three steps of coding (see Table 4-7 for worked examples):

- 1) *Open Coding*: concepts were generated through line-by-line analysis, and classified into categories to reveal processes and changes.
- 2) *Axial coding*: implemented manually by creating cross-case, cross-participant, and cross-category tables to define interaction processes, their consequences, and patterns, and map out contextual effects (for example, in the form of timelines). The paradigm models were created by aggregating the patterns across the cases, outlining causal conditions (predispositions), the occurrence of an informal funding event, and the context. The model was verified for each case individually through the reconciled perspectives of an entrepreneur and their informal funder, while the propositions were re-iteratively checked during each new wave of the data collection.
- 3) *Selective coding* - was implemented across eight dimensions (aggregating the patterns) and six themes. As a result, three different story lines were developed around the entrepreneur's perspective, informal funder's perspective, and their reconciliation.

The analysis was finalised by formulating six sets of propositions, each one corresponding to the relevant theme. The approach allowed investigation of the phenomenon (the relationship between an entrepreneur and their informal funder) both at individual and transactional levels under many different types of conditions: location, time period (the stage of the macroeconomic cycle), industry, the purpose of funding, the state of the business, the type of the relationship, and the arrangement of the deal. In this way, the procedure contributed to formal theory building in relation to the first two research questions.

Table 4-7 A worked example of the three-level coding procedure

Entrepreneur		Informal Funder	
First-level Open coding		Second-level Axial Coding	
Direct citation	Code	Direct citation	Code
<p><i>"I think they observed... So I went, and just got on with the process of the starting... I'm absolutely convinced that if I didn't get the money from them, I would have got it somewhere else, right. But... they observed me going through the process and just doing all the things needed you to get started and finding the finance that you need to get started, which included going..."</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>	<p><i>"We talked a lot at the beginning, when he was just starting up the business, because he... you know, he wanted to set up a business for quite some years, and...he'd gone into a couple of things that hadn't worked out. But he had his heart so set on these things, so we talked about it quite a lot. And it was going like a natural progression, and suppose out of that, talking together with them. We could lend him money rather than go down the route of going to a bank, where the interest rates are so crazy. And that seems crazy... we had the facility to give him the loan...and why would he go to a bank?"</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>
<p>First-level Open coding</p>	<p>Code</p>	<p>Second-level Axial Coding</p>	<p>Code</p>
<p><i>"I think they observed... So I went, and just got on with the process of the starting... I'm absolutely convinced that if I didn't get the money from them, I would have got it somewhere else, right. But... they observed me going through the process and just doing all the things needed you to get started and finding the finance that you need to get started, which included going..."</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>	<p>Pattern</p>	<p>Code</p>
<p><i>"I think they observed... So I went, and just got on with the process of the starting... I'm absolutely convinced that if I didn't get the money from them, I would have got it somewhere else, right. But... they observed me going through the process and just doing all the things needed you to get started and finding the finance that you need to get started, which included going..."</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>	<p>Conversations</p>	<p>Conversations</p>
<p><i>"I think they observed... So I went, and just got on with the process of the starting... I'm absolutely convinced that if I didn't get the money from them, I would have got it somewhere else, right. But... they observed me going through the process and just doing all the things needed you to get started and finding the finance that you need to get started, which included going..."</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>	<p>Sharing</p>	<p>Sharing</p>
<p><i>"I think they observed... So I went, and just got on with the process of the starting... I'm absolutely convinced that if I didn't get the money from them, I would have got it somewhere else, right. But... they observed me going through the process and just doing all the things needed you to get started and finding the finance that you need to get started, which included going..."</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>	<p>Listening</p>	<p>Reasoning</p>
<p><i>"I think they observed... So I went, and just got on with the process of the starting... I'm absolutely convinced that if I didn't get the money from them, I would have got it somewhere else, right. But... they observed me going through the process and just doing all the things needed you to get started and finding the finance that you need to get started, which included going..."</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>	<p>Natural progression</p>	<p>Unfavourable conditions</p>
<p><i>"I think they observed... So I went, and just got on with the process of the starting... I'm absolutely convinced that if I didn't get the money from them, I would have got it somewhere else, right. But... they observed me going through the process and just doing all the things needed you to get started and finding the finance that you need to get started, which included going..."</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>	<p>Bank finance</p>	<p>Reasoning</p>
<p><i>"I think they observed... So I went, and just got on with the process of the starting... I'm absolutely convinced that if I didn't get the money from them, I would have got it somewhere else, right. But... they observed me going through the process and just doing all the things needed you to get started and finding the finance that you need to get started, which included going..."</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>	<p>Unfavourable conditions</p>	<p>Availability of funds</p>
<p><i>"I think they observed... So I went, and just got on with the process of the starting... I'm absolutely convinced that if I didn't get the money from them, I would have got it somewhere else, right. But... they observed me going through the process and just doing all the things needed you to get started and finding the finance that you need to get started, which included going..."</i></p>	<p>Observation Active start Self-confidence Determination Optimism Pro-activeness Track record Evidence Alternative finance sources IF - not the first choice</p>	<p>Trade-off</p>	<p>Trade-off</p>
		<p>Symmetric views</p>	<p>Symmetric views</p>
		<p>Third-level Selective coding (cross-cases)</p>	<p>Symmetric views</p>
		<p>Stage of the Funding Process</p>	<p>Dimension</p>
		<p>Characterisation of informal funding deal</p>	<p>Feature</p>
			<p>Implicitly demand-led</p>
			<p>Deal origination</p>

4.5.2.6 Triangulation

While the concept of triangulation is broadly considered as the combination of methodologies which study the same phenomenon (Denzin, 1978), it is deliberately differentiated from pragmatism as a philosophical paradigm, and mixed method (Denzin, 2012). Triangulation for the purposes of the qualitative research conducted in this study can be defined as processes to ensure that the phenomenon (informal funding transaction) is investigated in its fullness and richness from more than one standpoint (Cohen *et al.*, 2013), utilising multiple sources of data, and applying more than one method of data collection (Anderson and Aydin, 2005; Denscombe, 2014). Implementation of triangulation in the study is considered across its four types (Denzin, 1978):

- 1) *Data Triangulation*. This domain of triangulation can be achieved through the collection of data of different types (Decrop, 1999), at various times, in multiple locations, and from a range of people (Polit and Beck, 2013). Multiple sources of information were used in the case study analysis to complement or validate the facts and observations from the semi-structured interviews (see section 4.5.2.3). Interviews took place from the 31st of July 2012 to the 10th of September 2013 for businesses launched in 2000-2009. Although the selected companies were registered in the major Scottish cities: Edinburgh, Glasgow, and Aberdeen, their location varies across Lower Layer Super Output Areas characterised by different deprivation levels (see Table 4-5). Moreover, the participants as individuals came from a range of geographical areas, ensuring a variety of backgrounds. Finally, the data triangulation was achieved through the design of the semi-structured interviews, where both entrepreneurs and their informal funders were invited to share their perspectives on the same phenomenon (see section 4.5.2.2).
- 2) *Investigator Triangulation*. This form of triangulation implies several researchers take part in data interpretation and inferences making (Lincoln, 1985). Coding in the qualitative studies is the most challenging part of it (due to its exposure to the subjectivity of the investigator), and measured through inter-coder reliability – the degree of agreement on the codes among the researchers (Armstrong *et al.*, 1997).

While in more quantitative-oriented methods, like content analysis, inter-coder reliability is an acknowledged measurement procedure (Krippendorff, 2004; Elo *et al.*, 2014), it appears to be a controversial tool to ensure a reliable interpretation of qualitative data (Weinberger *et al.*, 1998). Meanwhile, it is viewed as a useful technique to reduce error and bias associated with the high degree of inference from the data (Hruschka *et al.*, 2004). As a result, two fellow researchers were invited to code all the citations independently across the suggested categories (axial coding). Afterwards, a discussion was held in cases where agreement was not reached. Both inter-coder reliability and agreement were achieved through this process (Campbell *et al.*, 2013).

- 3) *Method Triangulation.* For this study quantitative inquiry is not a triangulation of the qualitative inquiry within the research design setting. However, within-method triangulation was implemented to ensure the accuracy of the findings contributing to the theory building process (Denscombe, 2014). The set of propositions derived from the qualitative inquiry were sent back via email to the 14 participants who took part in the study (with the suggestion of a follow-up discussion on the phone). They were asked to comment whether they agreed with the inferences, to which extent, and where their view did not coincide with the statements. As a result, ten participants came back, of which four expressed a desire for the follow-up phone discussions where perspectives were clarified and reconciled between 25th of April 2015 and 15th of June 2015.
- 4) *Theoretical Triangulation.* Multiple theories originating from diverse perspectives were applied in the study (see Figure 4-3). The abduction logic of the study along with the procedures of thematic data analysis implied theoretical triangulation in design. Relating back to the underlying theories, and looking for alternative explanations underpinned the qualitative analysis.

4.5.2.7 Ethical considerations

To maintain the standards of a qualitative inquiry, investigators should adhere to ethical agreements and rules that are prevalent in the research community, or set up by the organisation (Eriksson and Kovalainen, 2015). The ethical aspect was an inherent part of the case study design: from email communications, phone conversations, and face-to-face meetings, to conducting the semi-structured interviews, analysing personal information, and discussing results. The procedures and techniques used throughout the study to ensure the ethical requirements and recommendations are met, are summarised under headings suggested in the works of Babbie (2008) and Eriksson (2015):

- 1) *Informed Consent and Voluntary Participation* were achieved through disclosing the purpose of the study, expectations, requirements, procedures, future outcomes, and the conditions of the investigation process. A detailed overview of the research and a brief statement about the personal background of the investigator (see Appendix 8 and Appendix 9) were provided during the initial contact with the participant. As evidence of the commitment of the researcher to the outlined principles, and the agreement of the participant to take part in the project, the consent form was signed off prior to the data collection process (see Appendix 10). The principle of voluntarily participation was maintained throughout the study. As a result, the reluctance of some entrepreneurs to put the researcher in touch with their informal funders at the later stages was respected.
- 2) *Privacy, Confidentiality and Data protection* are essential attributes at all the stages of the qualitative inquiry. The information provided by the 'gate keepers', and participants in any form was stored confidentially in coherence with the University's Research Data Management and Data Sharing policy (University of Strathclyde, 2014). Personal and sensitive information was not used in the research when it was not relevant, in other cases, it was aggregated up to a level where it could be labelled more generally (Ellis, 2007). This was especially challenging when dealing with the dyads of an entrepreneur and their informal funder: naturally both parties, although interviewed separately, were enquiring about each

other's perspectives. All the names, and any indications that can potentially disclose the identity of the participant were concealed, and not revealed in the analysis, and further discussion of the results. None of the personal emails were used for research purposes. The information from the secondary sources was applied in accordance with the terms and conditions of their providers.

- 3) *Accuracy* was achieved by the audio-recording of the interviews (with the prior agreement of the participant) and their subsequent transcription. This ensured that nothing was missed out or distorted. Minimal intervention allowed a guided but not directed conversation, only signposting areas to expand upon, avoiding closed or leading questions (Brinkmann, 2014).
- 4) *Professional Integrity* stands for the disclosure of all the research procedures, instruments and techniques to ensure the results are trustworthy. As a result, the research was planned in detail, where each step was documented, and reported, so that the logic of the analysis and arguments can be tracked.

4.5.2.8 Quality of the inquiry and limitations

Multiple criteria are suggested in the literature to evaluate a qualitative study, depending on the paradigm and the selected methods (Lincoln, 1985; Leininger, 1994; Healy and Perry, 2000; Wigren, 2007). However, all of them boil down to two major constructs: validity and reliability, where the variety of instruments is derived to match the specific type of inquiry (Morse *et al.*, 2002; Bryman *et al.*, 2008). Therefore, quality is analysed across four dimensions developed by Yin (2009) for the case study method:

- 1) *Construct Validity* ensures that the operational measures utilised in the research are appropriate for the articulated questions and objectives. For the qualitative inquiry it is reflected in the derived concepts, which need to be representative of the phenomena under investigation, not biased, and transferrable. As a consequence, multiple sources of evidence (data triangulation), professional integrity, and having concepts checked by the participants (method triangulation) contributed to the construct validity across all its dimensions.

- 2) *Internal Validity* for qualitative studies deals with making inferences where the relationships between the concepts are mapped out within a pre-defined clearly-articulated context. Replication logic is the core of internal validity, and was achieved by means of multiple case-studies design, and by relating revealed patterns with the existing theories, addressing rival explanations, and providing a multifaceted perspective (a procedure integrated within the selected data analysis method).
- 3) *External Validity* relates to analytical generalisation and theory building. Triangulation procedures ensured that the constructed theory fit with the phenomenon in reality, and proved to be comprehensible both for the participants, and for the fellow researcher/coders. The propositions control for the conditions to which they apply, while maintaining a degree of flexibility to allow abstraction from peculiarities and contingencies.
- 4) *Reliability* is tightly associated with the professional integrity discussed above, and means the operations in the study can be replicated with the same results. For this purpose, all the procedures were documented, where the sequence of steps, as well as the information received were recorded and stored.

Limitations of the design in relation to the object of the study stem from its assumptions. First, it is focused on a contemporary phenomenon within some real-life context. In this sense, recollection of situations in the past fully relies on the participant's memory, desire, and ability to lay out the sequence of events, their details, prerequisites, and consequences as close to reality as possible. Moreover, time allows participants to reflect on the past, which mostly fits with the rationale of the study: to capture interpretations of reality, leading to the observed outcome of informal funding. However, on certain occasions it might exaggerate or diminish certain actions, or factors leading to them. The dyadic design allows some control over such biases. Second, while contextualisation is an integral part of the process, it is difficult to separate the 'pure' phenomenon and submerge it into a different context. As a result, it is not possible to prove the probabilistic argument of becoming an informal funder - this issue is addressed at the next stage of the quantitative

inquiry. Third, the richness of the data underpinning the uniqueness of each case, imposes limited comparability of the results across them. This challenge is partly overcome by introducing an abduction logic, where patterns are re-iteratively identified. Finally, limited generalisation, emerging from the qualitative findings, results in tentative theory building, where a set of the developed propositions is still to be tested in application to alternative contexts (which is an area for future research).

4.5.3 Quantitative inquiry: secondary data collection and analysis

Quantitative methods are frequently used in empirical entrepreneurship research, mostly applying deductive positivist logic to hypotheses testing (Chandler and Lyon, 2001; Hlady-Rispal and Jouison-Laffitte, 2014; Higgins *et al.*, 2015). In this study, quantitative analysis is used to provide a multi-level perspective on the phenomenon of informal funding, thus complementing the qualitative inquiry. This section provides a summary of the research objectives to be achieved, and describes the procedures employed, including data collection and preparation, analytical methods, the estimation of quality of the quantitative inquiry, and its compatibility with the qualitative design.

4.5.4 Aligning objectives and hypotheses formulation

In order to address the third and the fourth research questions, the following objectives are set:

- To characterise the scale and scope of informal funding market in the UK both from the supply and demand sides;
- To track the dynamics of the informal funding market in the UK throughout the business cycle;
- To determine individual-level and local-level informal funding demand and supply factors;
- To establish mutual effects between individual-level and community-level factors across the business cycle.

The quantitative inquiry process comprised two steps: descriptive analysis and modelling. While the former aims to meet the first two objectives, the latter deals with the causal relationships hypothesised in the theoretical framework development section (Chapter 3). Qualitative findings are subsequently linked to the hypotheses building (Chapter 6), while the results from both inquiries are further consolidated in Chapter 7.

4.5.4.1 Secondary data types

The study utilises secondary data combining two sources of information: 1) a longitudinal (pseudo-panel) survey of the adult population on various aspects of entrepreneurship (Global Entrepreneurship Monitor - GEM), where a set of questions are designed around the concept of informal funding (Bygrave and Hunt, 2004), and 2) Index of Multiple Deprivation (IMD), developed and collected by the Office of National Statistics (ONS) to capture the context-dependent information across local communities. The use of these data is mainly justified by their appropriateness to the research questions, as well as their feasibility. While GEM data represent one of the most trusted sources to obtain information on early entrepreneurial activity, and were tested on the validity of underlying concepts in several studies (Reynolds *et al.*, 2005; Valliere, 2010; Ács *et al.*, 2014), ONS provides comprehensive and accurate information covering a full range of Lower Layer Super Output Areas – LSOAs (Payne and Abel, 2012). The use of primary data as a part of the quantitative approach is therefore inexpedient, as the resources required to design a specifically targeted cross-sectional longitudinal survey on a similar scope would not justify the needs within the current research frame.

GEM is a longitudinal research project based on repeated annual proportional stratified surveys of the adult population for consistent intertemporal and international comparisons of the differences in the level of entrepreneurial activity, covering the whole life-cycle of entrepreneurs: from intentions to start a new firm to establishment and on to discontinuation (Reynolds *et al.*, 2005; Quill *et al.*, 2006). Each year a different representative sample of adult population is selected, ultimately forming a pseudo-panel (Verbeek, 2008). Launched in 1999, it provides individual-level and subsequently aggregated data at the national level, capturing both entrepreneurial behaviour and its context. The respondents of GEM surveys are asked specific questions regarding their personal views on their own entrepreneurial skills, motivation, and some opportunities to start a business in their region, as well as their involvement in any sort of entrepreneurial activity, or its support (an example of the generic questionnaire can be found on GEM website). The opportunities of GEM data compared with the scope of official statistics (which covers business population estimates, activity, size, location, and business demographics) stem from an individual as a unit of analysis, allowing capture of a deeper area of entrepreneurs' and their sponsors' internal incentives. In the UK, as well as in other countries where statistics are based on the Eurostat-OECD regulations in drawing up business registers (Eurostat-OECD, 2007; The European Parliament and the Council, 2008), only enterprises which are legal units are recognised. Timeliness and punctuality guidelines proposed by ONS allows six months between the reference year (ending in March) and the release date of the snapshot (Office for National Statistics, 2014). GEM methodology implements data collection in May-June each year, with the first data release in October-November, maintaining the same lapse period.

Up to 2010, the data in the UK were collected following the fixed-landline sampling methodology, whereas gradually by 2012 the proportion of mobile-only households in the survey rose to the population-wide estimate of 15%, without any significant implications for comparisons across years (Levie and Hart, 2012).

GEM UK samples are representative of the adult population (18-64 years old) across age, gender, location, and ethnicity. A two-stage weighting system was developed to account for the proportions of the actual population across the distinguished parameters. First, the weights were calculated, based on the actual population sizes of nine Government Offices for the Regions (GOR, or Regions from March 2011, see Table 4-8). Second, the final weights were worked out for the adjustments across the four home nations: England, Wales, Scotland, and Northern Ireland (Levie and Hart, 2012).

Table 4-8 Region Codes in England

Region Code	GOR (Jan 1999 – Mar 2011)	Region Name
E12000001	A	North East
E12000002	B	North West
E12000003	D	Yorkshire and The Humber
E12000004	E	East Midlands
E12000005	F	West Midlands
E12000006	G	East of England
E12000007	H	London
E12000008	J	South East
E12000009	K	South West

Source: Office for National Statistics

As a result, the following units of analysis are adopted in the study, compliant to the GEM methodology:

Nascent Entrepreneur – an individual aged between 18 and 64, actively involved in managing a business that they already own solely or jointly, but who has not had any income from the business at all, or has only been receiving it for no more than three consecutive months.

New Business Owner - an individual aged between 18 and 64, actively involved in managing a business that they already own solely or jointly, but who has only been receiving it for more than three, but not more than 42 consecutive months

Early-stage Entrepreneur – either a nascent entrepreneur, or a new business owner.

The category of early-stage entrepreneurs reflects the initial stage of business development, where an individual has at least started committing resources, including money. This group of entrepreneurs are more likely to enquire about informal funding

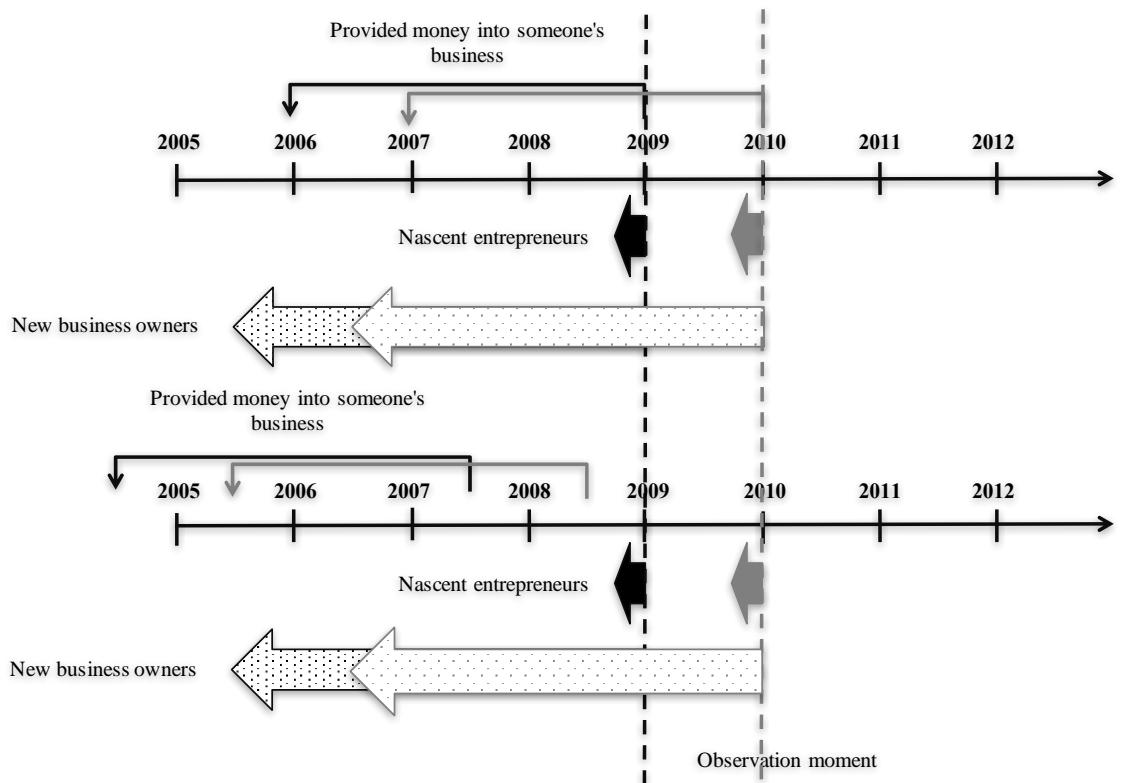
to get their venture launched according to the financial escalator (Harrison and Baldock, 2015). Moreover, such a unit of analysis is consistent with the theoretical sampling frame applied in the qualitative design, to characterise the demand side for informal funding.

Informal Funder - an individual aged between 18 and 64, who in the past three years has personally provided funds for a new business started by a family member, friend, work colleague, or neighbour, excluding any purchases of stocks or mutual funds.

In a similar way, the same definition was adopted in the qualitative inquiry, described earlier (see section 4.5.2.2). Moreover, although ‘informal funders’ and ‘informal funding’ are referred to in the GEM methodology, as well as in the literature (Farrell *et al.*, 2008) as ‘informal investors’ and ‘informal investments’, the former notion is believed to better capture the phenomenon, as it covers not only equity deals but, for example, informal lending or gifts.

For the accuracy of the analysis and interpretation of the results, the definitions were arranged across the timeline in order to reflect the reference to the past on the moment of observation (see Figure 4-4). This is particularly important when trying to match the demand side (which refers back up to 42 months) and the supply side (which refers back up to 36 months). To achieve a better ‘matching’ when relating the two indicators, it was decided to shift back the informal funder’s activity for 18 months (half of the reference period) to compare it with the current indicator of early-stage entrepreneurial activity. For example, nascent entrepreneurs and new business owners recorded in 2009 are related to informal funders recorded in between 2007 and 2008 - prior to the ‘birth’ of the most ‘mature’ new business owner.

Figure 4-4 Time-lapse in the measurements of early entrepreneurial and informal funding activities according to the GEM methodology



Observation period of the study: 2007-2012, which allows the capture of the full business cycle in the UK – see Figure 2-2 (Chowla *et al.*, 2014), and captures the time period allocated for the qualitative data collection.

Indices of Multiple Deprivation

Deprivation is used to characterise the relative lack of a range of resources to enable a standard of living consistent with societal norms at the community level (Townsend, 1987; Dorling *et al.*, 2007). It reflects the negative extreme of environmental munificence (see section 3.2.2.2): the lack of necessary resources as well as the opportunities to access them.

Community deprivation is measured using the Index of Multiple Deprivation (IMD) provided by the UK Department for Communities and Local Government. It reflects the socio-economic environment at community level and is available at the lower layer super output areas (coherent communities of around 1,500 people) across England,

and similarly defined data zones in Wales, Scotland, and Northern Ireland. The concentration of people who are experiencing deprivation in multiple senses, attributed to a particular territory provides the reasoning for considering the relative deprivation of one area compared to another. The measures of multiple deprivation vary across four countries in the UK, and combine a different, but similar set of community-level indicators (see Table 4-9). The indicators are calculated based on Census data and alternative data from administrative sources. The rank-based index allows one to estimate the relative position of an individual's community in terms of deprivation, where a higher deprivation score implies a more deprived area (Noble *et al.*, 2008).

Table 4-9 Community-level deprivation domains in England, Wales, Scotland, and Northern Ireland

England	Wales	Scotland	Northern Ireland
Household Income Deprivation	Income deprivation	Income deprivation	Income deprivation
Employment Deprivation	Employment deprivation	Employment deprivation	Employment deprivation
Health deprivation and disability	Health deprivation	Health deprivation	Health deprivation and disability
Education, skills and training deprivation	Education deprivation	Education deprivation	Education, skills and training deprivation
Barriers to housing and services	Geographical access to services deprivation	Housing deprivation	Proximity to services deprivation
Living environment deprivation	Physical environment deprivation	Access deprivation	Living environment deprivation
Crime deprivation	Community safety deprivation	Crime deprivation	Crime and disorder deprivation
	Housing deprivation		

The methodology of IMD calculation across the four nations appears to be different, making direct comparisons impossible within the UK. Income and employment deprivation domains are measured in the most consistent way, while other dimensions and their construction vary considerably (Department for Communities and Local Government; Northern Ireland Statistics and Research Agency; Stats Wales; The Scottish Government). As a result, the indices were adjusted to make them comparable both across years and nations.

Payne *et al.* (2012) propose to use Scottish indices as the baseline for the universal score; however it was found that using English indices instead (as the biggest country among the four) achieved a rank correlation coefficient (Kendall's tau) between

adjusted and original IMD of 0.91 for Wales, 0.96 for Scotland, and 0.97 for Northern Ireland without any deterioration in the results.

Another amendment was made in relation to the time period for which the indicators are calculated. While within the observation period English IMD are available for 2007 and 2010, Welsh ones (WIMD) are there for 2008 and 2011, Scottish (SIMD) – for 2006, 2009, and 2012, and Northern Ireland measures (NIMDM) – for 2010. As a result, two scores were worked out: 1) for the pre-crisis period (IMD for 2007, WIMD for 2008, SIMD for 2006, and NIMDM for 2010); and 2) for the after-crisis period (IMD for 2010, WIMD for 2011, SIMD for 2012, and NIMDM for 2010).

A linear regression model was computed for each country, with the overall IMD as the dependent variable and income and employment domains as independent variables. The results of the modelling for each country are presented in Table 4-10.

Table 4-10 Estimations of the regression models for the Indices (Measurements) of Multiple Deprivation in England, Scotland, Wales, and Northern Ireland.

	England		Scotland		Wales		Northern Ireland
	2007	2010	2006	2012	2008	2011	2010
<i>Constant</i>	-0.502	-0.19	-0.789	-	6.024	5.423	-6.601
<i>Income Domain coefficient</i>	0.708	0.849	0.886	0.894	0.46	0.273	0.72
<i>Employment Domain coefficient</i>	1.093	0.93	0.757	0.825	0.263	0.475	0.761
<i>Estimated standard deviation of the residuals</i>	3.519	3.585	2.731	3.091	3.193	2.772	2.855
<i>Number of observations</i>	32481		6504		1895		889

Next, residuals were obtained using those models, as an estimation of the unique contribution of ‘other deprivation’ (not income and employment) to the overall IMD. And, finally, the adjusted scores for each country (*i*) were worked out using the formula:

Equation 4-1 Calculation of the adjusted IMD scores

$$IMD_{ADJUSTEDi} = \beta_{E0} + \beta_{E1}I_i + \beta_{E2}E_i + \frac{\varepsilon_i \sigma_E}{\sigma_i}$$

Where β_{E0} is the constant from Table 4-10 for England; $\beta_{E1}I_i$ is the income domain coefficient for England multiplied by the score of the income deprivation domain of the corresponding country; $\beta_{E2}E_i$ is the employment domain coefficient for England multiplied by the score of the employment deprivation domain of the corresponding country; ε_i is the individual residual value based on the original model; σ_i is the estimated standard deviation of the residuals for the corresponding country; σ_E is the estimated standard deviation of the residuals for England.

The adjusted indices of multiple deprivation both for the pre-crisis and post-crisis periods were merged with the GEM data set according to the following procedure:

- 1) Postcodes associated with each individual in the GEM data set were matched with LSOAs (England and Wales), data zones (Scotland), and super output areas (Northern Ireland) through *GeoConvert* (UK Data Service Census Support);
- 2) Each LSOA, data zone, and super output area identified was matched with the adjusted IMD for the pre-crisis and post-crisis periods.

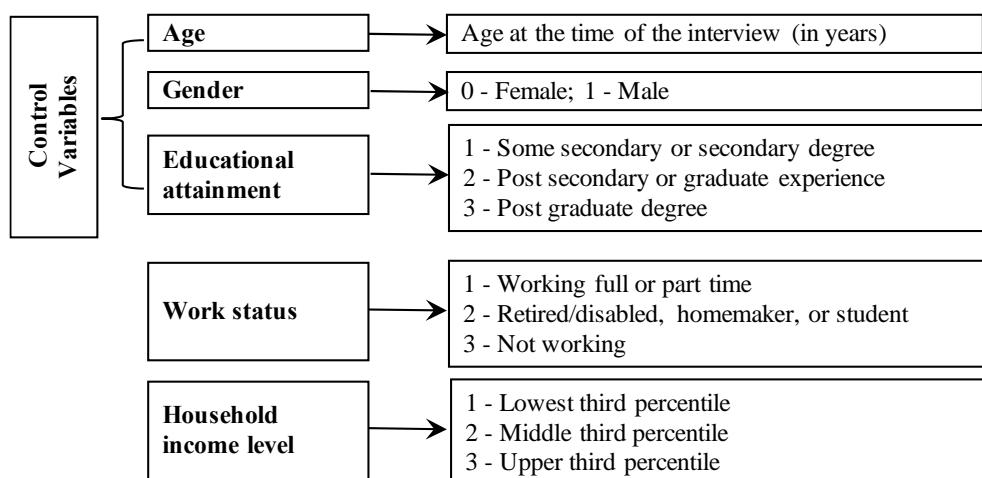
As a result, matched IMD were available for 78% (the mean for the period 2007-2012) of the cases – an acceptable indicator, as the representativeness of the sample and its sufficient size were maintained (see Appendix 14).

4.5.4.2 Operationalisation of the concepts and measurement issues

After all the observations were weighted to achieve the representativeness of the adult population across the described categories, a set of questions from the GEM questionnaire were selected for further processing (see Appendix 15).

Each respondent in the sample is characterised by a range of socio-demographic parameters (see Figure 4-5), identification indicators to determine whether an individual can be classified as an informal funder², nascent entrepreneur, new business owner, established business owner, or someone who discontinued their business (see Figure 4-6), and variables defining attitudes towards entrepreneurship (see Figure 4-7).

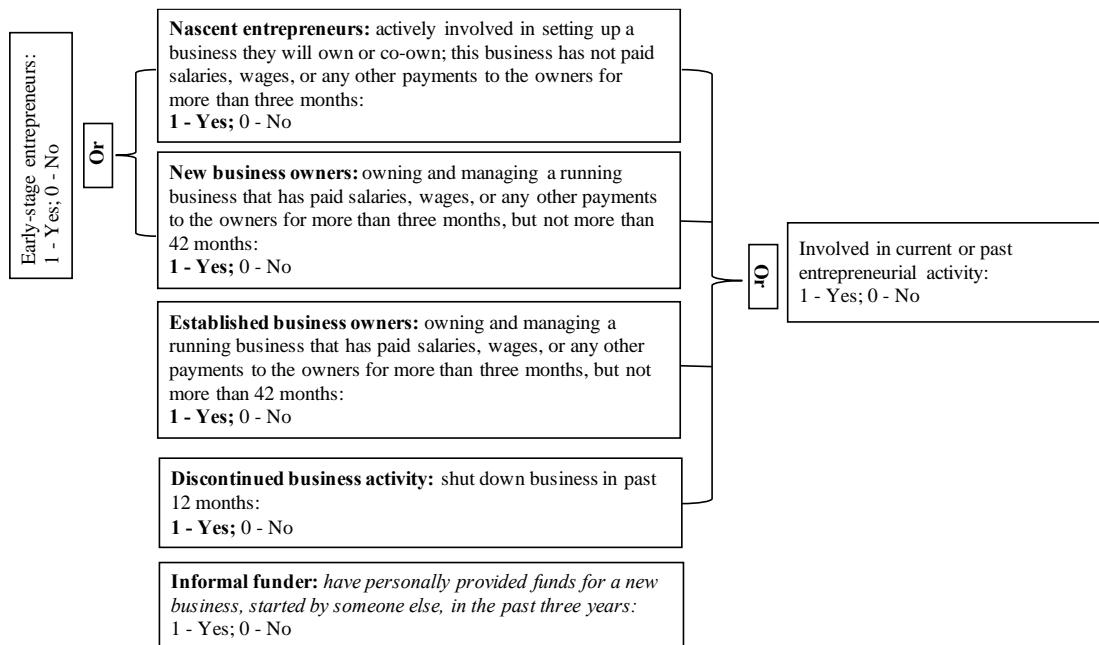
Figure 4-5 Socio-demographic variables used in the analysis



Age, gender, and education are control variables (as per section 3.2.1.5 for entrepreneurs, and section 2.3.2 for informal funders). Age and gender in particular determine the success of attracting bank finance by entrepreneurs, where more vulnerable groups might refer to informal funds as a last resort. Age, gender, and education were shown to be related to the likelihood of becoming an informal funder, defining their socio-demographic status.

² The category of 'strangers' is included in the definition of informal funders (along with family members, friends, work colleagues, and neighbours). It represents a minor share (no more than 8% of informal funders during the observation period with nearly 1% of them reporting that they supported a stranger and consider themselves as a business angel in 2010), and does not change the significance of the results.

Figure 4-6 Identification variables used in the analysis



In bold: options selected to construct an indicator.

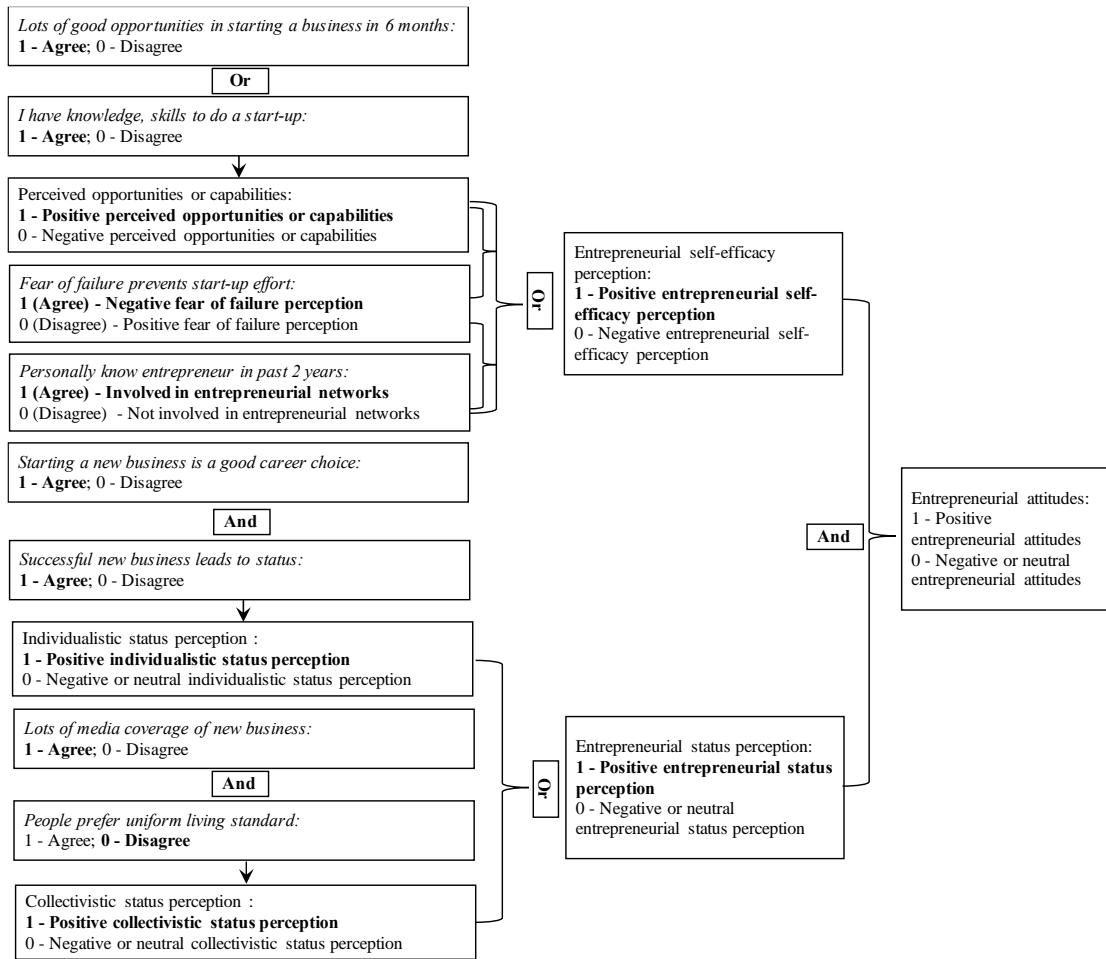
In italics: original questions are from GEM questionnaire.

The percentage of early-stage entrepreneurs in the adult population is used as a proxy for the potential demand for informal funds at the local and macroeconomics levels, as suggested by Burke *et al.*, (2010).

Positive entrepreneurial attitudes is a variable operationalised in accordance with the work of Arenius and Minniti, (2005), and composed of::

- Positive entrepreneurial self-efficacy perception (including: positive perceived opportunities or capabilities; positive fear of failure perception (risk aversion), availability of personal networks);
- Positive perception of the social status of entrepreneurship (Begley and Tan, 2001) (including positive response to the following statements: successful new business leads to status; starting a new business is a good career choice; lots of media coverage of new businesses (Klyver and Hindle, 2006); diverse living standards (Hayton *et al.*, 2002)).

Figure 4-7 Variables characterising entrepreneurial attitudes



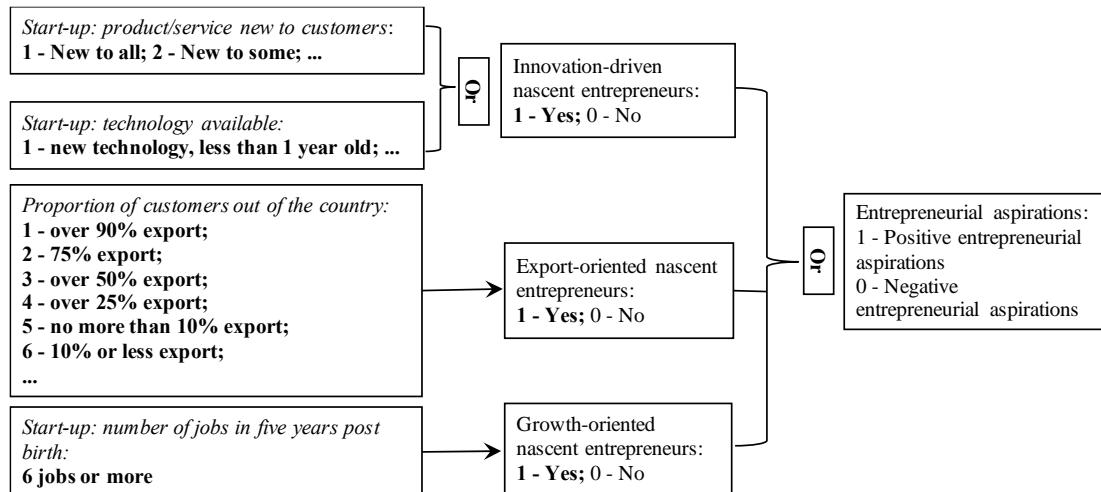
In bold: options selected to construct an indicator.

In italics: original questions are from GEM questionnaire.

For each group of individuals, identified at the previous stage, additional information is collected. In this vein, informal funders are further prompted to indicate the amount of money provided (in pounds). Nascent entrepreneurs, in contrast, answer questions to determine their aspirations (see Figure 4-8), motivation (see Figure 4-9), industry type, intended source of funding (see Figure 4-10), intended amount of the start-up capital (in pounds), and intended amount of the own capital (in pounds).

Entrepreneurial aspirations (Hessels et al., 2008) distinguish between innovative and marginal ventures (an argument highlighted in sections 3.2.1.3 and 3.6), which might affect entrepreneurial finance choices.

Figure 4-8 Operationalisation of entrepreneurial aspirations

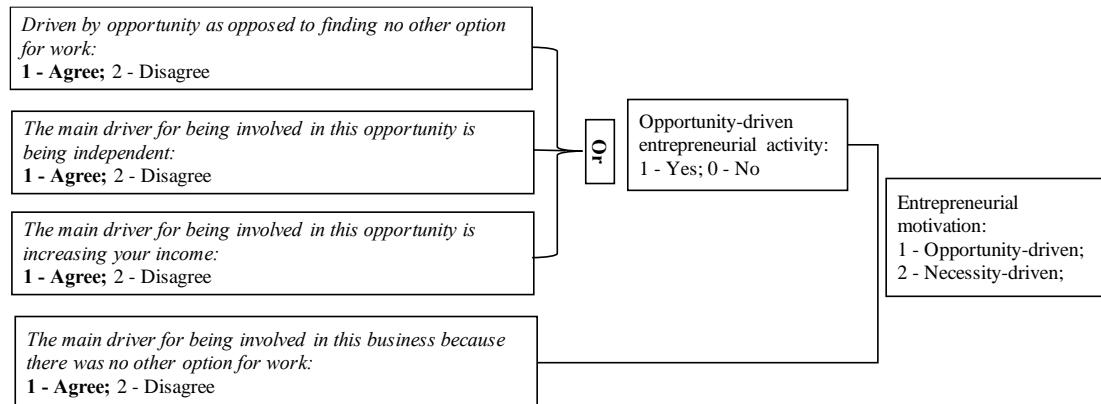


In bold: options selected to construct an indicator.

In italics: original questions are from GEM questionnaire.

Similarly, entrepreneurial motivation (Reynolds et al., 2002) is expected to influence entrepreneurial choice towards informal funds, associated with an individual's risk profile (section 3.2.1.2).

Figure 4-9 Operationalisation of entrepreneurial motivation



In bold: options selected to construct an indicator.

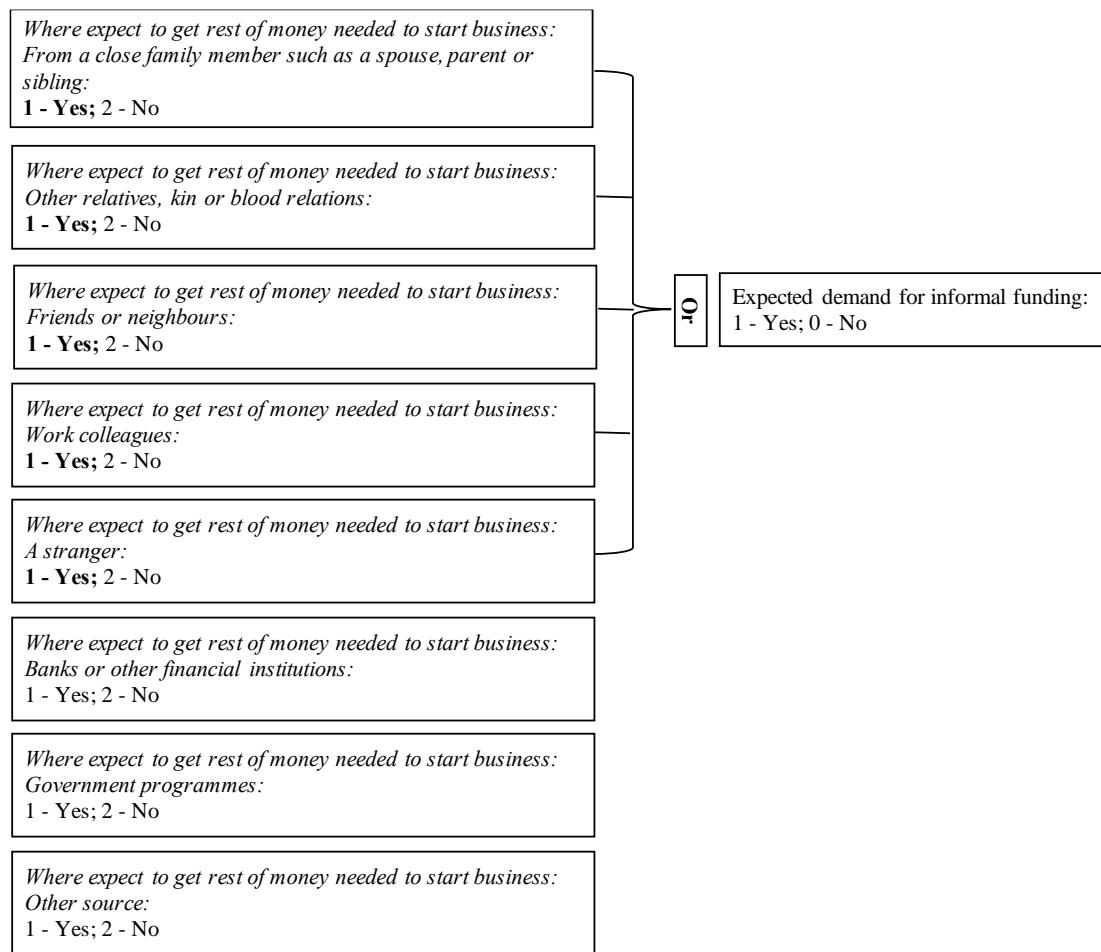
In italics: original questions are from GEM questionnaire.

Industry type is controlled for when investigating the factors that define the probability that an early entrepreneur will seek informal funding (Hypotheses 1a and 1b). The argument is developed in section 3.2.1.5, where the type of the business activity determines the availability (and accessibility) of formal funding, which is a primary choice of entrepreneurs. Industry type is distinguished according to the UK Standard

Industrial Classification of Economic Activities (Office for National Statistics, 2009), classified across the four sectors of economic activities (Kenessey, 1987):

- Primary sector (sections A and B);
- Secondary sector (sections C, D, E, F);
- Tertiary sector (sections G, H, I, Q, R, S, T);
- Quaternary sector (sections J, K, L, M, N, P).

Figure 4-10 Operationalisation of entrepreneurial finance choice



In bold: options selected to construct an indicator.

In italics: original questions are from GEM questionnaire.

Expected demand for informal funds (from family members, friends, work colleagues, neighbours, and strangers) forms the basis of the analysis at the individual level for nascent entrepreneurs.

Two contextual variables were also constructed to operationalise local and macroeconomic environment:

- 1) Location – IMD of the corresponding LSOA or a data zone.
- 2) Business cycle – introduced as two dummy variables across the three stages to distinguish pre-crisis (2007), crisis (2008-2009), and post-crisis (2010-2012) periods: $D_{\text{pre-crisis}} = \{1 (\text{pre-crisis}), 0 (\text{crisis}), 0 (\text{post-crisis})\}$, and $D_{\text{crisis}} = \{0 (\text{pre-crisis}), 1 (\text{crisis}), 0 (\text{post-crisis})\}$.

A detailed overview of the variables, computed from the original set in the GEM database, along with the sample sizes and the frequencies of the key indicators is presented in Appendix 16 and Appendix 17. The majority of the variables are nominal (binary), however, there are three parameters which are quantitative continuous ratio variables (Velleman and Wilkinson, 1993): the amount of informal funding provided, the intended amount of start-up capital required to launch a business, and the intended amount of own funding. These variables are not normally distributed (see Appendix 18), and adjusted by means of natural logarithm. Prior to that, distributions were explored to detect outliers, which were subsequently excluded from the analysis, using the following criterion (Daniel, 1990):

Equation 4-2 Criterion for the outliers detection

$$\text{Lower limit} = V_1 - 1.5(V_3 - V_1); \text{Upper limit} = V_3 + 1.5(V_3 - V_1)$$

V – a quantitative continuous ratio variable

V_1 and V_3 – lower and upper quartiles

4.5.4.3 Data analysis: descriptive statistics, single-level, and multi-level modeling

At the first stage of the analysis in order to characterise the scope of the informal funding market in the UK both from the supply and demand sides, descriptive statistics were applied for continuous ratio variables, using *IBM SPSS Software* (see Appendix 19). For the binary variables the frequencies were calculated and transformed into rates (see Appendix 20 and Appendix 21). The sample is considered to be representative with respect to a variable if the distribution of this variable in a sample is the same as

in the population (Kruskal and Mosteller, 1988). While GEM procedures ensure that the sample represents the adult population in the UK, it is not the case for the populations of nascent entrepreneurs and informal funders (mainly because they are unknown). Therefore, only rates worked out as a percentage of the adult population were further extrapolated to the entire population for further generalisation.

At the second stage, modelling was performed at the individual and local levels using *Stata® Software*. The former comprised single level and multilevel analyses, while the latter dealt with the rates across communities.

Single level analysis at the individual level

The event of whether an individual is an informal funder or not is a binary dependent variable - y_i , defined as:

$$\begin{aligned} y_i &= 1, \text{ if individual } i \text{ is an informal funder,} \\ y_i &= 0, \text{ otherwise} \end{aligned}$$

Fitting a linear model using Generalised Least Squares method (GLS) encounters the problems of the scale in the output variable (being a probability it should be ranged between 0 and 1), as well as highly non-normal distribution of the error terms, leading to heteroscedasticity (Verbeek, 2008). As a result, a binary choice model appears to be a better alternative, which can be generally described as follows:

Equation 4-3 Binary choice model specification

$$P\{y_i = 1|x_i\} = G(x_i, \beta)$$

Where $G(x_i, \beta) = F(x_i' \beta)$, and F is accepted to be the standard logistic distribution function (which is tested for appropriateness using Lagrange Multiplier (LM) test). The equation says that the probability of an individual i to become an informal funder depends on the individual characteristics, specified as:

- Age: control variable
- Gender: control variable
- Educational attainment: control variable

- Household annual income
- Work status
- Involvement (or past involvement) into entrepreneurial activity
- Entrepreneurial attitudes
- Location: in terms of IMD
- Business cycle*

*Included as an interaction term with other independent variables

Similarly, the individual characteristics are specified to model the propensity to attract informal funds by early entrepreneurs:

- Age: control variable
- Gender: control variable
- Industry type: control variable
- Educational attainment
- Household annual income
- Work status
- Entrepreneurial aspirations
- Entrepreneurial motivation
- Entrepreneurial attitudes
- The amount of start-up capital required
- The amount of own capital invested
- Location: in terms of IMD
- Business cycle*

*Included as an interaction with other independent variables

The model is estimated using the Method of Maximum Likelihood (MLM), where the goodness-of-fit is defined as pseudo- R^2 (Amemiya, 1981) and McFadden R^2 (McFadden, 1974).

Multilevel analysis at the individual level

Following the assumption that the munificence (or deprivation) level of the area and social characteristics of individuals as well as their perception of the entrepreneurial activity are associated with each other, it is likely that those individual parameters will interact with the community-level (institutional) characteristics. In this vein, the standard assumption of single-level models of independent observations can be violated (Rabe-Hesketh and Skrondal, 2008). As a result, multi-level binary choice model design can accommodate the mutual effects at more than one level.

The unit of analysis at the first level is an adult individual, whereas at the second – a community, which is characterised by the homogeneous deprivation level (Appendix 22). To construct the latter level of analysis, all the LSOAs and data zones available in the data set were clustered into 50 groups, where the level of deprivation in each group is uniformly distributed (k-means clustering method – see Hartigan and Wong (1979)). The decision to retrieve 50 groups, from one side, was restricted by the clustering procedure, and, from the other side, accounted for the power of the multilevel regression coefficients tests and variance parameters (Snijders, 2005; Moerbeek *et al.*, 2008)

As a result, a generalised linear random intercept model for the relationship between the probability to become an informal funder (holding the community effects constant), and individual-level characteristics (so called global variables) can be presented in the following way:

Equation 4-4 A two-level linear random intercept model specification for the binary response

$$F^{-1}(\pi_{ij}) = \beta_0 + \beta_1 x_{1ij} + \dots + \beta_k x_{kij} + u_j$$

Where i – individual index; j – community index; k – independent variable index; x – individual-level global variable; $\pi_{ij} = \Pr(y_{ij} = 1) = E(y_{ij}|x_{ij}, u_j)$ - the probability to become an informal funder (mathematical expectation); u_j - level 2 residuals ($u_j \sim N(0, \sigma_u^2)$); F^{-1} is an inverse logistic distribution function.

So far, the effect of each independent variable x_k is considered to be the same in each community. To relax this assumption, and allow the effects to vary within communities, two-level random-slope models are considered:

Equation 4-5 A two-level linear random intercept and random slope model specification for the binary response

$$F^{-1}(\pi_{ij}) = \beta_0 + \beta_1 x_{1ij} + \cdots + \beta_k x_{kij} + u_{0j} + u_{1j} x_{1ij} + \cdots + u_{kj} x_{kij}$$

One of the advantages of multilevel modelling is the ability to consider the effects of community-level predictors (contextual effects), while controlling for ‘unobserved’ community-level effects (Steele, 2009) by extending the random intercept logit model (see Equation 4-4) to the following specification:

Equation 4-6 A two-level linear random intercept model with community-level predictors for the binary response

$$F^{-1}(\pi_{ij}) = \beta_0 + \beta_1 x_{1ij} + \cdots + \beta_k x_{kij} + \alpha_1 z_{1j} + \cdots + \alpha_m z_{mj} + u_j,$$

where m – community-level predictor index, z – community-level predictor.

The list of the main Stata® commands used in the analysis, across different stages of the modelling described above, is presented in Appendix 24. The modelling was partially replicated for the demand side (to predict the probability of an early entrepreneur to consider informal funding. However, the results are not generalisable, as the sample is not representative of early-stage entrepreneurs due to its design.

Local level analysis

The modelling deals with the count of informal funders (or early entrepreneurs expecting to attract informal funding) as a dependent variable, and the community level of deprivation as an independent variable. The former one is assumed to follow a Poisson distribution with expectation $\lambda_i \stackrel{\text{def}}{=} \exp\{\beta_0 + \beta_1 x_i\}$, where x_i – an IMD index decile to distinguish 10 communities with different deprivation levels (see Appendix 23). This number ensures that the estimates are consistent, asymptotically efficient, and normal (Verbeek, 2008).

Since the observations are independent, and the mean and variance of the empirical variables are the same: Pearson dispersion statistic does not exceed 1 (Rodriguez, 2013), Poisson regression is estimated by means of MLM with a logarithmic link function.

In the subsequent analysis (see Chapter 6) the estimations of the final models are only presented, omitting the intermediate steps.

4.5.4.4 Triangulation

Established secondary longitudinal data sources, on one hand, provide an advantage of consistent and verified methodology of measurement and data collection. On the other hand, they limit flexibility in choosing constructs, and, subsequently, in applying different methods. In this way, *data triangulation* was achieved as a part of the requirements to the national teams participating in GEM, where the conducting of a pilot study is an essential step of the validation process. Pilot data are sent to the centralised GEM team for quality analysis, including coding, excess missing values, skip pattern, sample selection, and others. After that the full data collection takes place, and the complete data sets are further externally examined for the flaws, representativeness, and the correct calculation of weights (Global Entrepreneurship Research Association; Bosma, 2013).

With regard to the *investigator triangulation*, the research was carried out under the academic supervision of two established researchers. One of them was an associate coordinator of Global Entrepreneurship Monitor (GEM) since its origination, has been an elected member of its founding board - the Global Entrepreneurship Research Association (GERA), and has authored annual GEM UK reports. The other one is a specialist in the methods of statistical analysis, including multi-level design and hierarchical modelling. Additionally, several consultations were sought from colleagues who have been working specifically with the UK community-level data.

As far as *within-methods triangulation* is concerned, the combination of descriptive analysis, single-level analysis techniques (including different methods of estimation – MLM, and GLS), multi-level, and local level modelling involves different approaches

to verify the investigated relationships. Although all of them imply certain limitations they complement each other's strengths (Jack and Raturi, 2006). In this way, descriptive analysis provides tentative results, while MLM deals with the binary response variables, and multi-level modelling accounts for interactions between individual characteristics and local environment factors.

Finally, GEM data are largely shaped by the conceptual framework which constitutes its underlying basis (Bosma, 2013; Singer *et al.*, 2015). As a result, *theoretical triangulation* pertains to the use of additional theoretical perspectives in relation to informal funding. The theoretical framework established in Chapter 3, as well as propositions developed from the qualitative inquiry in Chapter 5 provide alternative lenses on the phenomenon.

4.5.4.5 Quality of the inquiry and limitations

The two main quality criteria: validity and reliability (Babbie, 2008) are assessed following the definitions, and prescriptions suggested by Carmines and Zeller (1987) for quantitative research:

Validity

Validity in the context of quantitative research refers to how well the measurement reflects the reality, in other words, it represents the accuracy of the measurement tools. The following types of validity are considered:

- 1) *Criterion-related validity* (to check whether the measurement can be referred as a criterion of the phenomenon):
 - Predictive validity was tested by means of ROC-curve analysis (the model was estimated on one set of the randomly selected sample, and its predictive power tested on the other set): see section 6.6.2.1.
 - Concurrent validity is achieved when the results of modelling are compared to the actual outcomes (the predicted rates of informal funding are compared with the actual rates of informal funding in the sample), where goodness-of-fit measures are used as criteria. Improved accuracy was attempted by introducing King's correction for rare events modelling (King and Zeng, 2001): see section 6.6.2.2.

- 2) *Content validity* (the extent to which the measurement refers to the phenomenon): this type of validity was tested during the qualitative inquiry, when the definition of informal funding was verified. As a result, two cases were identified where family business and crowdfunding concepts were confused with informal funding by the participants. While the definition differentiates the former one (“excluding any purchases of stocks or mutual funds”), it does not distinguish the latter. However, given that the observation period ends with the start of the crowdfunding boom in the UK (Baeck *et al.*, 2014), it is expected to have a minor influence. Moreover, family and friends funding through the alternative mechanisms does not change the essence of the transaction, but its form and arrangement – the aspects that are not in the focus of the quantitative analysis.
- 3) *Construct validity* (refers to the inferences to be made based on the measurements in relation to the phenomenon): insofar as the definition of informal funding is a single construct, the issue of construct validity mainly concerns the conceptualisation of the potential demand for informal funds, and the munificence level of a local community. The first one, though measured directly, cannot be extrapolated to the entire population of early entrepreneurs. As a result, a proxy was used to suggest an alternative measure to match the supply of informal funds. In this vein, the study relies on previous findings, where an association between the intended demand of informal capital, and early entrepreneurial activity rate was shown to be significant (Harrison *et al.*, 2004; Burke *et al.*, 2010). The construct of multiple deprivation was created as a multidimensional measure, which can be opposed to environmental munificence (Scott, 1994; Dorling *et al.*, 2007). As a result, both constructs were externally validated.

Reliability

Reliability pertains to whether the measurement procedures achieve the same results when repeatedly applied to the phenomenon. Technically, reliability implies that the estimates of the models should be consistent (with the unlimited increase of the sample size the estimates should converge to their mathematical expectation, i.e. true value) and robust (attributable to a wide range of distributions).

- 1) *Consistency*: the use of MLM theoretically produces estimates which are consistent, provided the specification is strictly followed (Kiefer and Wolfowitz, 1956; Hansen, 1982).
- 2) *Robustness*: the robustness procedure introduced by Barslund et al. (2007), and further adopted in econometric studies (Lu and White, 2014) was used to test the estimates of the logistic model at the single level (see Appendix 25). All the estimates do not diverge for more than 1% on average, which is a good indicator of robustness. As for the multilevel modelling, the number of integration points selected in the maximum likelihood procedure ensures the adequacy of the approximations in the model (Leckie, 2010).

Limitations

The strength of GEM data mainly lies in the identification of the category of early entrepreneurs, which is not captured by official business statistics. However, the research is limited by the range of measures consistently available to characterise informal funding activity throughout the observation period. While the information is sufficient to examine the supply side at the individual level, nothing can be said about the transaction-level attributes. In this way, the qualitative inquiry complements the quantitative one.

Different methodologies adopted in the four countries (England, Wales, Scotland, and Northern Ireland) prevent comparisons of deprivation levels across its multiple dimensions. While the overall indicator aggregates different aspects of deprivation, their separation would allow the author to distinguish the community effects more accurately, which would result in a higher explanatory power of the models.

The use of statistical methods, although justified, is a subject to certain limitations as well. First, no generalisations can be made when considering the population of informal funders, or early entrepreneurs. Even if it is a subset of the sample of adult population, which is representative, it is not known whether the received distributions correspond to the actual ones. This is caused by both sample size restrictions and potential structural differences, as it cannot be assumed that the distribution of informal funders (or early entrepreneurs) is the same as the distribution of adult population. Nonetheless, in order to address the research questions articulated above,

the use of aggregates (informal funders rate, or early entrepreneurial activity rate) is sufficient to predict the propensity of individual to become an informal funder.

Second, the explanatory power of the models could be improved to account for ‘unobserved’ factors. Though theoretical propositions from the qualitative analysis fill in the gap to some extent, transaction-level determinants and a wider (and more specific) range of contextual effects remain untested.

Finally, when modelling informal funding supply factors at the single level, the omission of such unobserved effects will likely to invoke endogeneity problems, when explanatory variables are correlated with models’ errors. In this way, location (measured by the values of IMD) can be defined as an endogenous parameter, so that it is significantly correlated with ‘unobserved factors’ (the residence area might determine the type of networks an individual is involved into, the saving patterns, and other personal circumstances – material, social, and psychological). If $Y(X)$ is a probability function to become an informal funder, where X is the level of deprivation of a local community, then $X = G(Z)$, represented as a function of individual-level factors. Therefore, a compound function $Y(X) = Y(G(Z))$ is to be estimated by means of the Generalised Method of Moments (GMM) to avoid the endogeneity problem by introducing instrumental variables (Verbeek, 2008). Three criteria must be satisfied for a valid instrument: 1) the instrument must be uncorrelated with an error term of the original model; 2) the instrument must be correlated with the endogenous variable; and 3) the instrument should comply with the exclusion restriction, i.e. it does not appear as an independent variable in the original model (Baum, 2006). While the first two conditions were possible to be fulfilled, no instrument could be found that would satisfy the third condition at the same time. Thus, the location effect was estimated separately from other determinants to avoid endogeneity problems.

4.6 Summary

Being positioned among predominantly functionalist entrepreneurship research, the study follows a pragmatist stance. Reality is perceived in the context of transaction, where personal meanings, determined by previous experiences, and exposed through social interaction, provoke changes, and result in actual behaviours. A mixed-method design best addresses the formulated objectives at four levels of analysis. A qualitative inquiry reveals the nature of informal funding process through the perceptions of both an entrepreneur and their informal funder. A quantitative inquiry allows measurement of the scope of the informal funding market, and ascertain causal relationships. Ultimately, both approaches complement each other, providing a pluralistic and integral view on the phenomenon. A multiple case study design was developed, where primary data were used to develop propositions, utilising thematic analysis techniques (the results are outlined in Chapter 5). At the same time, secondary data from the cross-sectional longitudinal survey (pseudo-panel data) in the UK during 2007-2012, provided by GEM project, were matched with the Indices of Multiple Deprivation across local areas, developed by the UK Department for Communities and Local Government. The prepared data set was used to carry out descriptive analysis at the macroeconomic level, and modelling at the individual and local levels in order to test the hypotheses (for the results see Chapter 6), derived from the assembled theoretical foundation (Chapter 3).

Chapter 5: Unraveling the Nature of Informal Funding Through the Case Studies

5.1 Introduction

The chapter presents case studies analysis in order to explore the nature of informal funding at the individual and dyadic levels, where thematic analysis techniques were applied. The investigation begins by providing a general overview and summary of the cases. The story of each case is then reviewed from the entrepreneur's, informal funder's, and reconciled perspectives. After consolidating the insights, defining the core dimensions of informal funding process, and elaborating mainstream themes, theoretical propositions are drawn.

5.2 Case description

As outlined in Chapter 4, seven dyads of entrepreneurs and their informal funders constituted the theoretical sample, which met the objectives of the qualitative inquiry. Each case represented different industries, different stages of venture development, and demonstrated different financial performance (insolvent businesses, successful, steady and struggling ventures). Descriptive statistics of the ventures can be found in Table 5-1.

As the table suggests all the ventures are registered and operate in the major Scottish cities: Glasgow, Edinburgh, and Aberdeen. Moreover, the companies were launched during different phases of the economic cycle, which had a considerable impact on their development history. Companies E and G survived two economic recessions, and emerged with positive financial balances (see Table 5-2). Three ventures were founded during the upward economic trend, whereas B and D were started right after the recession hit bottom in the fourth quarter of 2008 (Office for National Statistics, 2008-2011).

Table 5-1 Descriptive statistics of the ventures

Venture	Location	Incorporation year	Year of first sales	Industry	A snapshot of profit/loss (for the observation year)	
					Small Business Exemption (for the observation year)	Year
A	Glasgow (international market)	2006	2006	Retail (food services)	N/A	Failed
B	Glasgow	2009	2011	Manufacturing (electric products)	Yes	Loss
C	Edinburgh	2006	2006	Pre-primary/primary education	Yes	Loss
D	Edinburgh, Glasgow	2009	2010	Care services	Yes	Profit
E	Edinburgh	2000	2000	International employment placement agency	Yes	Profit
F	Edinburgh	2005	2006	Manufacturing (children toys)	Yes	Loss
G	Aberdeen	2000	2000	Employment placement agency	No	Profit

Source: Ventures' websites, interviews, and Companies House

Table 5-2 Financial performance of the companies before, during, and after economic slowdown

Venture	2008	2009	Retained earnings, pounds*				2013	2014	Small Business
			2010	2011	2012	N/A			
A	Failed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B	N/A	-40,000	-49,000	-85,000	-208,000	-271,000	-262,000	Total Exemption	Total Exemption
C	N/A	N/A	N/A	N/A	-470	-1,000	-2,000	-3,000	Total Exemption
D	N/A	N/A	N/A	N/A	N/A	0	10,000	113,000	Total Exemption
E	160,000	30,000	37,000	8,000	20,000	1,000	105,000	105,000	Total Exemption
F	N/A	N/A	N/A	N/A	N/A	-184,000	-318,000	-420,000	Total Exemption
G	1,017,000	1,174,000	419,000	875,000	1,015,000	807,000	668,000	668,000	N/A

*The numbers are rounded to the nearest £1000

Source: Companies House

The cases represent secondary (B and F), tertiary (A and D) and quaternary sectors (C, E, and G) – the ones which dominate in the developed, services-oriented economies (Kenessey, 1987). Most of the ventures are qualified as ‘small’ according to the Companies Act (Companies Act, 2006), and provided with exemptions from audit. The profit and loss values are retrieved, where available, for the period 2008-2014, given that 2008 was marked as the beginning of the Great Recession by the International Monetary Fund (Abbas *et al.*, July 2014). Company A had not managed to launch its sales, and became officially dormant in 2011. Companies B, C, and F have been experiencing increased losses for the last years of their operation. D demonstrated remarkable growth for the last three years, whereas the rest had steady revenues.

As a result, the selected cases conform to the criteria set for the theoretical sample: to achieve a variety in terms of geographical origin of entrepreneurs and their informal funders, firm’s age, sector, and financial performance. Therefore, the impact of the context can also be identified both at the local and macroeconomic levels.

Variety was also achieved at the individual level to capture all possible aspects of the investigated phenomenon (see Table 5-3). The selection included both male and female individuals, with different backgrounds, and characterised by diverse social status.

The age of entrepreneurs ranged from 27 to 43 years, and 43 to 71 for funders. Education attainment, employment status, and total household annual income varied across the categories. The general socio-demographical portrait of business owners is quite representative of the average for the UK across the main parameters like gender, age, education, and employment (Hart *et al.*, 2014b).

The key parameters of funding deals are summarised in Table 5-4. The relationship between entrepreneurs and informal funders is characterised by four types of social ties: parent, ex-spouse, distant family member, and friend. Those can be ranged in descending order in terms of the ‘closeness’ of the bond – an important measure of the strength of social ties (Marsden and Campbell, 1984).

Table 5-3 Socio-demographic characteristics of the respondents

Respondent ID	Gender	Age	Education	Employment status	Total household annual income, pounds	Interview date	Interview length (min)
Entrepreneur A	Male	37	A-level or equivalent	Employed full time	50 000 - 99 999	31.07.2012	49
Investor A	Female	52	GCSE/O-level or CSE	Self-employed	100 000 or more	12.10.2012	33
Entrepreneur B	Male	37	Master's degree or equivalent	Self-employed	50 000 - 99 999	05.11.2012	36
Investor B	Male	43	A-level or equivalent	Employed full time	50 000 - 99 999	29.11.2012	38
Entrepreneur C	Female	33	Bachelor's degree or equivalent	Self-employed	30 000 - 49 999	11.03.2013	43
Lender C	Female	66	Bachelor's degree or equivalent	Retired	17 500 - 29 999	11.03.2013	58
Entrepreneur D	Male	27	A-level or equivalent	Self-employed	50 000 - 99 999	22.04.2013	32
Lender D1	Male	63	Bachelor's degree or equivalent	Self-employed	30 000 - 49 999	20.05.2013	41
Lender D2	Female	61	GCSE/O-level or CSE	Employed part-time	30 000 - 49 999	20.05.2013	41
Entrepreneur E	Female	41	A-level or equivalent	Self-employed	50 000 - 99 999	29.04.2013	33
Investor E	Male	51	Bachelor's degree or equivalent	Self-employed	50 000 - 99 999	29.04.2013	29
Entrepreneur F	Male	43	Master's degree or equivalent	Self-employed	30 000 - 49 999	24.05.2013	45
Investor F	Male	44	GCSE/O-level or CSE	Employed full time	50 000 - 99 999	21.05.2013	29
Entrepreneur G	Female	40	Bachelor's degree or equivalent	Self-employed	100 000 or more	27.05.2013	54
Lender G	Male	71	GCSE/O-level or CSE	Self-employed	50 000 - 99 999	02.09.2013	44

Source: Author's Mini-Questionnaire

The amount of start-up capital varied from £30,000 to £850,000, where the share of informal funding constituted from 1% to over 100% when subsequent injections of capital were made throughout the business development. Five entrepreneurs used their personal savings to fund at least 11% and maximum 47% of the required start-up capital, whereas two business founders (F and G) did not invest their own money at all.

In all cases entrepreneurs attempted to attract at least one external source of finance from the formal market, and for one business (D) informal funding was the only way to develop the venture. Informal capital was provided in the form of an investment (for the exchange of shares in the company), a loan, or a combination of both, where the injections were made either on a one-off basis or were split into several tranches. For all the ventures informal funding was initially utilised to start the business and support its early development before the sales had been generated, or during the first 12 months after that moment.

As a result, the quality of the theoretical sample can be confirmed at the dyadic level as well, where the strength of social ties, the initial size of the company, the share of the own investment, and the structure of the deal are accounted for. In this vein, the cases conform to the objective to tackle three units of analysis (an entrepreneur, an informal funder, and the dyad), capturing a range of the key parameters. Therefore it can be concluded that the constructed theoretical sample is suitable for exploring the relationships, and discovering trends and patterns within the framework of the research (Marshall, 1996; Eisenhardt and Graebner, 2007).

Table 5-4 The main parameters of informal funding deals across the cases

Venture	Funder's status	Start-up capital, pounds	Informal funding, pounds	Own funding, pounds	Alternative sources of finance	Format of the informal deal	Type of the informal funding	Year of the first injection
A	Friend	350 000	55 000	100 000	Banks loans and overdrafts	Investment (5%)	One-time	2007
B	Brother-in-law	263 000	20 000	50 000	BAs	Investment (4%)	One-time	2010
C	Mother	45 000	20 000	5 000	Prince's Trust, Edinburgh Loan Fund, bank	Loan	Several tranches	2006
D	Parents	54 000	34 000	15 000	Prince's Trust, banks (rejection)	Loan	Several tranches	2009
E	Friend/Ex-partner	30 000	40 000	14 000	Scottish Enterprise, Small Firm Loan Guarantee Scheme, credit cards	Short-term loans +Investment (grew from 4% to 40%)	Several tranches	2000
F	Friend	850 000	10 000	0	BAs, public grant	Investment (dropped from 10% to 1%)	One-time	2006
G	Father	30 000	6 000	0	Prince's Trust	Loan	One-time	1997

Source: Interviews, information from the Gate Keepers

5.2.1 Case A: Food services business

5.2.1.1 Company overview

The entrepreneur had been looking for an entrepreneurial opportunity intentionally, feeling confident that with 10 years of corporate experience he was able to find something where he could realise his passion and professional potential. The opportunity came in 2005, when an incidental event brought his attention to an enormous undiscovered market in the UK. Having sold their properties to release £100,000 (to purchase first stock), the entrepreneur and his wife started the company in 2006 as a retail business focused on innovative drink products. Having moved into the family's property, working from home, and using the garage as a warehouse kept the overhead costs low – a resourcing strategy known as bootstrapping (Winborg and Landström, 2001). Within the first six months the couple managed to sell all the stock of products successfully. That gave them an incentive to pitch to private investors, whom they approached through LINC Scotland and Scottish Enterprise. After 15 unsuccessful attempts, they turned to informal investors – to a family member and a friend. In the beginning of 2008 the company started struggling to penetrate the UK market, and they decided to go international (with the intention both to receive financial support and find demand). Having received £5,000 from a family member (to buy a trailer), and £50,000 from a friend to cover overheads, purchase more stock, and pay the compensation, the company started to go downhill in the beginning of 2009 due to internal failures, the lack of further funding, and unfavourable currency exchange rate. After the family encountered acute financial difficulties in 2010, the company ceased operations completely in 2011, and the founder started actively looking for a job (see the timeline in Table 5-5).

The informal investor (with extensive experience in marketing area) and the entrepreneur (with a media background) worked together for the same organisation before the entrepreneur quit his job and started his own venture. Although their relationship started professionally, where the entrepreneur was under the leadership of the future informal investor, over time a profound friendship grew between the families. The role of informal investor in this case comes across as a mentor. Despite the fact that the investment was

never repaid, the personal relationship between the two parties is still maintained and perceived to be the first priority.

5.2.1.2 Entrepreneur's perspective on informal investment deal

The primary objective of the funding strategy, emphasised by the entrepreneur, was to get business angels on board – someone who could add some value to the business, and bring in additional knowledge and expertise. After several unsuccessful attempts caused by internal failures and the depreciation of the pound (given the international context of the business), the founder discovered himself at the edge of desperation, when he decided to turn to family and friends:

Entrepreneur A: “No, we decided not to be proactive in approaching friends and family. [...] I never wanted to get to a stage where I was the one being proactive towards my family; I didn’t feel that it would be appropriate”.

The exposure to the external environment fostered the need for funds through the effect of the macroeconomic downturn on day-to-day business operations, and their costs:

Entrepreneur A: “It requires a lot of cash - it’s cash intensive. ...the petrol costs had grown up, the value of the pound went down, the margins on the international basis went down”.

The business owner demonstrated reluctance in going to the informal investor and asking for money, considering them as “*a far second choice*”, where personal relationships could be put at risk. He strongly believed that the other side had offered help a few times before he finally agreed to accept it:

Entrepreneur A: “...and he was proactive. And, I think, he may have offered three or four times before we were back to him, saying that if the offer was still available, we would like to consider this”.

Table 5-5 Timeline for Company A

Time (Milestones)	2005	May-06	6 months period	Jan-07	Jun-08	2009	2010	2011
Business Development	Idea	Left the job	Market research	Writing a business plan, first sales (trial)	Sales and distribution	Signing the co-partnership	Going down	Actively looking for another job
Funding strategy	Own money	Scottish Enterprise	LINC Scotland	Pitching to the investors (unsuccessfully), 15 investors	Credit line and overdraft	Friends	Failure to get external funding	
Investment Amount	£100,000			£25,000	£5,000	£50,000		
Purpose	Stock			Trailer	Stock, overheads, compensations			
Change in external conditions					Value of the pound dropped			

Source: Interviews

Easy and fast access to financial resources drove entrepreneurial choice towards informal investments – a logical behavioural reaction to the situation, when optimism confronted the reality in getting funding (De Meza and Southey, 1996). And again the case reveals common challenges in the venture capital market, where due diligence, and time-demanding procedures slow down the access to the desired resources (Brettel, 2003).

Entrepreneur A: “It was a quick solution, it was an easy solution, but it was certainly not done without, you know, a lot of thought and consideration to what impact it would have on our personal lives. [...] Most of the other investors were looking at due diligence, and also at things that were going to take six months. And we just thought: It’s not gonna work”.

Urgent need for money to solve liquidity issues within the business urged the entrepreneur to consider quicker solutions, where the resources could be easily transformed into the cash in the bank account without sacrificing too much control over the ownership:

Entrepreneur A: “...we weren’t prepared to give up so much equity, [...], we could tie ourselves together by giving them a large chunk of our business in return for a much smaller chunk of their business”.

The entrepreneur’s choice was made based on trust that had been developed through the years of joint working history, when both sides had known each other in a professional capacity, enhancing the trust building process (Maxwell and Lévesque, 2014):

Entrepreneur A: “So, we went to some family and friends that had known me from a previous life, and my professional career at [...], had trust in me as an individual, and on that basis were able...”

Moreover, from the entrepreneur’s perspective the informal investor was aware of the founder’s personal capabilities, and could appreciate his enthusiasm and the amount of work put into the business – something that could not have been achieved with professional investors. Yet he admitted that the company could have benefited more from

professional investors, not only from the advice, but also from the imposed pressure on the team to deliver. The format of the relationship with the informal investor was quite casual, amounting to general discussions about the business, and occasional pieces of advice given in the areas of marketing:

Entrepreneur A: “I think, what would have, probably, happened if the business angels had been... We would have uncovered some of the issues sooner. And that could have brought us to expedite the change sooner. And then there could have been bad things or good things”.

The availability of spare money in the investor's family turned out to be another factor, which was taken into consideration. Talking about an alternative investment from another friend, the entrepreneur provided the following reasoning:

Entrepreneur A: “We knew that it represented a much bigger chunk of their overall wealth, and if we lost that 20,000 from this other friend, then it, probably, would have killed their friendship, you know”.

The entrepreneur's positive expectations encountered market resistance, unexpected high level of competition, difficulties in management and communication, and unfavourable macroeconomic climate: “*We just lost 20% margin based on nothing rather than currency!*”, leaving an imprint on the overall wellbeing and the mood of the family. Both external circumstances, which negatively affected entrepreneurial endeavour, and over-optimism, are recognised and acknowledged by the interviewee, exposing the role of chance in the dynamics of venture performance (Storey, 2011; Dawson and Henley, 2013):

Entrepreneur A: “So it took us a while to figure it out as well, because we'd seen what was happening to [another] distributor in Scotland. [...] And we thought, we could do it. I was sure we could do it, if we'd got the whole of the UK, not just Scotland”.

Moreover, although implicitly indicated, one can link the outcome of the funding strategy with the trajectory of the business development. As a result, the entrepreneur considered such an experience as a learning curve, where he viewed it as a project, which did not fail in its essence, and allowed him to move forward with his future career without any harm to his personal relationship with the friend, who voluntarily got involved and shared this journey.

5.2.1.3 Investor's perspective on informal investment deal

Individual characteristics of the entrepreneur, and the informal investor's opinion of him as a colleague and a friend (the informal investor's family had known both from personal and professional life), were of pivotal importance for the decision-making process. Neither the nature of the business idea, nor the opportunity itself, but the entrepreneur's enthusiasm and perceived capabilities to take this business forward defined the choice of the informal investor:

Investor A: We had identified that he had skills that could take him further in that particular industry... [...] We already knew the skills that he had, which was a significant factor in the decision making process. [...] And the decisive factor really was the fact that we felt that Entrepreneur A had the skills required to make the most of the opportunity. [...] And I think he'd done a lot of homework. ...We could see that it was a viable business".

The signs of economic rationality can be tracked when the investor acknowledged the fact that the entrepreneur and his family invested their own money in the business (almost 30% of the total start-up capital). It created a sense of security and a proof of the entrepreneur's determination to persevere with the idea. The phenomenon illustrates 'bridged' pecking order theory when an entrepreneur uses self-funding as a signal for an external investor to enhance the credibility of the venture (Paul *et al.*, 2007a). Meanwhile, the investment had been always considered as a one-off deal, where no more money would be injected under any circumstances with the lesson learnt not to mix business and personal relationships anymore:

Investor A: "And also our decision was based on the fact that he and his wife, they had invested a lot of their own money also in the business. So, you know, we knew, that we were...that they had put more money in it, and we were thinking about putting in..."

The relationship was based on trust and belief that this particular individual had all the abilities to make this idea successful, and on confidence that the entrepreneur would do his best and exert maximum effort. If someone else had pursued the same opportunity, the investment would not have been made:

Investor A: "It was only because we believed that he could make it happen. If anybody was going to make it happen, we believed he could make it happen".

Nevertheless, the decision did not neglect potential risks associated with the venture. This opportunity was considered because the money was available at that moment, and its loss would not have had implied negative consequences for the wealth of the family. The lump sum came unexpectedly, and it was viewed as a chance to take affordable and acceptable risk. However, not only financial risk was taken into account, but also the risk of damaging personal relationships and friendship with the entrepreneur and his family. This attitude justified the structure of the deal: instead of a loan, where the entrepreneur would have been put under pressure to return money regardless of the outcome of the venture, an investment was sought to be a reasonable tool to maintain friendship even in case of a negative outcome:

Investor A: "Because our relationship then was not purely professional...was also friendship, we felt that to loan Entrepreneur A the money...We realised there was a risk, as with any investment, and we felt that we loaned the money, and a situation arose that he couldn't repay the money, then that could result in a bad feeling, obviously..."

Availability of spare funds, which came unplanned, determined the preparedness to risk this money, acknowledging the likelihood of potential loss. The informal investor did not regret her decision, as "*All the things that we'd considered, then that's likely that the*

money at that time would have been a risk”. From her perspective, economic climate and established competitors were the main reasons for failure:

Investor A: “But, to summarise, unfortunately, the economy collapsed, came very close on the heels of all of that, and made it possible, really, for that to work...”

The family treated this investment as a dead loss: “*I just think, we were stupid enough to do that, and the money is gone, and we knew that that could happen. And that is what happened*”. The loss incurred due to the external factors rather than internal mistakes or the lack of effort, where personal relationship is preserved – the main justification and conclusion from this experience, which was raised by the informal investor.

5.2.1.4 Reconciliation of the perspectives

Different perspectives become evident from the beginning, when the origination of the deal is investigated. While the entrepreneur believed that he did not approach his friend directly, the informal investor was confident enough to state that she thought it was the opposite case as he needed the money and knew that they had spare funds to invest. Dwelling into the details one would notice that actually through multiple conversations and sharing the entrepreneur would manifest his need for money, when the informal investor would sympathise and reciprocate by directly offering her help (Alicke *et al.*, 1992).

In common with the perceptions and expectations of the entrepreneur with regard to the business involvement, sharing, and discussion, the informal investor took a position of general engagement and passive involvement. The advice was given only when it was needed, or specific questions were raised relevant to the investor’s expertise. The entrepreneur perceived his funder as a mentor, who would provide general support and encouragement, whereas the informal investor perceived herself as a ‘sounding board’, which was more about compassion and motivation, rather than specific advice.

The informal investor sensed the desperation while observing the entrepreneur's journey, struggling to secure important deals and experiencing the lack of funding, and felt they were able to support him financially. From the entrepreneur's perspective, his enthusiasm, hard work and action plan facilitated the trust and initiated the interest in his venture, which in conjunction with the available spare resources led to the investment. This observation depicts a certain level of optimism and confidence from the entrepreneurs' side that drives him to believe that it was not an extreme need and the lack of alternatives, but his spreading enthusiasm and determination that stimulated the informal investment decision. Whereas the latter is of importance for the investor, it is not considered as a set of essential attributes, but treated in a much more personal and philanthropic way.

5.2.2 Case B: Electrical devices company

5.2.2.1 Company overview

After observing how many electronic devices are left in the house switched on, the entrepreneur calculated the waste of energy that could have been potentially saved if the appliances not in use were not consuming electricity. With a degree in applied physics combined with business training, he came up with an idea to develop an energy saving device. Shortly after that in 2009 the business was registered, when the preliminary product had already been developed. Two years later after hard work on the business plan, and successful pitching to a wide range of private investors the first sales occurred. The process was launched by means of personal funding to develop the prototypes and establish the relationship with potential customers. As a result the business plan seemed to be lucrative to a set of business angels and the entrepreneur's brother-in-law, from whom he received his first round of investment. With this investment the entrepreneur managed to set up a manufacturing process, hire some staff, and develop a marketing campaign that resulted in capturing attention of large retailers in the market, and secured the first purchase order from them. At that stage the business was under a negative impact of external economic conditions – one of the reasons from the entrepreneur's perspective for why the business did not meet the initial sales targets. The informal investor came from a financial sales background, and moved into sales training, being employed full

time in a financial organisation. Given his hands-off approach, the business is rarely discussed even in the family environment. At the time of the interview, the business was currently on the edge of running out of cash, facing sales, merchandising, and pricing problems (see Table 5-6).

5.2.2.2 Entrepreneur's perspective on informal investment deal

First drawing on personal savings (which constituted almost 20% of the total start-up capital), exploiting the resources provided by a University (premises and labs), and utilising his engineering knowledge and technical support of his friends, the entrepreneur managed to get to the stage when the product was ready to be presented to formal investors. The funding strategy followed a traditional path, as conceptualised in section 3.2.1.1 (finance escalator): from self-funding and bootstrapping to pitching to private professional investors to get the product to the market on a larger scale. The entrepreneur was convinced that his brother-in-law approached him first, while he was quite reluctant to go down this route when he had more lucrative alternatives.

Entrepreneur B: “Aha, my brother-in-law approached me. [...] He said to me that he would, if I needed some money, and he would give me some money”.

The innovative technological business idea with a ready-to-go product and an elaborated business plan convinced six business angels to get involved in the venture. They were all from different investment groups (so they did not form a syndicate), and it took two to three months from their verbal agreement and expressed interest until finally each of them invested on an individual basis.

Table 5-6 Timeline for Company B

Time (Milestones)	Jun-09	Nov-09	Nov-10	Apr-11	Nov-12
Business Development	Developed prototype of the product, market research	Registration of the business	Purchase order from large retailers	Business plan	First sales
Funding strategy	Own money, bootstrapping (a friend who is an engineer)		Investment from a family member	Investment from a friend	The need to raise extra investment
Investment Amount	£50,000		£20,000	£213,000	
Purpose	Prototype		Manufacturing, staff, R&D		
The change of external conditions			The negative effect of the economy		

Source: Interviews

Moreover, this venture faced an excessive supply of investment funds, where the entrepreneur had to reject a number of offers due to the previous arrangement with the informal investor, in relation to whom he felt morally obliged to accept the help. The formal agreement was written up and signed by all the investors (both formal and informal) on the same conditions at the same time. This illustrates the concept, developed in the business ethics area (Haines *et al.*, 2008), when moral judgment (based on the kinship in this case) is transformed into moral intent (feeling obliged to sacrifice a formal investment offer), which is subsequently realised in behaviour (decision-making process):

Entrepreneur B: “At one point I had more investors than I needed, so I tried to consolidate the investors, I tried to reduce the number of them. We were trying to keep the ones who were putting in more money [...] I could have... But my brother-in-law he wanted to invest, so I told the business angels that I didn’t need as much from them”.

One can spot a demarcation line between personal and business relationships drawn clearly in the mind of the respondent - the counter factor of choosing a family member to be involved in the business. However, the concern arises not from the potential danger imposed on the personal relationship, but from the position of professional investors involved in the business, who might see it as a weakness and a threat to an established trust:

Entrepreneur B: “You have to be careful about involving family members in the business, when you’ve got a mixture of private investors, and family and friends. [...] If, for example, my brother-in-law gives me £20,000 pounds to invest into my business, and I give him a job...And the other investors would be a bit sceptical about that, because it could be him just buying a job for himself”.

As a result, in this case the involvement of an informal investor might potentially affect already established business relationships with professional investors and create a wrong image. However, the concern about the maintenance of the personal relationship and a possibility of hard feelings between the families was not raised. One possible explanation

can be derived from the type of the relationship with the informal investor, who being a family member would always be a part of the network due to kinship connections. So the value of the personal relationship is different from the case when the informal investor is a friend, and there is a possibility of losing this friendship.

One of the professional investors became deeply involved in the business, helping the owner to run the company and demonstrating a hands-on approach, while the rest remained on the side. Interestingly, from the entrepreneur's perception the latter ones played the same passive role as the informal investor, who did not contribute to the business directly and consistently:

Entrepreneur B: “Maybe, if we had, you know, another individual like that, instead of brother-in-law and the friend, then it could have made more of the contribution to the company. But that’s not true...! Some investors don’t get involved in the company, professional investors...”

However, given the previous statement, the informal investor was still not viewed as a first person to approach in the time of need due to the lack of relevant experience. Although his brother-in-law had strong expertise in sales, stemming from his financial sales background, the entrepreneur did not think it might be helpful in dealing with the sales issues the company was currently facing because of the different sector and employment status:

Entrepreneur B: “And if I had a problem with the business, I wouldn’t have turned to him. I would be more likely to turn to one of the other investors... Because he doesn’t have an experience of running a business”.

Moreover, while reflecting on the deal, the entrepreneur recognised a missed opportunity to get potentially more value from a professional investor, instead of just relying on the financial support from a family member. Thus he acknowledged a potential impact of the funding strategy on the subsequent venture performance:

Entrepreneur B: “Well, they’re both clever individuals, and I would ask them for feedback and help, but the other investors are, probably, better qualified to provide feedback. So, I would turn to other investors first for feedback”.

The entrepreneur accepted the presence of the informal investor as a necessity, imposed by the family ties – a moral obligation he had to fulfil to satisfy the willingness of his brother-in-law to help. As a result, the role of the informal investor was quite passive, and positioned by the entrepreneur at the same level as for the professional investors, who were not actively involved in the business (see section 2.2.2). Whereas there is no direct acknowledgment that the decision to involve a family member caused problems for the business, it was mentioned that a person with a more relevant expertise in retail marketing would be more helpful at the current stage of business development.

5.2.2.3 Investor’s perspective on informal investment deal

Among the first motives mentioned to justify the investment trust appeared as an implied factor, without which the deal would not be possible. Additionally, trust came as an explanation for a passive role of the investor, where there was no need for him to worry about how his money was handled:

Investor B: “As much as I don’t have more of an input into the company, because I trust him. He’s an honest person, he wouldn’t try and cheat me out of anything, so that’s why I trust him. I wouldn’t have invested otherwise...”

Kinship came as another crucial factor, when the informal investor admitted that this investment would not have taken place if it were not for the social bonding ties connecting the families. The lack of necessity to intervene in the business was brought up again reinforcing the concept of trust and its role in such a relationship:

Investor B: “I almost certainly wouldn’t invest if he wasn’t my relative. And the second part of that if I was convinced to invest in someone who wasn’t a relative, then yes, I probably would have more of an input”.

In this case economic incentives stepped to the background, putting forward moral aspects of the relationship:

Investor B: "...but I was only so much interested in the business plan, because as I said it was the right thing to do to help Entrepreneur B out... [...] My investment wasn't purely from a financial perspective... A good percentage of it was based on family connection, the family commitment and trying to help a family member out".

This can be repeatedly linked with the level of trust: the informal investor was confident enough about the entrepreneur's abilities and commitment, so that he did not feel there was a need to control how well the idea was elaborated, and whether sufficient effort was put into implementing the plan. Therefore, the adverse selection and moral hazard problems did not take place, where control mechanisms are automatically implied in the relationships through bonding social ties and kinship (see section 2.4.2). This argument can be supported by viewing the entrepreneur's skills and previous experiences (track record) as a guarantee of potential success by the informal investor:

Investor B: "I believe in him more than I believe in the product, I would say. So, whether the product would be a success, I knew he would make the most of it. [...] He had been...a consultant with a software firm, and I know, he was successful doing that, he was earning a lot of money doing that. So, I thought if he had given that up to try developing his product, then I thought there was, possibly, some potential there".

The challenge of mixing family and personal relationship was brought up by investor B, where the investment was considered as a dead loss with a hope that it would bring some financial rewards. In this regard, the amount of money, although still considerable, did not represent a sum without which the family would struggle – a rationale used as a precaution to preserve a good and healthy personal relationship:

Investor B: "...the risk I was taking, and I wouldn't cause any family hardship, if it wasn't successful, because that's money that I've got, I saved, I don't really need as such".

Economic reasoning can also be spotted in the informal investor's narrative: "...*clearly trying to help myself financially as well*". It was pointed out that the money was sitting in a tax-free bank account, where the interest was low, and the investor had been thinking to invest money into something riskier with higher expected returns before the deal took place. Additionally, the informal investor took advantage of the Government Tax Relief Scheme, where the investment fell under the risky category, and the investor got £6,000 back. As a result, the investment was not purely based on altruistic motives without consideration of the risk levels. The idea of affordable loss was revealed in this case, which the investor was consciously prepared to accept, considering the circumstances, and the trade-off between personal and business relationship:

Investor B: "So, any other savings that I have got, and I do have other savings, and then I would be more inclined to keep that, and not take a risk with it... [...] It was money that I've already counted as being spent".

Expectations of the return, although positive, are not optimistically anticipated, and do not cause any frustrations, as the main motive of self-realisation through helping out a family member was satisfied. However, a hope of potential returns remains as a possible reward:

Investor B: "I've got...no expectations of getting a return, only hopes of getting a return. So, I can afford to lose this money. [...] So, if I could get my money back, I would be delighted. That would be satisfaction for me. If got more than my money back, it's a complete bonus. If I got double my money back, I would be over the moon!".

Investor's perceptions about the lack of the progress are mainly centred around external macroeconomic and business environment, rather than the figure of the entrepreneur himself:

Investor B: "I think that the reasons why we don't have a great deal of sales...are three: the economy, the cost of the product, and I'm not sure that there's a natural home in the sense of the type of person who will buy it".

5.2.2.4 Reconciliation of the perspectives

The misalignment of perspectives comes from the recognition of the deal origination, when a straightforward opinion of the entrepreneur is countervailed by a subtler elaboration by the informal investor. While from the entrepreneur's perspective the investment was purely supply-led, the position of the informal investor indicated that there had been numerous discussions before the decision was made, where neither of the sides was explicit about their intentions. However, the informal investor confirmed the observation of the entrepreneur that he was the first to offer help, which was accepted:

Investor B: "...it was more of a coming together over a number of conversations informally. It wasn't him asking, and it wasn't me offering. It was just a natural conversation that we came to an agreement. [...] And I'd expressed the interest in helping him, and clearly trying to help myself financially as well".

The informal investor did not notice an urgent need for finance – it was not the reason for initiating the deal: "*He didn't give me the indication that he was struggling to find resources. It was just how the business was going*". At this point both parties came to an agreement that expectations of financial gain, availability of spare funds, and track record of the entrepreneur represented one of the decision-making criteria of the informal investor.

The investor and the entrepreneur also demonstrated some difference in their perceptions as far as the business idea and its potential are concerned. The entrepreneur was convinced about the superiority of the business idea and its potential as the main decision-making criterion considered by the informal investor. Meanwhile Investor B was quite sceptical about the product and its market applications from a personal perspective, which had not been shared with the business owner:

Investor B: "I think the product is a nice product, but I don't think it has a natural marketplace for this".

Entrepreneur B: “I think he knew the product, and he liked it and thought it had potential... It was enough for him”.

The entrepreneur’s desire to believe (in order to feed the confidence internally) that the decision was made purely on economic basis, as a lucrative possibility to allocate spare funds with anticipation of returns, contrasts with the perception of the investor, who viewed himself more (probably unintentionally) as a philanthropist, rather than an economically rational individual pursuing financial gain.

5.2.3 Case C: Nursery/primary school

5.2.3.1 Company overview

The entrepreneur, being passionate about her profession and inspired by her success when she was a volunteer teacher in a developing country, started off her own nursery as a small class of children in 2006, focusing on Montessori teaching techniques. After five years it grew into a primary school, based on the accumulative experience of the entrepreneur. The business was gradually fed by capital from different sources, starting from the Prince’s Trust, then Edinburgh Loan Fund, a bank loan, and finally from her mother. The entrepreneur was fully submerged into setting up the nursery – from arranging the legal side of it to painting the walls, designing the interior, and sorting out the garden, when she suddenly realised that all the funding she had managed to attract was not enough to cover the ongoing costs. At that moment her mother, who shared her daughter’s philosophy and interest (having dealt with small children herself) stepped in. The initial sum, which came as a loan with no agreed interest, did not exceed £5,000, but as the business was growing, more injections were made to keep it up and running. As the informal lender herself had been heavily involved in this kind of teaching, she was willing to support it. She actively participated in the teaching activity and staff training, and her contribution played a crucial role in the company development, which was successful at the time of interview. In 2010 she suddenly realised that she lost track of how much money she had put in to this business – this is where her contribution was formalised into a loan agreement on very flexible conditions for it to be repaid before she turned 70. As the company entered a period of

prosperity, the entrepreneur started repaying the debt to her mother. In 2009 it was already not just a nursery, but also a primary school, where children could stay until they were 12 years old. In 2011-2012 the company experienced rapid expansion and growth, where the entrepreneur could not keep everything under her total control, and which, in her opinion, resulted in the school being different from her vision.

As a result she made a decision to scale back to preserve the essence she had nurtured through all her professional life, and had to pause the repayment of the loan to her mother, who started gradually stepping back towards a calmer retirement (see Table 5-7).

5.2.3.2 Entrepreneur's perspective on informal funding deal

In this case the entrepreneur explicitly expresses that she did not want to approach and ask for the money directly, but through conversations, discussion, and her mother's hands-on involvement in the process of setting up the business she indicated the need for additional funding and initiated the help being offered to her:

Entrepreneur C: "I think, that I was talking about it for a long time, and I was looking for a place to do it for a long time, but I didn't really know where I was going to get the money. [...] Maybe I didn't ask... But I think... that she saw that it was needed, she could figure it out, and she could give it to me".

At the very beginning the founder was looking for some help externally (through the Prince's Trust), focusing mainly on getting the knowledge of running a business – something she felt she had no expertise in. Having put just over 10% of the required capital from her own savings, she secured a grant from Loan Edinburgh Fund, and managed to get an overdraft of £10,000 from her bank – that was enough to launch the process. Getting to the next stage, and while being in need for extra money, the entrepreneur did not really have to continue looking for external funding, as the informal lender was already there, providing fast and easy access to financial resources:

Table 5-7 Timeline for Company C

Time (Milestones)	Pre-2006	2006	2007	Jun-09	2010	Sep-11	2013
Business Development	Voluntarily running a school in a developing country	Starting off the nursery - developing the idea	Growth	Starting off a school	Business plan and formalisation of the informal agreement	Moved to a bigger premises - expansion	Scaling back to achieve better quality of education
Funding strategy	Prince's Trust	Edinburgh Loan Fund	Bank	Family Loan (injected on demand)	Repayment of the family loan		Paused the repayment of the family loan
Funding Amount	£5,000	£5,000	£10,000	£20,000			
Purpose				Overheads and capital expenditures			
Change in external conditions							

Source: Interviews

Entrepreneur C: "I didn't go to anywhere else, because my mom had already the shortfall, so it was easy".

The entrepreneur perceives her funding strategy to be very successful and essential for further development and performance. Favourable conditions of the informal loan released her from extra commitments during the times when she was struggling and the stress she would have experienced if it had been a formal obligation. Such a flexibility provided some protection against the uncontrolled effects of external environment in times when the demand did not meet the projected expectations, or unforeseen costs were invoked. Moreover, her mother, being a source of inspiration, provided strong moral support and encouragement, which facilitated the start-up process beyond mere financial contribution. The very informal nature of the relationship, which represents the strongest possible ties between the two parties, shaped its format significantly: first, it was not even recorded until there was a need, and second, it did not provoke any second thoughts or doubts in the entrepreneur's mind (as in previous cases), as the loan was accepted for granted without any considerations of possible alternatives:

Entrepreneur C: "Yeah, we would have found financial things much tighter, whereas we had a lot more flexibility financially. So, when it's been a good year, we paid back more, and when it's been a bad year we paid less. I've been able to get myself a salary. [...] ...This year we paused the payments, genuinely just paused. Otherwise we wouldn't afford to continue".

Although the founder sounded quite positive about the loan from her close family member, on reflection she admitted that a professional investor would have brought what both her mother and herself were missing: business acumen and managerial expertise in running a business:

Entrepreneur C: "I would have got other different advice from a business investor that could give the business advice. So, maybe I would have learned some of the...more technical things earlier on, instead of by trial and error".

5.2.3.3 Lender's perspective on informal funding deal

The lender confirmed the initiation process for the deal, recalling that they were looking for suitable premises for the business together, and walking through IKEA in search of appropriate furniture and decoration. During those moments quite naturally she was there to support her daughter financially, observing her passion and enthusiasm, and being inspired herself by the idea. However, although admitting that it was the most natural way to set up a nursery, since the money was available, the lender emphasised the fact that it was convenience and timing, rather than anything else that made it happen. Therefore, the decision was made based on the perception of the entrepreneur's abilities to implement the idea, which in this case seemed viable to the lender also due to the similar interests and careers:

Lender C: "...you can get into the habit of relying on dribs and drabs from family and friends, and just... "Too easy" is a wrong word... Actually, they've done it on their own; she's done it on her own!... If she hadn't got it from me, it would have been somebody else she got it from. So, that's alright".

The sense of informal influence of the lender on the entrepreneur's venture (as also acknowledged by the entrepreneur) can be spotted where, from one side, it is explained by their continuous interaction and communication, but from the other side justified the lending decision, where apart from the financial contribution, lots of intangible input was invested, and from which non-pecuniary returns were sought:

Lender C: "And if somebody had said: "I'm starting a nursery, do you want to help me start it?" No. That's what she wanted to do at the beginning. But I then interfered a bit by saying: "I've always wanted to have a children's' arts centre".

Kinship and the availability of spare funds are another two criteria taken into consideration:

Lender C: "I would have, probably, put it into my mortgage. Yeah, because at any point my money is being needed for the family, I remortgage".

Moreover, economic sensibility is an inevitable feature of the lending decision, when the money is not given away blindly as a moral duty to support a family member, but the decision is weighed carefully, and based not only on the observation of hard work, effort, and attractiveness of the business idea:

Lender C: "So I looked at it in a very practical way of how it would come back...to allow me to...my finances to be OK. So it really was looking in detail at my finances and seeing, how can I afford this as an investment. So that was agreed on!"

The informal lender viewed her support as a facilitation process to get the nursery started, which at the same time served to satisfy the need for self-realisation and implement her own vision about children's education according to her philosophical beliefs - the idea she had been pursuing before and finally found its way into her daughter's venture:

Lender C: "And this is where I was pleased to be able to say: "I will get you that, I will get you that", because to me it was satisfying something about my educational visions as well".

The lender had not been conscious of risks until the moment when the amount of debt was totalled up and exceeded the sum she thought it was. However, the hands-on approached allowed her to identify herself with the entrepreneur, and overcome the spreading optimism, thus demonstrating risk-averse behaviour rather than the ignorance of risk:

Lender C: "It was only started in 2010 when I suddenly thought: "Wait a minute!" (Laughs). I'm thinking that money is going in, because it was there at that time. And then afterwards I thought: Hang on a minute, this is silly!"

The concept of a deadweight loss is present in this case as well, keeping the lender's expectations quite low. The lender tries to find satisfaction through constant engagement with the business, self-realisation, and facilitation of her daughter's progress:

Lender C: "And I'm getting philosophical about it: "Well, it's gone this money!" So if it comes back that will be nice, it will be something that I would be pleased to have. It's not there to be paid into another debt or something else. Although it would be handy!"

5.2.3.4 Reconciliation of the perspectives

For this dyad one can observe harmonious views by each on the internal reasoning of the other. The informal lender fully comprehended the situation which her daughter turned out to be facing. And although she was aware that there was a possibility to get the necessary funding from the market, she agreed that there was an easier and faster way to go around it:

Lender C: "...that would give her time to establish the business, and there wouldn't be something that would have to come out of the business immediately. And that's not, I mean, what any bank loans or anything else she has immediately you start to pay. So it just gave her breathing space. And that seemed to be fine".

Being two close like-minded individuals implied a more intimate interaction. In this vein, the decision was justified from both perspectives in the same way, where the decision-making process was rooted in the shared philosophy and the shared views on the activity they were both involved in:

Entrepreneur C: "I think because we're both teachers. She's not a Montessori teacher; she's a drama specialist. She was taking early retirement, and she had her own business... And that was quite successful at that time. She wanted to... I think she just was interested in the project..."

Lender C: "So there's an investment in time, there's an investment in money, and an investment in, I suppose, shared philosophy... I loved the idea that she was doing this nursery, I didn't know enough about it, so it was very... How could I help her get on the run of making it happen, or be the entrepreneur?"

The entrepreneur identified that this venture was a matter of self-realisation for her mother – something she knew she enjoyed doing and kept her busy during her retirement, when she was not ready to be retired completely – an assumption which echoes with the lender's perspective:

Entrepreneur C: "Because she's talking now about retiring as well from doing the drama teaching... I don't think she will really retire from having all the ideas! (Laughs). I think, she will always be happy to talk about it".

Lender C: "Yes, I think I had a belief that that was part of it. And I think, I had a satisfaction through that. But... That I was contributing. And the contributing was... I was also getting that kind of satisfaction, I was involved and I was part of this good business".

The only controversy comes from the formal side of the deal, when the informal lender was a bit more serious about the loan than the entrepreneur. The latter believed the initiative to summarise the debt and put it on paper came from her side, whereas her mother was confident that she was the first who started calculating the expenditures:

Entrepreneur C: "So we had to, obviously, start calculating, right, what loans do we owe people. [...] She's been really flexible on that, she hasn't charged us anything extra...yet... (Laughs). But now we have a written agreement, we have like a loan schedule and... We've actually produced that and given it to her".

Lender C: "I came to her with the paper I've worked out.... But she had a thousand other things, while she's doing the business, she's doing, so I chose a time to actually put down my suggestion..."

Moreover, the amount of money which had been provided, as recalled by the entrepreneur, was less than the lender remembered to be supplied – an issue which the creditor is aware of, but does not consider it to be worth reminding about:

Entrepreneur C: “She invested about...it ended up being about £20,000, actually. But initially it meant to be about £5,000 (laughs)”.

Lender C: “Well, in total the bill that we agreed on was £18,000, and I think, I probably provided another... I think it’s really £25,000, but I’ve never had the courage to come back!”

The confident optimism of the entrepreneur can be spotted as opposed to the moderate expectations of the informal lender, who views her role as facilitator of her daughter’s success, rather than getting a financial gain out of this venture, however, still being practical about the debt:

Entrepreneur C: “We’ve got another three-four years of payments to make... Just to increase the payments after the pause, instead of just extending the term”.

Lender C: “Because it’s family... Because I’ve not gone over, not invested something that I don’t have... It’s a bonus for me to get it back”.

From one side, active involvement in the business and a hands-on approach ensured mutual agreement on the flexibility of lending conditions. From the other side, the lack of formality in the relationship facilitated an informal attitude towards the deal by the entrepreneur – which was acceptable for the lender, but not effective from the economic perspective, when the latter experienced financial losses from the deal. This consideration raises a challenge, when an existing informal liability takes a form of a one-way transfer: a re-distribution of wealth.

5.2.4 Case D: Elderly people care

5.2.4.1 Company overview

Drawing on his management expertise in running a letting agency, the entrepreneur launched a care services company for elderly people in 2009. Throughout the process of refining the business idea and conducting market research, first, personal savings were exploited (27% of the total amount of start-up capital), small scale finance was attracted from the Prince's Trust, and several banks were approached. After being rejected by the credit institutions, the entrepreneur's family stepped in, offering a continuous loan with an upper cap on flexible conditions for the purpose of paying the rent, and salaries. Although being profitable the business still has not paid the loan back, in order to maintain the cash flow at a stable level. His parents came from a self-employment background, facilitating their son's intentions to be independent. As a result, they employ a hands-off approach, occasionally discussing business-related topics (see Table 5-8).

5.2.4.2 Entrepreneur's perspective on informal funding deal

The funding journey of this entrepreneur starts with his own investment, which constituted around 28% of total start-up capital required, and then taps into external sources, like Prince's Trust, and bank lending. Having mentioned the unfavourable external environment, when the banks were reluctant to accept venture risks and tightened their regulations in terms of small firms lending, the entrepreneur felt that his parents' support was a 'last remaining option':

Entrepreneur D: "But I mean, I suppose, what I've not pointed was like a crisis point... And it was like... This was the last remaining option. There were, probably, other channels that I could have pursued..."

Elaborating further on the impact of the macroeconomic environment, the entrepreneur highlights the importance of timing, when the effect of the crisis decreased the chances of getting bank finance:

Table 5-8 Timeline for Company D

Time (Milestones)	Jan-09	Oct-09	2009-2010		Mar-10	Sep-11	Apr-13
Business Development	Extensive market research	Business Gateway start-up advice	Founding a company	Running the business advice from the Prince's Trust	Developing the business	Business became profitable	
Funding strategy		Own funding - gradual injection	Prince's Trust (unsuccessfully)	Approaching 3 banks	Family loan		£3,000 remaining debt to the family
Funding Amount	£15,000	£5,000			£34,000		
Purpose			Getting the business started		Premises, office, staff		
Change in external conditions					The impact of the economic situation on bank lending		

Source: Interviews

Entrepreneur D: “This was 2009-2010, so it was a very difficult thing to get money from the banks. If I’d done it in 2005-2006, they probably would have just given me money...”

The equity challenge was crucial at that time, when the entrepreneur was not willing to give away the ownership of his business to anyone external. While he believed that his venture was attractive enough for the investors, as he revealed himself being proactive and hardworking, he stated that if he had gone this way this “*would have been catastrophic for it now*”. The entrepreneur’s rationale behind this assumption came from the point that the business had grown rather fast, and the subsequent development that he was planning to implement would not have been possible, and he would feel restricted, if someone else with a decision-making power was on board.

However, he did not reveal any objections against his parents being stakeholders of the business, as “*blood runs thicker than water*”, and keeping the business within the family made more sense for him:

Entrepreneur D: “Because why they’re doing this, everything they have when they die, if there’s anything left, will come to us anyway”.

The business owner tried to justify the family loan, indicating that it would not make any difference in his level of preparedness or ambition, if he was to pitch to external investors or lenders: “*I’ve drew up a cash flow projection, to show them how quickly I can pay it back*”. The entrepreneur attempted to rationalise his decision of attracting informal funding, by referring to the quality of his venture. From his perspective, the development of the business would not have changed, if market capital had been attracted. Flexible conditions were the main argument in favour of the informal loan:

Entrepreneur D: “It was fairly relaxed [...]. Well, they would feed it to me as something as I needed it, as something like 5,000 pounds a month, you know [...] I still own them nine grand, or something. I can pay it all back tomorrow, if I wanted to. But I’m choosing to kind of... maintain good cash flow in the business”.

The role of the informal lenders remained passive, where occasional and general advice was provided, taking a form of informal discussions and sharing. As in all previous cases the entrepreneur acknowledges: *“They are not that eligible to provide advice where we are in the business. Because they don’t really know... they haven’t access necessarily... (Laughs). Or they haven’t necessarily experienced that to the same extent first hand”*. As a result, an informal relationship cannot substitute expert advice, which is generally expected to be received from professional funders. This demonstrates first the reluctance of the entrepreneur to involve his family in the business to the extent that they are fully informed, and, second, a clear separation between family and business networks, which serve different purposes from the business owner’s perspective: *“I would go to my own group of contacts...”*

5.2.4.3 Lender’s perspective on informal funding deal

Truly altruistic motives rooted deeply into the kinship and family values can be revealed in this case from the lenders’ side, who also viewed the facilitation of their son’s success as a moral duty and obligation: *“The money really was just a... facilitation [...] The family is a very important unit, and therefore we, as parents, would do all that we can to facilitate the boys in raising their families, and the next generations”*. Although monetary interest was completely disregarded, a sense of sensibility and soundness of the loan was not underestimated during the decision-making process. As in previous cases, the amount of effort put into the venture at the preliminary stage served as an indicator of business viability and determination of the entrepreneur:

Lenders D: “And I think he’d done a lot of homework. He’d done a lot of research about the whole care sector over nine months before he actually started off his business. So we could see that it was a viable business”.

However, there were some important criteria set in advance, which were even implied by default, as their presence was an intrinsic attribute of family values. The ethical nature of the business, and its social purpose (in terms of the type of activity) reinforced the philosophy of the lenders, their beliefs and Christian morality:

Lenders D: “It goes with what I’m saying, that the business would be ethical, would be worthwhile, meaningful, and so forth. ...And he’s going down that direction, which, you know...we were pleased with...”

Market considerations are also present in the lenders’ reasoning, where the timeliness of the moment, as well as the macroeconomic environment in general are viewed as important in determining the success of their son’s venture, and their positive expectations:

Lenders D: “I think, five years from now, it probably won’t be the same opportunities in this care sector, because other people will be catching on the idea of the baby boom and the need for looking after... And it might be even harder to break into that market”.

The decision was economically justified in the same way as in the previous cases, where the funding was withdrawn from the back-up sources, and was not considered as an essential part of the family budget. It was a reserve that could be utilised in the times of necessity, and based on the borrowing facility secured by the property, which was let out:

Lenders D: “We weren’t under pressure from the money angle, because we in turn had that borrowing facility at 1.99 [...]. It was based on a... mortgage loan that we...It was based on the lowest loan rate that we ourselves could pull by using one of the flats as a security”.

Also, some restriction mechanisms were put in place to ensure, first, healthy attitude towards the deal, and, second, fair distribution of wealth within the family. The rationale implied a cap on the upper limit of money that was lent so that the amount of funding, which was gradually injected into the business, could be controlled. The first justification acts as a protection mechanism against moral hazard in the long-term, in the sense that the informal lenders themselves were not involved in the process of running the business directly, were not aware of all the actions and decisions made, and did not have a direct influence on them. As a result they “weren’t prepared to increase the amount of the loan,

because that could be a black hole, pouring money into business that in the end of the day wasn't viable". In this light, the after-loan relationship plays an important role in the whole process and reflects the attitude of the lenders. While a sense of freedom and independence is ensured to provide an opportunity to guide the venture at the entrepreneur's full discretion: "*And it's important that therefore we don't let him feel that we're sort of invisibly pulling strings just because we're financiers*", some indirect influence can be observed. As a result, the control mechanisms in the business relationship follow the same pattern as in a parents-child relationship, without being too much intrusive, but maintaining a certain level of authority:

Lenders D: "I think he values, particularly, that advice. But if he really felt that he should go down the certain route, I think, he would do it, whether we agreed or not. But he does listen, and he does pay attention to what we're saying".

The second explanation implies the protection of other stakeholders, whose interests might be severely affected by breaches in the conditions of the loan (Pérez Carrillo, 2007). The interests of other family members would be disadvantaged, as the amount of the loan represented a part of the heritage that would be distributed among the four sons after their parents' death:

Lenders D: "There was a ceiling put on it... And, you know, had the business gone under then he would have effectively kissed good-bye to some of his inheritance, we hoped he was gonna get! (Laughs). So there was a security in it as far as his brothers are concerned, he's got three other brothers".

The perception of risk at the time of decision-making was significantly affected by the lenders' active involvement in the business at its early stage of development. Greater engagement with the business activity and more information available reduces the degree of riskiness of the venture as perceived by the lenders: "*...we were very much involved, I think...much more involved at the early stage than where we are now. And we just felt that, yeah... the risk was minimum*". Another factor, which positively affects the

perception of risk, is the level of preparedness of the entrepreneur and his personal qualities. The observation of prior hard work generates confidence in the founder's abilities and the likelihood of success: "*I guess, just... just we got him do his research, and we were confident that he had...*" However, despite all the arguments in favour of the entrepreneur and his venture, the risk awareness does not diminish, and the level of risk is evaluated based on common sense and personal experiences: "*Yeah, I mean, we had no experience in that kind of things, so, you know...there's always the risk in these things...*"

The expectations are generally positive, however, they are not expressed explicitly, as an attribute of the venture, but as a characteristic of the entrepreneur, who is from the lender's perspective '*a winner*'. Hence the future success is not particularly connected with the current business, but it is rather associated with a more holistic and long-term vision. As a result, a possibility of a negative outcome would be considered a temporary frustration which would take a form more of sympathy towards the entrepreneur than disappointment in losing the money: "*I guess, there's always that disappointment, and...frustration of that... But he's still our son, so...nothing is going to break down our relationship*".

5.2.4.4 Reconciliation of the perspectives

Overall the perspectives of both the entrepreneur and his lenders are in balance, where both parties appreciate their roles in the relationship, and acknowledge its potential limitations. This especially refers to the pre-investment reasoning and motivation, when the business owner revealed his struggle with getting access to the essential funding, while his parents witnessed a sequence of unsuccessful attempts, and offered the financial help as a result of this observation:

Entrepreneur D: "... *they observed me going through the process and just doing all the things you needed to get started and finding the finance that you need to get started...*"

Lenders D: "... *And it was going like a natural progression, and suppose out of that, talking together with them. We could lend him money rather than go down the route of going to a bank, where the interest rates are so crazy...*"

While the entrepreneur was explicit that it was not down to the fact that he did not have any alternative sources, but a matter of convenience and timing at that moment which was crucial for setting up a business, his parents also did not doubt his abilities, but underlined a potential negative effect if they had not offered their help:

Entrepreneur D: “I’m absolutely convinced that if I didn’t get the money from them, I would have got it somewhere else, right. [...] It’s better to keep the money in the family, it is what they say. So that rather than let the banks intervene...”

Lenders D: “You know, he wasn’t assuming that we would fund him... it was a sort of...mutually we would tell. [...] I think as far as getting bank loans and...other investment of that sort... I think it would have affected the speed of development of the business. And I think, he might have missed the boat”.

As a result, although it turned out to be a last remaining option given the circumstances, the entrepreneur did not seem to be willing to acknowledge this fact as it was viewed as a potential threat to the credibility of the business and his endeavour. Therefore, one can track an attempt to rationally justify the informal lending – so that its informal nature did not take away the economic sense behind the deal. However, both sides revealed similar perspectives on the personal characteristics of the entrepreneur, confirming that the decision was individual-based. However, while the lenders closely related these individual characteristics to the kinship ties as well (so that they would not fund any other person with the same set of features), the entrepreneur emphasised those features as parameters independent from the family setting of the deal. In this light, the entrepreneur viewed his parents’ motive to be similar to the ones he would expect from professional lenders and investors, whereas the latter were mainly driven by altruistic factors:

Entrepreneur D: “They wanted to see me being proactive. [...] I believe I convinced them it was viable, because of the work and effort, and enthusiasm, and motivation that I put behind the start-up generally. [...] As long as the business is legal, and they felt that it

had potential. ...but if they thought that the business didn't have a good hope... Then they would have been less likely to do it".

Lenders D: "The fact that he had a care business in the sense it is a bonus, where he might as just well had a... [...] The primary factor all around the line was the family thing, wasn't it?"

The entrepreneur recognised another motive, which was not by lenders D. It provides the evidence in favour of more intrinsic and subtle motives expressed in the self-realisation in the children's venture. This observation reveals some signs of not pure altruism, but implicit deferred self-interest – first mentioned in the works of Jensen, who demonstrated that monetary incentives are not always the most efficient ones in explaining the logic choice of individuals (Jensen, 2001):

Entrepreneur D: "Just quite a nice thing for them to observe as kind of... You know, they're both in their 60s now, and also... they sort of passed the stage in life when may be where they could do something like this themselves".

The optimism of the entrepreneur can be revealed through the estimation of his parent's risk perception in the comment: "*they're by default quite risk averse*". Thus he highlights the abilities to build confidence in him and his business in order to convince them that it was a safe decision for them to make as "*if the business failed, I would have gone and got myself a perfectly good job*", so that he would be able to return the money in any case, regardless of the outcome of the business. This perception is slightly misaligned with the one depicted by the parents. They found themselves neutral about the money, whereas they were mainly concerned with the personal success of their son and his position, however, without eliminating the level of risk associated with that decision:

Lenders D: "And you have to be a risk taker, I suppose, to invest in them. And...I wouldn't say that I'm naturally a risk taker person, but... When I see the need for it... You have to just put up all the bits and pieces of other situations, you know..."

Lenders D: “I think, he’s a winner, we know he’s a hard worker, we know... you know, he runs the things with integrity...”

The post-deal roles turned out to be more clearly defined, as both sides equally acknowledged the fact that the lenders were not fully qualified to provide specific advice, or did not feel it was appropriate to impose their opinion. However, the intervention stayed within the family boundaries, as it would be if there was not any formal relationship alongside:

Lenders D: “I think there’s an important line here, where has he the right to be the captain of his own ship? [...] But as a father when he brings particular issues to me, then we talk about it”.

Entrepreneur: “Their level of involvement was a general... They weren’t offering advice, they weren’t offering support, and they weren’t getting involved...”

In this case the informal relationship dominates over the formal side of it, and not only in terms of lender’s motivation and favourable conditions for the entrepreneur, but also in the perception of the roles, where the informal funders consciously refrained from the intervention, fully relying on trust after the loan had been provided. An attempt was made to control the cash flows and maintain the relationship within sensible boundaries with the aim to prevent potential misuse and harm to other relevant stakeholders, thus making the decision reasonable from the psychological point of view.

5.2.5 Case E: International recruitment agency

5.2.5.1 Company overview

Drawing on her previous experience, 10 years of employment at a recruiting company, the entrepreneur launched her own business in 2000, by acquiring recruitment databases, renting premises, purchasing office equipment, and hiring two temps. The start-up was financed mainly by personal savings, bootstrapping, and other small loan-type investments from Government organisations and initiatives. When the economy went

down, the company experienced some difficulties, which resulted in a search for external investment. Trying to avoid equity dilution, the choice was made in favour of the ex-partner of the entrepreneur, who was also employed in the company at a later stage, controlling accounting and finance. Afterwards, additional tranches of investment were provided to support business expansion and occasionally cover liquidity gaps. Up to the point of the interview, four injections were made – firstly on an informal basis, with the investor's shareholding growing from 5% to 40%. The funds were provided on an informal basis as short-term loans, and afterwards part of the debt was subsequently transformed into equity and formalised into a shareholder agreement (see Table 5-9).

5.2.5.2 Entrepreneur's perspective on informal investment deal

In pursuit of her dream the entrepreneur first utilised her own resources (which constituted almost 50% of the total start-up capital required to launch the venture) and then tried to explore other sources without giving away equity. As a result she drew on bank credit cards (a widespread form of bootstrapping), relied on the support of Scottish Enterprise, and took advantage of the government schemes as well, when the gap was filled with a short-term loan from her ex-partner.

However, in 2000 when the business took off, things did not go well at the macroeconomic level, and the company started off by experiencing liquidity problems. Being in a close relationship, the entrepreneur relied a lot on her partner's support, covering liquidity gaps either in the form of a loan, or equity exchange:

Entrepreneur E: “And then the money started running out from the personal investment. I thought a lot more money would come along quicker than it did. [...] We, probably, would have struggled to find finance in 2000, when the economy was bad, and during the last recession. So there were times, when he went in, so to find it elsewhere would have been tough”.

Table 5-9 Timeline for Company E

Time (Milestones)	Jul-00	Sep-00	2002	2005	2006	2008-2009	2010-2013
Business Development	Incorporation of the company	Setting up the company	Rapid sales generation	Business expansion and growth	Under-resourcing	Financial stability - going overseas	Liquidity problems Recovery
Funding strategy	Scottish Enterprise	Bootstrapping (credit cards)	Formalisation of informal agreement	Rare intervention of the informal investor	Rare intervention of the informal investor	The informal investor becomes a permanent member of staff	
		Small Firms Loan Guarantee Scheme	Informal investor: short-term loan			Injections on demand to improve liquidity	
		Own funding					
Funding Amount		£14,000 (own funding) + loans		£10,000	£40,000		
Purpose	Premises and salary add-on	Rent, computers, salary			Salaries		
Change in external conditions			Economic downturn			Economic recession	

Source: Interviews

Notably, the informal nature of the relationship at that point implied very flexible conditions, when those injections were not formally noted: “*I've always lost count*” – says the entrepreneur. By the time the company went limited, without keeping a track of how much money was lent, and how much of it had been repaid – some percentage of that debt was turned into equity, fixed in a formal agreement:

Entrepreneur E: “And I just said to him, you know: «You just keep that percent», what he had... He'll be a lot better with these figures than me, he's the one who runs our finances in the business!”

Although the entrepreneur admitted that she could have exploited alternative sources of funding, it was emphasised that everything was happening very fast, and a matter of right timing was quite important. Looking for the funding on the market would have held her back if she had not managed to cover liquidity gaps swiftly. From one side, negative economic conditions decreased the number of available and accessible options. From the other side, growing internal demands forced her to turn to the informal funding which was provided on favourable conditions. Reluctance to give up business equity remained a headline for the entrepreneurial funding choice, where the idea of keeping the ownership within the family came across:

Entrepreneur E: “My then partner, it felt a bit different letting him have some shares, because... I felt that, you know... that would be fine as keeping it in the family”.

After further elaboration about what the advantage of family over the external investors was, trust and loyalty were distinguished as key criteria: “*I felt he had the loyalty towards the business... He was someone I could trust...*” This informal deal followed quite a formal route from its initiation (when the debt was restructured into the equity) and during the post-investment period, when being a shareholder the investor started being more actively engaged with the business.

At the initial stage the investor was involved only as a non-executive director in the business, without much engagement and interaction both at the personal and business levels. From the perspective of the entrepreneur she was not looking for advice at that time from him, but used his expertise and judgment to resonate her own ideas: “*he would then sort of relate back his thoughts from afar, which was very useful, having him as a non-executive at that time*”. The justification came from the lack of essential industry knowledge, which was too specific for the investor to be able to provide appropriate advice:

Entrepreneur E: “First five years he wasn't hands-on the business at all, he was working as a chartered surveyor, doing contract work in various places. [...] I didn't rely on him as much for advice until he actually came into the business and understood it better. [...] Because he wasn't working in the business, and he didn't know the business, he didn't know recruitment at all...”

However, at the personal level there had been more interaction, where all major decisions were discussed: “*I always run any big decisions past him*”. Once the personal relationship fell apart, the business relationship grew even stronger, when later in 2006 the investor was officially employed:

Entrepreneur E: “So he came into our internal function, so he stepped in to run our accounting, our HR, and our IT functions. [...] I felt he was the best person, because he ticked those boxes of trust and, I felt he had the capability to do the areas I was asking him with”.

Once the industry knowledge was acquired and the investor understood the business internally very well, he was an ‘ideal’ investor from the theoretical perspective, as apart from his financial input he was able to bring in something the entrepreneur was looking for: “*You know, I try to include the people, who are better than me*”.

Given an example of more distant relationships than parents-children type, there is a clear separation between personal and business aspects of life, tackling the threat of a potential negative effect: “*We've done a very good job, we're keeping our personal relationship away from our business. It's always like we're two different people, you know...*” Even imposing certain rules in everyday life (for example, not talking about the business for more than half an hour during dinner) prevented them from mixing the two relationships up, so that the end of one would not have an impact on the other.

5.2.5.3 Investor's perspective on informal investment deal

The investor confirmed that the initiation of the deal came from his side, when he offered help based on his insider knowledge of what was going on and the challenges his partner was facing at that time. As in all the cases considered before the investor did not experience any financial difficulties personally and had the money available in the bank, which could have alternatively been invested into property, shares, or a pension. The personal relationship did not dominate over the business relationship, as economic sensibility was the main rationale behind the decision in the first place, when initially it was thought to be a one-off credit:

Investor E: “So, I invested initially on the basis this investment has to be sensible from my investment point of view, so if the relationship fails she had security investment separately to me investing in her as my partner”.

Along this line the investor was the one who insisted on putting everything down on paper, so that in the event of personal disagreement there was a formal evidence of a business relationship, which was clearly separated: “*The bit of paper that we agree for my shares and the money, and the company has to be separate*”. Sensibility of the investment decision was justified based on the personal qualities of the entrepreneur, but also on the business characteristics and market potential: “*I thought that the business model was potentially very good, especially with the amount of hard work that she was going to put into it. [...] But I also invested because I thought it was a good opportunity*”.

Meanwhile, some things were still personal as acknowledged by the funder, where based on the financial analysis he would have never made such decisions. This is the area, which is mostly associated with the risk taking, as it goes beyond economically rational justification. The same reasoning was applied to the further injections, which were not planned and were made on demand, during the times where the company experienced liquidity problems:

Investor E: “It was the case of I did invest into the company, there was a problem, I was in a position to sort the temporary problem till the company will get on doing what the company does. So I took the view that...I would risk, lending the company some more money”.

These personal motives were based on the relationship, sympathy and willingness to help and support the other half, observing her inspiration and enthusiasm: “*So, my motive for investing was to keep her dream alive, because she was my partner*”. A belief that the venture will be successful one day, and all the loans and investments will be paid off is coming through the investor’s reflection. However, this belief is also grounded in the personal effort put into this venture, apart from the work carried out by the entrepreneur: “*There’s a brand name... the company is an asset that’s worth something, and...I’ve also invested a lot of myself in the company as well*”.

Reflecting on the interaction with the entrepreneur, the investor admits that in the beginning his advice had not been valued as much as it was when he turned out to be right, as could be seen from the hindsight: “*I think, she appreciated the advice I had given her that she hadn’t taken, it had been good advice*”. In the beginning he perceived his role as being a “*sounding board*” to “*bounce the ideas off*” during their personal time in order to boost her confidence and support her inspiration, rather than being involved in the decision-making process. Therefore, a certain degree of informal investor’s influence can be revealed on the entrepreneur’s decisions, which naturally grew into more joint thinking and co-operation, once he became employed by the company, and they were not tied by the personal relationship: “*She saw it was correct advice from someone who had some*

business experience, and also cared...and also a little bit of knowledge of her business, because I had been with her for 4-5 years, when she'd effectively run this business for someone else".

Although expectations seem to be quite low: “*...that looks like the company wouldn't be able to pay back this the loan any time soon*”, the investor firmly sticks to the belief that the company has potential, which depends both on the entrepreneur (whom he trusts and has no doubts in her abilities), and on himself: “*the company has an inherent value now without respect of the turnover, or the profitability...*”. The expectations are moderated by the negative impact of the external environment, where a positive stance is taken in terms of the company’s past development, and a lenient approach is formed regarding its future prospects:

Investor E: “So, one of our successes is that we’re still in business after the recession had happened [...] and then, obviously the recession that started in 2008, we’re still feeling the pinch from”.

5.2.5.4 Reconciliation of the perspectives

Both the entrepreneur and the investor agreed on the fact, that if it were not for the external circumstances it would be unlikely for the deal to take place. However, while the entrepreneur justified her choice by drawing on family ties to be a safer option to keep the equity, the investor considered her choice to be shaped mainly by urgent need, while emphasising his non-financial contribution as well:

Investor E: “...she didn’t want any financial support from me, and I didn’t offer it at that time. [...] It was when she realised she needed the money, because the amount that she had borrowed, she spent it all on advertising, and other essential things, like staff and offices. [...] I helped her there...”

The way in which the entrepreneur perceives investors’ decision-making criteria is slightly different from the actual ones. While they both admitted that the role of personal

relationship played its role: “*I think, initially he definitely did it just because he knew me as a person*”, the entrepreneur puts this reasoning in the first place, while the investor considers objective parameters to be of more importance in order to protect the business relationship from the personal one. Yet the investor’s justification echoes in the assumptions of the entrepreneur: “*And he also respected my ability and how well I was doing in the recruitment before historically. [...] For the biggest part it would be his belief in the business...*”

Remarkably, while the investor views his gradual involvement as something natural, the entrepreneur assumes that to some degree it is a mechanism for the investment protection: “*He may have decided to do it, because he was...protecting his investment as well*”. Different attitudes can be spotted in the beginning of the business relationship, when the entrepreneur refers to the investor’s lack of expertise in that particular area as a reason for not asking for a piece of advice or not involving her partner in the business formally. At the same time the investor believes he had all the knowledge, which had been temporarily discredited until the moment that allowed the entrepreneur to appreciate the relevance of his contribution and its usefulness. Through time, their business relationship improved, as it became more and more separated from the personal one, which positively affected their interaction at work:

Investor E: “In the past, you know, we both made mistakes. Again, we discussed and agreed most major decisions... Now, we discussed and agreed all major decisions before they were made. [...] We’ve got complementary skills and views on some matters. So in some areas she’s strong, and in other areas I’m strong”.

Entrepreneur E: “I always run any big decisions past him... I never make decisions without him agreeing, but we talk about it, and he will go down that route... But 95% of the time he’s always going with me, and he waited before I did start the conversation, because he trusts my decision-making”.

The trust can be verified in the long-term thinking of both parties – this is where their interests are fully aligned, and economically justified. Business growth is viewed as the ultimate goal, where everyone will be able to harvest what they have deserved. Both of them acknowledged that financially the company had not been doing well, but in terms of intangible assets they managed to achieve quite a lot by building a successful widely recognised industry brand. As a result the further personal and business relationships are detached, the more the behaviour and reasoning of the informal investor matches the attitudes and goals of a professional investor:

Investor E: “So long-term, I think, that we’ll sell the company to someone else, and...I would realise my investment at that stage. [...] I’d be looking to get my money back plus missing salary”.

Entrepreneur E: “Because the idea is eventually that the business will be sold. And at that point that’s where we’ll recover our rewards. All we wanted to do is to build the business, instead of taking big dividends and salaries”.

In this case the entrepreneur also tries to find some rational explanation for her choice in favour of informal investment. Interestingly she admits the investor’s business contribution, especially at the later stage of their business relationship, but did not mention his role as an inspirer, perhaps, assuming it to be a default attribute of the family relationship. At the same time the investor strongly highlights his non-financial contribution: *“She had certain doubts... I thought that she was good enough, and could learn the bits, that she didn’t know about. So, I was there to give her moral support, when she set up the company, but not financial support”*. This emphasis could be viewed as a compensation for the lack of economic justification of his later decision to support the business further, when it was not financially viable. The case demonstrates a very high level of involvement into the business by the informal investor, who actually started from being an informal funder, whose motivation was also driven by non-pecuniary factors, and subsequently transformed into a formal investor with expectations of economic pay-offs, working collaboratively with the entrepreneur on the company’s growth.

5.2.6 Case F: Innovative toys' manufacturer

5.2.6.1 Company overview

The company was officially incorporated in 2005. 15 prototypes of an interactive gaming system designed to enhance children's fitness were developed and sold in 2008. The process of developing the products, establishing the production, and delivering them to the market took quite a while; it took until April 2013 to set up for sales. The entrepreneur without having any of his personal savings raised the first funding from his friend (the owner of the collaborative company), then match funding from the Scottish Government. There was also an attempt to attract funding from private investors, which did not bring money, but provided publicity to the business idea – as a result, being eligible for additional public grant.

The informal investor and entrepreneur first met at a networking event, where they discussed the potential business ideas, since they were working in the same industry. At a later stage their friendship evolved, and the informal investor came as a mentor and advisor, providing non-financial support, and subsequently offered an investment on flexible conditions. Currently, he is no more involved in the business, just maintaining a personal relationship, while his share in the business dropped from 10% to 3% (see Table 5-10).

5.2.6.2 Entrepreneur's perspective on informal investment deal

Case F represents the weakest social ties in the context of the research, when the friendship was initiated in the business environment, developed further based on mutual sympathies, and resulted in an investment. Having no personal savings, and relying on family support to cover his living expenses, the entrepreneur had been intentionally looking for financial resources in order to enter a government scheme of the match funding. He came up with the business idea at University, where utilising the available resources and with the help of Scottish Enterprise first prototypes were constructed. This enabled the founder to start expanding his networks, so that he could potentially connect with future investors.

Table 5-10 Timeline for Company F

Time (Milestones)	Apr-04	2004-2005	Nov-05	2006	2007	2008	2009	2010	2011	2011-2013
Business Development	Support project	Advertising	Incorporation			First wireless prototype		Pause		Manufacturing process
			Marketing campaign	First sales		Getting ready to attract institutional investors				Hiring 5 people
		IP								Preparing for the sales (UK and US market)
			Initial prototype (15 products)							
Funding strategy	Scottish Enterprise (Enterprise Fellowship)	Friends and family	Friends and family	Other investors	Scottish Government - smart award (match funding)	Family support	Dragons' Den - failure	Business Angel		
Investment Amount			£20,000	£50,000	£50,000	£120,000	£350,000			
Purpose	Salary support and living expenses						Manufacturing			
Change in external conditions						Economic downturn - low investment activity				

Source: Interviews

Consequently, at one of the conferences he was introduced to an established business owner, who came from a family business background, and operated in an adjacent market. Thus, the case illustrates an example of when an entrepreneur first approached a potential funder without any prior relationship with that person, who was not a professional investor:

Entrepreneur F: “It was definitely my initiative. I think, they knew that the company was looking for investment. [...] So, I didn’t ask for a specific sum, but I mentioned what the total requirement was at that time”.

In such a situation the main criterion was fast access to funding in order to start the marketing campaign, refine the prototypes and launch a manufacturing process. Clearly, the personal relationship did not exist at the point when the deal was initiated, as the parties only started getting to know each other in order to build trust and discover mutual interests. Given the fact that the entrepreneur did not have a final product or a certain plan how to finalise the product and get it to the market, the most effort was put to develop the personal relationship first, and then use it as a basis for a subsequent investment. The risk was too high for institutional investors, who would be looking for a consumer-attractive product with a defined plan. Therefore, the funding strategy of the entrepreneur aimed to build a personal relationship first, where on the grounds of his individual attributes he would convince someone to support him financially:

Entrepreneur F: “At that stage it seemed as incredibly high risk, because we didn’t even have a product yet. And we didn’t have any market information, so the level of risk was significantly higher. That’s why we relied on a bit more the personal attachment: who believes in you as a person, who believes in your vision, and buying your vision...”

Although the amount of the informal investment constituted only 1% of the total start-up amount which was eventually needed to set up a manufacturing process, it was quite crucial at that point, as it opened the way to more funding schemes available through the

government, which enabled the entrepreneur to develop a more advanced prototype and pitch it to potential customers:

Entrepreneur F: “Well, I certainly would have needed to find a bit more of money from someone else. It would have possibly delayed me being able to access that SMART grant fund, and would have meant...well, it would have taken quite a bit longer”.

The effect of the financial crisis was also acknowledged, when the “*investment community*” locally, and opportunities generally at the macroeconomic level limited the number of finance options available:

Entrepreneur F: “And then, unfortunately, the huge financial collapse happened, global recession, and that meant that the investment community, there was simply no money to be had from anywhere”.

After some time when the relationship grew into friendship, the investor proposed a sum, which was available at that moment. The sides mutually agreed on the company’s evaluation, and “*shook hands on it*”, where the informal nature of the agreement prevailed, leaving the space for the entrepreneur: “*And in effect that wasn’t an investment event, so there wasn’t really any shareholder agreement in place, or any lawyers involved, and was simply they gave me a cheque for £10,000, I gave them the share certificate in return*”.

The entrepreneur claimed that he was “*very open and honest upfront of what the situation was*”, so that the investor was fully aware of the risk associated with this venture, its stage of development, and future perspectives of the entrepreneur. However, the post-investment involvement was significantly reduced after the goal had been achieved and the entrepreneur got overwhelmed with other endeavours and commitments in order to move the product forward, and survive the recession period: “*we have infrequent meetings when I simply update them...*”

As it turned out the entrepreneur was not looking for any advisory or mentoring role from the investor, while just viewing it as a business relationship “*that once we have the product ready that they would benefit from selling it from their...shop for their business*”. Being already surrounded by a number of business advisors, he believed “*you can confuse yourself when having too many advisors about the business*”. As a result, this informal funding was just a matter of facilitation to get to the institutional investors and potential customers, drawing on the networks provided and the doors opened.

5.2.6.3 Investor’s perspective on informal investment deal

The attitude of the investor turns out to be very philanthropic and mainly driven by his willingness to help someone in whom he believed and in whom he saw potential, which at the same time is combined with the expectations of financial gain. From the investor’s perspective their personal relationship started with his non-financial support, by introducing the entrepreneur to his own customers:

Investor F: “It related very closely to the school market that we’re serving. There’re lots of the schools we deal with have gyms, PE, heads of PE, whom we know. And we were looking, maybe, to route him and then help him to the market, by testing the market place at the schools we deal with”.

The product trial was very successful among the customers, and initiated a lot of interest from their side – the factor that, in addition to personal qualities of the entrepreneur and his enthusiasm stimulated the investment decision. On reflection the investor admitted that the level of risk that was taken was quite high, and although they were totally aware of it, the philanthropic motive remained dominant and was used as a justification of such a “*a high risk flamboyant move*”:

Investor F: “You got to believe in some people, and help them along the way... And that’s what we did with him. We haven’t really done that before...”

The idea of a dangerous mix of personal and business relationships comes across in the words of the investor in this case as well. It is mainly associated with a possibility of losses as a consequence of the non-economic criteria used in the decisions-making process: “*We were acting from a friendship point of view in a very philanthropic way. Which is dangerous in business (Laughs)*”. The philanthropic motive of the investor was also supported by his active engagement with Entrepreneurial Exchange, where he felt he could contribute to share his own experience drawn from personal errors, struggles and failures: “*it was partly the reason I joined the Entrepreneurial Exchange... Because some people helped me from there, and I thought I was giving back*”.

The unplanned availability of spare resources was another crucial factor, as alternatively there would not have been funds available, which the investor could easily sacrifice:

Investor F: “He was lucky, because we just moved out of George Street...and we did have a spare £10,000 to invest. And we jointly discussed my friendship with [Entrepreneur F], and the route it was going. And so we decided to do it”.

As such although from the investor’s perspective, his belief into the entrepreneur and willingness to facilitate his progress were the most essential drivers of the investment decision, two economic factors can be spotted in his reasoning: first, the interest in the product itself, and, second, the timely availability of spare funds.

The expectations of the returns remained low: “*and we’re now unlikely to get a return on the investment. I would call it gambling*”, as the investor was especially concerned with the time it was taking the entrepreneur to make first sales. And although he still has a hope to get the money back and receive the appropriate reward, however, the investor emphasised that it is delayed too much, and the moment might have already gone: “*And I think, frustratingly we would have liked him to get there quicker*”.

Treating the investment as an affordable loss, and prioritising personal relationship, the investor does not regret the decision made, which was totally justified and evaluated from

his perspective: “*The friendship will still be the same. We’re not going to hold this against him. It was our risk. It was our risk in total. He was convincing enough to persuade us to part with 10,000 pounds*”. The expectations are further shaped by the impact of the external environment, where its effect justifies the delay and the lack of the desired progress in the eyes of the investor: “*But in the end of the day, you know, that was 2006. There’s a lot happened since then*”.

The investor noted that “*lot of the advice came in the initial phase*”, where he perceived himself as a mentor and facilitator rather than an investor. During the post-investment period, the interaction was minimal from the entrepreneur’s side, who “*doesn’t take a lot of our time, and we meet occasionally when he gets in touch, and updates as how the progress is going*”. However, the investor himself is not willing to interrogate, first, because he has his own business to look after, and, second, because his investment was based on the person, whom he trusted, and he tried to preserve his belief: “*We really don’t want to put a lot of time and effort...at this stage and his direction. We’re just waiting for the return*”.

Moreover, the investor unconsciously tries to monitor the entrepreneur’s success in achieving the main goal of any venture: sales. Although being occasionally updated on the main developments of the business, he is looking at the website of the company every three months “*to see if there’s any news*”, he looks at his Facebook “*to see what is out there going on*” in the expectation to see something positive as “*he doesn’t say whether he sold it or not...*” Hence the investor’s role boils down to that of an observer, who demonstrates no intervention into the process and has quite moderate expectations of returns, however still nurturing the hope that his anticipations would come true.

5.2.6.4 Reconciliation of the perspectives

While the investor emphasises the philanthropic nature of his decision, and assumes that his investment was a last remaining option for the entrepreneur, who was at the crucial point of the business development: “*and he was having great trouble in knocking on their doors and getting in*”, the entrepreneur saw “*a potential for them selling our products and*

having some addition to their portfolio selling it into the private school market”. The entrepreneur identified a “*good fit*” between himself and his future funder, as his product could be potentially distributed through the retailing outlets of the investor, straightforwardly revealing his interest, which was “*because of the potential source of funding, for match funding to access the SMART award*”. As a result the investor tries to underline the informal side of the deal, which could be explained by a not very successful outcome in hindsight (Batson and Weeks, 1996). However, both sides agreed that the trust building process and getting to know each other as individuals were essential attributes in developing their friendship, without which the investment would not have taken place:

Entrepreneur F: “There’s some trust being built up. Especially in the early stages you are all reliant on people. In a way buying into your enthusiasm, into your motivation, into your what you think you can do with the business. So it’s as much a personal relationship as it is a business relationship”.

Overall, from the interaction it can be noticed that the entrepreneur took a bit more formal stance than the investor, who while admitting his economic rationale, did not put it as his priority:

Investor F: “So he was looking for my advice in buying and selling, and I was looking, perhaps, to get a product at the end of the day out. So, that led to the investment, now he just hadn’t happened to be lucky...I think...”

Entrepreneur F: “And I suppose the investment was also with the...with the hope to get some externally, to get some return on the investment, to try to sell it in the future...”

The anticipation of the outcome as well as the evaluation of the current state of the business turned out to be different for both sides. While the entrepreneur revealed a certain level of optimism and confidence in the success of his venture: “*we do believe there’s a little bit of potential, everything we see so far in the market, and market feedback...it’s incredibly positive*”, the investor remained quite pessimistic about the progress: “*Having*

watched the process, I feel the process has been too slow. It's dragged on too long. I think, if he'd got the market before the crash in 2008 and launched the product, he might be in a better position”.

Summing up the case represents a situation when the relationship started on a formal basis, grew into a friendship, and resulted in an investment. From one side, the entrepreneur totally perceived the deal as a market operation (apart from the structure of the deal, which was quite relaxed), without emphasising the personal relationship, and interpreting it as an essential attribute for any entrepreneur who is trying to secure an essential funding at the early stages of the business development. From the other side, the investor views the deal quite informally in the sense that the decision making criteria would be different, if he was economically sensible about it and not attached to the entrepreneur personally. The investor mentioned philanthropy to justify his risky behaviour, which was not ‘normal’ for him. As a result, their roles are perceived quite differently as well. While the investor would like to see more frequent interaction and regular updates, as he has to track the progress of the entrepreneur himself from the social media, the entrepreneur seems to be happy about the relationship, which took a form of a completely hands-off approach. Therefore, the optimism of the entrepreneur has not been communicated to the investor, who is ready to assign this investment to a deadweight loss.

5.2.7 Case G: Recruitment agency

5.2.7.1 Company overview

After a few years of employment at a recruitment company, Entrepreneur G got inspired with the idea to set up a recruitment company herself, applying the same principles and practices that she observed as an employee. She took six months off to do her research and prepare the business plan, before the company was launched in 2000. Initially the founder exploited her personal non-financial resources (bootstrapping), and attracted small scale funding from the Prince's Trust. As the business grew, the help of the father was involved to fill in minor gaps in the cash flow. The informal funding came as a loan, which was repaid quickly without any interest implied. The lender himself has a strong business background, and was heavily involved in the company's operations externally (as an advisor), then as a member of the Board of Directors, and subsequently chose a hands-off approach, and stopped participating in his daughter's venture, just maintaining a family relationship. Since the very beginning the company has been very successful, overcoming two recessions and gradually expanding its geographical markets (see Table 5-11).

5.2.7.1 Entrepreneur's perspective on informal funding deal

The entrepreneur was determined to set her business up and running, when she first got the funding from the Enterprise Trust and the Prince's Trust. During the six months of the intense preparation for the company's launch, working on the business plan, she fully relied on her parent's support to cover her living costs, and later was the first to ask for £6,000 – her share of the equity capital invested along with her friend to secure the bank loan:

Entrepreneur G: "And I probably went to him and said: Can you lend me this £6,000? Because this is what my share is gonna be, can you lend that to me?"

Table 5-11 Timeline for Company G

Time (Milestones)	Jan-97	Jun-97	Summer 1998	1999	2003
	Preparation	Incorporation	A new office in Edinburgh	A new office in Edinburgh	Buying out the third director
Business Development	Business plan	Getting the pre-start funding		A third 'outside' director	
Funding strategy	Enterprise Trust	Prince's Trust	Bank loan	Family loan	Repayment of the loans
Funding Amount	£3,000	£5,000	£10,000	0	£6,000
Investor's role	Active involvement of the family member in running the company			Falling out	Recovery
Purpose	Marketing	Overheads (office, stationary) and payroll	Was not attractive		
Change in external conditions	Economic Downturn (oil industry)		A clear gap in the market		

Source: Interview

Based on the elaborated business plan, the entrepreneur knew exactly how much money she needed in order to launch her company, as a result she was looking for the required funding, exploiting all the resources she thought were accessible without giving up any equity. The business owner believed that her previous employment at the recruitment company provided “*a proven track record*” for her father, who since the very beginning had been confident in their success. The entrepreneur tried to rationalise her decision to go to the informal lender, basing her arguments on the fact that despite her previous experience in the same industry, elaborated business plan, the business was still perceived to be very risky by credit institutions: “*So there was no previous traction, there was no reputation we could trade on...*”. In that sense, the only way to get through was to exploit personal resources, where her father was aware of her abilities, intentions, and effort:

Entrepreneur G: “Just in terms of trust and confidence, just allowing you... he’s always been confident that we would go on until we achieve what we set out to do. I can’t really explain...”

The entrepreneur viewed his father’s role as an inspirer – the one who built up her confidence, encouraged and motivated to move ahead, leaving space for her own will, and allowing for flexible conditions and relaxed attitude without imposing any commitments or stress: “*He was very much of positive influence in encouraging me to go ahead and do it, and not to worry about taking the six months off. And he would provide me with the parental support if I needed it financially... he was pretty cool about that*”. The lack of formal agreement or any conditions on the loan (neither in terms of time, nor repayment) actually proved the flexibility of the conditions and the ease of getting necessary funds when they were most urgently required.

From the beginning the informal lender was involved not only financially and spiritually, but also provided quite tangible help and support to his daughter, drawing on his own experience as an entrepreneur: “*And that was great, he used to come up and he used to help us trying to get the systems, and trying to get some discipline in place, and trying to have, you know, regular meetings... And get all our financial controls and systems up and*

running. And things like appointing accountants, and appointing solicitors in a way, he was quite a good source of information... ” While the entrepreneur emphasised that “*he didn’t know the area*”, he knew the process of setting up a business and had organisational skills, which were very helpful – something that the entrepreneur herself was missing, but which was very crucial at that stage.

Within 12 months she paid the loan back, and the business turned out to be very successful from the start. The informal support of her father transformed into formal consultancy for the company, where he became not only his daughter’s personal mentor, but also a corporate advisor, occasionally providing his help on matters of staff training, opening new branches and managing the accounts. At this stage his role was perceived as a ‘*sounding board*’, where the informal lender provided some guidance through the process. Compared to the period of starting the venture, his hands-on approach moved towards to a more hands-off one, while he still was always kept updated and revealed genuine interest in the business: “*He’s been very very supportive of me, and he was always interested to see how we were getting on*”. The demarcation line between the personal and business relationship was not drawn from the beginning, and the outcome took place, when the external non-executive director initiated some changes: “*the other guys found that he didn’t have any local knowledge, or any knowledge of recruitment, which could actually enhance what we were doing. Because it was a personal connection there, it was difficult... ”*

The complications at work imposed some tension in the personal relationship as well: “*Once in the time he knew it wasn’t my decision, he was still very angry about it... ”* It happened to be difficult to separate the emotional side from the business side, and from the entrepreneur’s perspective her father felt “*that he hadn’t been valued*”. As a result the entrepreneur started avoiding conversations about her business, which had been dominating their dialogues previously: “*It’s like a painful leg that you don’t want to walk on... ”*

The impact of bringing the personal relationship into the business was mentioned by the entrepreneur and assessed to be quite negative and disruptive, as it created biases in the eyes of external stakeholders:

Entrepreneur G: “And also in the situation when we were sitting around the table, and you’ve got two people who are emotionally involved, cause they are the family unit... it changes the dynamics...”

As a result the threat to the personal relationship was caused by the attitude of the members of staff, executive directors and managers who were not emotionally involved and, thus, could not appreciate the deep connection, and might have seen it as a potential danger for the business overall, where an independent and objective view could be regarded as the most useful.

5.2.7.2 Lender’s perspective on informal funding deal

The informal lender stressed the informal nature of the relationship, where he even did not see any need to support them financially, and did not view his 6,000 pounds loan as a ‘loan’, but just a short-term tool for the entrepreneur to be able to secure a bank overdraft: “*It was nothing financial...*” Moreover, the amount was quite insignificant for him to notice to be missing. As a result he did not acknowledge the importance of that move. He mainly saw his contribution in helping “*them to get to the front line selling, interviewing, and pushing business forward*”, as he saw a great potential in the business, and observed the hard work of his daughter:

Lender G: “I was the one who said straight away: Look, I know this business is going to be a success, you must have a good lawyer, and most important – accountants. And I found them an accountant”.

On reflection the creditor picked out the business success and the satisfaction to be the primary factor for him to be engaged in his daughter’s business, where he had a chance to realise himself as a mentor, the role which he voluntarily took later in Youth Business

Scotland. Given his entrepreneurial background, he still gets inspired with other start-ups: *“I’m just interested in what people enjoy to do and business”*. His philanthropic attitude was particularly special towards his daughter, where the combination of kinship ties and self-realisation motives made the experience even more enjoyable and satisfactory: *“But it is a fabulous song: father and daughter relationship!! Wanting them to succeed, knowing that they can succeed, and trying to help them!”*

As it turned out the creditor kept in mind the rationale of not getting engaged with the business too much and remaining away from the decision-making process not to jeopardise his daughter and her co-founder’s reputation. However, in this case it could be applied to the format of the support, where sharing the ownership would be dangerous:

Lender G: “Purely because [Entrepreneur G] and [...] were too cautious, it would have been wrong for me to have shares, because I might have been liaising with [Entrepreneur G]”.

Until the circumstances forced him to resign from the position of a non-executive director, the informal creditor was receiving some fees for his mentoring services from his daughter’s company, in which he mainly saw an opportunity to bring in something useful and keep himself busy with the things that he enjoyed doing:

Lender G: “They wanted to pay me a return, but I wanted a job description. I didn’t just want to be an old man, if you like. And I suppose I said: no, it’s not for me...I just walked away. These things happen”.

However, from his perspective it did not affect their personal relationship, where they were still discussing business matters at the family table, as he believes this is one of the things that connect him with his daughter.

5.2.7.3 Reconciliation of the perspectives

The perspectives of the entrepreneur and her father are quite aligned, since the latter was fully involved in the process from the very beginning. The business owner believed that it was the entrepreneurial aspiration that attracted her father's attention and energy – not the type of the business, but the procedure itself: "*It was a business he was passionate about, I think he was confident and he was excited about investing in [...] and I*". Notably, similar to her father the entrepreneur talks about the investment as an intangible contribution in the form of inspiration, support, and advice. Individual abilities and qualities of the two young women who decided to start a business, are believed to be the main motive behind the help: "*I think that, probably, gave him...a certain sense of assurance and confidence that we would replicate that, the success that we had already experienced*". As her father was the one who was the most aware of her previous achievements, and observed her previous successes, the entrepreneur was convinced that those factors led to the support they received. These arguments contain certain kernels of truth, when, indeed, the choice of the lender was greatly dependent on the young women's personalities:

Lender G: "I knew that when [Entrepreneur G] and her partner, [...], who'd been working in a big company's offices... I knew from what they were telling me, they were going to be successful. They were very hardworking girls, and they still are".

Similarly, the entrepreneur acknowledged that kinship played an important role in her father's decision "*There was no a recompense to him, and there is no vested interest for him other than his relationship with me*". She invokes her father's willingness to help as a manifestation of his altruistic motives and general interest in setting up and running businesses. The lender believed he was seeking opportunities to apply his business acumen, where the fact that in the past he bought over a recruitment company, which eventually was not successful, was not dominant in his reasoning: "*Probably, he had an understanding of the business that we were going into. [...] It wasn't his background or his passion, I don't think, particularly*".

The perspective is reinforced in the words of the informal creditor: “*I suppose, they just appreciate my interest, my experience*”, indicating that the co-operation was mutual, and the deal was achieved based on the convenience of its timing and conditions, and did not determine (or restrict) any informal involvement, engagement with the business, and provision of the support.

Moreover, both parties mentioned the presence of some influence within their interaction, which was not tied to the financial agreement, but originated from their bond. The vast experience of her father, his business acumen, and his way through the life added a lot of credibility to his advice, and unwittingly turned him into a role model for the entrepreneur (Brockhaus and Horwitz, 1986):

Entrepreneur G: “And I think he had influence on our decision...”

Lender G: “I insisted we have regular monthly meetings, sometimes more often. [...] And it was very important. Because neither of them has thought...”

Although the lender was not directly involved in the business, as acknowledged by both parties, his impact could be observed implicitly, as every decision passed through him, either formally in the beginning, or informally later when he officially stepped down from the company: “*Whereas he wasn’t particularly involved in that, he was certainly a sounding board again. It was a quick, sort of, sound pivot*”. The creditor’s perspective mirrors the one presented by the entrepreneur: “*I just used to attend the meetings and listening*”, indicating his role in the business.

By integrating both perspectives the kinship, trust, and self-satisfaction form the basis of the informal funding decision. The role of mentor and advisor, as well as facilitator and inspirer was independent from the financial decision, and would be there regardless of circumstances. However, the entrepreneur’s perception was revealed to be careful in terms of involving a family member into the business. It was triggered by the situation when this kinship relationship was viewed as a bias by an external stakeholder (executive director),

and resulted in the tension and reduction of the interaction even at the informal level (from the entrepreneur's side who felt uncomfortable asking for advice). As opposed to his daughter, the creditor did not notice any effect on the personal relationship, and viewed it as a natural progression, when his help was not needed anymore at the company level, and he found the way to realise himself as a mentor through other routes.

5.3 Cross-cases analysis: defining dimensions and patterns of relationship

Comparing the cases against the stage framework suggested by Tyebjee and Bruno, (1984) and Haines *et al.*, (2003) for business angels' investments (see section 2.4.1), some adjustments should be made for the informal funding process. The observation and interaction phase precedes the deal origination stage, where social engagement substitutes for deal evaluation procedures, essential for professional investors. Negotiating and contracting takes place either at the moment of the deal, or later after the need for formalisation has been realised. Post-investment involvement stage does not directly result in (or is aimed at) harvesting, and is based on the expectations - the main aspect, which differentiates informal funding. The informal process originates from the motivation of the deal, which ultimately defines the purpose of the investment (or loan) – something that is not considered for formal investors and creditors, as their motive is traditionally governed by economic gain. As such, the findings advance the framework of Steier, (2003), challenging the straightforward sequence of the stages.

Deal origination is a result of a continuous prior social interaction. The context of the conversations is of particular importance, where direct asks or offers are made only occasionally. In most cases, family members or friends had been listening and observing the entrepreneur's struggles and endeavours, while at some point the conversations naturally ended up in a funding offer. There are three cases, where the pattern is different: in case B the entrepreneur felt morally obliged to accept his relative's offer without needing it; in cases F and G informal funders were directly approached by the entrepreneurs looking for money.

Experience, track record, commitment, and passion are the qualities which constitute the professional capacity of an entrepreneur and these can also be identified as criteria used in the decision-making process of business angels (Bachher and Guild, 1996a; Mason and Stark, 2004; Sudek, 2006; Maxwell *et al.*, 2009), highlighted in section 2.2.3. All the informal funders emphasised these characteristics of the entrepreneur to be the major factors which drove their decision.

Kinship and friendship ties appear to be another dominant motive in the informal funders' reasoning, where they express their willingness to help and facilitate the success of their close ones or someone in whom they have faith and hope. As far as family ties are concerned, informal capital providers also feel that it is a right thing to do from a moral perspective. The nature of the business, market opportunity, and economic reasoning, although present in most of the cases, do not play a decisive role. Moreover, a possibility of financial gain is viewed as a bonus, rather than a norm. Such a consideration is inherently linked to the funder's expectations, where the money provided represented a sum which they had available and they were ready to lose without anticipating any negative implications for their own well-being or the well-being of the family (see Table 5-12).

The cases suggest that for close social ties within a family setting (cases B, C, D, E and G) kinship, trust, and the idea of shared philosophy and facilitation mainly drive the decision making of an informal funder (see sections 3.3.1.1 and 3.3.1.2). For more distant relationships based on friendship (cases A and F) personal qualities of an entrepreneur along with trust and product-related features appear to be the leading criteria for supporters similar to professional private investors (see section 2.2.3). Notably, in all the cases the personality of an entrepreneur is dominant among other product and market related factors. Therefore, the individual relationship, based on the personality traits, and the track record from previous interactions determine the decision-making process.

Table 5-12 Cross-cases analysis³

Company	Initiator of the deal	Motivation of funder	Motivation of entrepreneur	Involvement ⁴	Expectations of funder	Expectations of entrepreneur ⁵	Alternative use of the money	Formalisation of the deal	The source of the money
A	Investor (implicitly-demand-led)	Trust, track record, professional capacity, faith	Last resort, fast and easy access, trust	Moderate	Belief and hope	Positive	Shares	On the day of the investment	Compensation from the previous job
	Investor (implicitly-demand-led) ⁶	Kinship, trust, faith, personal qualities, economic reasoning	Next available option, moral obligation	Hands-off	Belief and hope	Optimistic	Shares	On the day of the investment	Household savings from previous employment
B	Lender (implicitly-demand-led)	Kinship, business idea, self-satisfaction, facilitation, shared philosophy	Next available option, fast and easy access, filling in gaps, favourable conditions	Hands-on (at the beginning)	Neutral	Positive	Cover the mortgage	Informal written agreement on demand of the lender	Mortgage loan
C	Lender (implicitly-demand-led)	Kinship, trust, personal qualities, self-satisfaction, facilitation	Last resort, fast and easy access, ownership protection, filling in gaps, favourable conditions	Laissez Faire	Neutral	Positive	Cover the mortgage	Informal written agreement on the day of the deal	Mortgage loan
D	Lender (implicitly-demand-led)	Kinship, trust, personal qualities, self-satisfaction, facilitation	Last resort, fast and easy access, ownership protection, filling in gaps, favourable conditions						

³ For the coding procedure see section 4.5.2.5.

⁴ Moderate involvement implies systematic rare interventions, while laissez-fair involvement implies spontaneous occasional interventions.

⁵ Positive expectations imply confidence in a positive outcome of the venture, whereas optimistic expectations imply a hope for a positive outcome.

⁶ From the entrepreneur's perspective – supply-led.

E	Investor (implicitly demand-led)	Kinship, faith, track record, personal qualities, business idea, facilitation	Next available option, kinship, ownership protection, fast and easy access, favourable conditions	Hands-on	Positive	Optimistic	Pension, shares, or a house	After the deal for the investment, not for the loans	Personal savings from previous employment
	Personal qualities, business idea, economic reasoning, philanthropy	Next available option, stepping stone, match, trust	Laissez Faire	Belief and hope	Optimistic	Own business	On the day of the investment	Company's profit	
F	Investor (explicitly demand-led)	Kinship, track record, personal qualities, business idea, facilitation	Next available option, kinship, fast and easy access, favourable conditions	Hands-on (at the beginning)	Positive	Positive	Personal expenditures	No agreement	Personal income
	Lender (explicitly demand-led)								
G									

Entrepreneurs are mainly attracted by fast and easy access to funds when they are most needed: either after they faced a rejection from professional investors (creditors) or during times of urgency. All of them consider informal funding to be the second choice, or a source of last resort, as they see (or in case G actually experienced) a potential threat to the personal relationship (or to the reputation of the business). This observation reinforces the idea of implicit ‘shadow costs’ of informal funding, raised by Lee and Persson, (2016), the existence of which explains why the phenomenon fits neither the pecking order nor the trade-off theories (see section 3.2.1.3). The urgent need for money, and the flexibility of informal funding conditions are accentuated in the situations of adverse external environment (both at the local and macroeconomic levels), when market sources of funding are either perceived (cases A, D, and F) or found (cases C and E) to be less accessible.

Moreover, informal funding appears to be crucial in the business development process to cover short-term liquidity gaps for all the cases, although there is no sufficient evidence that it has an effect on business performance, as the outcome tends to be diverse (business failure – case A; losses – cases B, C, and F; financial success – cases D, E, and G). Therefore, there is no evidence for the distortion of market mechanisms as a result of altruistic motives (Buchanan, 1975) – in particular for those who struggle with obtaining market finance (cases A and F), who take advantage of fast access and flexible conditions (cases C and G), or who seek to protect business ownership (cases D and E) (see section 3.2.1.4).

As far as equity is concerned, some business owners prefer to keep it within the family, rather than share the ownership with external investors, for reasons of trust, or a more long-term interest of heritage. Interestingly, most entrepreneurs (apart from case C) tend to rationalise the deal, making arguments about the business viability, professional capacity and rigour, the business idea - all the factors that they think their informal funders are considering, whereas in fact, they come the last in their reasoning (Dow, 1998). Moreover, all entrepreneurs either directly (cases A, B, and C) or indirectly (cases D, E, F, and G) mentioned the advantages of market finance sources over informal ones,

specifying the benefits of private and institutional professional investors in terms of “*uncovering business issues sooner*” (case A), being more qualified to provide feedback (case B), and business advice (case C). As a result, entrepreneurial perceptions are in line with the arguments of Riding, (2008) about smaller value-added of informal funders compared to professional private investors (see section 2.4.2).

The formalisation of the deal usually takes a perceptual form of a psychological contract (Rousseau, 1989), where the conditions are informally put down on paper for internal use, in some cases - some years after the investment/loan. As a result, the breach of such a contract can only be caused by an undermining of trust, which is outside the realm of possibility according to the cases (Robinson, 1996). The form of funding can be justified in terms of personal relationship protection, where an investment will not be subject to any hard feelings in case something goes wrong, and will not impose a pressure to return the debt.

Informal funders are very much involved in the business, providing not only moral and financial support, but also tangible help in cases when they share philosophy with the entrepreneur, are equally excited about the venture, and connected by family ties (cases A, C, E, and G). Therefore, it highlights an extra benefit of informal funding over market capital – the socio-emotional wealth (Gomez-Mejia *et al.*, 2011) through psychological support and empathy (see section 3.3.1.1). From the other side, the evidence articulates not only purely altruistic argument behind such deals (case A and case E - initially), but also the idea of deferred self-interest (Phelps, 1975; Jensen, 2001): either a psychological one (cases C, D, and G), or an economic one (cases B and F).

A hands-on approach seems to last not for long, but just until the business is set up and on the track towards success, thus leaving some breathing space for the entrepreneurs to run their own business independently. Active engagement in the venture does not seem to be designed to address the moral hazard problem (an adverse selection problem does not arise either, since there is no actual process of selection). Trust and bonding social ties provide enough confidence in the conscientiousness of the entrepreneur and their abilities, whereas

the funders are mainly governed by altruistic motives (Eisenhardt, 1989a). Only in case E there was an indication from the entrepreneur that a hands-on involvement into the venture might have indicated a protection of the investor's interests, a judgment which was not confirmed by the other side. Therefore, considering the changing profile of professional private investors moving towards hands-off approach (see section 2.2.2), post-deal interaction in the informal funding relationship is similar to the one observed in the formal market.

Some of the funders were quite cautious and mindful about the 'Samaritan's dilemma' (Buchanan, 1975), where they did not want to provoke dependence, which might ultimately have harmed the entrepreneur's progress and led to self-destruction (cases C and D). Consequently, those funders try to limit their engagement, or put a cap on the amount of money they were ready to inject into the other's business. As a result, the levels of engagement after the deal takes place can be classified into "close tracker", laissez faire, and moderate involvement, falling in the same categories as for professional investors, but underpinned by different reasoning (MacMillan *et al.*, 1989). The roles of informal funders are to some extent similar to the ones identified for business angels (Politis, 2008): sounding board, advisory, and mentoring role, but not supervision, monitoring, and resource acquisition roles, that are mentioned by entrepreneurs as desirable, as they would have helped them to progress faster and more efficiently. However, in some cases additional roles have been identified: an inspirer, when the funder can be viewed as a role model for the entrepreneur, and an observer, when there is no intervention from the funder's side even at the informal level.

Understanding the attitude towards the deal is quite important in order to bridge motivation and expectations. While in most cases the significance of the demarcation line between personal and business relationships is highlighted (cases A, B, D, and E), the amount of money lent or invested is viewed as an affordable loss (cases A, B, C, D, and F), where the possibility of an extra gain is considered to be a bonus (cases A, B, E, and F), or not expected at all (cases C, D, and G). To compensate the risks, which are acknowledged and assessed as excessive given the stage of the business development,

some degree of economic sensibility is incorporated, not mainly in the decision making process, but in the structure of the deal, which is regarded either as facilitation (mainly in relation to family members), or patronage (in relation to friends).

To summarise, all patterns were grouped under the main dimensions characterising the phenomenon: deal origination, entrepreneurial motivation to seek informal funding, decision-making criteria of informal funders, deal structure, attitude of informal funders towards the deal, expectations match, involvement and interaction, and the role of informal funders. The features of each dimension are represented in Table 5-13.

Figure 5-1 and Figure 5-2 capture the processes observed when exploring the phenomenon. It is evident that in all the cases the entrepreneur's funding strategy turned out to be consistent with the pecking order theory (Myers, 1984), where internal funding (own savings and bootstrapping) were utilised first, before searching for external funding. While some cases follow the order predicted by the theory, attracting debt finance first (entrepreneurs A, C, D, E, and G), some entrepreneurs (B and F) favoured equity market more, as was observed in Paul *et al.*, (2007a). Remarkably, in all the cases, friends and family funding came after the formal market had been approached - an observation which appears to be contradictory to the start-ups finance escalator (see section 3.2.1.1), where the former are automatically joint with the entrepreneur's own capital (Harrison, 2013).

Table 5-13 Eight dimensions of informal funding process

Dimensions	Deal origination	Entrepreneurial motivation to seek informal funding	Decision-making criteria of the informal funder	Structure of the deal	Attitude of the informal funder towards the deal	Expectations match	Involvement and interaction	The role of the informal funder
Explicitly demand-led (A,C,D,E)	Implicitly demand-led (A,C,D,E,G)	Easy access (A,C,D,E,G)	Trust (A,B,D)	Psychological contract (A,B,C,D,E,F,G)	Demarcation line (A,B,C,D,E,G)	Shared expectations (E,D)	Hands-on/ Close Tracker (C,E,G)	Mentor (A,G,C)
Explicitly demand-led (F,G)	Implicitly demand-led (A,C,D,E,G)	Fast access (A,C,D,E,G)	Kinship or friendship (B,C,D,E,G)	Kinship and friendship, protection (A,B,C,D,G)	Risk consideration (A,B,C,D,E,F,G)	Asymmetric expectations (A,B,C,D,F)	Laissez Fair (D,F)	Business Advisor (A,E,F)
Supply-led (from the entrepreneur's perspective) (B*)	Favourable conditions (C,D,E,G)	Availability of spare funds (A,B,C,D,E,F,G)	Flexible conditions (A,B,C,D,E,F,G)	Affordable loss (A,B,D,F)			Moderate involvement (A)	Member of staff (E,C,G)
	A source of last resort or next available option (A,B,C,D,E,F,G)	Professional and personal qualities (A,B,D,E,F,G)	Need for formalisation (B,C,D,E,F)	Economic sensibility (B,E,F)			Hands-off (procedural sharing) (B)	Sounding board (A,B,C,D,E,G)
	Kinship (E,G)	Track record (A,E,G)	On-demand injection (C,D,E)	Patronage (A,F)			Indirect influence (G)	Inspirer (G,C,E)
	Trust (A,F)	Faith (A,B,E)		Facilitation (B,C,D,E,G)			Observer (B,G)	
Features	A good match with the funder (F)	Facilitation (C,D,E,G)						
	Moral obligation (B)	Self-satisfaction (C,D)						
	A stepping stone (F)	Shared-philosophy (C)						
	Filling in the gaps (C,D)	Philanthropy (F)						
	Ownership protection (D,E)	Economic reasoning (B,F)						
		Business idea (C,F,E,G)						

Figure 5-1 The process of informal funding: entrepreneur's perspective

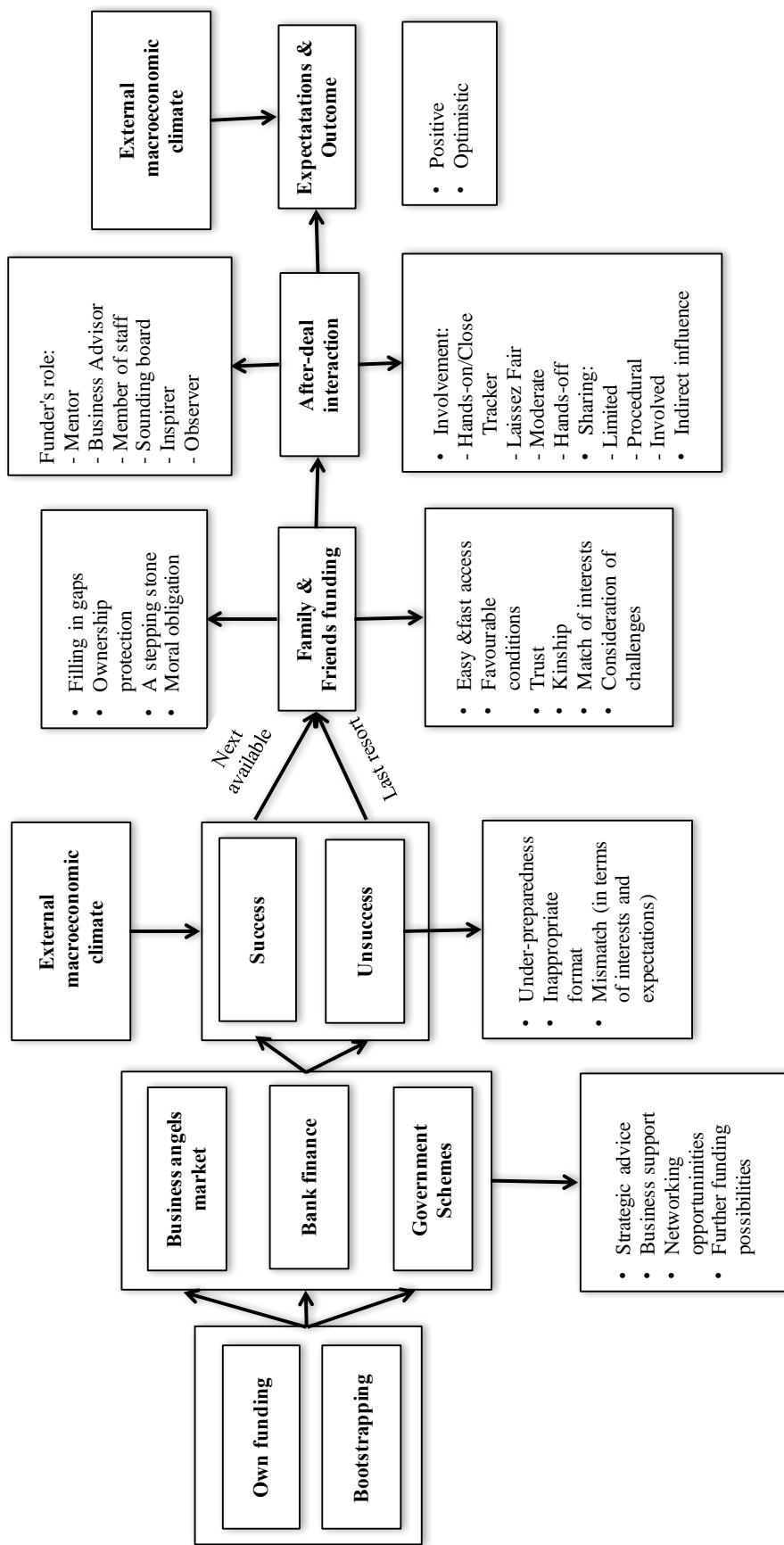
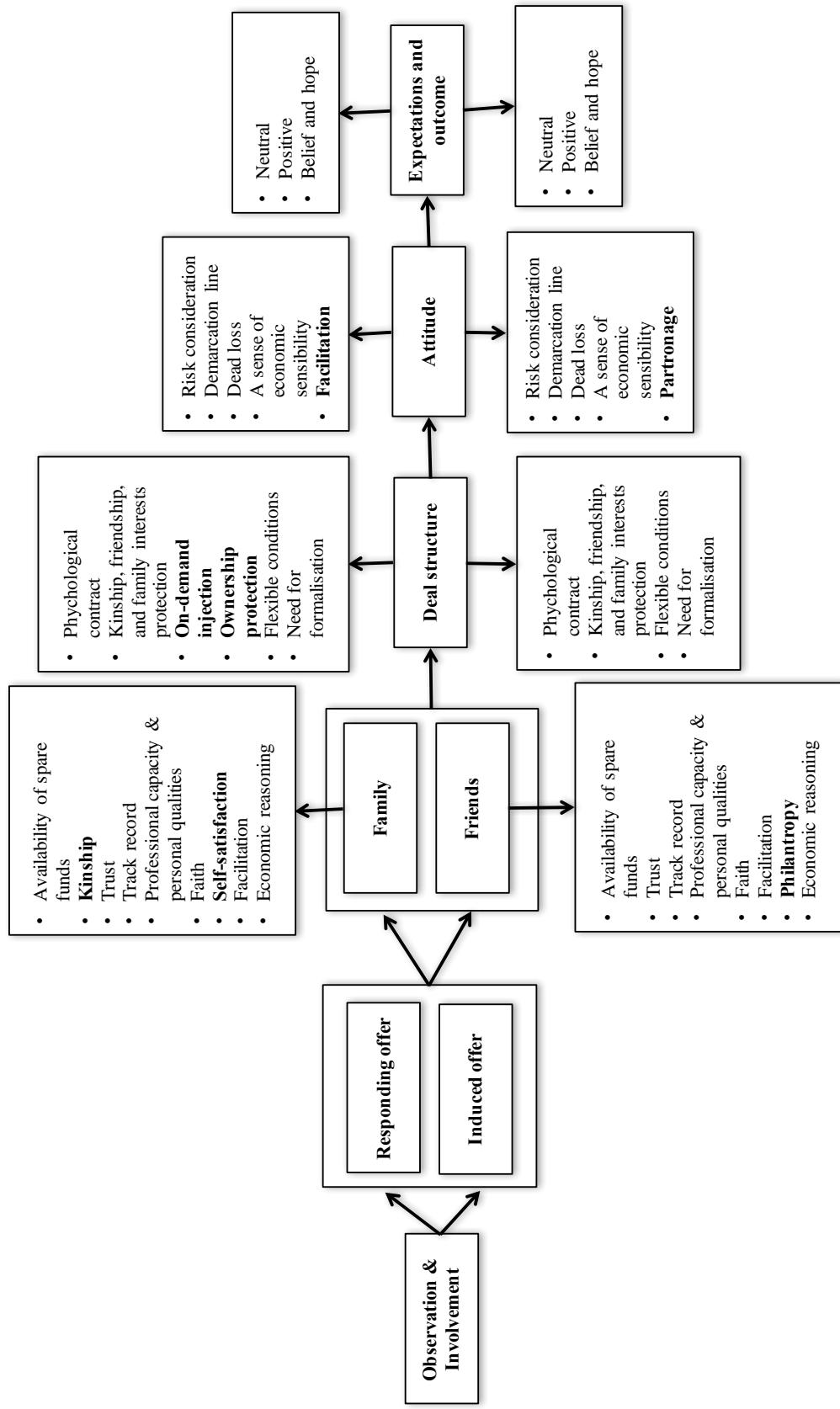


Figure 5-2 The process of informal funding: informal funder's perspective



Differences between family and friends at each stage in the process are highlighted in bold

Another noticeable observation refers to the role of external environment and context of the deal. At the stage of the business formation, local context matters, and this defines accessibility and availability of formal funding. This local context is mainly represented by the government support organisations (cases C, D, F, and G), University incubators (case B), and other business networks (cases A, C, D, and F) in the area where an entrepreneur lives and operates. Those are essential in the beginning of the journey, and provide the first opportunity to expand horizons. At the same time the impact of overall economic conditions at the macroeconomic level can be identified, which has an influence on the entrepreneur's success in getting the desired funding from formal sources in the market: either debt or equity. Its effect is also of importance at the later stage of business development, determining failures, the need for further injections, or delays in the repayment of the informal loan (cases A, C, D, E, and F). In this vein, the local context matters at the stage of initiation of the deal, whereas the macroeconomic conditions (and the phase of the business cycle) have an effect both in the beginning (on the entrepreneur's choice), and at the later stages (on the business development).

Moreover, the impact of the external environment on the expectations of both entrepreneurs and their informal funders can be tracked down. Entrepreneurs A, B, and E explicitly refer to the adverse macroeconomic context in justifying either the lack of business progress, or its delayed development. Informal funders A, B, E, and F also mention negative tendencies in the market, and in the overall business environment when elaborating on the venture's progress in relation to their financial expectations.

The cases reveal that the funders are typically (not in the case of entrepreneur G) first to offer financial help, where this offer was either induced (through continuous conversations and close interaction), or imposed (by a direct request). There are some differences observed in the motivation, deal structure and attitude of family funders and friends. The former mainly emphasise kinship as a decisive criterion to facilitate their family member's progress and endeavours, and in some cases view their financial and non-financial involvement as a means of self-realisation (especially as regards the

parent-child relationship). Moreover, family members tend to incorporate ownership protection within the deal structure, so that the equity is kept within the family, and are more likely to provide further injections on demand. Meanwhile, friends are driven by philanthropy and see themselves patronising their protégés, where the deal is structured in a way to protect the personal relationship, which is valued more than the business relationship.

5.4 Defining analytical themes and deriving propositions

Drawing on the dimensions elaborated from the previous analysis, six analytical themes can be derived, related to the origination of the deal, motivation of both parties, structure and attitude of the deal, after-investment involvement and roles, and expectations. In the following sub-sections, propositions are developed for each of these themes based on the patterns in the case data.

5.4.1 Deal origination

To understand the origin of the deal (and subsequent expectations) in the informal funding relationship, the theoretical framework of social capital is to some extent applicable. In all the cases, the origination of the deal emerges from ‘goodwill’ (Dore, 1983) – as a combination of sympathy, trust, and forgiveness offered by the family members or friends to the entrepreneur (Adler and Kwon, 2002). The entrepreneurial capital perspective considered in section 3.2.2.3 highlights the importance of social capital, where social relations form strong stable ties, facilitate knowledge transfer (Tsai, 2002), and ensure social capital can be converted to economic one given a specific context (Bourdieu, 1986). Unravelling this context, the demand-led nature of the informal funding can be justified, when the entrepreneur can capitalise on the social ties during the times of need – help-seeking behaviour (see section 3.2.2.3). As a result, the theme of deal origination in informal funding illustrates the conversion of social capital into economic capital (Arregle *et al.*, 2015; Pret *et al.*, 2016). The situation is similar to the donation phenomenon, when sympathy and observation of a struggle and need cause a call to action, and push the informal funder to initiate the deal first (Andreoni, 1990; Dickert *et al.*, 2011):

Proposition 1a: Informal capital is implicitly demand-led - informal funders are typically the first to suggest they invest in an entrepreneur's business, after becoming aware, through informal communication, of the difficulties that an entrepreneur is facing in starting a business.

General environmental conditions, such as government policies (legal conditions) and socio-economic conditions (Bruno and Tyebjee, 1982; Gnyawali and Fogel, 1994) are believed to have an impact on entrepreneurial behaviour and strategies (see section 3.2.2.2). Similar implications were discovered in relation to the availability of training, supportive infrastructure, the availability of venture capital, and solid financial systems (Gartner, 1985; El-Namaki, 1988; Gnyawali and Fogel, 1994). Empirical observations conform to the theoretical effects at the macroeconomic level: financially constrained ventures tend to rely on bank finance (mainly to cover short-term liquidity gaps) in particular during the financial crisis, putting them in an disadvantaged position (Korajczyk and Levy, 2003; Carbó-Valverde *et al.*, 2016). Hence, an increased need for funding, accentuated by the local context shortcomings and business cycle fluctuations as demonstrated in the cases is expected to have an impact on the informal funding deal initiation:

Proposition 1b: Unfavourable external conditions both at the local and macroeconomic levels enhance the implicit demand for informal funds.

5.4.2 Kinship relations and trust

Stepping beyond an economic approach, procedural rationality can substitute substantive rationality, when beliefs, expectations, methods of calculation, perceptions of external environment, and reasoning should be taken into the account to reflect the reality (Simon, 1986). Based on the evidence from the cases, informal funding combines the elements of both economic and social exchange, underpinned by psychological contract arrangements (see section 3.4.1). Trust lies in the basis of such an arrangement (see section 3.3.1.2), where informal funders are mostly driven by altruistic motives (see section 3.3.1.1), and constrained by their risk perceptions of jeopardising household welfare (see section 3.3.1.3). As a result, informal funding

represents an economic exchange embedded in the social relationship, where the latter is made up from strong social ties (see section 3.4.2):

Proposition 2a: Bonding ties, underpinned by belief and trust, along with the availability of spare funds motivate an individual to make an investment or loan decision.

Antonides and Van Der Sar (1990) suggested one should differentiate between expectations and preferences as a predictor of a positive investment decision, where the former can be a function of the factors identified in the cases: trust, belief, and track record. Such an observation represents characteristic-based trust, firmly grounded into the relationship and social interaction (Scarborough *et al.*, 2013). Therefore, these individual attributes (such as prior social interaction, as well as personal qualities of an entrepreneur revealed through time) inherent to each unique social relationship define the decision-making as opposed to more impersonalised approach of professional private investors (see section 2.2.3):

Proposition 2b: Individual-based approach is central in the decision-making process of informal funders.

In each case the occurrence of altruism and philanthropy in the behaviour of informal funders was revealed. The economic definition of altruism has been widely applied in business studies of family firms, where it is represented as a function, which connects an individual's welfare with the welfare of the others, with whom the individual is connected by means of bonding social ties (see section 3.3.1.1). In other words it serves as a moderator of the relationship between the input of the social relationship (knowledge transfer, network sharing, moral and financial support) on the company's performance (Schulze *et al.*, 2003). It has been also shown that altruistic behaviour extends to other social networks, and is not restricted by family ties (Karra *et al.*, 2006). However, in these studies the role of altruism has been linked to the firm's performance, the enhancement of which represents the goal of a family firm, and all its members. But this is not always the case for the informal funding relationships, where a philosophical and religious definition of altruism is more applicable: a moral value that favours the interests of others with a possibility to limit one's own interests,

which neither implies or rejects the presence of sympathy to the other person (Williams, 1973). Whereas the economic definition fits the motive of ultimately pursuing some economic interests (as a matter of bonus), where the funder incorporates his or her own interests in the decision-making process (which are aligned with the entrepreneur's goal), self-realisation and a genuine interest in someone's success are better explained by a broader philosophical definition for close social ties:

Proposition 2c: The closer the social relation is the more altruism, philanthropy, and the deferred interest of self-realisation become dominant in the decision-making process.

For more distant social ties an individual-based approach resembles the one observed in the professional private market, where the abilities of an entrepreneur, the product and market potential (see section 2.2.3), and the deferred self-interest, either in the form of an economic gain, or beneficial business relationships (Farrell *et al.*, 2008; Politis, 2008) co-exist along with purely altruistic motives:

Proposition 2d: The more distant the relationship, the more likely business-oriented features and pursue of economic gain will be taken into consideration by informal funders.

5.4.3 Informal capital as an option of 'last resort'

It was demonstrated in the cases that the rejection from professional investors (the reasons mentioned were: under-preparedness (Mason and Harrison, 1996; Mason and Harrison, 2002a; Paul *et al.*, 2003), not appropriate format for the pitching, and the lack of relevant experience among the potential investors (De Noble, 2001), unavailability of bank credit (Black and Strahan, 2002; Parker, 2002; Casey and O'Toole, 2014), and the importance of timing (Jung *et al.*, 1996; Agrawal *et al.*, 2015) deter entrepreneurs from persevering with the formal sources of funding. Unfavourable conditions imposed by professional informal investors represent another aspect that puts the entrepreneur off from this option (Denis, 2004). As suggested by the literature, quite often the misalignment of interests goes much deeper into the

psychological ownership trade-off, where long-term exit objectives of entrepreneurs and business angels are not reconciled (DeTienne, 2010; Collewaert, 2012):

Proposition 3a: Entrepreneurs tend to consider informal funding as a 'last-choice option,' to which they refer when alternative sources are not available (due to internal and external reasons), or the implied conditions are not acceptable.

From the other side, the phenomenon fits the concept of embeddedness of economic behaviour (Granovetter, 1985), which highlights the role of concrete social relations in the economic decision (see section 3.4.2). Notably, entrepreneurs tend to neglect altruistic motives, while they optimistically believe that the viability of the business idea, and professional skills were predominant in the funder's decision, and they would still be able to find an alternative way if it were not for the pressure of circumstances. This observation is underpinned by the statements of self-confidence and optimism, inherent in the entrepreneurial behaviour, which can also result in attracting less funding than expected (Casson, 2005; Hayward *et al.*, 2006):

Proposition 3b: Entrepreneurs are inclined to rationalise their choice of informal funding and justify its economic sensibility, rather than accepting its altruistic nature.

As revealed in the cases, most entrepreneurs in hindsight considered professional investors and lenders to be of more value in terms of imposed pressure to deliver and an opportunity to discover issues and flaws at the earlier stages of business development. This observation is consistent with the established frameworks of business-angel investments, who can be viewed as boundary spanners for entrepreneurs (Burt, 1992). The business founders were looking for strategic advice (Mason and Harrison, 1996; Ardichvili *et al.*, 2000; Brettel, 2003), networking opportunities to obtain the access to the resources (Sætre, 2003; Madill *et al.*, 2005), and in particular to further funding (Sørheim, 2005) – all of which are typical value business angel value-adds that have been considered in the literature so far (Politis, 2008):

Proposition 3c: Entrepreneurs favour professional investors and creditors more than informal ones in terms of their impact on the speed and efficiency of the business development.

5.4.4 Controlling mechanisms in the after-investment interaction

The main criterion which differentiates professional investors from informal investors is stated to be the ability to identify key parameters in the business that will determine its success (Shane, 2009a). However, in each illustrated case the informal funders have a solid reasoning behind their decision, where certain boundaries are established in order to protect own or family interests: a cap on the amount of money provided, the number of tranches, potential conditions on further support, or selecting an appropriate form of funding (a loan versus equity investment). In this vein, although informal funders do not face a selection problem (and potential implications related to it), they try to ensure the rationality of the deal at the later stages, where a mechanism of trust substitutes formal legal structures and monitoring tools, thus achieving Pareto improvement from the economic point of view (Uzzi, 1997). Informal funders intend to make the best decision considering the circumstances, and the interests of all the parties involved – a concept of procedural rationality, first introduced by Simon, (1978), and re-introduced as a contextualised decision-making by Dean and Sharfman, (1993):

Proposition 4a: Informal funders are characterised by procedural rationality, which is incorporated in the deal structure and justify their decision.

The cases reveal that informal investors and lenders consciously confront a potential ‘Samaritan’s Dilemma’ (Buchanan, 1975), not only by imposing restrictions on the deal, but clearly separating personal and business relationships either explicitly or implicitly, to prevent the interflow of possible negative effects. Such forward-looking behaviour is consistent with a dynamic model of altruistically-motivated transfers, where distortions have been prevented long before the outcome might become evident (Barczyk and Kredler, 2014):

Proposition 4b: Informal funders tend to draw a demarcation line between personal and business relationships – the more distant the relationship, the clearer the line is defined in the interaction.

The more personal and business sides are separated, the clearer the roles become within each of them. In this sense, in more distant relationships the funder's role becomes more formal in terms of the level of their involvement and subsequent expectations, which become more materialistic. In those cases informal funders prefer their input, value, and involvement to be acknowledged and appreciated, and their queries and concerns are affected by the entrepreneur's feedback on the performance – aspects which are also relevant for business angels' behaviour (Macht, 2011b; Fili and Grünberg, 2014):

Proposition 4c: The more personal and business relationships are detached, the more funder's post-deal behaviour is similar to that of professional investors and lenders.

5.4.5 Expectations and risk perception

A conceptual model of social capital suggests that social relations with the entrepreneur will define opportunity (the time of need), motivation (non-pecuniary and individual-based criteria) and ability to help (availability of spare resources), which will subsequently imply associated benefits and risks for both parties, and ultimately lead to the perception of value of such a deal and social structure (Adler and Kwon, 2002). As a result the motivation will have a direct effect on a perceived value – both for an entrepreneur (required finance) and for the informal funder (self-satisfaction, progress of a close one, or material gain). Therefore, expectations will depend on the initial motivation and risk perception, where in the observed cases the excessive risk was justified by altruistic motives and beliefs in the particular person and his/her abilities. In this light, risk can be conceptualised not as a personality trait which characterises an individual in terms of his or her attitude to risk generally, but as a degree of risk perception in this particular case given particular circumstances (Arrow, 1982; Weber and Milliman, 1997):

Proposition 5a: Motivation of the informal funder regulates the expectations of the returns and justifies the level of risk-taking - the more economic reasoning is implied the greater the expectations are.

This situation can be considered as an illustration of the concept, originated from the work of Comanor and Leibenstein (1969), of allocative inefficiency, when the entrepreneur would be able to pay more for the good, which is restrictive in supply, resulting in a deadweight loss. However, it illustrates a case of distribution efficiency (Stiglitz, 1998), where the wealth is distributed where the most demand arises. As a result, considering the motives of informal funders their behaviour is driven by the affordable loss principle (Sarasvathy *et al.*, 2010), where in response to a help-seeking behaviour of an entrepreneur (see section 3.3.1.1) they consciously evaluate the downside risk, and set the funding limit according to the amount that they are prepared to lose. In all the cases, the possibility of economic gain is mainly viewed as a bonus – an observation, consistent with altruistic incentives of informal funders, emphasising a procedural aspect of the relationship, and its embeddedness in the social context:

Proposition 5b: Informal funders tend to perceive the investment (or the loan) as an affordable loss financially, where possibility of economic gain is viewed as a bonus.

It has been acknowledged that optimism and self-confidence tend to be an inherent characteristic of entrepreneurs (Cooper *et al.*, 1988). While a range of studies indicated, that over-optimism can potentially have a negative effect on the venture performance (Hmielecki and Baron, 2009) and financial contracting (Landier and Thesmar, 2009), its main impact is incorporated in the decision making process which might become ineffective (Astebro *et al.*, 2007). Therefore, considering mitigating circumstances of trust, friendship and kinship relationship, entrepreneurs tend to demonstrate a laid-back attitude towards the informal deal after it was secured:

Proposition 5c: Entrepreneur's optimism and self-confidence drive positive expectations of the outcome, at the same time prioritising formal commitments over informal ones.

The cases indicated that in negative outcomes, both entrepreneurs and informal funders refer to the industry or overall economic conditions as a key factor preventing the organisation's success (Staw et al., 1983). Therefore, the entrepreneur's self-confidence and optimist from one side, and the informal funder's belief in the abilities of their protégé from the other side, limit social hardship in the event of adversity. The impact of the external environment is perceived as a potential cause of failure, and a mitigation factor in relation to financial expectations. The first observation is in line with the mainstream research on the impact of the external environment on the entrepreneur's perceptions, and its role in the business outcome (e.g. Ucbrasaran et al., 2001; Welter and Smallbone, 2011). The second observation can be referred to the anchoring and adjustment heuristics (Tversky and Kahneman, 1974), where the social relationship is valued the most by informal funders, who try to find external reasons to justify the lack of success, rather than seeking mistakes in the entrepreneurial strategy:

Proposition 5d: Industry and macroeconomic conditions define both entrepreneur's and informal funder's expectations in terms of the potential business outcome.

5.4.6 Non-pecuniary outcome

The existence of a funding gap for start-ups has been identified due to various reasons: internal problems and the lack of information about the available sources (Fraser, 2004), the lack of the track record and collateral (Mason and Harrison, 2003), the excessive risk of the venture (Carter et al., 2007), or disadvantaged location of the entrepreneur (Rouse and Jayawarna, 2006). Although the pecking order theory is generally applicable to starting entrepreneurs (Paul et al., 2007a; Vanacker and Manigart, 2010), the cases demonstrated that friends and family finance cannot be assigned to the utilisation of own savings and bootstrapping essential at the very beginning. The observation is more consistent with a dynamic view of a 'funding gap' introduced by Lam (2010), where depending on the context entrepreneurs exploit social networks to bridge a temporarily gap in finance to reach other goals. While all the cases demonstrated that informal funding came in during the moments critical for the business development, it cannot be explicitly related with the business

performance, despite decreasing the reliance on external debt, and building on equity (see section 3.2.1.3):

Proposition 6a: Informal funding bridges the gap in finance for the entrepreneurs, serving as a stepping stone, where it has a vital impact on the progress of the business, but not performance.

It has been shown that if an entrepreneur perceived high levels of trust within the relationship with professional informal investor (a business angel) this might result in a negative effect on the firm's performance, as the behaviour becomes more focused on maintaining this trust and locked-in pattern of certain expectations (Bammens and Collewaert, 2012b). In contrast, a more relaxed setting of an informal relationship without binding expectations mitigates psychological implications of trust and decreases the probability of conflict in the future (Brettel *et al.*, 2013). As a result, the social embeddedness of the relationship minimises the need for the informal funder's involvement into the business with the aim to reduce moral hazard risk (see section 2.4.1). However, in the cases where the social aspect is integrated in the economic context of the relationship by means of shared philosophy and vision, the involvement becomes natural. Such an involvement represents intangible benefits for an informal funder in the forms of satisfaction and self-realisation: part of the psychological contract agreement, ensured by procedural justice (see section 3.4.1). The reactive nature of informal funding to the entrepreneur's needs facilitates involvement, where it is indirectly sought for by entrepreneurs at the early stages, and neglected at the later stages, when either the expertise of informal funders is not sufficient (Riding, 2008), or the need for the demarcation line between social and economic relationships is recognised. Finally, the entrepreneur's desire for autonomy and independence, partly arising from the willingness to separate social and business aspects of the deal, provides signals to informal funders (Connelly *et al.*, 2011). As a result, their role mainly boils down to being responsive to the entrepreneur' needs:

Proposition 6b: The level of involvement depends on the shared philosophy, the stage of the business development, and autonomy of the entrepreneur.

The nature of the relationship, previous exposure of the informal funder to entrepreneurship (or previous experience in the same area), and the presence of shared vision and philosophy on a particular activity shape the role of the informal investor (lender) in the venture they are financing. According to the cases, informal funders turned out to be the most engaged with the business at the early stages of the development, where non-pecuniary help was mostly needed: encouragement, inspiration, and support. In some cases, the help took quite tangible forms – such as bringing in professional staff to the business, and negotiating with external stakeholders. Once the venture became self-sustainable and the entrepreneur managed to get control over it, the involvement was brought to minimum, indicating its demand-driven nature, and passiveness of the informal funder. As a result, informal funders provide a non-pecuniary value to the business owners (see section 3.4.1), favouring emotional support over professional advice (Gomez-Mejia *et al.*, 2011), where the latter comes as an add-on in the situations of need and appropriate expertise:

Proposition 6c: The role of informal funder depends on his or her prior experience, the presence and relevance of which puts the funder in the position of a business advisor, mentor, or even inspirer, whereas alternatively his or her role becomes a sounding board and an observer.

5.5 Summary

The nature of informal funding was unraveled through the analysis of seven case studies, where first the story of each dyad was considered separately, and then the process was brought together, laid out into stages, and characterised across identified dimensions. As a result, each case was recognised as a unique situation, where the variety was achieved in terms of the nature of the relationship, context of the deal, and the type of the venture. Based on the dyadic analysis, static and dynamic perspectives were distinguished. The first perspective is outlined across eight dimensions, framing the phenomenon of informal funding: deal origination, entrepreneurial motivation to seek informal funding, decision-making criteria of the informal funder, structure of deal, attitude of the informal funder towards the deal, expectations match, involvement and interaction, and the role of informal funder. Each dimension is characterised by a

set of features. The second perspective outlined the process both from the entrepreneur's and informal funder's views, where the impact of the context has also been incorporated. As a result, a set of patterns was discovered given specific circumstances of each story, which were summarised into six themes: initiative of the deal, kinship relations and trust, informal capital as an option of 'last resort', controlling mechanisms in the after-investment interaction, expectations and risk perception, non-pecuniary outcome. These leading themes run through the narratives, bringing forward propositions that together with the existing theoretical underpinnings set the ground for understanding the nature of informal funding.

The propositions are further linked to the theoretical perspective established in Chapter 3, and complemented with the quantitative analysis in Chapter 6.

Chapter 6: Integrating the Context and Macroeconomics Effects Through Quantitative Measurements

6.1 Introduction

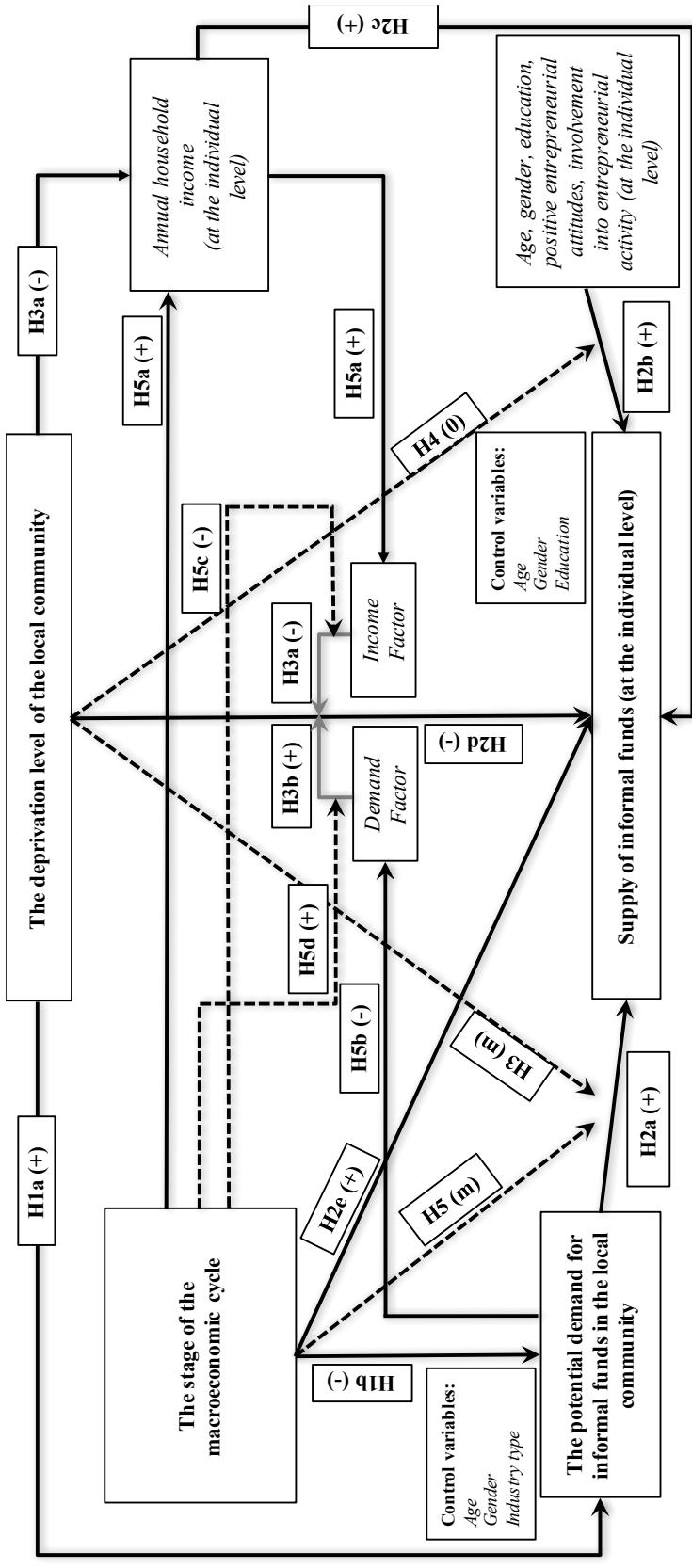
The previous Chapter shows that the qualitative inquiry represents an independent output, contributing to the theoretical understanding of the nature of the informal funding relationship at the individual and dyadic levels of analysis. This Chapter further pertains to the understanding of the informal funding phenomenon, investigating its susceptibility to the local and macroeconomic effects. It first presents the consolidated theoretical framework, which brings the hypotheses developed in Chapter 3 together. Then the analysis starts with an overview of the informal funding market in the UK at the macroeconomic level. Subsequently it investigates both the demand and supply sides separately at the individual and local levels. The contextual variations are further introduced, where the probability of an individual to become an informal funder is predicted, based on the models that incorporate individual-level, community-level, macroeconomic-level, and interactional effects. Finally, the results are summarised.

6.2 Consolidated theoretical model

The theoretical model developed in this section aggregates the hypotheses in a single snapshot (see Figure 6-1), where the interconnections between the key parameters are indicated. The supply of informal funding is operationalised at the individual level (as a propensity of an individual to become an informal funder), while the potential demand for informal funds is measured at the local level as the early-stage entrepreneurial activity rate (see sections 4.5.4.2 and 4.5.4.3) for modelling purposes.

In further sections below, each aspect of the model is tested separately, and then brought together at the end of the Chapter.

Figure 6-1 The consolidated theoretical model for testing



Dashed lines present moderation effects

“+” stands for the positive (linear) relationship

“-” stands for the negative (linear) relationship

“m” stands for moderation

“0” stands for “zero effect”

Grey lines represent community effects

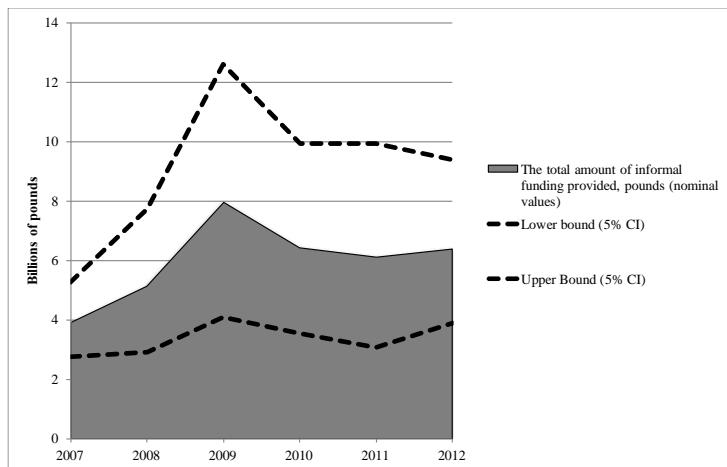
6.3 An overview of the informal funding market in the UK

While the scope of the informal funding market remains minor compared to alternative sources, its importance at the early stages of the business development has not faded under changes in the surrounding environment (Harrison, 2013; North *et al.*, 2013). In this section, an overview of the informal funding market in the UK is provided at the macroeconomic level for the observation period (2007-2012), with the purpose of setting the context for subsequent hypotheses testing.

6.3.1 The size of the informal funding market in the UK

Estimations of the informal funding market size (in nominal values) in the UK are presented in Figure 6-2⁷. By 2009 the volume of the capital provided on average constituted £8 billion, in 2010 it dipped down and reached £4.2 billion where it levelled off. The decrease coincides with the beginning of the economic crisis at the end of 2008 – the beginning of 2009, which imposed major restrictions on the availability of spare funds for the households.

Figure 6-2 Estimations of the size of the informal funding market in the UK

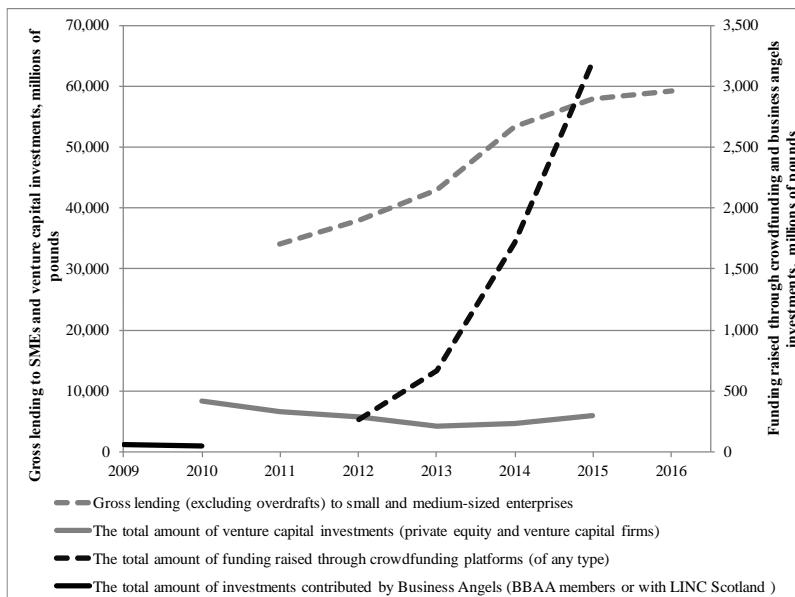


Source: GEM UK database and Office for National Statistics

⁷ The mean amount of informal funding provided for the last three years (in pounds) is multiplied by the share of informal funders in the sample and by the adult population size in the UK (aged 18–64 years) for the corresponding year, and divided by three (to average the amount per year). The results are extrapolated through confidence intervals for mean values and informal funder rates given the sample sizes.

A comparison can be made (where appropriate) with the funding provided for the same period of time in the formal markets: bank lending, business angel and venture capital investments, and crowdfunding (see Figure 6-3). While there is evidence that business angels were affected by the adverse economic conditions, they were considerably outperformed by bank lending and institutional venture capital in terms of the volume of funding (Mason and Harrison, 2010; Mason and Harrison, 2011). Crowdfunding and peer-to-peer lending more than doubled in size by 2014, reaching £3.2 billion in 2015 (Zhang *et al.*, 2016a), and catching up with the volume of venture capital investments, constituting £4.7 billion in 2014 and £6 billion in 2015 (British Private Equity & Venture Capital Association, 2016).

Figure 6-3 The amount of entrepreneurial funding raised through different sources⁸ in the UK (2009-2013)



Sources: (Mason and Harrison, 2010; Mason and Harrison, 2011; British Private Equity & Venture Capital Association, 2016; Zhang *et al.*, 2016a; Bank of England, 2017).

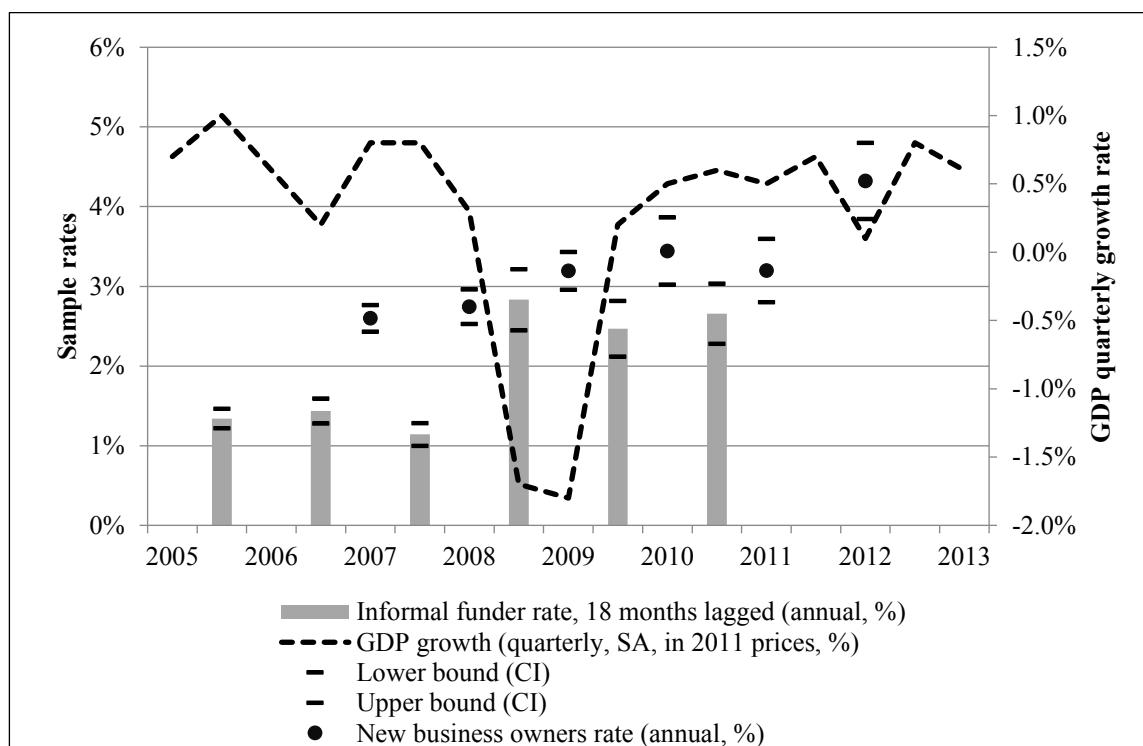
⁸ The data are subject to availability of consistent and comparable time series. The updated and comparable information on the UK business angels market is not presented, as it is only available for the small samples of business angels, surveyed according to different methodologies.

As such, the size of the informal funding market is comparable to the volume of institutional venture capital, outperforming business angels' investments. Moreover, its susceptibility to macroeconomic fluctuations reveals its exposure to the external context, and signals its importance.

6.3.2 The prevalence of informal funders among adult population

The prevalence of informal funders among the adult population in the UK remained at the lowest levels worldwide, not exceeding 3.2% in 2007-2016, while early-stage entrepreneurial activity staying in the middle range (varying from 5.4% to 9.8% among adult population for the same period) (Hart *et al.*, 2016). The dynamics of the informal funder rate in the UK is depicted in Figure 6-4 at the macroeconomic level across the business cycle.

Figure 6-4 The prevalence rates of informal funders and new business owners among adult population in the UK



Source: GEM UK database and The World Bank, (2017)

After the time-lag adjustments explained in section 4.5.4.1, the informal funder rate was significantly lower before the crisis period (up until the last quarter of 2007) than during and after crisis intervals. At the same time the new business owner rate was statistically the same in 2007-2008, and considerably higher in 2009, 2010, and 2012 (Student's t-test, 5% significance). Since the number of observations dropped from 2010, the statistical spread became wider, however, the upward trend in the upper bound of confidence intervals can be observed for new business owner rates. As a result, two findings can be noted. First, two different patterns can be observed before the middle quarter of 2008, and after - when the informal funder rate increased noticeably. Thus, the impact of the short-term economic fluctuations can be tentatively revealed. Second, the nature of the supply of informal funding also might be different during the periods of the business cycle. The rise in the informal funder rate was not mainly accompanied by the increase in entrepreneurial activity at the early stages of its development, which remained relatively stable. So, the prevalence of informal funders reacted promptly to the adverse economic changes, substituting the less available formal resources (the growth rate of the number of approved secured lending to individuals declined dramatically in 2008 (Bank of England, 2009)). The results complement the previous findings of Burke et al. (2010), who discovered the demand-driven nature of informal funders (referred to as investors in his work) in 2002-2004 for 28 highly-developed countries. This suggests there is tentative evidence, first, supporting *Hypothesis 2a* at the macroeconomic level, and second, revealing that the informal funder rate is a pro-cyclical variable (*Hypothesis 2e*). Looking forward, in the absence of new economic shocks, the new business owner rate and the informal investor rate have remained at their elevated levels since 2013 (Hart *et al.*, 2016).

6.3.3 The structure of the expected demand for financial sources by early entrepreneurs

In this subsection, it is revealed that formal sources of funding (like bank finance and government support) constitute a minor share at the beginning stage of the business development, while entrepreneurs mainly rely on personal savings and money from family and friends (see sections 2.3.1 and 3.2.1.1).

Figure 6-5 The structure of the demand for funding (as a % of early entrepreneurs) in the UK in 2007-2012

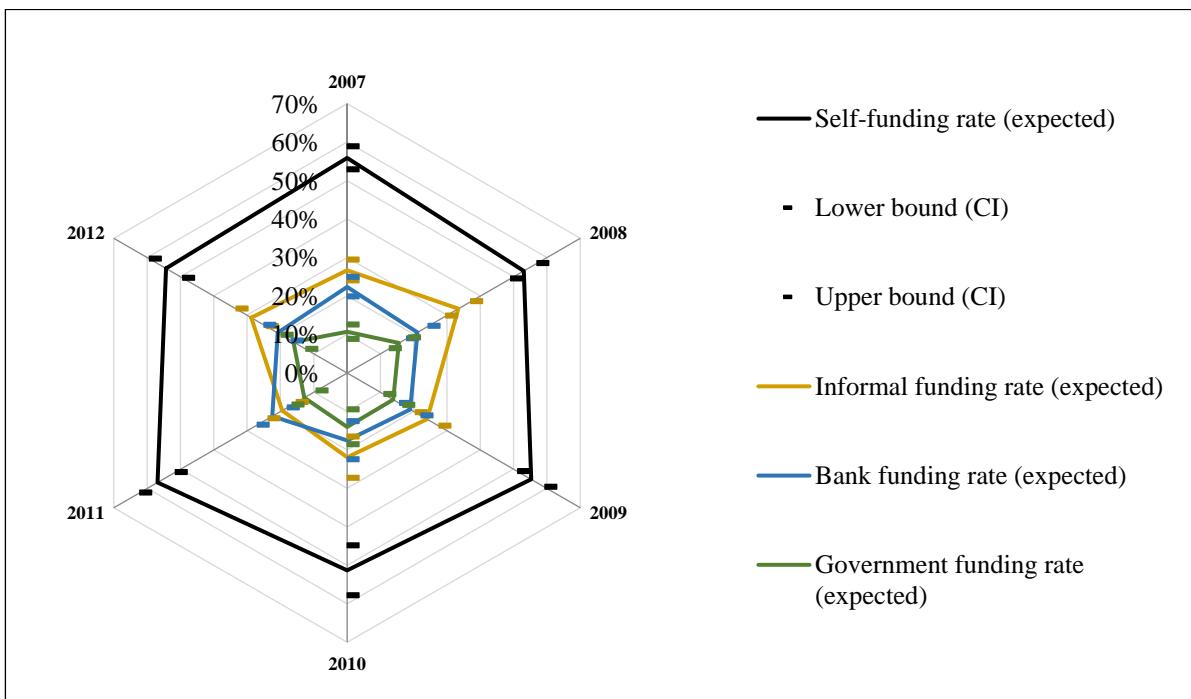
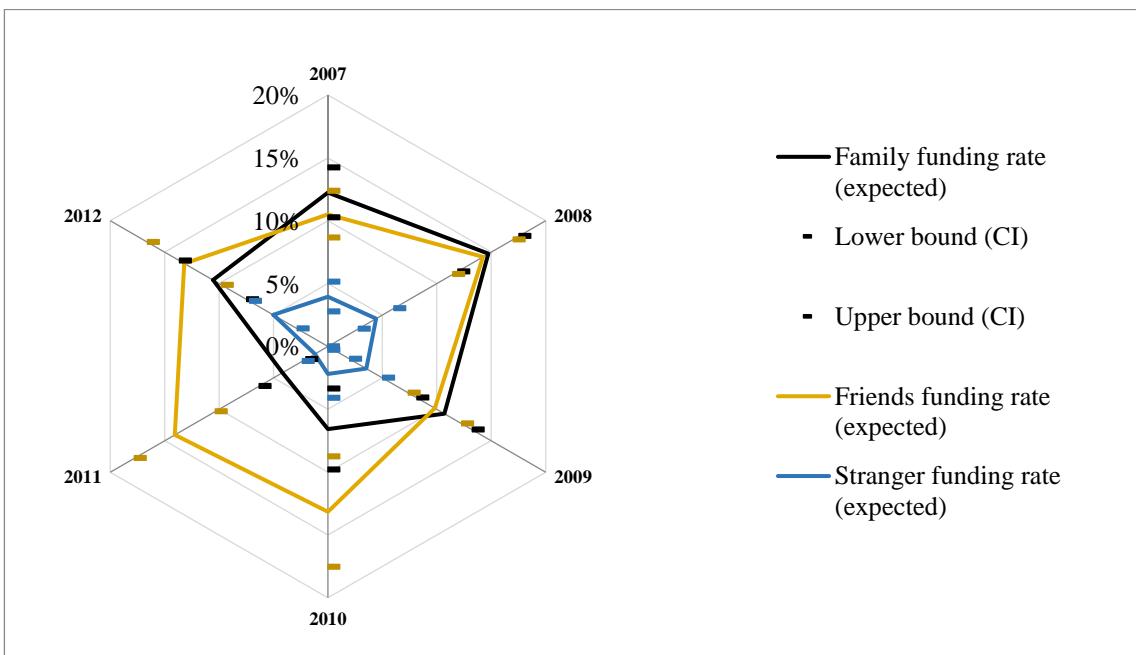


Figure 6-5 shows that the intentions of early entrepreneurs in terms of their sought-for sources of finance remain stable across the macroeconomic cycle. Self-funding is the prevalent way to fund the venture, while the informal capital is the second-popular choice. Bank lending and government funding are prioritised during the benign years. Interestingly, the expected demand for formal and informal sources demonstrates an opposing dynamic: an increase in the percentage of early entrepreneurs hoping to secure bank loans is followed up by a decrease in the share of those who intend to refer to informal sources (a statistically significant result in 2008: Student's t-test, 5% significance).

Figure 6-6 The structure of the demand for informal funding (as a % of early entrepreneurs) in the UK in 2007-2012



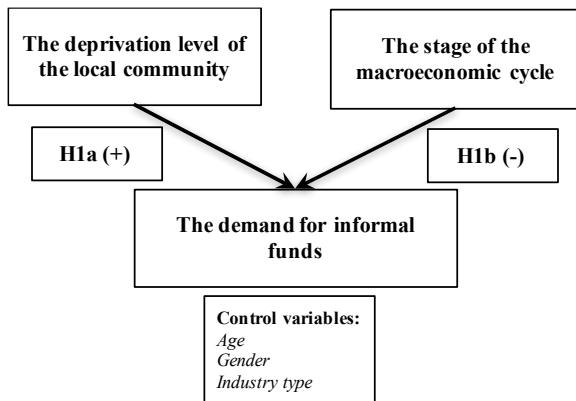
The structure of the demand for informal funding is presented in Figure 6-6. In 2007-2009 the demand for strangers' support was significantly lower than for family and friends funding (Student's t-test, 5% significance). From 2010 onwards, there is no statistically significant difference between the two. Similarly, there is no statistically significant difference between the demand for family and friends financial support, apart from 2011, where the latter prevailed over the former (Student's t-test, 5%). Notably, the demand for family funding was significantly higher in 2008 than in 2011.

In summary, the overview reveals the evidence in support of the domains of the theoretical model: variations in the demand for informal funds, susceptibility of the supply to those variations, as well as their joint exposure to the external environment. Therefore, in the following sections each domain is considered separately, and the corresponding set of hypotheses is tested.

6.4 Hypotheses testing: informal funding demand factors

The theoretical model for informal funding demand factors is presented in Figure 6-7. This corresponds to the left hand side of Figure 6-1 (Hypothesis 1 family).

Figure 6-7 The theoretical model for informal funding demand factors



First, the individual-level factors that drive the willingness to utilise the informal networks are considered. They are also complemented by estimates of the level of deprivation in the local community as well as the stage of the macroeconomic cycle. Second, a multilevel structure is introduced to distinguish community-level effects along with their interaction with other parameters. Notably, the former results are limited in their generalisation, as highlighted in section 4.5.4.5.

6.4.1 Informal demand factors at the individual level of analysis

6.4.1.1 Single-level modelling

The model presented in Table 6-1 tests the effects of education, work status, household annual income, the amount of start-up capital required, the amount of own funding, and the business cycle on the propensity of an early entrepreneur to seek informal funds. None of the socio-economic status variables (education, work status, and annual household

income level) were significantly associated with the intention to attract informal funds*. However, the amount of own funding influences the probability to seek help from relatives and friends (P-value < 0.01). A marginal change in the natural logarithm of the intended amount of own capital from the average of 9.25, which translates into a change of £18000, is associated with a 5% decrease in the probability to attract informal funds. Moreover, the more knowledge-intense the industry is, the more likely a business owner is to think of referring to their social ties (P-value < 0.01): a marginal change in the industry type in terms of its value-added from the average one (tertiary sector) leads to a 12% increase in the likelihood of an early entrepreneur to look for informal funds.

Table 6-1 Binomial stepwise[†] logit model[‡]: the propensity to attract informal funds by early entrepreneurs across macroeconomic cycle

<i>Number of observations</i>	513
<i>Wald Chi²(5)</i>	30.66
<i>Prob >Chi²</i>	0
<i>Pseudo R²</i>	0.0694
<i>Log Pseudolikelihood</i>	-426.4223

Estimations of an early entrepreneur to intend using informal funding	Coef.	Std. err.	z	P-value	Marginal effects (dy/dx)
<i>Age</i>	0.00052	0.00125	0.41	0.68	0.00012
<i>Gender</i>	-0.07239	0.27918	-0.26	0.80	-0.01725
<i>Industry type</i>	0.48933	0.15336	3.19	0.00	0.11702
<i>The intended amount of own capital (transformed natural logarithm)</i>	-0.20801	0.06612	-3.15	0.00	-0.04975
<i>The effect of crisis on household annual income</i>	0.26209	0.09779	2.68	0.01	0.0626779
<i>Constant</i>	0.48055	0.82281	0.58	0.56	n/a

dy/dx for gender is for a discrete change of dummy variable from 0 (female) to 1 (male). For continuous and ordinal factors, it is a change from their mean levels.

The effect of crisis (dummy variable): $D_{\text{crisis}} = \{0 \text{ (pre-crisis)}, 1 \text{ (crisis)}, 0 \text{ (post-crisis)}\}$. The multiplied effect is either 0, or an ordinal value (1 – lowest third percentile, 2 – middle third percentile, or 3 – upper third percentile) of the household annual income.

* Non-significant results were excluded from the final model, apart from control variables (age and gender).

[†] Step 1: control variables; step 2: independent variables; step 3: sequentially adding individual interaction terms and testing for significant associations.

[‡] The data are weighted to match the population distribution.

Age and gender (included as control variables) do not have a significant effect in the current model (P-value > 0.05), while the moderation effect of crisis on annual household income appears to enhance the inclination to attract informal funds (P-value < 0.05). A discrete change in the effect of crisis on the annual household income from 0 to 1 increases the probability to attract informal funds by 6%. Since the direct income effect was not revealed, it leads to the assumption that the macroeconomic environment (in support of *Hypothesis 1b*) and possibly local conditions impose certain restrictions on financial choices.

The Index of Multiple Deprivation variable was included in the model to check for local tendencies (see Table 6-2).

Table 6-2 Binominal stepwise* logit model†: the propensity to attract informal funds by early entrepreneurs across communities of different levels of deprivation

<i>Number of observations</i>	4359
<i>Wald Chi²(5)</i>	19.85
<i>Prob >Chi²</i>	0.0005
<i>Pseudo R²</i>	0.0124
<i>Log Pseudolikelihood</i>	-1718.6426

Estimations of an individual to be an informal funder	Coef.	Std. err.	z	P-value	Marginal effects (dy/dx)
<i>Age</i>	0.00085	0.00159	0.53	0.59	0.00008
<i>Gender</i>	0.18161	0.16177	1.12	0.26	0.01695
<i>Education category</i>	0.32624	0.12543	2.60	0.01	0.03115
<i>IMD</i>	0.01127	0.00361	3.12	0.00	0.00108
<i>Constant</i>	-3.28137	0.33690	-9.74	0.00	n/a

The model exposes multicollinearity problems, and as a result, most of the individual-level factors were excluded from the analysis. The IMD demonstrated a significant effect once education category was controlled for. A marginal increase in the rank of the educational attainment from its average one (graduate experience) results in a 3% increase

* Step 1: control variables; step 2: independent variables; step 3: sequentially adding individual interaction terms and testing for significant associations. Insignificant results were removed from the model specification, apart from control variables (age and gender).

† The data are weighted to match the population distribution.

in the propensity to attract informal funds. The findings suggest that there is significant positive effect (P-value < 0.01) of the local deprivation level on the probability of an early entrepreneur to seek support from informal sources (*Hypothesis 1a*). A marginal increase in the IMD score from the average of 21, increases the probability to look for informal funds by early entrepreneurs by 0.1%. The strength of the effect is, however, in question, as the increment is quite minor, leading the analysis to the next section.

6.4.1.2 Multilevel modelling

Stemming from the observation that the deprivation level of an area affects the likelihood to attract financial resources from social networks, it is reasonable to assume that there might be variations in this relationship across local communities. To investigate this assumption a multilevel design was introduced, and an ‘empty’ model was fitted at the first stage (see Table 6-3) to test the variation in the intentions of early entrepreneurs across different deprivation levels. The population of interest has a two-level hierarchical structure with 4482 individuals at level 1 and 50 areas at level 2 (see section 4.5.4.3).

Table 6-3 Random-intercept logistic regression*: the null two-level model predicting the probability of an early entrepreneur to attract informal funding

<i>Number of observations</i>	4482
<i>Number of groups</i>	50
<i>Minimum number of observations per group</i>	73
<i>Average number of observations per group</i>	90
<i>Maximum number of observations per group</i>	167
<i>Log Likelihood</i>	-1355.05
<i>LR test vs. logistic regression</i>	0.09
<i>P-value</i>	0.38

Estimations of an individual to be an informal funder	Coef./Estimate	Std. err.	z	P-value
<i>Constant</i>	-2.31812	0.05511	-42.06	0.00
<i>Random-effects parameters</i>				
<i>Var(constant)</i>	0.00803	0.02822	n/a	n/a

* The data are weighted to match the population distribution.

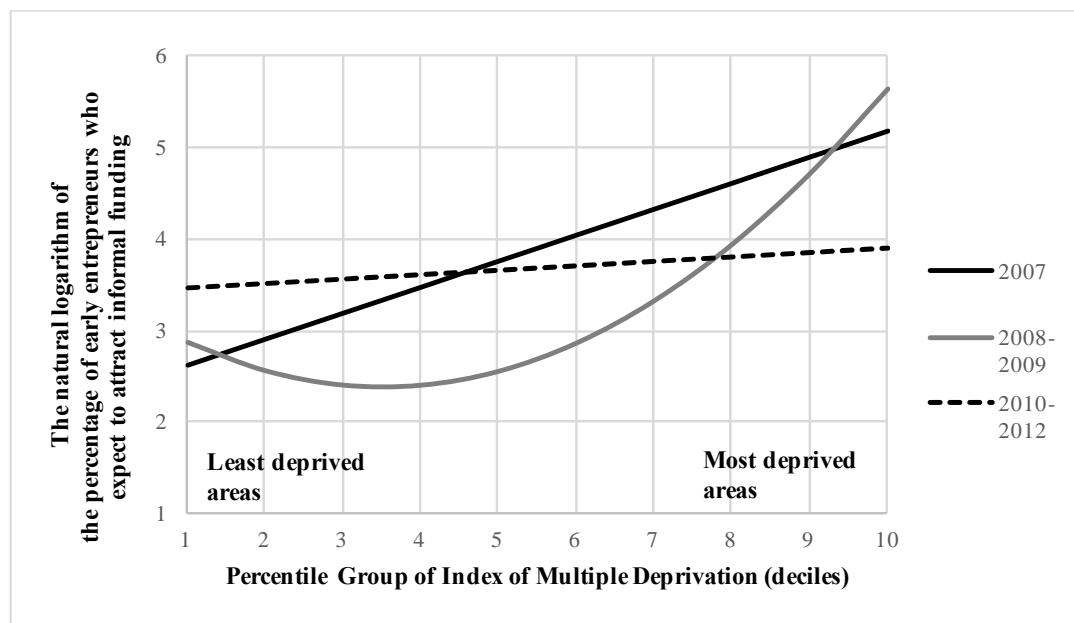
The log-odds of expecting informal funds by early entrepreneurs in an ‘average’ community is estimated as -2.318, with a variance of 0.008. According to the Likelihood Ratio (LR) test of the non-zero variance across the communities, there is no evidence to reject the null hypothesis (P-value is 0.38). As a result, the community variation is zero in the ‘empty’ model, suggesting that there is no need to control for the community effects. Therefore, the role of deprivation in the community at the individual level of analysis is not succinct, either due to the measurement issues, or its definition, where multiple domains can play various roles in determining the final impact. In this way, it is proposed to conduct the analysis at the local level to capture the effect from a broader perspective.

6.4.2 Informal demand factors at the local level of analysis

The demand side at the local level of analysis is operationalised as the percentage of early-stage entrepreneurs who expect to attract informal funding. During the pre- and post-crisis periods the relationship between the potential demand for informal funding and the level of deprivation of a local area is linear and positive (see Figure 6-8).

Notably, in 2010-2012 the sensitivity of the demand to the conditions in the local environment significantly reduced compared to 2007: there was almost no variation in the rates across the areas with only a slight rise towards the most disadvantaged ones (Student’s t test, 5% significance level). Across all the stages of the macroeconomic cycle, moving from less deprived to more deprived communities, the percentage of entrepreneurs who expect to attract informal funding increased (at the 5% level of significance, see Table 6-4), thus supporting *Hypothesis 1a*.

Figure 6-8 The relationship between the percentage of early entrepreneurs who expect to attract informal funding and the level of deprivation of the local area (across the macroeconomic cycle)*



*The graphs are based on the results from Table 6-4

Table 6-4 Poisson regression model*: the relationship between the percentage of early entrepreneurs who expect to attract informal funding and the level of deprivation of the local area

	2007		2008-2009		2010-2012	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
Constant	2.326	0.000	3.340	0.000	3.426	0.000
Deprivation deciles	0.285	0.002	-0.540	0.021	0.046	0.000
Deprivation deciles squared	-	-	0.077	0.003	-	-
Likelihood Ratio Chi-Square	9.766	0.002	16.576	0.000	28.93	0
Sample size	1522		2003		1623	

Wald Chi-Square Test for parameter estimations.

During the crisis period, the relationship took a U-shape form, where a decrease in the potential demand was observed for the least deprived areas. It appears therefore that early-stage entrepreneurs in the most deprived areas tend to count on friends and family funds

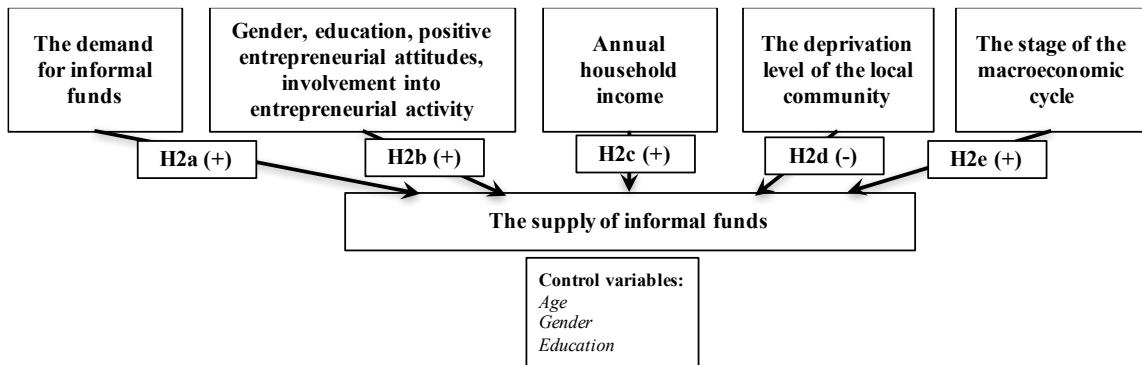
* The data are weighted to match the population distribution.

most especially during adverse economic conditions (the parabola's sideway slope in 2008-2009 exceeds the slope of the linear trends), when availability of these funds is at its lowest (the evidence for *Hypothesis 1b*).

6.5 Hypotheses testing: informal funding supply factors

The theoretical model for informal funding supply factors is presented in Figure 6-9. This corresponds to the lower sector of Figure 6-1 (Hypothesis 2 family).

Figure 6-9 The theoretical model for informal funding supply factors



The analysis is carried out at the individual level of analysis (predicting the propensity of an individual to become an informal funder) by means of individual-level and multilevel modelling to incorporate contextual variations, as well as at the local level of analysis to validate the results.

6.5.1 Informal funding supply factors at the individual level of analysis

The factors that define the propensity of an individual to become an informal funder are examined, and also what causes informal funder rate variations across different communities. Three types of the effects are distinguished: those caused by the individual attributes of an individual, those defined by demand, and those attributing to external forces, such as the level of deprivation of the local community and changes in the macroeconomic situation. While the first group have been to a certain degree researched in the literature so far (see sections 2.3.2 and 2.3.4), the second one was only touched upon

in two recent studies (Burke et al., 2010; Burke et al., 2014). However, the third group has not yet been fully integrated into the overall understanding of the informal funding phenomenon. Furthermore, all three aspects have never been combined together to study their mutual effects to create a complete picture of the market.

6.5.1.1 Single-level modelling

The final results of the individual-level modelling along with the marginal effects are presented in Table 6-5. Age^{*}, gender, and education are incorporated as control variables, whereas the rest of the parameters were entered stepwise.

As a result, gender, education, household annual income, positive entrepreneurial attitudes along with the involvement into entrepreneurial activity positively define the probability of an individual to become an informal funder (P -value < 0.05), supporting *Hypothesis 2b*. Being a male increases the probability to become an informal funder by 0.3%, an increase in the educational attainment from post secondary degree – by 0.1%, an increase in the level of annual household income from the middle percentile – by 0.3%, having positive entrepreneurial attitudes – by 1%, and being involved into entrepreneurial activity – by 2%.

Household annual income contributes to the likelihood, but to a lesser extent than positive attitudes towards entrepreneurship, and being involved into entrepreneurial activity (*Hypothesis 2c*). The propensity tends to vary depending on the stage of the macroeconomic cycle. In this way, the probability to become an informal funder during the crisis period is 0.5% less, and during the pre-crisis period 0.9% less than during the post-crisis period (*Hypothesis 2e*). However, the effect of crisis on the household annual income increases the chances of becoming an informal funder by 0.3%, indicating that

^{*} The curvilinear relationship between the age and the propensity to become an informal funder was tested, however, was not confirmed to be significant at the 5% significance level, and, thus omitted for simplicity of the model.

other factors driving informal funding activity during recession should be considered, such as demand.

Table 6-5 Binomial stepwise* logit model[†]: the propensity to become an informal funder and individual characteristics

<i>Number of observations</i>	78985
<i>Wald Chi² (4)</i>	430.6
<i>Prob >Chi²</i>	0
<i>Pseudo R²</i>	0.104
<i>Log Pseudolikelihood</i>	-6079

Estimations of an individual to be an informal funder	Coef.	Std. err.	z	P-value	Marginal effects
<i>Age</i>	-0.00109	0.00099	-1.11	0.27	0.00000
<i>Gender</i>	0.35343	0.09253	3.82	0.00	0.00319
<i>Education</i>	0.15813	0.06930	2.28	0.02	0.00143
<i>Involvement into entrepreneurial activity</i>	1.18515	0.09320	12.72	0.00	0.01723
<i>Positive entrepreneurial attitudes</i>	1.80370	0.18563	9.72	0.00	0.01406
<i>Household annual income</i>	0.32022	0.07862	4.07	0.00	0.00289
<i>Pre-crisis period</i>	-1.09768	0.37234	-2.95	0.00	-0.00896
<i>Crisis period</i>	-0.54278	0.10854	-5.00	0.00	-0.00474
<i>The effect of crisis on household annual income (an interaction term)</i>	0.29200	0.15027	1.94	0.05	0.00264
<i>Constant</i>	-6.80998	0.31464	-21.64	0.00	n/a

dy/dx is for a discrete change of gender dummy variable from 0 (female) to 1 (male); involvement into entrepreneurial activity dummy variable from 0 (no) to 1 (yes); and positive entrepreneurial attitudes dummy variable from 0 (no) to 1 (yes).

Pre-crisis period effect: $D_{\text{pre-crisis}} = \{1 (\text{pre-crisis}), 0 (\text{crisis}), 0 (\text{post-crisis})\}$.

Crisis period effect: $D_{\text{crisis}} = \{0 (\text{pre-crisis}), 1 (\text{crisis}), 0 (\text{post-crisis})\}$. The multiplied effect is either 0, or an ordinal value (1 – lowest third percentile, 2 – middle third percentile, or 3 – upper third percentile) of the household annual income.

* Step 1: control variables; step 2: independent variables; step 3: sequentially adding individual interaction terms and testing for significant associations.

† Non-significant results were excluded from the final model, apart from control variables (age, gender, and education). The data are weighted to match the population distribution.

Since the effect of the crisis mitigates the positive income effect, only individuals who can afford it provide financial support to their friends and family during the adverse economic situation. Overall, including all the identified parameters based on the model above, the probability to become an informal funder is estimated to be 0.5%*. The sample probability is 1.69%, so this model is clearly a relatively poor fit, as suggested by the Pseudo R squared of 0.104.

Table 6-6 Binominal stepwise[†] logit model[‡]: the propensity to become an informal funder and the deprivation level of an area

<i>Number of observations</i>	79138
<i>Wald Chi² (4)</i>	92.17
<i>Prob >Chi²</i>	0
<i>Pseudo R²</i>	0.108
<i>Log Pseudo likelihood</i>	-6601.6

Estimations of an individual to be an informal funder	Coef.	Standard error	z	P-value	Marginal effects
<i>Age</i>	-0.00088	0.00066	-1.33	0.18	-0.00001
<i>Gender</i>	0.62317	0.09026	6.90	0.00	0.00955
<i>Education</i>	0.43177	0.07065	6.11	0.00	0.00650
<i>IMD</i>	-0.00634	0.00228	-2.27	0.02	-0.00010
<i>Constant</i>	-5.26379	0.19455	-27.06	0.00	n/a

The deprivation indicator of the local area was excluded from the analysis at this stage, as it was found to be considerably correlated with the rest of the parameters, causing multicollinearity issues. As a result, its effect was examined separately in Table 6-6. Based on the model above, the probability to become an informal funder is estimated at 1.4%, which is higher than in the model presented in Table 6-5 (0.5%), suggesting that

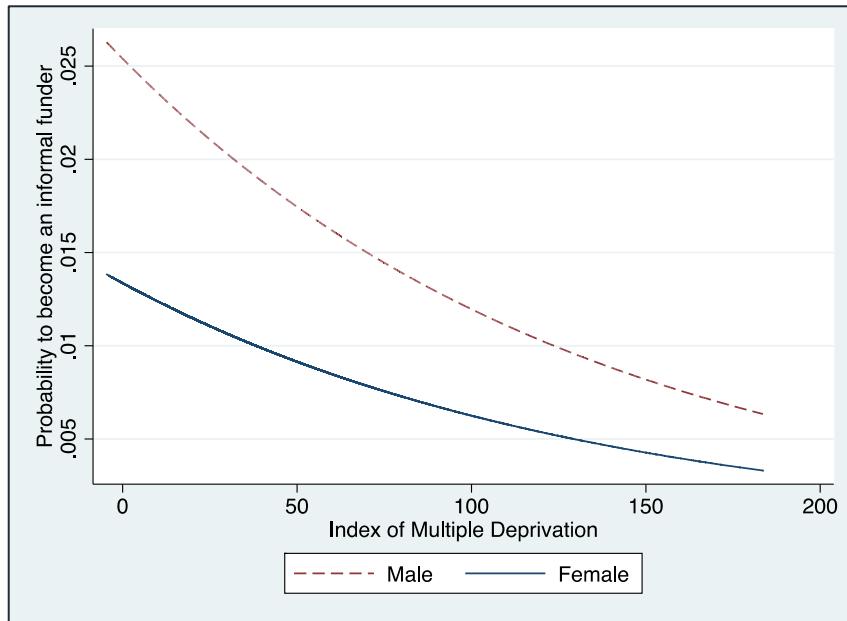
* The overall probability is calculated as $\hat{p} = \frac{e^{\hat{v}}}{1+e^{\hat{v}}}$, where $\hat{v} = Constant + b_1x_1 + \dots + b_kx_k$; $b_1 \dots b_k$ - the mean values of the estimated parameters from the logistic model, and k – the number of the estimated parameters.

† Step 1: control variables; step 2: independent variables; step 3: sequentially adding individual interaction terms and testing for significant associations.

‡ Non-significant results were excluded from the final model, apart from control variables (age, gender, and education). The data are weighted to match the population distribution.

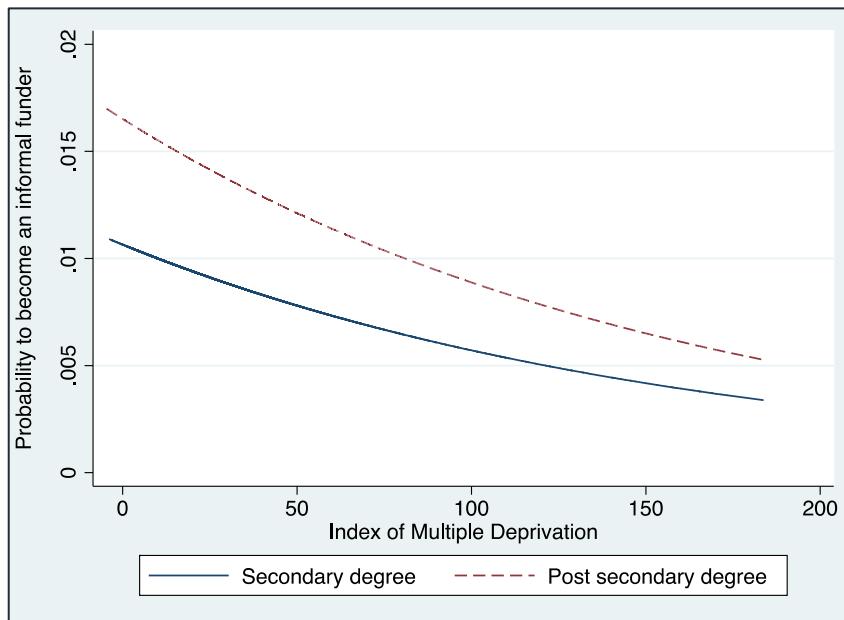
deprivation factor contributes to the variance explained more than individual-level and macroeconomic factors. At its most general level, the more deprived the area, the less likely an individual is to become an informal funder (*Hypothesis 2d*, P-value < 0.05). However, a marginal change in the IMD score from its average (21.4) leads to a decrease in the probability to become an informal funder by less than 0.1%. This can be explained by its coupled non-differentiated effect, where more subtle interdependencies take place.

Figure 6-10 The relationship between the deprivation level of an area and the probability (%) of an individual to become an informal funder by gender



As such, further analysis suggests differences in the impact between male and female individuals (Figure 6-10), and between those with secondary and post-secondary experience (Figure 6-11). As such, males exhibit higher probability to become an informal funder than females, with the distinction becoming wider for the least deprived areas. Similarly, more educated individuals demonstrate a higher likelihood to financially support friends' and family business but this difference narrows with increases in the level of deprivation. Both observations reinforce the necessity of informal funds in the disadvantaged areas, and their diminished susceptibility to other factors, which are going to be explored in conjunction with the deprivation levels at the next stage.

Figure 6-11 The relationship between the deprivation level of an area and the probability (%) of an individual to become an informal funder by education categories



As a result, the probability of becoming an informal funder is determined by the individual characteristics of a person, the changes in the macroeconomic environment, and by the level of deprivation of a local area. The latter in turn is correlated with the household annual income, accentuated in times of crisis (an observation that is in line with disposable income effect, outlined in section 3.3.2). The key parameters of *Hypotheses 2b-2e* were considered, leaving the demand factor (*Hypothesis 2a*) aside. To incorporate the latter a multilevel model is introduced in the following sub-section.

6.5.1.2 Multilevel modelling

In order to explain the demand-effect observed during the descriptive analysis (see 6.3.2), the relationship between the probability of an individual to become an informal funder and the level of deprivation of a local community is unravelled further in this sub-section.

The population of interest has a two-level hierarchical structure with 82851 individuals at level 1 and 50 areas at level 2 (see section 4.5.4.3).

First, an empty two-level model is fitted (with only an intercept and community deprivation effects) to tentatively explore the variation caused by the differences in the deprivation levels across the communities (see Table 6-7). The number of integration points was checked (see Appendix 26). This confirmed that seven integration points are sufficient for the analysis to ensure that the maximum likelihood procedure provides adequate approximations (Leckie, 2010). According to the model, the log-odds of becoming an informal funder in the ‘average’ community is 4.242, while the standard deviation of the random effect is 0.032. The likelihood ratio statistic (10.04) suggests that this standard deviation is significantly (at the 5% level) different from zero, so there is strong evidence that there is a positive between-community variance, in other words, the deprivation level matters.

Table 6-7 Random-intercept logistic regression*: the null two-level model predicting the probability of an individual to become an informal funder

<i>Number of observations</i>	82851
<i>Number of groups</i>	50
<i>Minimum number of observations per group</i>	1313
<i>Average number of observations per group</i>	1657
<i>Maximum number of observations per group</i>	3714
<i>Log Likelihood</i>	-6200.28
<i>LR test vs. logistic regression</i>	10.04
<i>P-value</i>	0.00
Estimations of an individual to be an informal funder	
<i>Constant</i>	-4.24150
<i>Random-effects parameters</i>	
<i>Var(constant)</i>	0.03222
<i>Std. err.</i>	0.01500
<i>z</i>	n/a
P-value	n/a

Second, the explanatory variables, which were previously identified in the single-level analysis, were added to the model to explore their distribution across the communities with different levels of deprivation, and their effect on the informal funder rate (see Table 6-8 for the model results, and Figure 6-12 for the visual representation of the effects).

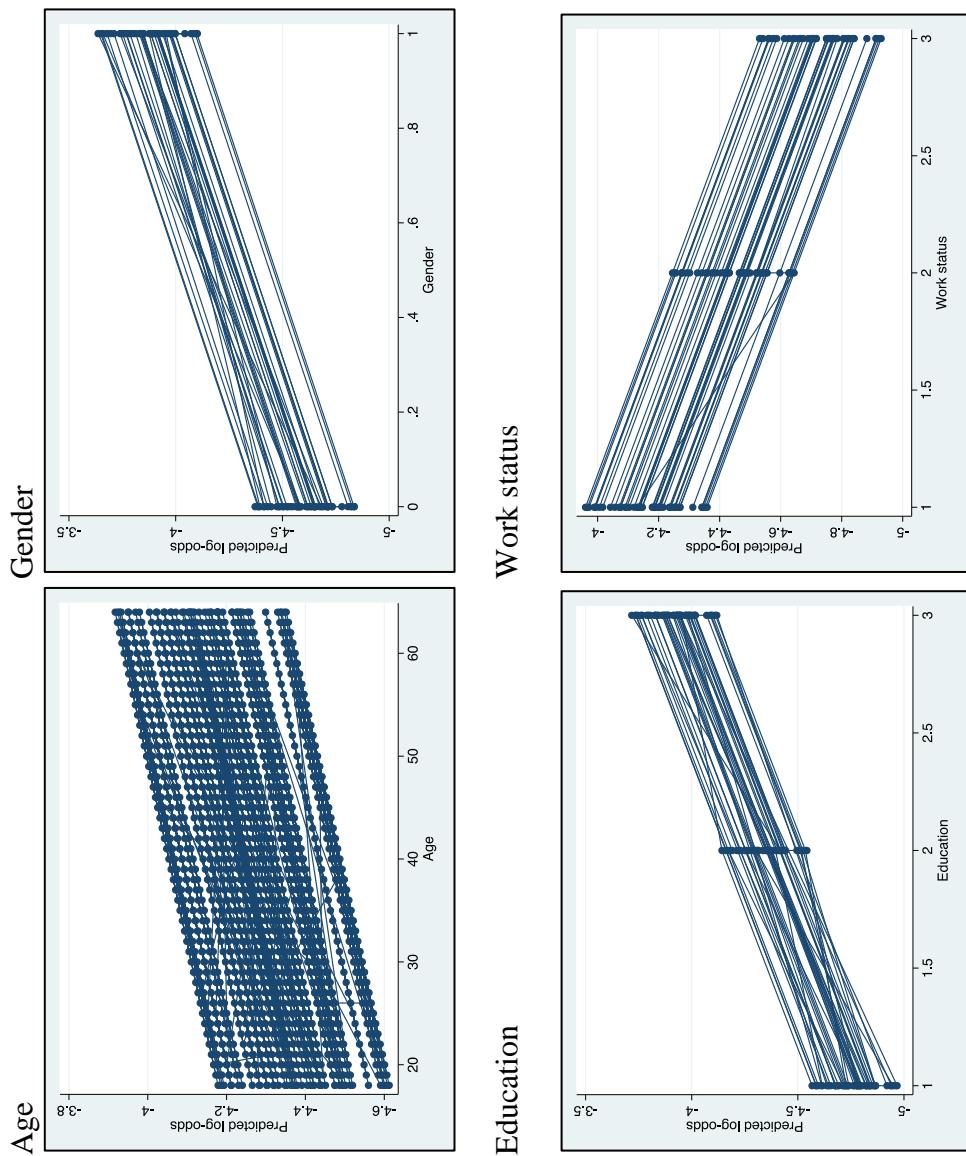
* The data are weighted to match the population distribution.

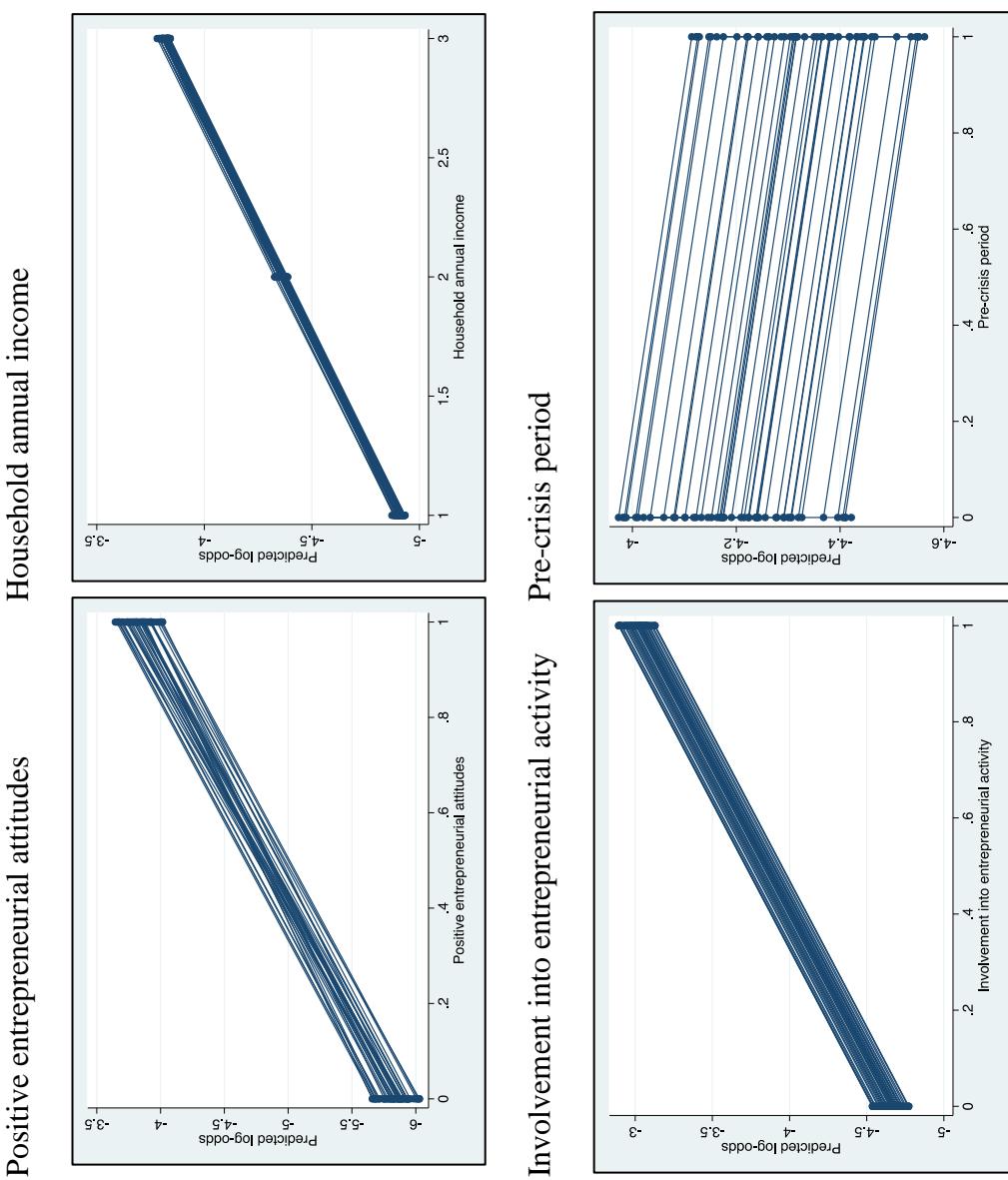
Table 6-8 Random-intercept logistic regression*: Individual effects of the parameters on the probability to become an informal funder across communities with different levels of deprivation

	Model 0: Empty	Model 1: Age	Model 2: Gender	Model 3: Education	Model 4: Work status	Model 5: Income	Model 6: Positive entrepreneurial attitudes	Model 7: Involvement into entrepreneurial activity	Model 8: Pre-crisis period	Model 9: Crisis period
<i>Number of observations</i>										
Number of observations	82851	82344	82344	78644	82051	68953	82344	82344	82344	82344
Number of groups	50	50	50	50	50	50	50	50	50	50
<i>Log Likelihood</i>	-6200.3	-6159.8	-6085.0	-5939.5	-6120.7	-5189.0	-5873.3	-5843.5	-6160.1	-6133.8
<i>% change in Log Likelihood</i>	-	-0.65	-1.86	-4.21	-1.28	-16.31	-5.27	-5.75	-0.65	-1.07
<i>LR test v.s. logistic regression</i>	10.04	10.55	12.09	7.25	8.53	0.11	7.27	2.94	11.30	15.44
<i>P-value</i>	0.001	0.001	0.000	0.004	0.002	0.368	0.004	0.043	0.000	0.000
<i>Estimation of the parameters</i>										
<i>Constant</i>	-4.24	-4.50	-4.61	-5.19	-3.88	-5.46	-5.85	-4.66	-4.20	-4.07
<i>Coefficient</i>	-	0.01	0.74	0.42	-0.29	0.55	2.01	1.64	-0.14	-0.47
<i>P-value</i>	-	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.030	0.000
<i>Var (constant)</i>	0.032	0.033	0.036	0.028	0.030	0.003	0.027	0.017	0.035	0.041
<i>% change in Var (constant)</i>	-	3.46	11.54	-13.02	-7.56	-89.15	-16.62	-48.53	7.76	28.39

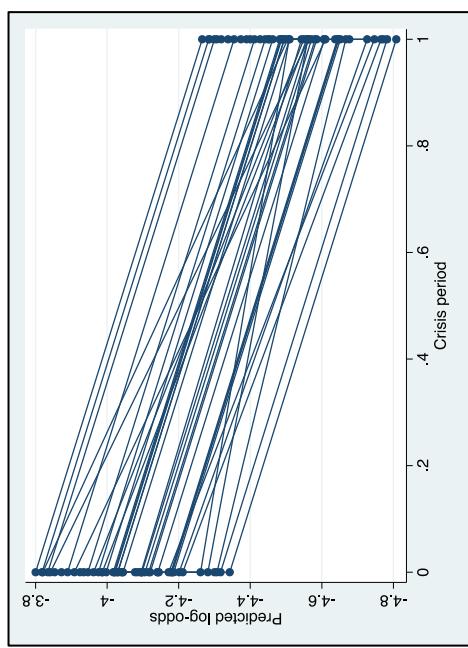
* The data are weighted to match the population distribution.

Figure 6-12 The predicted log-odds of being an informal funder for each person, based on the individual (socio-demographic, entrepreneurial, and macroeconomic) characteristics and community of residence





Crisis period



Each of the factors were included separately (age, gender, education, work status, annual household income, positive entrepreneurial attitudes, involvement in entrepreneurial activity, and the stage of the macroeconomic cycle), and compared with the ‘empty’ model in order to reveal any improvements, and identify enhanced variation across the communities. The greater the change in the estimate of the between-community variance, the more diversity across the areas of different deprivation levels can be identified.

In a similar way when looking at the graphical representation of the effects (Figure 6-12), parallel lines indicate that the type of the relationship between the propensity to become an informal funder, and the factor variable is the same in each community, while the width of the graphical area stands for the variation across the communities. Hence, for a person with the highest level of annual household income the log-odds of becoming of informal funder ranges from about -3.8 to -3.9 depending on which community the person resides in. This translates into a range in probabilities of around 2%, so there are weak community effects (confirmed with the LR-test, with P-value of 0.368). The strongest community effects on the relationship between becoming an informal funder and an individual level variable are revealed for the stages of macroeconomic cycle (*% change in Var(constant)* of more than 30%).

The addition of income, work status, education, positive entrepreneurial attitudes, and involvement in entrepreneurial activity reduced the between-community variance (see *% change in Var(constant)* for Models 3 – 7 in Table 6-8), suggesting that the type of distribution of these variables is different across communities. This can be explained by the fact that some communities will have higher proportions of relatively wealthier households, and a more entrepreneurial-oriented population than others (see Appendix 27).

In all the cases the likelihood-ratio statistic demonstrates that there is strong evidence that the between-community variance is non-zero (apart from income). Since income is strongly associated with the deprivation level, this finding is not surprising, allowing the variation in the community deprivation to be equivalent with the income variations. The

inclusion of age, gender, and macroeconomic cycle increased the between-community variance, thus indicating that the distribution of these parameters is the same across all the communities with different levels of deprivation.

The results suggest that the deprivation level of an area significantly defines the socio-demographic portrait and entrepreneurial attitudes of informal funders, which subsequently determine the likelihood of an individual to provide money to someone's business. They also demonstrate that changes in the macroeconomic environment impact the propensity to become an informal funder to a different extent, depending on the location (in terms of its level of deprivation).

Third, to integrate the individual-level factors in a multilevel model, several iterations were performed to derive the final model, the results of which are presented in Table 6-9. These results reveal that involvement in early entrepreneurial activity is a better predictor than involvement in established entrepreneurial activity. Those informal funders might experience similar problems, and, as a result, are more likely to sympathise with their friends and family – an outstanding feature of compassionate behaviour, explored in studies of donation decisions (Dickert *et al.*, 2011).

Similar to the previous results, changes in socio-demographic factors (age, gender, and education) lead only to a marginal increase in the probability of an individual to become an informal funder of no more than 0.1%. In contrast, positive entrepreneurial attitudes raise the likelihood by 5%, and present involvement into early entrepreneurial activity by 4%. The chances of supporting someone else's business decrease during the pre-crisis, and crisis period by 1% compared to the post-crisis period.

Table 6-9 Random-intercept two-level logistic regression*: the impact of demographic and entrepreneurial characteristics, macroeconomic cycle, and community variations on the probability of an individual to become an informal funder

<i>Number of observations</i>	82344
<i>Number of groups</i>	50
<i>Minimum number of observations per group</i>	1300
<i>Average number of observations per group</i>	1647
<i>Maximum number of observations per group</i>	3694
<i>Log Likelihood</i>	-5662.88
<i>LR test vs. logistic regression</i>	6.17
<i>P-value</i>	0.01

Estimations of an individual to be an informal funder	Coef.	Std. err.	z	P-value	Conditional marginal effects	Reference value
<i>Age</i>	0.00849	0.00256	3.31	0.00	0.00028	45
<i>Gender</i>	0.38776	0.06210	6.24	0.00	0.01281	0
<i>Education</i>	0.28290	0.04883	5.79	0.00	0.00935	2
<i>Positive entrepreneurial attitude</i>	1.58711	0.11229	14.13	0.00	0.05243	0
<i>Present involvement into early entrepreneurial activity</i>	1.22454	0.06326	19.36	0.00	0.04045	0
<i>Crisis</i>	-0.35228	0.07563	-4.66	0.00	-0.01164	0
<i>Pre-crisis</i>	-0.34561	0.07358	-4.70	0.00	-0.01142	0
<i>Constant</i>	-6.78985	0.21105	-32.17	0.00	n/a	n/a

Random-effects parameters

Conditional marginal effect is for discrete change of gender dummy variable from 0 (female) to 1 (male); positive entrepreneurial attitudes dummy variable from 0 (no) to 1 (yes), and involvement into early entrepreneurial activity dummy variable from 0 (no) to 1 (yes).
Crisis effect: $D_{\text{crisis}} = \{0 \text{ (pre-crisis)}, 1 \text{ (crisis)}, 0 \text{ (post-crisis)}\}$.
Pre-crisis effect: $D_{\text{pre-crisis}} = \{1 \text{ (pre-crisis)}, 0 \text{ (crisis)}, 0 \text{ (post-crisis)}\}$.

The probability of becoming an informal funder depends on characteristics of the individual and their community of residence. The variation partition coefficient for the model is 0.007: thus, 0.7% of the residual variation in the propensity to become an informal funder is attributable to unobserved community characteristics (for the ‘null’

* The data are weighted to match the population distribution.

model – 0.0097). This means that the probability is mainly determined by factors which values vary significantly across the communities of different levels of deprivation (social characteristics of individuals, involvement in early entrepreneurial activity and positive attitude towards entrepreneurship).

Table 6-10 Predicted cluster-specific and population-averaged probabilities of becoming an informal funder

Gender	Entrepreneurial attitude	Involvement in early entrepreneurial activity	Crisis	Pre-crisis	Median predicted probability	Mean predicted probability
Female	No	No	No	No	0.31%	0.31%
Female	No	No	No	Yes	0.19%	0.19%
Female	No	No	Yes	No	0.22%	0.22%
Female	No	Yes	No	No	1.12%	1.12%
Female	No	Yes	No	Yes	0.70%	0.71%
Female	No	Yes	Yes	No	0.81%	0.81%
Female	Yes	No	No	No	1.76%	1.78%
Female	Yes	No	No	Yes	1.10%	1.11%
Female	Yes	No	Yes	No	1.26%	1.27%
Female	Yes	Yes	No	No	6.20%	6.21%
Female	Yes	Yes	No	Yes	3.95%	4.00%
Female	Yes	Yes	Yes	No	4.48%	4.52%
Male	No	No	No	No	0.51%	0.51%
Male	No	No	No	Yes	0.32%	0.32%
Male	No	No	Yes	No	0.36%	0.36%
Male	No	Yes	No	No	1.85%	1.88%
Male	No	Yes	No	Yes	1.16%	1.16%
Male	No	Yes	Yes	No	1.32%	1.35%
Male	Yes	No	No	No	2.89%	2.91%
Male	Yes	No	No	Yes	1.82%	1.85%
Male	Yes	No	Yes	No	2.07%	2.09%
Male	Yes	Yes	No	No	9.90%	10.06%
Male	Yes	Yes	No	Yes	6.40%	6.48%
Male	Yes	Yes	Yes	No	7.24%	7.30%

To track the effects more closely, classification tables were created to predict probabilities of becoming an informal funder using two methods: one for the ‘median’ community using cluster-specific probabilities, and the other with predictions that average over the random effect distribution – population-averaged probabilities (see Table 6-10 above).

For the cluster-specific probabilities each combination of gender, entrepreneurial attitude, involvement in early-stage entrepreneurial activity, crisis, and pre-crisis found in the data was used, holding age at its sample mean. It can be seen that the highest probability of becoming an informal funder is predicted for a male individual with positive entrepreneurial attitudes, who is involved in early entrepreneurial activity during post-crisis (around 10%), and crisis (around 7%) periods. Females are more likely to financially support the business of others (6% probability) with the same parameters as men during the post-crisis period.

Table 6-11 Random-intercept two-level logistic regression*: contextual effects across communities of different levels of deprivation

	Coeff.	Reference values	Conditional marginal effects	P-value	Variance	LR test (vs logistic regression)	P-value
Model 1: The mean population age	0.163	45	0.00255	0.000	0.000	0.00	1.000
Model 2: The share of male individuals	-1.255	0.41	-0.00295	0.673	0.024	5.77	0.008
Model 3: The share of entrepreneurs at the early stage of development	15.100	0.05	0.24563	0.001	0.012	1.53	0.048
Model 4: The share of individuals with positive entrepreneurial attitudes	6.836	0.62	0.11793	0.000	0.003	0.15	0.350
Model 5: The average rank of annual household income	0.738	2.12	0.01182	0.000	0.000	0.00	1.000
Model 6: The average rank of population education	2.580	2.20	0.04272	0.000	0.004	0.16	0.346
Model 7: The average rank of population work status	-2.188	1.32	-0.03554	0.000	0.004	0.22	0.320

Reference values are sample means across all communities.

* The data are weighted to match the population distribution.

Fourth, to determine the effect of community-level variables, each of them was considered separately. In particular, the research interest lies in investigating the impact of the level of early-stage entrepreneurial activity within a community – as a representation of the demand for informal funds.

In Table 6-11 among the community-level indicators, the distribution of which is different across the areas (apart from age and gender structure), the proportion of the entrepreneurs at their early stage of development demonstrates the most substantial impact at the level of significance of 4.8% (P-value in Model 3). A marginal change in the proportion of early entrepreneurs in a community increases the probability of an individual to become an informal funder by 25%. Notably, only models 2 and 3 distinguish significant community variance (LR-test, P-value < 0.05), where gender does not expose any significant effect (P-value > 0.05). Positive entrepreneurial attitudes in the community, the average rank of annual household income, the average ranks of population education and work status expose a significant effect (P-value < 5%), which does not vary across communities of different deprivation level. This result can be explained by the correlation between social indicators (income, education, and work status) and the community IMD, which defines the clusterisation process. In this way, regardless of the community of residence, a marginal change in income levels in an area, increases the propensity to become an informal funder by 1%, education levels – by 4%, whereas a change towards higher rank in the work status (which increases the share of non-working individuals) decreases the probability by almost 4%.

By including the share of early-stage entrepreneurs within a community into a random-intercept two-level logistic model, and assuming that the relationship between the potential demand for informal funds and its supply is the same regardless of the deprivation level of the local environment, one can notice a significant positive effect (Table 6-12) which confirms *Hypothesis 2a* for an ‘average’ community in terms of its deprivation level (P-value < 0.05). A marginal change in the share of early entrepreneurs in the community from the average of 5% increases the likelihood of an individual to become an informal funder by 43%.

Table 6-12 Random-intercept two-level logistic regression*: final model with contextual effects

<i>Number of observations</i>	82344					
<i>Number of groups</i>	50					
<i>Minimum number of observations per group</i>	1300					
<i>Average number of observations per group</i>	1647					
<i>Maximum number of observations per group</i>	3694					
<i>Log Likelihood</i>	-5657.70					
<i>LR test vs. logistic regression</i>	1.12					
<i>P-value</i>	0.047					
Estimations of an individual to be an informal funder	Coefficients	Standard Error	z	P-value	Reference value	Conditional marginal effects
<i>Age</i>	0.014	0.003	5.33	0.000	45	0.00042
<i>Gender</i>	0.489	0.061	7.96	0.000	0	0.01525
<i>Education</i>	0.269	0.049	5.51	0.000	2	0.00838
<i>Involvement in early entrepreneurial activity</i>	1.247	0.075	16.67	0.000	0	0.03889
<i>Positive entrepreneurial attitude</i>	1.705	0.112	15.27	0.000	0	0.05320
<i>Pre-crisis</i>	-0.341	0.074	-4.64	0.000	0	-0.01064
<i>Crisis</i>	-0.339	0.076	-4.48	0.000	0	-0.01057
<i>The share of entrepreneurs at the early stage of their development in the community</i>	13.941	4.361	3.20	0.001	0.05	0.43496
<i>Constant</i>	-7.739	0.305	-8.34	0.000	n/a	n/a
<i>Random-effects parameters</i>						
<i>Var(constant)</i>	0.009	.011	n/a	n/a		

Reference values are sample means across all communities (for age, education, and the share of entrepreneurs at the early stage of their development).

The intercept variance, representing the between-community variance for households in areas of different deprivation levels, has decreased from 0.013 to 0.009 (given that this effect is the same across all communities).

Moreover, the model confirms the results at the single-level of analysis, where socio-demographic factors (age, gender, and education), involvement in entrepreneurial activity,

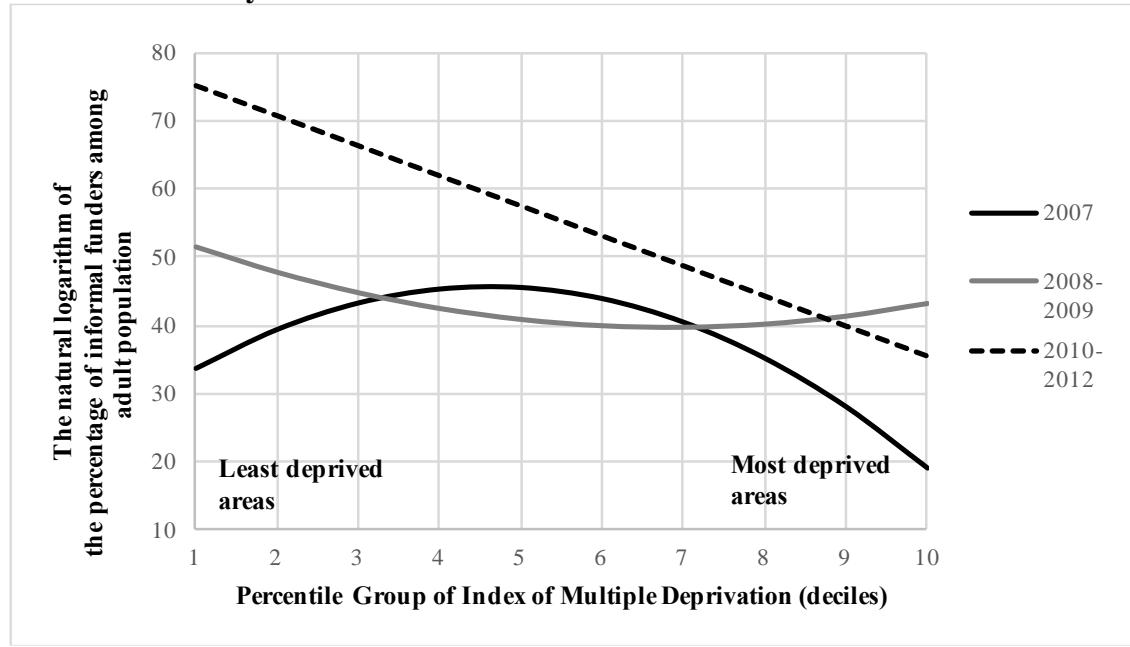
* The data are weighted to match the population distribution.

positive entrepreneurial attitudes (*Hypothesis 2b*), and the stage of the economic cycle define the propensity to become an informal funder (*Hypothesis 2e*). A marginal increase in age from its mean level, and in education from its mean rank hardly affect the chances of becoming an informal funder. While being a male individual boosts the probability by 1.5%. Positive entrepreneurial attitudes increase the likelihood by 5%, whereas the effect of pre-crisis and crises period – reduces by 1%. At the same time, income and deprivation expose an indirect effect through the location of an individual, which determines one's economic welfare, and thus, the ability to support family and friends.

6.5.2 Informal funding supply factors at the local level of analysis

The relationship between the percentage of informal funders in the adult population and the level of deprivation of the local area is presented in Figure 6-13.

Figure 6-13 The relationship between the percentage of informal funders among adult population and the level of deprivation of the local area across the macroeconomic cycle*



*The graphs are based on the results from Table 6-13.

According to the Poisson regression results in Table 6-13, with rising levels of deprivation, the percentage of informal funders declined in 2010-2012 (*Hypothesis 2d*).

However, the relationship looks different in 2007 and 2008-2009, following a U-shape: during the crisis, the percentage of informal funders in the most deprived areas was somewhat higher than in the middle-range areas (demand effect), and inconsiderably lower than in the least deprived ones (income effect).

Table 6-13 Poisson regression: the relationship between the percentage of informal funders among adult population and the level of deprivation of the local area

	2007		2008-2009		2010-2012	
	<i>Coefficient</i>	<i>P-value</i>	<i>Coefficient</i>	<i>P-value</i>	<i>Coefficient</i>	<i>P-value</i>
<i>Constant</i>	26.067	0.062	55.767	0.000	79.333	0.000
<i>Deprivation deciles</i>	8.530	0.043	-4.653	0.033	-4.388	0.000
<i>Deprivation deciles squared</i>	-0.924	0.034	0.341	0.021	-	-
<i>Likelihood Ratio Chi-Square</i>	6.901	0.032	7.267	0.026	12.950	0.000
<i>Sample size</i>	26138		35119		20604	

Wald Chi-Square Test for parameter estimation.

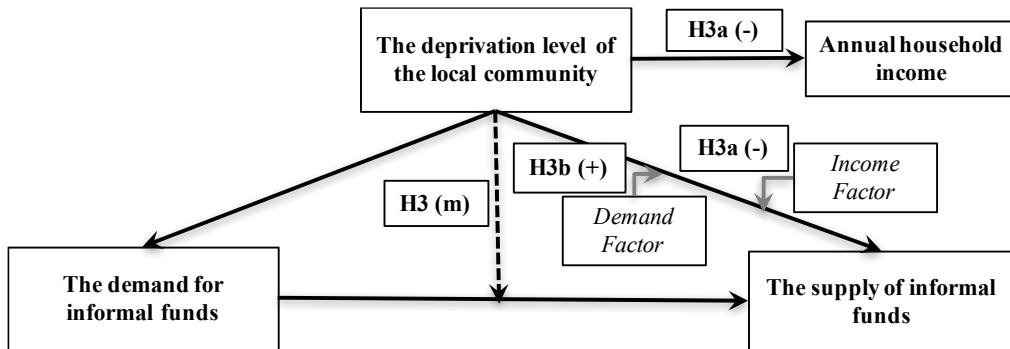
This result throws a bridge to the next section, where the interaction between the demand and supply sides is examined to investigate further the aforementioned effects.

6.6 Hypotheses testing: the interaction between the demand and supply sides at the local level

The theoretical model for the interaction between the demand and supply sides at the local level is presented in Figure 6-14. This corresponds to the upper middle section of Figure 6-1 (Hypothesis 3 family).

The analysis is performed, first, at the individual level of analysis, using a multilevel design, and extending the model presented in Table 6-12. This model presents the final product of the investigations, and as such is tested for its reliability (in terms of predictive power, and the robustness of the estimates). Second, the analysis is complemented by the investigation at the local level of analysis, where both the demand and supply sides are brought together.

Figure 6-14 The theoretical model for the interaction between the demand and supply sides at the local level



6.6.1 Multilevel modelling at the individual level of analysis

In order to distinguish the interaction between the demand and supply sides, the relationship between the potential demand for informal funds and the probability of an individual to become an informal funder was allowed to vary across communities of different deprivation levels by introducing a random slope effect in the model. The estimates are also compared with those from the random intercept model, where the minimum set of parameters are specified for the algorithm to work (see Table 6-14 for the results).

The differences between the models with random intercept, and random slope are not significant at a 5% level (see LR test). As a result, the effect of the proportion of early stage entrepreneurs does not vary significantly across the communities of different levels of deprivation (rejecting *Hypothesis 3*).

According to the random slope model, the effect of the potential demand (i.e. the proportion of early entrepreneurs in the community) on the log-odds of becoming an informal funder in a community is 21 plus the community-level residual, controlling for the age, gender and the stage of the macroeconomic cycle at the individual level. Translating log-odds to the marginal effects, and keeping age and the share of early entrepreneurs at their mean levels (45 and 5% respectively), and dummy variables at their '0' values as a reference point, one can estimate that a marginal change in the proportion

of early-stage entrepreneurs in the community will increase the probability to become an informal funder by 20% on average.

Table 6-14 Two-level random intercept vs random slope logistic regression*: the community effects of early entrepreneurial activity on the probability of an individual to become an informal funder (the simplest possible model)

	<i>Random Intercept Model</i>	<i>Random Slope Model</i>
<i>Number of observations</i>	82344	82344
<i>Number of groups</i>	50	50
<i>Minimum number of observations per group</i>	1300	1300
<i>Average number of observations per group</i>	1647	1647
<i>Maximum number of observations per group</i>	3694	3694
<i>Log Likelihood</i>	-6021.63	-6019.98
<i>LR test (comparison of the 2 models)</i>	3.29	
<i>P-value (LR test)</i>	0.10	

Estimations of an individual to be an informal funder	Coef./Estimate		Std. err.		z		P-value	
	<i>Random Intercept Model</i>	<i>Random Slope Model</i>						
<i>Age</i>	0.006	0.006	0.002	0.002	2.59	2.60	0.010	0.009
<i>Gender</i>	0.708	0.708	0.060	0.060	11.84	11.83	0.000	0.000
<i>Pre-crisis</i>	-0.514	-0.515	0.073	0.073	-7.08	-7.09	0.000	0.000
<i>Crisis</i>	-0.711	-0.714	0.070	0.070	-10.11	-10.15	0.000	0.000
<i>The share of entrepreneurs at the early stage of their development in the community</i>	20.992	24.305	4.559	5.600	4.60	4.34	0.000	0.000
<i>Constant</i>	-5.597	-5.753	0.276	0.329	-20.26	-17.49	0.000	0.000
<i>Random-effects parameters</i>	<i>Random Intercept Model</i>	<i>Random Slope Model</i>	<i>Random Intercept Model</i>	<i>Random Slope Model</i>				
<i>Var(constant)</i>	0.016	1.099	0.012	0.728	n/a		n/a	
<i>Var (Early entrepreneurial activity)</i>	n/a	350.415	n/a	227.077	n/a		n/a	
<i>Var (Early entrepreneurial activity, Constant)</i>	n/a	-19.621	n/a	12.820	n/a		n/a	

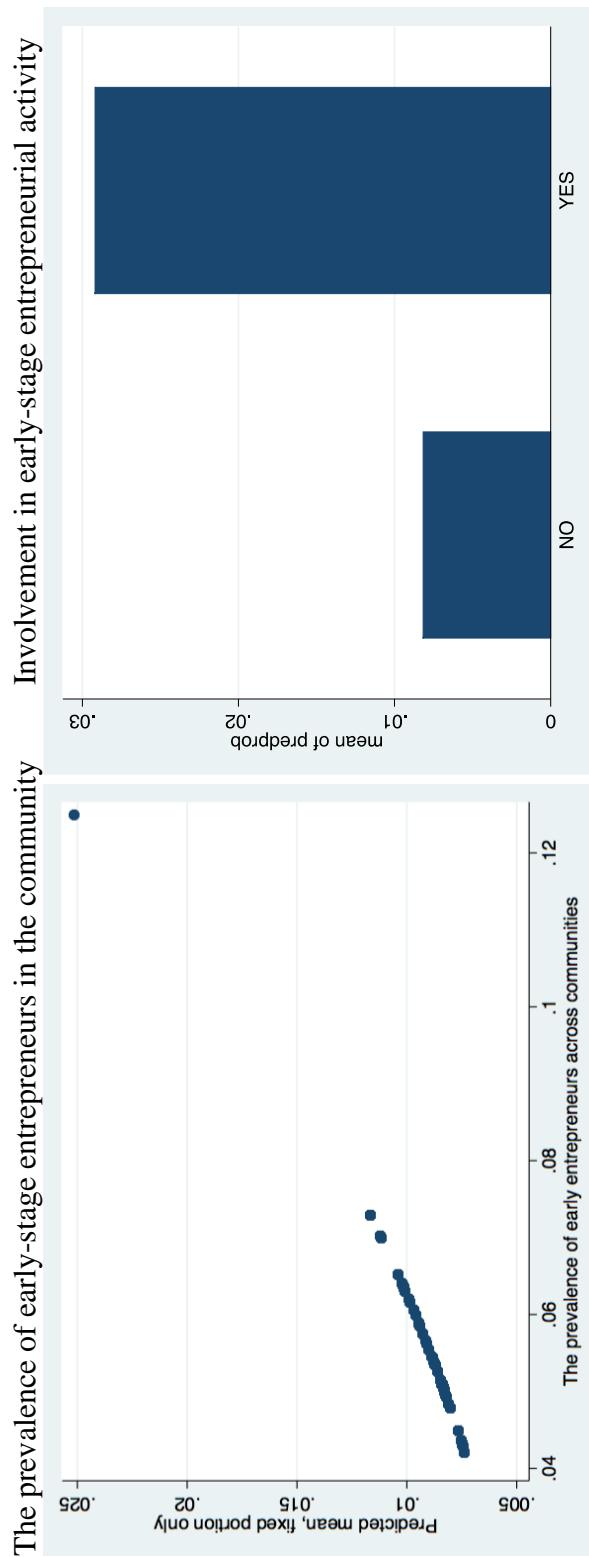
The expected effect is to be lower in the most deprived areas due to the negative covariance between the early entrepreneurial activity and the intercept (the dominance of

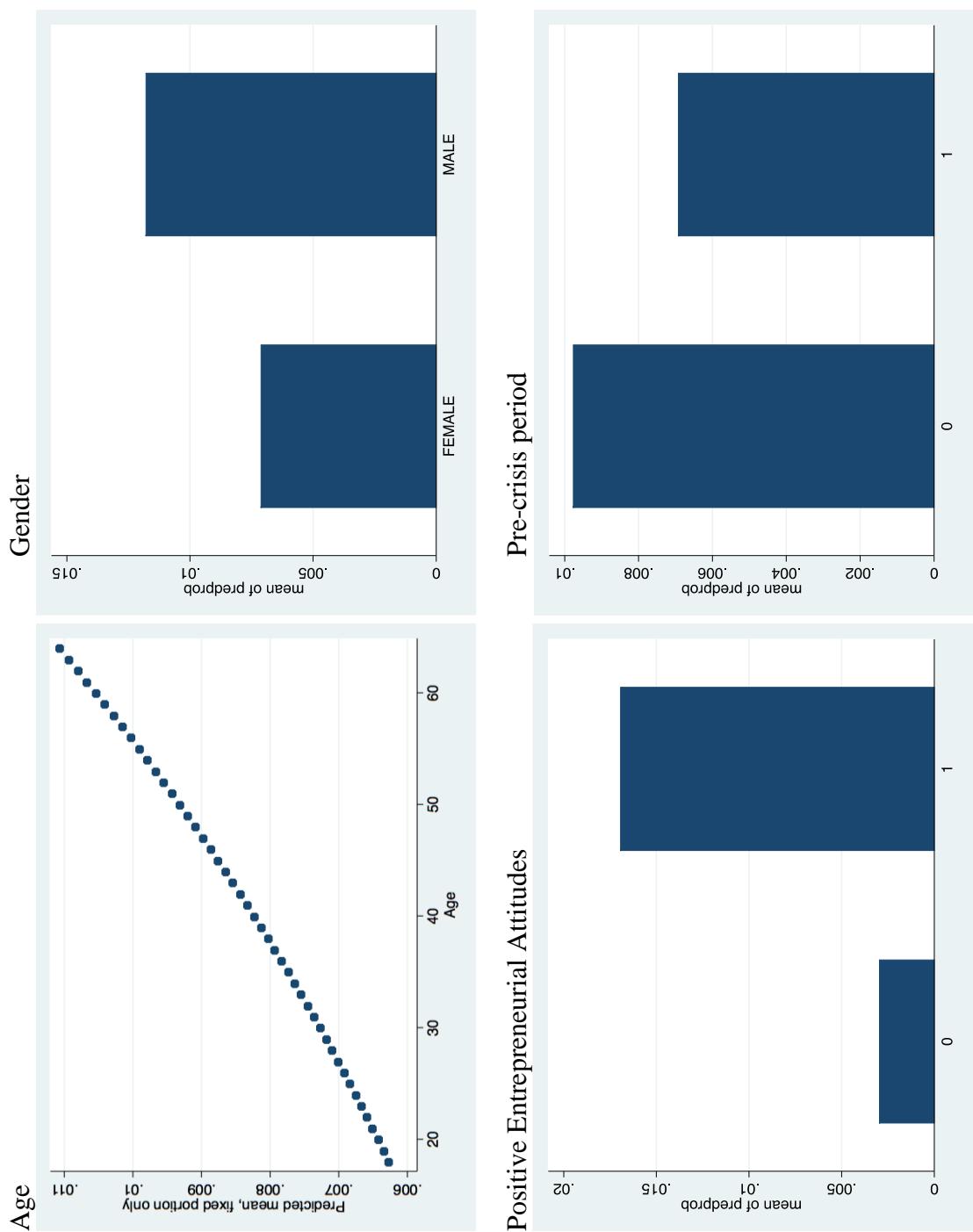
* The data are weighted to match the population distribution.

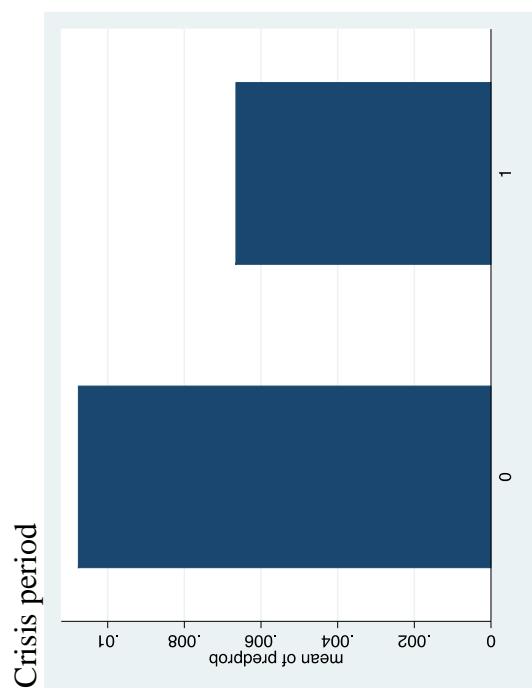
the income factor), and higher in the least deprived areas (the dominance of the demand factor), thus supporting *Hypotheses 3a* and *3b* respectively. As a result, the rejection of *Hypothesis 3* is caused by the difference in the effect of the income factor across communities with different deprivation levels, rather than of the demand factor as initially formulated.

The effects of each factor are presented visually (see Figure 6-15). The higher the prevalence of early-stage entrepreneurs in the community (which is partly defined by the deprivation level of this community – as shown earlier), the more likely an individual within this community has become an informal funder (the demand-led nature of the informal funds). Although it is not technically possible to compare it with the income-effect directly, Models 3 and 5 can be compared in Table 6-11, where a marginal change in the prevalence of early entrepreneurs in the community (incorporating both the direct effect and the effect through the deprivation level of this community) will result in a 24.6% increase in the likelihood of an individual to become an informal funder. Similarly, an increase in the household annual income level from middle to the high will lead to a 1.2% increase in the probability (other things equal). Furthermore, individuals are more likely to informally fund someone's business during the post-crisis period, if they are male, involved in entrepreneurial activity, and exhibit positive entrepreneurial attitudes – regardless from their location, as the nature of the impact is statistically the same across all the areas. However, one would expect that in the most deprived areas, where income levels of individuals are lower, they are less positively tuned towards entrepreneurial activity, and less involved in it (see Appendix 28), the likelihood to become an informal funder will decrease to the extent determined by the effects of these parameters, established in the models.

Figure 6-15 The predicted probabilities of becoming an informal funder based on individual characteristics, macroeconomic cycle, and contextual effects across the communities of different levels of deprivation







6.6.2 Multilevel modelling quality tests

The reliability of the results reflects their accuracy in relation to the measurement of the phenomena (Collis and Hussey, 2014). As far as the modelling is concerned, the predicting power of the models, and the robustness of the estimates are the main parameters to be focused on (Verbeek, 2008). The findings can be claimed to be generalisable, as statistically they have been shown to be applicable to the population of adult individuals in the UK throughout three stages of the economic cycle. The prediction power of the model (which refers to the accuracy of the estimates) and robustness of those estimates are considered in the next two sections.

6.6.2.1 ROC-curves

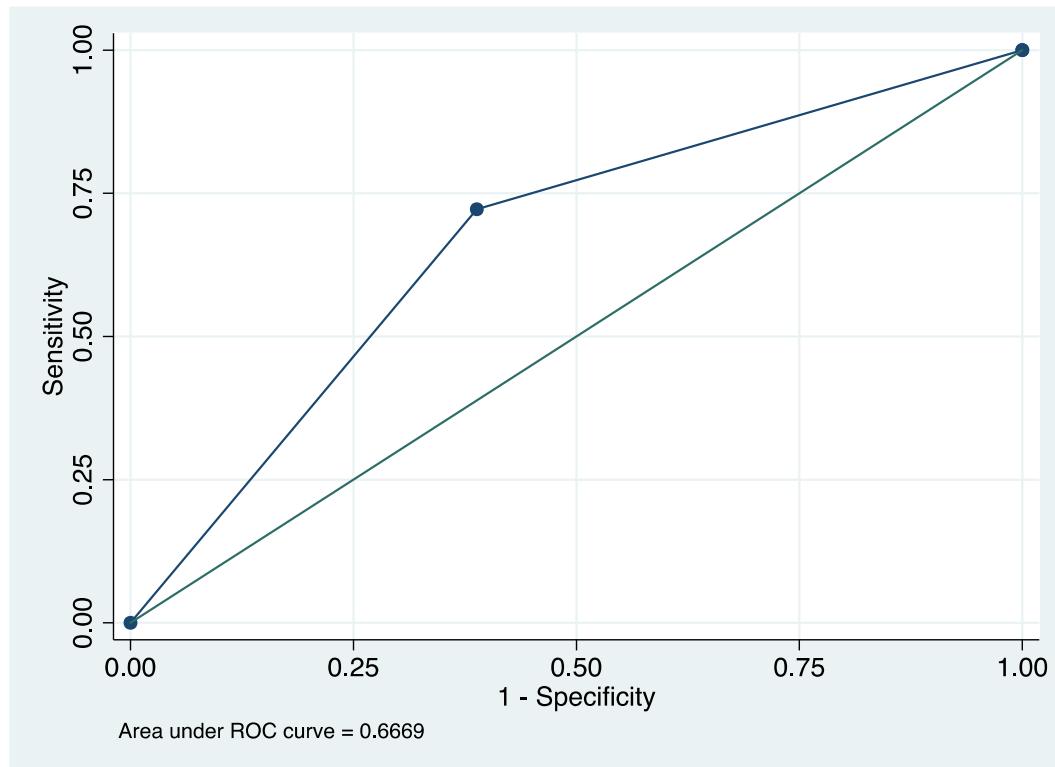
Receiver Operating Characteristic (ROC) curves are generally used to evaluate the accuracy of the modelling, and visually represent a relationship between the sensitivity and specificity of a test (model) over all possible cut off values (Beck and Shultz, 1986).

To estimate the accuracy of the final model (Table 6-14) two random samples were generated, where the working sample was split in the proportion 50:50 (each containing 41174 observations). At the next stage, for the first sample the final model was generated (see Appendix 29). Afterwards, the extracted estimates (predicted probabilities with the fixed inputs at the mean levels) were applied to the other subset. The estimated mean level of probability to become an informal funder for the sample was predicted to be 1.41%. Individual probability was calculated for each individual, where this mean level defined a cut-off point: if the value is estimated to be less than 1.41%, then the predicted outcome is 0, alternatively (more than or equal to 1.41%) – 1. And, finally, these predicted outcomes were compared to the real outcomes, and visually represented in the form of the ROC curve (see Figure 6-16).

The area under the ROC-curve is a measure of accuracy and predicting power of the model, as it reflects the divergence between the predicted and actual outcomes.

Statistical bias was avoided, as the estimates were generated using a different sample from the one for which they were later tested. Ultimately, the achieved convergence made up 66.7% (with the confidence interval ranging from 64.9% to 68.5%), representing a satisfactory result, as the confidence interval does not include 50% (Hanley and McNeil, 1982).

Figure 6-16 ROC curve: the accuracy of prediction of the likelihood to become an informal funder based on individual characteristics, macroeconomic cycle, and contextual effects across the communities with different levels of deprivation



6.6.2.2 Rare events correction

The robustness of the estimates can be questioned, as the number of informal funders in the sample is significantly less than the number of individuals who are not, causing implications for the logistic regression estimates. Hence, the problem of underestimation arises (King and Zeng, 2001).

King's correction for rare event modelling (King and Zeng, 2001) was carried out for the single-level logistic regression (see section 4.5.4.5 and Appendix 30) as a pilot, so that in case any statistically significant differences were found, the adjustments to be applied to all the estimates. Pertaining to the sample for all the years of observation, the estimated range of informal funder rate was evaluated ranging from 0.01 to 0.0322 (calculated based on the confidence interval, Student's t-test, 5% level of significance). Thus, the known *tau* coefficient was attributed to this range, and used for the further calculations.

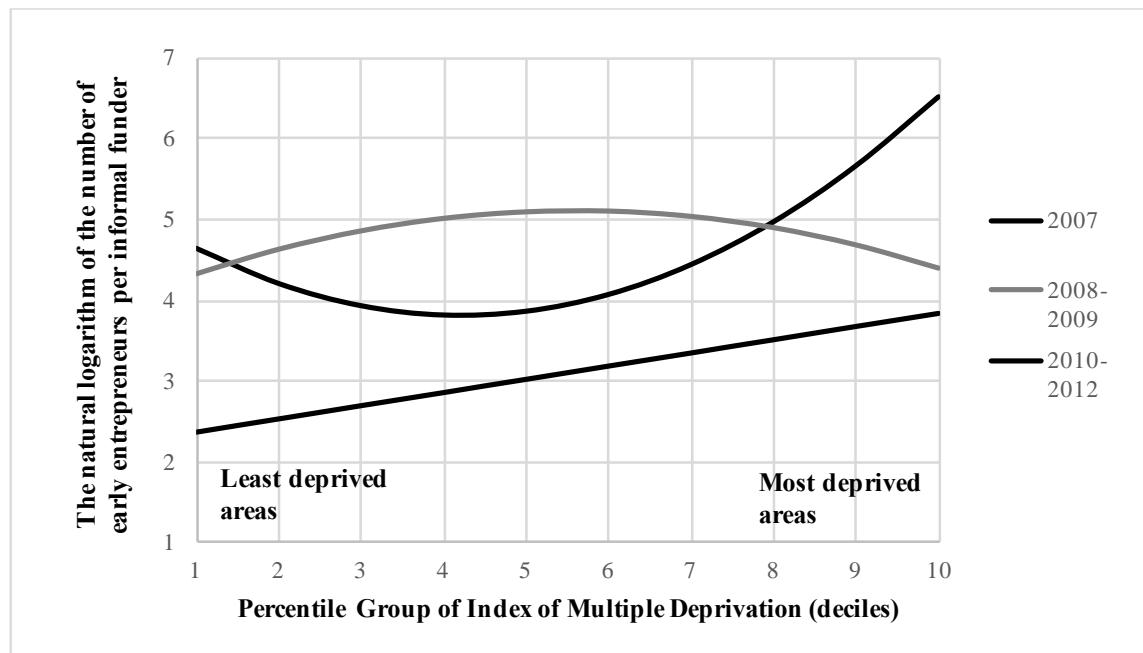
It was found that the estimated intercept is larger on average than the true intercept by approximately 0.09%, where 0.014 is the average of all the probabilities in the data and 41435 – number of the observations in the sub-sample (against the control sample). Statistically, such a difference is not significant (Student's t-test, 5% level of significance), and given the complex nature of multi-level estimation, it is reasonable to choose a simpler model without sacrificing the reliability of the estimations. Moreover, the robustness of the results is also achieved by a large number of observations, despite the rare nature of the event (Maas and Hox, 2004).

6.6.3 Local-level modelling

To incorporate both demand and supply effects in one model at the local level, the relationship between the number of early entrepreneurs per informal funder and the level of deprivation of the area was considered (Figure 6-17).

However, despite the decreasing rates in the percentage of informal funders and the rising number of entrepreneurs expecting to attract informal funding in 2008-2009 in the most deprived communities, the dynamics is dominated by the demand side: the number of early entrepreneurs per informal funder declines with increasing levels of deprivation (tentative support for *Hypothesis 3a*). A monotonic positive relationship was observed during the post-crisis period, replicating the demand tendency for the same period (tentative support for *Hypothesis 3b*).

Figure 6-17 The relationship between the number of early entrepreneurs per informal funder and the level of deprivation of the local area across the macroeconomic cycle*



*The graphs are based on the results from Table 6-15.

Notably, the effects are statistically significant at the significance level of 5% (see Table 6-15). However, modelling across localities neglects inter-community variations in both demand and supply parameters, as well as other factors at the individual level which determine them. The importance of those was shown in previous findings, where the distribution of socio-demographic parameters of informal funders, as well as their entrepreneurial attitudes, and involvement into entrepreneurial activity appeared to vary across communities with different deprivation levels. As such, the increased expected demand for informal funding may not reflect the worsening market funding conditions, but the type of business owners populating the area (see section 3.2.1.5).

Table 6-15 Poisson regression: the relationship between the number of early entrepreneurs per informal funder and the level of deprivation of the local area

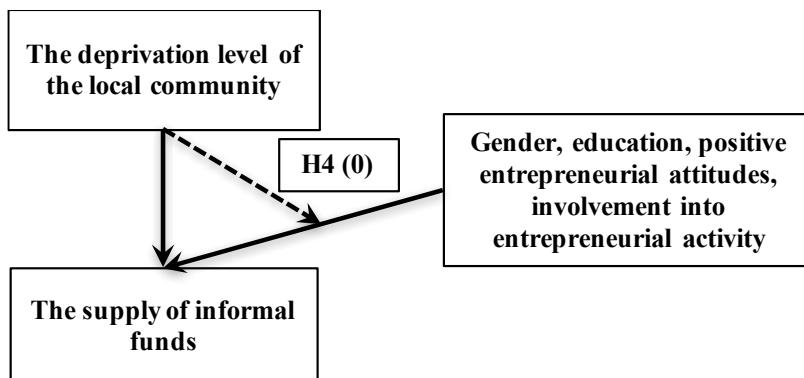
	2007		2008-2009		2010-2012	
	Coefficient	P-value	Coefficient	P-value	Coefficient	P-value
Constant	5.245	0.001	3.926	0.002	2.192	0.000
Deprivation deciles	-0.682	0.003	0.426	0.432	0.164	0.015
Deprivation deciles squared	0.081	0.044	-0.038	0.429	-	-
Likelihood Ratio Chi-Square	7.362	0.025	8.612	0.013	4.614	0.032
Sample size	1896		2436		2175	

Wald Chi-Square Test for parameter estimations.

6.7 Hypotheses testing: the effect of the individual-level factors at the local level

The theoretical model for the effect of the individual-level factors at the local level is presented in Figure 6-18. This is the model for Hypothesis 4 as shown in Figure 6-1.

Figure 6-18 The theoretical model for the effect of the individual-level factors at the local level

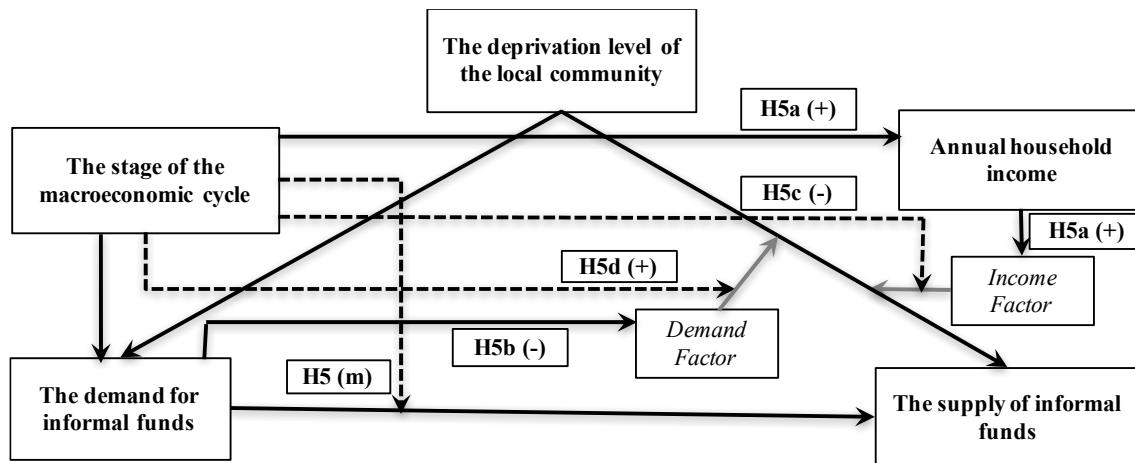


The community effects on the relationship between the selected parameters and the probability to become an informal funder are presented back in Table 6-8. It was shown that only the impact of the macroeconomic cycle on the probability to become an informal funding varies significantly across communities with different deprivation levels (% change in Var(constant) by more than 30%). While the effect of gender, education, positive entrepreneurial attitudes, and involvement into entrepreneurial activity is the same in all the areas (*Hypothesis 4* is supported).

6.8 Hypotheses testing: the interaction between the demand and supply sides at the macroeconomic level

The theoretical model for the interaction between the demand and supply sides at the macroeconomic level is presented in Figure 6-19. This corresponds to the upper middle part of Figure 6-1 (Hypothesis 5 family).

Figure 6-19 The theoretical model for the interaction between the demand and supply sides at the macroeconomic level



Notably, the moderation effect of the stage of the macroeconomic cycle on the relationship between the prevalence of early-stage entrepreneurs and the propensity to become an informal funder was not found to be significant (at the 5% level), and thus is not included in the final model (Table 6-14), rejecting *Hypothesis 5*.

The multilevel model in Table 6-12 predicted that age, gender, positive entrepreneurial attitudes, involvement into entrepreneurial activity, and the stages of macroeconomic cycle define the probability to become an informal funder, assuming that the effects of these variables are the same in each community (which is true for all the parameters, apart from the stage of the macroeconomic cycle, as shown in Table 6-8). The impact of these variables increases once the random effect is added (compared to the single-level logistic regression – see LR test in Table 6-8 and Table 6-12). That means that in the more deprived areas the impact of individual economic welfare factor (expressed through the

level of community deprivation) is increased during the economic slowdown phase leading to the further decrease in informal funder rates (LR test, 5% level of significance), thus supporting *Hypothesis 5a*. Remarkably, income is strongly associated with the community of residence, thus does not appear to be in the model to avoid multicollinearity problems.

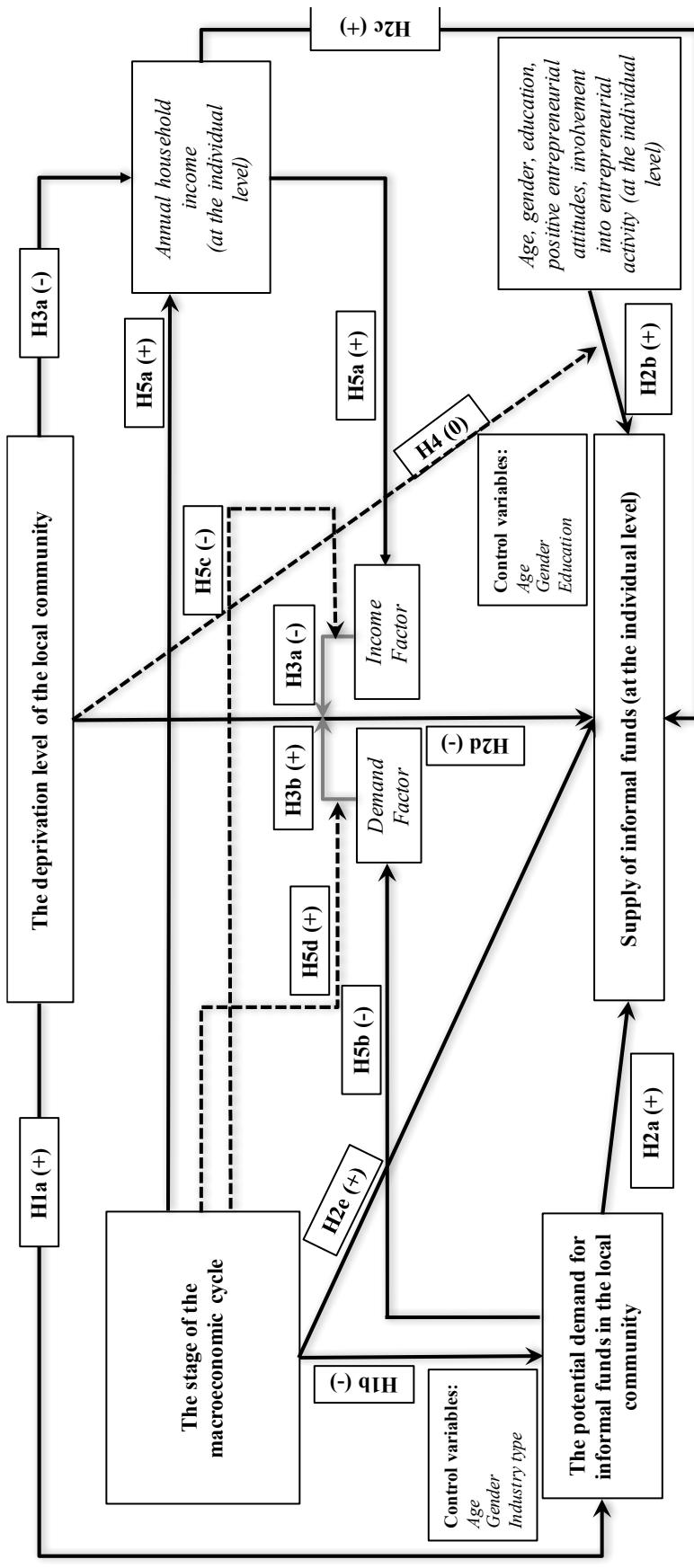
Incorporating the demand factor into the analysis (see Table 6-14), the presence of early-stage entrepreneurs in the community varies with the deprivation level, thus affecting the probability of becoming an informal funder. Since during the economic slowdown the demand factor increases non-linearly (Figure 6-17), this effect is further exacerbated with higher levels of deprivation (supporting *Hypothesis 5b*).

It further shows that during the economic slowdown the income factor dominates the demand factor in the most deprived areas (*Hypothesis 5c*). Whereas during the pre-crisis and post-crisis period, the demand factor takes over the income factor, leading to the increased informal funder rates (*Hypothesis 5d*).

6.9 Results overview

The findings are brought together and depicted on Figure 6-20 and summarised in Table 6-16. The higher the deprivation level of the local community, the more early-stage entrepreneurs consider attracting informal funds to finance their business (*Hypothesis 1a*). Moreover, the expected demand for informal funds appears to be a counter-cyclical variable where more entrepreneurs intend to seek for a help from friends and relatives during economic downturn than during economic upturn (*Hypothesis 1b*). The potential demand for informal funds (measured as the prevalence of early entrepreneurs in the local community) positively and linearly defines their supply (*Hypothesis 2a*).

Figure 6-20 The hypotheses testing results: the determinants of the informal funder rate at the individual, local, and macroeconomic levels



Dashed lines present moderation effects

“+” stands for the positive (linear) relationship
 “-” stands for the negative (linear) relationship
 Grey lines represent community effects

Table 6-16 The summary of the hypotheses testing results

Hypotheses	Description	Supporting theories	Testing method	Testing result (5% significance level)
Hypothesis 1a	<i>The more deprived an area is the higher the probability that an early entrepreneur will seek informal funding.</i>	Entrepreneurial munificence and entrepreneurial capital	Poisson regression	Not rejected
Hypothesis 1b	<i>The probability that an early entrepreneur will seek informal funding is a counter-cyclical variable: it increases during economic slowdown, and decreases during economic upturn.</i>	Macroeconomic business cycle	Poisson regression	Not rejected
Hypothesis 2a	<i>The potential demand for informal funds defines the propensity of an individual to become an informal funder.</i>	Theory of altruism	Random-intercept two-level logistic regression	Not rejected
Hypothesis 2b	<i>Socio-demographic factors, previous (or current) involvement into entrepreneurial activity, and positive entrepreneurial attitudes define the propensity of an individual to become an informal funder.</i>	Risk Perception	Binomial logit regression	Not rejected
Hypothesis 2c	<i>Hypothesis 2c: The higher the economic welfare of an individual is (in terms of education, work status, and disposable income) the more likely he or she is to become an informal funder.</i>	Economic welfare effect	Binomial logit regression	Not rejected
Hypothesis 2d	<i>The more deprived an area is the lower the probability that an individual will become an informal funder.</i>	Environmental munificence	Binomial logit regression	Not rejected
Hypothesis 2e	<i>The probability of an individual becoming an informal funder is a pro-cyclical variable: it decreases during economic slowdowns, and increases during economic upturns.</i>	Macroeconomic business cycle	Binomial logit regression	Not rejected
Hypothesis 3	<i>The relationship between the potential demand for informal funds and the probability that an individual will become an informal funder varies across communities of different levels of deprivation.</i>	Entrepreneurial munificence and entrepreneurial capital	Two-level random slope logistic regression	Rejected
Hypothesis 3a	<i>In more deprived areas, the individual economic welfare factor is dominant over the demand factor leading to decreased informal funder rates.</i>	Entrepreneurial munificence and economic welfare effect	Two-level random slope logistic regression	Not rejected (10% significance level)

Hypothesis 3b	<i>In less deprived areas, the demand factor is dominant over the individual economic welfare factor leading to increased informal funder rates ('imposed' funding vs necessity funding).</i>	Entrepreneurial munificence and theory of altruism	Two-level random slope logistic regression	Not rejected (10% significance level)
Hypothesis 4	<i>The deprivation level of a local community does not affect the relationship between an individual's socio-demographic characteristics, current or past involvement in entrepreneurial activity, and entrepreneurial attitudes, and the probability of being an informal funder.</i>	Entrepreneurial munificence and risk perception	Random-intercept logistic regression	Not rejected
Hypothesis 5	<i>The macroeconomic cycle linearly affects the relationship between the potential demand for informal funds and informal funder rates across communities of different levels of deprivation.</i>	Macroeconomic business cycle	Two-level random slope logistic regression	Rejected
Hypothesis 5a	<i>In the more deprived areas the impact of the individual economic welfare factor is enhanced during the economic slowdown phase leading to a further decrease in informal funder rates.</i>	Macroeconomic business cycle and environmental munificence	Random-intercept logistic regression	Not rejected
Hypothesis 5b	<i>In the more deprived areas the demand factor is enhanced during the economic slowdown phase leading to an increase in informal funder rates.</i>	Macroeconomic business cycle and environmental munificence	Two-level random slope logistic regression	Not rejected
Hypothesis 5c	<i>During economic slowdown the impact of the individual economic welfare factor still dominates the demand factor in more deprived areas, leading to decreased informal funder rates.</i>	Macroeconomic business cycle, environmental munificence, and economic welfare effect	Poisson regression	Not rejected
Hypothesis 5d	<i>During economic slowdown the impact of demand factor still dominates the individual economic welfare factor in less deprived areas, leading to increased informal funder rates.</i>	Macroeconomic business cycle, environmental munificence, and theory of altruism	Poisson regression	Not rejected

When characterising the supply side, higher work status and education level, positive entrepreneurial attitudes and current involvement into early entrepreneurial activity (*Hypothesis 2b*), as well as higher annual household income (*Hypothesis 2c*), result in a higher propensity of an individual to become an informal funder. The deprivation of the local area lowers this probability (*Hypothesis 2d*), which flows with the macroeconomic cycle: during the peak of the macroeconomic activity it increases, whereas during the trough period it declines (*Hypothesis 2e*).

By bringing the demand and supply sides together it was found that there are no variations in this relationship across communities of different deprivation levels (*Hypothesis 3* is rejected at the 5% significance level). This can be explained by the variations in the impact of the income effect (rather than demand effect) on the probability to become an informal funder across the areas. It was shown that, in the most deprived communities the income effect is enhanced, resulting in lower informal funder rates than in the least deprived areas regardless of the macroeconomic impact – thus, the income effect is dominant over the demand effect in those communities (*Hypothesis 3a*). From the other side, other things equal, the demand effect at the community level is generally stronger than the income effect at the individual level. Therefore, in the least deprived areas the demand effect certainly dominates the income effect (*Hypothesis 3b*).

Considering the relationship between annual household income at the individual level and the probability of a person to become an informal funder, weak community effects were observed (the location does not determine the probability). For education, work status, entrepreneurial attitudes, involvement into entrepreneurial activity, and the stage of the macroeconomic cycle, strong community effects are revealed. However, these are (apart from the macroeconomic impact) explained by the significant variations in the distribution of those variables across communities of different deprivation levels (see Table 6-8 and Figure 6-12 in Section 6.5.1.2). The stage of the macroeconomic cycle is an exogenous variable which demonstrates an ‘add-on’ effect to the existing tendencies, given the pro-cyclical nature of the supply of informal funds. Regardless of the variations, the type of the relationship and the effects of all those parameters appeared to be the same across all communities (*Hypothesis 4*).

No direct effects of the state of the macroeconomic environment on the relationship between the potential demand for informal funds and its supply were revealed, rejecting *Hypothesis 5*. However, an indirect effect on the probability to become an informal funder through the annual household income at the individual level was determined regardless of the level of deprivation of an area (*Hypothesis 5a*). Economic downturn further decreases disposable income, exposing individuals in the most deprived areas to even worse conditions (given the distribution of the individuals in terms of their income levels across communities). At the same time, in the most deprived areas, where the demand for informal funds is higher than in the least deprived ones, adverse economic conditions encourage this demand further (*Hypothesis 5b*). Despite the positive stimuli from the demand side in the most deprived areas the income effect turns out to be stronger, lowering down the informal funder rate (*Hypothesis 5c*). In the least deprived areas, the demand effect is stronger (regardless the lower prevalence of early entrepreneurs) than the income effect, which is negatively affected by the economic slowdown, pushing the informal funder rate up (*Hypothesis 5d*).

6.10 Summary

In this chapter, the scope of the informal funding market in the UK, as well as its tendencies through the period of 2007-2012 were investigated at the macroeconomic level of analysis. The demand and supply factors were identified through a set of hypotheses in accordance with the theoretical framework. Single, interaction, and contextual effects were researched at the individual and local levels of analysis, integrating the impact of the macroeconomic cycle.

The findings show that the prevalence of informal funders in the UK economy is among the lowest worldwide, while its scale is comparable with the institutional venture capital investments. The phenomenon appears to be sensitive to macroeconomic fluctuations, where the volumes of funding are negatively affected by the economic slowdown, while the frequency of the deal is positively encouraged.

It was found that the propensity to become an informal funder, while being pro-cyclical in nature, is driven by positive entrepreneurial attitudes, current involvement

in entrepreneurial activity, high educational attainment, and high levels of annual household income. Some of these factors are to a significant extent determined by the deprivation of the local community where the helper resides. Delving further into this observation, it was discovered that community interacts most strongly with education, work status, positive entrepreneurial attitudes, and involvement into entrepreneurial activity. This is largely explained by the variations in the distribution of these parameters across areas of different deprivation levels. At the same time, income was found to be closely correlated with the deprivation level of the community, which in turn negatively affects the informal funder rate regardless of the stage of the macroeconomic cycle.

The findings demonstrate the counter-cyclical nature of demand for informal funds. As a result, during the crisis entrepreneurs increasingly rely on informal networks especially in the most deprived areas. However, looking at the prevalence of early entrepreneurs as a measure of potential demand for informal funds, it was confirmed at a statistically significant level that the income effect on the propensity to become an informal funder prevails over the demand effect in the most deprived communities (without confirmed moderation effect of the macroeconomic cycle). In these communities the supply side cannot satisfy the increased demand due to the lack of cash which can be treated as an ‘affordable’ loss. In summary then, the demand effect has a significant effect on the informal funder rate for an average community (in terms of its deprivation level), however, it only dominates the income effect in the least deprived areas regardless of the stage of the macroeconomic cycle.

These results are further discussed in Chapter 7 in light of the theoretical framework developed in Chapter 3, and propositions from Chapter 5. Ultimately, a holistic model of informal funding process is constructed.

Chapter 7: Discussion

7.1 Introduction

The results of this study address the objective to understand the nature of informal funding, its role in the early entrepreneurial activity, the impact of the context on the interaction, and the evolvement through a business cycle in the UK. The phenomenon was investigated at the four levels of analysis: individual, interactional (dyadic), local, and macroeconomic. By integrating the insights from each of them, two main themes have emerged: the process of informal funding, and the occurrence of informal funding. Both are closely interconnected, and cannot be considered in isolation, as only in this way can the ambiguities in relation to the role, and the outcomes of the phenomenon, be resolved. Understanding those mechanisms provides an informed basis for policy implications, enriches the insights on entrepreneurial finance, and contributes to the literature on the private venture capital market.

The Chapter proceeds as follows. First, the propositions developed in Chapter 5 are brought together with the theoretical framework tested in Chapter 6 with the aim to provide a holistic view on demand and supply factors at the individual level, their interaction at the dyadic level, and contextual effects at the local and macroeconomic levels. Further, each of these aspects is considered in detail in light of the key results, and their connection with the literature. Finally, the theoretical model of informal funding process is presented as the main outcome of the research.

7.2 Linking qualitative and quantitative inquiries together

In this section, the theoretical framework developed in Chapter 3 (section 3.7) and tested in Chapter 6 is discussed in light of the propositions, derived from the qualitative analysis in Chapter 5 (section 5.4).

Table 7-1 and Table 7-2 consolidate the outputs achieved so far. Further, each set of hypotheses is considered separately, linking them with the relevant theories from Chapter 3, and where possible with the propositions from Chapter 5.

Table 7-1 Outline of hypotheses deduced from the theoretical framework and supported in Chapter 6

Domains	Hypotheses	Links with the relevant theories
Informal funding demand factors	<i>Hypothesis 1a</i>	The impact of local environment (section 3.2.2.2)
	<i>Hypothesis 1b</i>	The impact of macroeconomic cycle (section 3.2.3)
Informal funding supply factors	<i>Hypothesis 2a</i>	Altruism (section 3.3.1.1)
	<i>Hypothesis 2b</i>	Risk perception (section 3.3.1.3)
	<i>Hypothesis 2c</i>	Economic welfare (section 3.3.1.4)
	<i>Hypothesis 2d</i>	The impact of local environment (section 3.3.2)
	<i>Hypothesis 2e</i>	The impact of macroeconomic cycle (section 3.2.3)
The interaction between demand and supply at the local level (section 3.5)	<i>Hypothesis 3a</i>	The dominance of economic welfare (income) factor
	<i>Hypothesis 3b</i>	The dominance of demand factor
The effect of individual-level factors at the local level (section 3.5)	<i>Hypothesis 4</i>	No moderation effect of the local environment on the selected individual-level factors
The interaction between demand and supply at the macroeconomic level (section 3.6.2)	<i>Hypothesis 5a</i>	Economic welfare (income) factor
	<i>Hypothesis 5b</i>	Demand factor
	<i>Hypothesis 5c</i>	Economic welfare (income) factor and local environment effect
	<i>Hypothesis 5d</i>	Demand factor and local environment effect

Table 7-2 Outline of propositions derived from the qualitative analysis in Chapter 5

Themes	Propositions	Key concepts
Deal origination (section 5.4.1)	<i>Proposition 1a</i> <i>Proposition 1b</i>	Demand-led nature of informal funds The impact of external environment on the demand for informal funds
Informal funding supply factors (section 5.4.2)	<i>Proposition 2a</i>	Non-pecuniar factors
	<i>Proposition 2b</i>	Individual-based approach
	<i>Proposition 2c</i>	The strengths of social ties and decision-making
	<i>Proposition 2d</i>	The weakness of social ties and decision-making
Informal funding demand factors (section 5.4.3)	<i>Proposition 3a</i>	Informal funding as a 'Last-choice option'
	<i>Proposition 3b</i>	Informal funding choice rationalisation
	<i>Proposition 3c</i>	The preference of professional investors over informal funders
After-investment interaction (section 5.4.4)	<i>Proposition 4a</i>	Procedural rationality
	<i>Proposition 4b</i>	Demarcation line
	<i>Proposition 4c</i>	The strengths of social ties and post-investment behaviour
Expectations and risk perceptions (section 5.4.5)	<i>Proposition 5a</i>	Motivation and expectations of returns
	<i>Proposition 5b</i>	Affordable loss
	<i>Proposition 5c</i>	Entrepreneurial optimism and expectations
	<i>Proposition 5d</i>	The impact of external environment and expectations
Outcomes (section 5.4.6)	<i>Proposition 6a</i>	Informal funding as a 'stepping stone'
	<i>Proposition 6b</i>	The level of involvement
	<i>Proposition 6c</i>	The role of informal funder

The first set of hypotheses is focused on the demand side, considering the impact of local environment and macroeconomic cycle. Unfavourable social and economic conditions raise barriers to entrepreneurial activity at the local level, including more limited access to the market for financial resources. As shown in section 5.4.1, entrepreneurs are ‘pushed’ to self-refer to their informal networks, approaching people to whom they are connected by the strongest bonding ties in the first place:

Proposition 1b: Unfavourable external conditions both at the local and macroeconomic levels enhance the implicit demand for informal funds.

This links to section 3.2.2.2, where the effect of local munificence on demand for informal funding is summarised as follows:

Hypothesis 1a: The more deprived an area is the higher the probability that an early entrepreneur will seek informal funding.

At the macroeconomic level the business cycle rationale can be applied at the individual level, as demonstrated in section 3.2.3:

Hypothesis 1b: The probability for an early entrepreneur to seek for informal funding is a counter-cyclical variable: it increases during economic slowdown, and decreases during economic upturn.

As a result, *Proposition 1b* echoes the theoretical developments at the previous stage, and *Hypotheses 1a* and *1b* can be considered as specific testable deductions of the general theoretical relationship outlined in *Proposition 1b*.

The second set of hypotheses deals with the supply side at the individual level, predicting the propensity of an individual to become an informal funder. The demand-led nature of informal funds was picked up in the qualitative analysis at the dyadic level (see section 5.4.1), where its indirect effect was revealed:

Proposition 1a: Informal capital is implicitly demand-led - informal funders are typically the first to suggest they invest in an entrepreneur’s business, after becoming

aware, through informal communication, of the difficulties that an entrepreneur is facing in starting a business.

This proposition aligns well with theory of altruism outlined in section 3.3.1.1 and summarised in *Hypothesis 2a*. Following the proposition that the potential demand drives the initiative to provide financial support for someone else's business, the direct demand effect was identified and distinguished separately as a factor variable:

Hypothesis 2a: The potential demand for informal funds defines the propensity of an individual to become an informal funder.

From the other side, the personal background, past experiences, and values manage the risk perception of informal funders, similar to the mechanisms in the private professional venture capital market (section 3.3.1.3):

Hypothesis 2b: Socio-demographic factors, previous (or current) involvement into entrepreneurial activity, and positive entrepreneurial attitudes define the propensity of an individual to become an informal funder.

At the same time, as complemented by the qualitative findings (see section 5.4.2) bonding ties and trust lead to an economic exchange initiated by the informal funder as a response to the implicit demand:

Proposition 2a: Bonding ties, underpinned by belief and trust, along with the availability of spare funds motivate an individual to make an investment or loan decision.

Proposition 2b explores further the nature of the relationship, where personal approach, based on social connection, belief, trust, as well as individual attributes (such as prior social interaction, and personal qualities of an entrepreneur revealed through time), drives informal funding:

Proposition 2b: Individual-based approach is central in the decision-making process of informal funders.

The availability of spare funds picked up in *Proposition 2a* fits the economic welfare effect (discussed in section 3.3.1.4), highlighting the necessary prerequisite of the available disposable income, part of which can be treated as an ‘affordable loss’ given the social context of the transaction:

Hypothesis 2c: The higher the economic welfare of an individual is (in terms of education, work status, and disposable income) the more likely he or she is to become an informal funder.

Low munificence levels of the area, expressed as high deprivation levels, imposes limitations not only on its entrepreneurial activity, but on the population overall, resulting in higher rates of social exclusion and lower quality of life (see section 3.3.2):

Hypothesis 2d: The more deprived an area is the lower the probability for an individual to become an informal funder.

It was shown in section 3.2.3 that access to equity funding varies pro-cyclically at the aggregate levels:

Hypothesis 2e: The probability for an individual to become an informal funder is a pro-cyclical variable: it decreases during economic slowdowns, and increases during economic upturns.

The demand-led nature of informal funding and the individual-based approach of informal funders come across both in the theoretical framework and in the qualitative analysis. However, from that point the contributions diverge, as *Propositions 2c and 2d* (see section 5.4.2) further explore the social ties dimension, while the hypotheses focus on the impact of external environment.

The third set of hypotheses links the demand and supply sides together at the local level, distinguishing two types of effects that drive informal funder rate: economic welfare (income) effect and demand effect.

Qualitative analysis provides additional insights at the individual and dyadic levels to explain the peculiarities of this interaction. Since informal funding does not present

the most favourable choice because of potential damage to the personal relationship as well as the lack of professional advice and guidance, it emerges as a ‘source of last resort’ for entrepreneurs (section 5.4.3):

Proposition 3a: Entrepreneurs tend to consider informal funding as a ‘last-choice option,’ to which they refer when alternative sources are not available (due to internal and external reasons), or the implied conditions are not acceptable.

Propositions 2a – 2e derived in section 5.4.2 advocate that informal funding demonstrates some degree of economic sensibility, however mainly emerging from non-material inputs. The emphasis tends to be put at the social relationship with the helper, which can be put at risk as a result of the involvement into the economic exchange (section 5.4.3):

Proposition 3b: Entrepreneurs are inclined to rationalise their choice of informal funding and justify its economic sensibility, rather than accepting its altruistic nature.

Proposition 3c: Entrepreneurs favour professional investors and creditors more than informal ones in terms of their impact on the speed and efficiency of the business development.

Deprivation level of an area exerts an influence on the economic welfare of an informal funder, as outlined above. From the other side, the limited access to formal means of funding in those communities imposes greater incentives to refer to informal networks for help. However, due to the implicit nature of the demand, which is conditional on the available resources which a helper is prepared to lose, the income effect in the funder’s decision-making process dominates in those areas (section 3.5):

Hypothesis 3a: In more deprived areas, the individual economic welfare factor is dominant over the demand factor leading to decreased informal funder rates.

Such a decision-making process can be viewed as ‘procedural rationality’ (section 5.4.4), which is proposed to be the key driver behind the funding process:

Proposition 4a: Informal funders are characterised by procedural rationality, which is incorporated in the deal structure and justify their decision.

According to the qualitative findings, this is reflected in the post-funding behaviour as formulated in *Propositions 4b and 4c* (section 5.4.4), and expectations in *Propositions 5a – 5d* (section 5.4.5).

As a result, under favourable local environment conditions the income effect is suppressed by the demand effect, as, presumably, entrepreneurs are aware that the resources are there, so they are more likely to initiate the process (see section 3.5):

Hypothesis 3b: In less deprived areas, the demand factor is dominant over the individual economic welfare factor leading to increased informal funder rates ('imposed' funding vs necessity funding).

The fourth hypothesis covers the impact of other factors within the local context. The impact of individual-level parameters (socio-demographic characteristics, involvement in entrepreneurial activity, and attitudes towards entrepreneurship) was shown to be the same regardless of location during the quantitative analysis, as the decision is predominantly determined by the individual relationship, rather than the circumstances (section 3.5):

Hypothesis 4: The deprivation level of a local community does not affect the relationship between an individual's socio-demographic characteristics, current or past involvement in entrepreneurial activity, and entrepreneurial attitudes, and the probability of being an informal funder.

Informal funding serves as a 'stepping stone' on the way to market sources of finance, as formulated in section 5.4.6:

Proposition 6a: Informal funding bridges the gap in finance for the entrepreneurs, serving as a stepping stone, where it has a vital impact on the progress of the business, but not performance.

Propositions 6b and 6c further clarify the role of informal funding at the individual and dyadic levels of analysis. Complementing this perspective, the last set of hypotheses investigates the impact of the macroeconomic environment on the relationship between the demand and supply of informal funds within the local context (section 3.6).

In this vein, the negative impact of an economic slowdown on the welfare of the helper is even further exacerbated in the most deprived areas, leading to the ‘double-whammy’ effect:

Hypothesis 5a: In the more deprived areas the impact of the individual economic welfare factor is enhanced during the economic slowdown phase leading to a further decrease in informal funder rates.

Opposing this, there is a counter-effect from the demand side, where entrepreneurs in the most deprived areas feel the most need for informal funds, which is accentuated during the crisis phase:

Hypothesis 5b: In the more deprived areas the demand factor is enhanced during the economic slowdown phase leading to an increase in informal funder rates.

The gap between supply and demand is greater in the most deprived areas: when demand increases it reaches the limit of supply quicker in such areas than in wealthier areas. This implies a limit in spare capital in the most deprived areas:

Hypothesis 5c: During economic slowdown the impact of the individual economic welfare factor still dominates the demand factor in more deprived areas, leading to decreased informal funder rates.

Hypothesis 5d: During economic slowdown the impact of demand factor still dominates the individual economic welfare factor in less deprived areas, leading to increased informal funder rates.

Reviewing the key results, arising both from the qualitative and quantitative inquiries, the following aspects are further considered in detail. First, a social, demographic, and

psychological portrait of the informal funder, along with their demand-driven decision-making are considered at the individual level. This insight is further complemented by the reasoning and motives of entrepreneurs, where the traditional representation of the finance escalator is re-visited. The process of informal funding is then unravelled at the dyadic level. Finally, the occurrence of the phenomenon is consequently embedded into the local and macroeconomic contexts.

7.3 A social, demographic, and psychological portrait of the informal funder

The research shows that the mean age of an informal funder in the UK is around early 40s, the majority of them (over 60%) are male, and with higher education (over 50%). Around 80% are employed full time, and at least half of informal funders are coming from the households with upper levels of annual income (Appendix 19 and Appendix 20). These socio-demographic characteristics are consistent with the findings of other authors, who explored informal funders in Finland (Maula *et al.*, 2005), Ireland (O'Gorman and Terjesen, 2006; Diaz-Moriana and O'Gorman, 2013), Croatia, Hungary and Slovenia (Szerb *et al.*, 2007a), Singapore (Wong and Ho, 2007), Chile (Romaní *et al.*, 2012) and across multiple countries (Bygrave *et al.*, 2003; Burke *et al.*, 2010; Kwon and Arenius, 2010a; Nofsinger and Wang, 2011; Burke *et al.*, 2014).

Informal funders (especially in the developed countries) demonstrate socio-demographic characteristics consistent with those observed among professional private investors (business angels) (Avdeitchikova *et al.*, 2008). Those are often described as middle-aged, wealthy males with University degrees and entrepreneurial experience and/or expertise (Harrison and Mason, 1992; Aernoudt, 1999; Mason and Botelho, 2014). Education attainment and employment status indirectly refer to the wealth of an individual, reducing constraints imposed by the lack of spare funds, and increasing the chance of an affordable loss or a risky investment (Casson, 2005).

The majority of informal funders do not expect any returns on the money that they provided (Appendix 20). In economic theory, individuals' risk averseness can be compared with the amount of cash that they would exchange each risk for (cash equivalent), risk premium (expected returns), and the amount they would be prepared to pay for the insurance. This suggests that an individual's risk aversion is a decreasing

function of their assets, if for every risk the cash equivalent is an increasing function of the assets, while expected risk premium (and the amount the person is prepared to pay for the insurance) is a decreasing function of the assets (Arrow, 1964; Pratt, 1964). The findings showed that regardless of the income level (which is in the upper-third level predominantly) informal funders do not expect any risk-premium, while the cash-equivalent (the amount of money provided to entrepreneurs) is concentrated in the low-end scale (in 80% of the cases the funding does not exceed £30 000) (Appendix 19). Thus, contradictory to economic theory, risk aversion of informal funders does not seem to vary with wealth.

In psychological theory, the subjectivity of perceptions matters in the decision-making process (Antonides and Van Der Sar, (1990). Thus the risk premium and insurance (as a means of reducing risk) are not necessarily measured in cash, but prioritised based on the perceived importance, and the source (the type) of available information (Weber *et al.*, 2005). Indeed, both economic reasoning and socio-economic perspectives stand out as the key decision-making factors during the qualitative inquiry. Informal funders appear to be implicitly demand-led, constrained not by intention, but by the availability of spare resources. The intention is driven by the bond with the entrepreneur, ensuring high levels of relational trust (section 3.3.1.2), which in its turn gives rise to affection and empathy, and triggers subsequent altruistic actions in the economic setting. In this sense, two models are possible:

- 1) The informal funder maintains their deferred self-interest, by acquiring a psychic good – as a long-term investment into social capital;
- 2) The informal funder does not pursue any personal gain from the other party in return for the help, however, favours the feelings of moral satisfaction and self-realisation.

The first model applies to weak-ties social relationships, and informed by “reciprocal altruism” theory, whereas the second model relates to strong-ties (kinship) social relationship, and draws on the cognitive perceptual approach, as predicted by Monroe (1994) (see section 3.3.1.1).

Ultimately, informal funders face two types of risk: economic risk arising from the monetary aspect of the deal, and social risk, emerging from the exposure of the relationship to cognitive dissonance and the increased vulnerability of the parties (Marlow and Swail, 2014; Au *et al.*, 2016) (see section 3.3.1.3). Economic risk is managed carefully through the allocation of available spare funds, and imposing limits. The funding is perceived as a ‘dead loss’, which would have been invested into other assets otherwise. In this sense, informal funders cannot be viewed as irrational economic agents, or ‘fools’ as referred in the literature since they acknowledge the strong possibility of financial losses and accept low returns (Shane, 2009a). Informal funders exhibit higher economic risk tolerance compared to other adult individuals in the context of entrepreneurial experience, favourable market perceptions, age, and education – a finding discovered previously both for professional private segment of venture capital market (section 2.2.2), and its informal part (Maula *et al.*, 2005; Szerb *et al.*, 2007a; Wong and Ho, 2007).

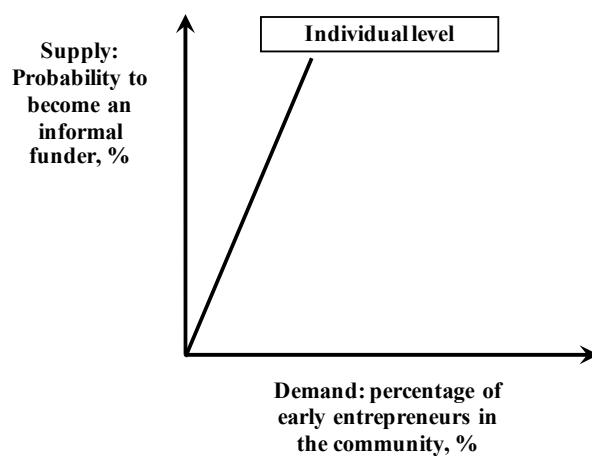
Social risk (a risk of jeopardy of the social relationship) is perceived by informal funders as of more importance, as it ultimately prevents them from funding other projects in the future (for weak-ties relationships). Rewards associated with this type of risk are intangible, and can be conceptualised as either a ‘deferred self-interest’, or a psychic gain. Trust facilitates social risk-seeking behaviour, protecting the parties from agency problems – as a substitute for assets in Arrow-Pratt model, where wealth is a constraint, rather than a determinant.

7.4 Implicitly demand-led supply of informal funding

Research on the demand-led nature of informal funding shed some light on the arrangement of the deal in the empirical discoveries of Burke *et al.* (2010; 2014) at the macroeconomic level (section 3.6.1). In their explanation they view the level of total early-stage entrepreneurial activity as a set of investment opportunities that exists in the economy, as such assuming that businesses at the early stage of their development are supported by informal investors (funders - in the context of this study), and later enter the formal funding market with a higher value.

The finding was confirmed at the local level for the UK: the supply of informal funding (measured as a likelihood of becoming an informal funder) is dependent on the percentage of early entrepreneurs within the community. The relationship is established across 50 levels of community deprivation in the UK, and schematically depicted in Figure 7-1. With the potential demand increasing by one percentage point, the probability of an individual to become an informal funder almost doubles, other things equal.

Figure 7-1 The relationship between the proliferation of entrepreneurial activity, and the supply of informal funds at the local level in the UK



However, this observation also demonstrates that with the proliferation of entrepreneurial activity, the supply of informal funds is also likely to increase, meaning that almost every venture relies on informal funding to a certain degree, not excluding the use of other sources alongside. Considering the fact that informal funders are not looking for investment opportunities intentionally and professionally, unlike business angels (Steier, 2003), their prevalence should be closely associated with the number of entrepreneurs in the economy.

7.5 The finance escalator re-visited

Pecking order theory states that firms prefer internal to external funding, and once the latter is inevitable, companies prefer debt finance over equity due to information asymmetry and information costs issues (Myers, 1984; Shyam-Sunder and Myers, 1999) (section 3.2.1.3). However, small high-growth firms do not comply fully either

with this theory or with the alternative trade-off theory (Frank and Goyal, 2008). While the latter predicts that profitable firms would use debt as a tax shield, Fama and French (2002) empirically found leverage and profit to be negatively correlated. This observation is partly consistent with the pecking order theory; however, it can also be explained by profitability as a signal for an investment opportunity (Kaplan and Zingales, 1997), and as a means of paying off the debt, leading to its reduction automatically (Fischer *et al.*, 1989). A certain consensus was formed among scholars in the form of a finance escalator (Reitan and Sørheim, 2000; Harrison, 2013; North *et al.*, 2013), where informal funding is positioned as a first stepping stone at the early stage of business development (see section 3.2.1.1).

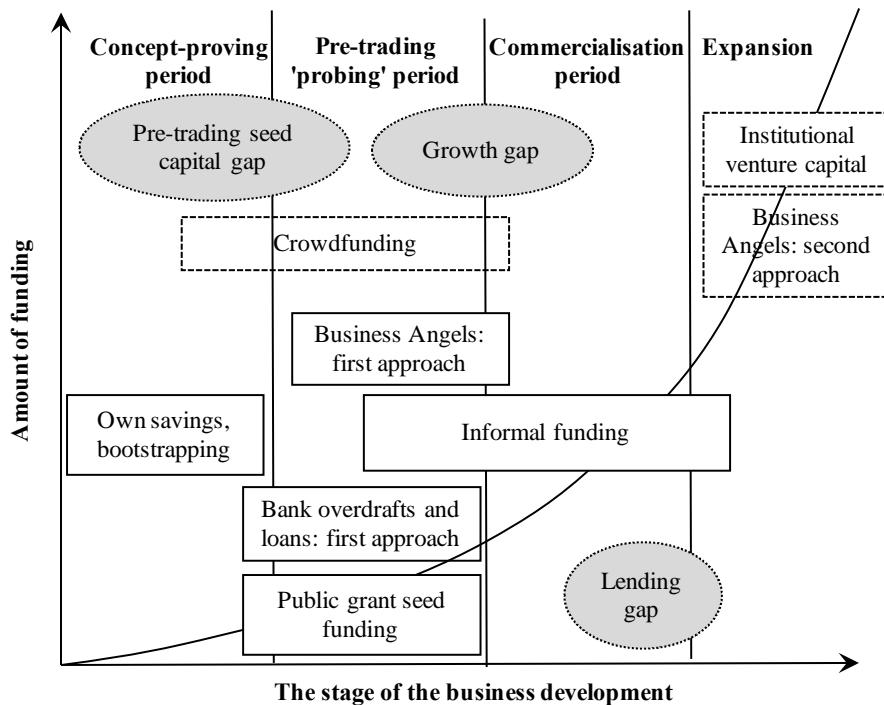
The results revealed that pecking order theory does not explain entrepreneurial decisions in relation to informal funding, which is viewed as a choice of last resort. From the trade-off theory perspective, the value-added benefits of informal funding are less than those offered by professional investors and funders, while the costs implied are associated with the risks of damaging personal relationships. Assuming the presence of a close social bond (strong social ties), the marginal costs associated with this risk rise more significantly and faster than potential rewards. When dealing with discouraged borrowers, or those entrepreneurs who see informal funding as an easy and quick solution at a specific point in time, the trade-off reasoning does not apply by its definition, as such a behaviour exhibits a decision-making cognitive shortcut (Tversky and Kahneman, 1974; Staw, 1976; Kriat *et al.*, 1980; Weinstein, 1980).

The traditional representation of informal funds as the first stage of the finance escalator does not fit with the propositions derived in Chapter 5, where the implicit demand-led nature of such a relationship is revealed to be dominant under certain circumstances. Moreover, being considered as a source of last resort, it is even more unlikely to be the first finance choice of early entrepreneurs. In fact, it is more likely to be preceded by public grants, bank applications, and professional private investments (both successful and unsuccessful) – see Figure 7-2. However, the demand for informal funds is not only driven by the prevalence of early entrepreneurs, as assumed in the works of Burke *et al.* (2010; 2014). Individual factors, such as

discouragement from borrowing, and negative expectations (Kon and Storey, 2003) (section 3.2.1.4), as well as the munificence of the area (Tang, 2008; Bacq et al., 2016) (section 3.2.2.2) at the local level define the availability of finance options to entrepreneurs, and shape their preferences.

In this light, high-growth companies (or entrepreneurs with growth aspirations) will consider informal funds as an instrument for ownership protection (Brush *et al.*, 2006). Self-employed, low value-added businesses will consider informal money as the only available option, while other ventures will compensate for the riskiness and limited access to alternative means of funding (Bygrave *et al.*, 2003).

Figure 7-2 Re-visited finance escalator



Informal funds lack professional contribution, and distort economic incentives of both parties involved in terms of limited resources allocation and value maximisation against the predictions of the resource-based view (section 3.2.2.2) and the economic welfare effect (section 3.3.1.4). However, they create intrinsic personal value, based on reciprocity, moral support, empathy, and encouragement.

Entrepreneurs utilise different forms of entrepreneurial capital, where informal funds are drawn from the closest social network, and where relationships do not require immediate investments to be developed and maintained (depending on the strength of the social ties). The more distant the ties, the greater economic returns, and the smaller the social returns received (see section 3.2.2.3). Informal funding relationships can imply long-term consequences in terms of reciprocity, for the sake of short-term tangible benefits, illustrating help-seeker behaviour driven by relational proximity (Nadler, 1991; Schroeder *et al.*, 1995; Au *et al.*, 2016).

Hence, the demand for entrepreneurial finance (at the aggregate level) is determined by the following factors:

1. Individual determinants;
2. The degree of the social embeddedness;
3. The state of the local conditions;
4. The level of entrepreneurial activity;
5. Economic fluctuations.

In this vein, informal funding complements available formal funding infrastructure in the munificent areas, and substitute those in the deprived areas, extending the argument of Burke *et al.* (2010; 2014) to the local level.

7.6 The interaction between demand and supply at the dyadic level

In this section, the process of informal funding at the dyadic level is considered using the funding stages in Steier (2003) (section 2.4.1), with adjustments based on the qualitative findings. Thus, ‘Deal origination’ stage is preceded by ‘Observation and Interaction’ as a preparatory stage, and ‘Goal and exit’ strategy is replaced by ‘Future perspectives’ as the outcome of an informal funding deal offers more insights rather than pure altruism and trust.

7.6.1 Observation and interaction

The setting of the informal funding relationship has recently been conceptually elaborated on through the lenses of altruism, and social exchange perspectives (Lee

and Persson, 2016). The current study further uncovers the intrinsic motives behind the deal. The findings in section 5.4.1 suggest a notion of ‘implicit demand’, where the action is initiated by the informal funder as a response to the help-seeking behaviour (Nadler, 1991; Au *et al.*, 2016). The action arises from the feelings of moral obligation (Andreoni, 1990; Haines *et al.*, 2008; Dickert *et al.*, 2011) within social setting (Bourdieu, 1986) as a result of social embeddedness (Adler and Kwon, 2002).

Stemming from the continuous social interaction the following options lead to the occurrence of the deal:

- Response to help-seeking behaviour through listening and observing;
- Actions as a result of the sense of moral obligation;
- Response to the direct ask.

In most cases the funder offered their help first, triggered by indirect stimuli sent by the entrepreneur (sections 5.2.1 to 1.1.1). The subsequent relationship is evolving based on kinship (or friendship), which along with the previous experience and the track record of an entrepreneur, including demonstrated effort, enthusiasm, and commitment, also serve as the foundation of trust.

While the value of the social relationship prevents an entrepreneur from relying on it directly as the preferred choice of funding, the case entrepreneurs tended to find reasons for rationalisation of their decision. In other words, they act within a so called ‘habitual domain’ (Yu *et al.*, 1989) where contextual economic reasoning is used to justify the choice of the least preferred informal funds. Funders, in their turn, recognise both social and economic risks of the deal. Social risk is mitigated through the psychological contract (see section 3.4.1) that secures them against the Samaritan’s dilemma (Buchanan, 1975). Economic risk is limited by setting sensible boundaries of the economic relationship within the social context – by drawing a ‘demarcation line’ that puts a cap on the economic downside risk, at the same time limiting the expected losses potentially resulting from social risk. Therefore, tolerance to social risk is lower than to economic one.

As a result, regardless what triggers the informal funder's actions, continuous observation, and interaction within a social context precedes the origination of the deal – the moment, when the funding is accepted by an entrepreneur, and the informal funding deal takes place in agreement by both parties. These two processes serve as an implicit social risk mitigation strategy that allows entrepreneurs and informal funders to think the situation through, and weigh the advantages and disadvantages of such a decision.

7.6.2 Deal origination

The occurrence of informal funding was shown to be triggered by the entrepreneur, who either decides to accept it, or to ask for it (either directly or indirectly). At the local level the proposition drawn from the qualitative inquiry is validated quantitatively, where potential demand determines the individual propensity to become an informal funder. However, case study analysis revealed that entrepreneurs treat informal funding as a 'far second choice' or the 'last remaining option', being not proactive in approaching informal funders, and exhibiting reluctance to involve family and friends in the business decisions (section 5.4.3). It is viewed as a quick and easy solution arising as a result of:

- 1) Discouragement from getting alternative formal funding;
- 2) Pressure of urgency and need;
- 3) Being not prepared to give up equity;
- 4) The situation of adverse external conditions, limiting business performance and finance options.

Entrepreneurs recognise the impact of the deal on the social relationship. Moreover, they take the availability of funding into the account through the consideration of the amount of money that a potential helper can withdraw from their savings without any negative implications on the living style. Business owners admit the diminished benefits compared to professional private investors, such as advice, networks, or pressure to deliver. A possibility of impact on the image of the company, where prospective professional investors and partners might see informal funding as a weakness, also emerges.

In the process of rationalisation of such a ‘far second choice’, entrepreneurs consider trust, knowing personal and professional sides, appreciation of personal attributes and capabilities to be the key determinants of informal funders’ decision, who are advantaged to have access to the internal information compared to professional investors. In addition to this the articulated benefits include informal funder’s loyalty to the business and the entrepreneur, a stepping stone to get professional investors on board, as well as a means of encouragement and inspiration (especially for close social ties) (section 5.4.2). In this sense, the allocation of financial resources and associated flexibility are perceived as optimal compared to the professional market segment by entrepreneurs.

Informal funders tend to be more acknowledging of the social bias than entrepreneurs, who indicate kinship or friendship as dominant decision-making factors. On elaboration, there are two sets of criteria that can be distinguished at this stage (the occurrence of an informal funding deal): those which demonstrate economic sensibility (proliferated among professional private investors), and economically irrational factors (attributable to the informal funding market only). Economic sensibility factors include the following motives (sorted based on the frequency of emergence from the highest to the lowest):

- Availability of spare financial resources (often unplanned);
- Fair distribution of wealth within the family;
- Personal characteristics of an entrepreneur;
- Prior knowledge of the entrepreneur from personal and professional life;
- Enthusiasm and perceived capabilities of the entrepreneur;
- Own money investment, the evidence of research, and effort put in by an entrepreneur – as a signal of the credibility and seriousness of the intention;
- Consideration of risks;
- Consideration of external conditions;
- Making use of government tax relief schemes.

Neither the nature of the product nor its market potential are even mentioned. This constitutes the main difference with business angels, for whom the availability of spare

financial resources is a default state, securing entry to the market (Politis, 2008). Another distinction comes from non-pecuniary incentives where informal funders are motivated by the facilitation endeavour to achieve a sense of self-satisfaction, the fulfillment of moral duty, the extension of own ideas, or other implicit ways for self-realisation. Shared values and philanthropy in particular serve as a justification of risky behaviour.

It was quantitatively demonstrated that predisposition towards entrepreneurial activity, already running a business along with the aforementioned socio-demographic factors determine the propensity of an individual to become an informal funder (section 6.5.1) – a finding consistent with the attributes of professional private investors (Aernoudt, 1999; Politis and Landström, 2002; De Clercq *et al.*, 2006). Ultimately, the perception of risk is managed through involvement, observation, evidence of efforts and preparation demonstrated by entrepreneurs, or just beliefs and trust (Jøsang and Presti, 2004).

7.6.3 Deal structuring

Informal funding is a social exchange of money for a symbolic benefit, where social connection to an entrepreneur drives decision-making process (section 3.4.1). Economic reasoning, although present, is more relevant to relationships with weaker ties. In this light, the structure of the deal takes the form of a psychological contract (Rousseau, 1989; Guest, 1998). Its main prerequisites are beliefs about terms and conditions of exchange of both parties, which, as was shown, are not symmetric. Rationalisation of the decision by entrepreneurs often leads to misconception in the evaluation of the project (Casson, 2005).

The foundations of such a contract are relational trust, shared values, and fairness, giving rise to ‘reciprocal altruism’ in pursuit of the socio-emotional outcome or symbolic benefit from one side (Panchanathan and Boyd, 2004; Rockenbach and Milinski, 2006), and ‘social debt’ from the other side – especially for kinship relationships (Molm *et al.*, 2000). The arrangement is sealed by an informal verbal agreement (often followed by a written agreement for internal purposes), and characterised by the flexibility of conditions. Remarkably, the formalisation of the

process is initiated by the funders in order to limit the downside economic risk, despite high levels of relational trust (Jøsang and Presti, 2004).

Ultimately, such an arrangement accentuates vulnerability and increases the risks of jeopardising social relationships, which is of a higher value than the economic transaction itself (Cropanzano and Mitchell, 2005). As a result, close social ties ensure short-term sustainability of the contract, and induce high exchange orientation, where parties are more likely to reciprocate and react to the breach of the psychological contract (Eisenberger *et al.*, 2001; Molm, 2003). Additionally, the prevalence of trust in the arrangement causes a rigid behavioural pattern, where changes in circumstances are neglected, and followed up by financial losses as demonstrated for professional private investors (Korsgaard, 1996; De Clercq *et al.*, 2006; Bammens and Collewaert, 2012). Although the benefits are asymmetric, the perceived outcomes are reconciled by non-market social structures as a result of social embeddedness (section 3.4.2). Meanwhile, this situation is not sustainable long-term: financial constraints and exposure of social relationship to the asymmetric terms of psychological contract constrain the evolution of the informal funding relationship, and prevent its further re-occurrence.

7.6.4 Post-funding activity

The primacy of the social relationship leads either to the immediate end of the economic relationship as soon as the transaction takes place, or their clear separation. In the close social ties setting, an informal funder adopts a ‘lasses-faire’ role, and demonstrates a moderate involvement, mainly initiated by the entrepreneur through sharing and reflection. On some occasions, where shared values are particularly important in the decision-making process, or in the setting of weaker social ties, informal funders act as a ‘sounding board’ or a ‘close tracker’ for entrepreneurs. The intervention amounts to observation and listening, rather than active participation and involvement – unless directly invited (section 5.4.4). These roles are sought by entrepreneurs when pursuing professional venture capital (Harrison and Mason, 1992; Landström, 1993; Madill *et al.*, 2005). Prior entrepreneurial and managerial experience of the helper adds extra value to the economic transaction as in the case of

business angels (Aernoudt, 1999; Politis and Landström, 2002; De Clercq *et al.*, 2006). However, unlike the professional segment these benefits do not serve as decision-making criteria, and are not conditional on the funding, but adherent to the social relationship. As such, the only perceived benefits from the informal funding in the situation of increased personal risks are resource acquisition for an entrepreneur, and ‘psychic gain’ - for the informal funder (section 5.4.6).

7.6.5 Future perspectives

The reasoning behind the deal, as well as experience during the post-funding period define the future perspectives of both the entrepreneur and the informal funder. Both view it as the first and the last deal of this sort, unless a positive outcome is observed within reasonable time frames. Both sides acknowledge a high risk of negative feelings, arising from the dangerous mixture of personal and business relationships, and helpers are particularly conscious about it (section 5.4.5). In this vein, a learning curve can be identified (Landström, 1993; Kelly and Hay, 1996; Sørheim and Landström, 2001; Sætre, 2003; Sørheim, 2003), when informal funders start putting boundaries as the process evolves (written agreements, caps on the amount of funding, agreed indicative deadlines).

As a result, informal funding can be viewed as a second chance for businesses which are not attractive for the market investors and creditors, an opportunity for discouraged borrowers, and an easy way for those looking for quick solutions that are interest-free, do not require ownership sharing, and are minimal in terms of intervention and control.

7.7 The scope and determinants of informal funding in local communities

While differences in entrepreneurial activity at the national level have been mainly attributed to the variations in the framework conditions, or institutions (Levie and Autio, 2008; Stenholm *et al.*, 2013), differences at the local level are related to the variations in regional competitiveness (Audretsch *et al.*, 2012; Felzensztein *et al.*, 2013) and entrepreneurial munificence (Tang, 2008; Bacq *et al.*, 2016). One reason for this may be access to resources in general and funding in particular (Brush *et al.*, 2001). For example, it was acknowledged that entrepreneurs in deprived English areas

are less likely to raise finance from formal institutions and organisations (Kempson and MacKinnon, 2002; Cowling *et al.*, 2012).

Stemming from the argument that demand for informal funding generates its own supply at the local level, entrepreneurial munificence equally has an impact on helpers, mainly in terms of availability of spare resources (see economic welfare effect in section 3.3.1.4). Table 7-3 summarises all the factors which predicted the propensity of an individual to become an informal funder in section 6.5. Age, education, and work status are indirectly associated with higher income levels. Meanwhile, the former does not predict the outcome directly, reinforcing the idea that emerged during the qualitative inquiry (section 5.3) about the availability of spare funds, often unplanned, or not used for the household consumption. As hypothesised in section 6.5, and highlighted during the qualitative analysis in section 5.4.2, positive entrepreneurial attitudes, as well as current or previous involvement into entrepreneurial activity have a positive influence on the likelihood of becoming an informal funder.

Table 7-3 The impact of individual-level factors on the propensity of an individual to become an informal funder

Age	Linear positive impact
Gender	Men are more likely to become an informal funder
Education	The higher the level of education, the more likely to become an informal funder
Work status	Employed individuals are more likely to become an informal funder
Involvement into entrepreneurial activity	Positive impact
Positive entrepreneurial attitudes	Positive impact
Location (deprivation level of the community)	Negative impact: through income, and involvement into entrepreneurial activity

Source: section 6.5

Yet the location context (in terms of the deprivation level of the community of residence) negatively affects the propensity, where income and involvement into entrepreneurial activity moderate this relationship (section 6.5.1.2). As such, the availability of spare funds is determined by environmental munificence, that impacts

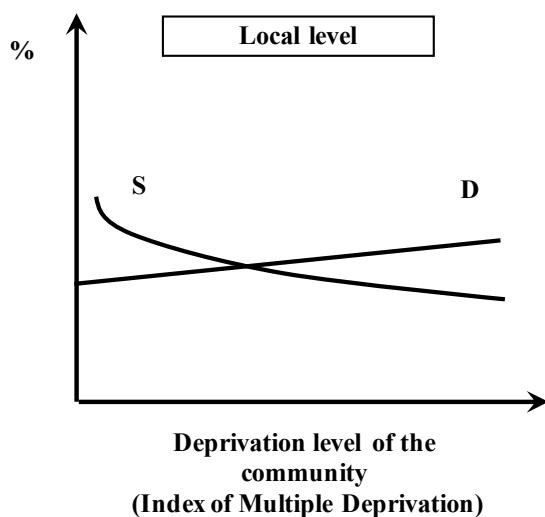
both the supply and demand sides of the deal, but in opposite directions. Thus, social (section 3.4.2) and institutional (section 3.5) embeddedness at the local level, and most importantly, their interaction defines the final outcome.

The between-community variance of informal funder rate is higher than average in the most deprived areas, and lower than average in the least deprived communities (section 6.5.1.2). As such, despite negative income effects the supply of informal funding is predominantly demand-driven in the most deprived areas, whereas in the least deprived communities it reveals its complementary role to the professional venture capital and other formal means of funding (section 6.8).

Individuals' income, work status, positive entrepreneurial attitudes, and involvement into entrepreneurial activity vary across communities with different deprivation levels, affecting their propensity to become an informal funder (section 6.5.1.2). Not surprisingly, age, gender, and crisis effects are distributed in the same way across the communities, having equal effect on the likelihood of becoming an informal funder. However, a significant proportion of the variance still remains unexplained, after accounting for the community characteristics. Therefore, the unique features of the social relationship remain of great importance, regardless the aforementioned parameters. The percentage of early entrepreneurs in the community positively affects the likelihood of becoming an informal funder, where the effect is the same across the areas of different deprivation level: higher prevalence of early entrepreneurs leads to the higher informal funder rate across all the communities (section 6.6.1).

Figure 7-3 demonstrates interaction between the demand for and supply of informal funds at the local level, as inferred from the results in section 6.6. The former increases gradually with the growth of deprivation in the area (accounting for the fact that informal funding is a source of last resort), while the latter decreases sharply at first, and slows down its decline in the communities where the demand factor is driving the supply up. In this vein, there is an optimum level of entrepreneurial munificence and the occurrence of informal funding, where both factors are reconciled.

Figure 7-3 The relationship between the demand and supply of informal funds at the local level in the UK



D - the percentage of early entrepreneurs, intending to attract informal funding
 S - the percentage of informal funders among adult population

7.8 The effect of the business cycle on informal funding at the macroeconomic level

The results in sections 6.4 and 6.5 reveal that the demand for informal funding is a counter-cyclical variable at the national level, while the supply – a pro-cyclical one. This quantitative evidence is in line with the qualitative insights in section 5.3: under the favourable environmental conditions entrepreneurs will seek formal funding, rather than mixing business with their social relationship. However, economic welfare of informal funders is better off during the periods of economic upturn, when the savings are accumulated, and lower during the economic downturn, when savings are used to even out consumption (see section 3.6.2). Moreover, macroeconomic fluctuations impact the propensity of an individual to become an informal funder indirectly through environmental munificence at the local level, enhancing the effect of institutional embeddedness over social embeddedness (see Table 7-4).

Table 7-4 The impact of the macroeconomic cycle on propensity of an individual to become an informal funder

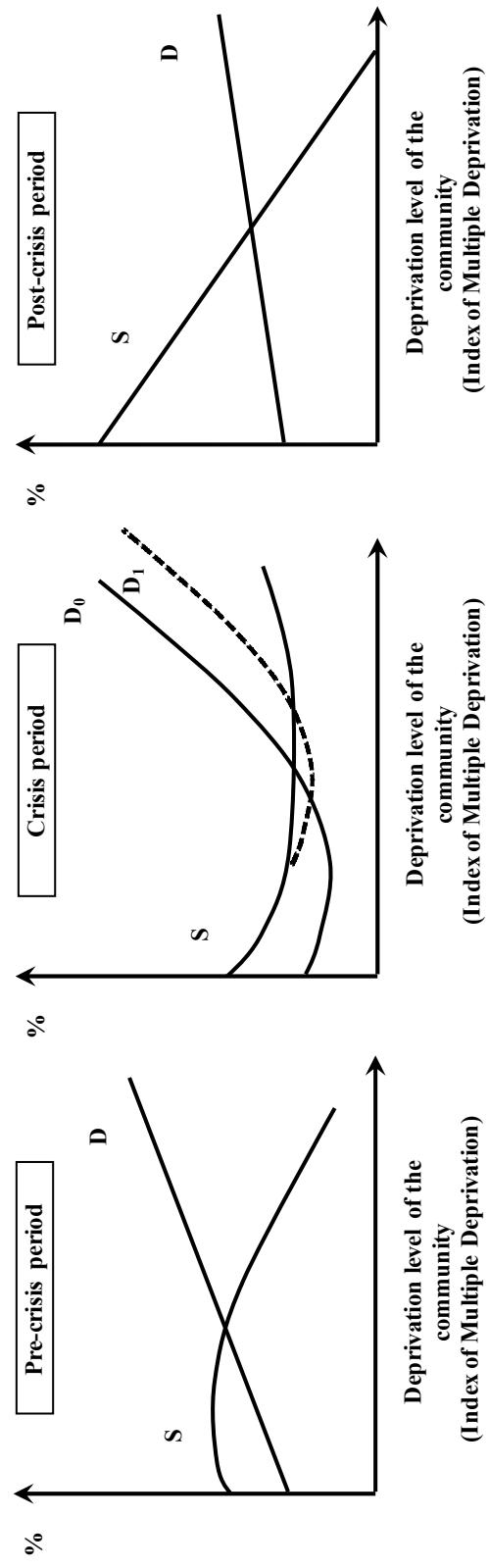
	Individual-level effects	Local-level effects
Economic upturn	Positive impact	Positive impact (through deprivation)
Economic downturn	Negative impact	Negative impact (through deprivation)
Recovery period	Negative impact (through income)	Negative impact (through deprivation)

Source: sections 6.4.1.1, 6.5.1.2, and 6.6.1

There is no moderation effect of the business cycle on the relationship between potential demand (the prevalence of early entrepreneurs in the community) and supply of informal funds (the prevalence of informal funders). As noted above, the effect of the former on the latter is the same across the communities of different deprivation levels, suggesting that such a relationship is more internally driven, rather than being under the influence of external factors.

Figure 7-4 characterises local markets of informal funding across the three stages of macroeconomic cycle, based on the results in Chapter 5 and 6. During the economic upturn period the supply of informal funding is initially low for the least deprived communities (the demand-led factor), but increases up to a certain point until the economic factor takes over, and entrepreneurs are able to secure alternative means of funding available. During the crisis period the nature of supply is different: due to the double whammy effect (the increasing deprivation and worsening economic conditions), the economic factor takes the supply down till the demand factor stretches it up in the most deprived areas, where the need for finance is especially acute.

Figure 7-4 The relationship between the demand and supply of informal funds at the local level in the UK across the macroeconomic cycle.



D - the percentage of early entrepreneurs, intending to attract informal funding

S - the percentage of informal funders among adult population

Source: Results in Chapters 5 and 6, and Discussion in section 7.7

The demand for informal funding grows faster in more deprived areas during the pre-crisis period than during the recovery period, suggesting that in the first place it is driven by all types of help-seekers, while in the second – only by rejected and discouraged ones, supporting the social embeddedness perspective (section 3.4.2). During the crisis period, the demand for informal funds goes down in the most munificent areas, as the incentives to put the social relationship at risk during the turbulent times are minimal, but rises in more deprived communities.

In all cases, an optimum level of informal funding exists, where during the economic downturn double equilibria are possible for both munificent and deprived areas. From the institutional perspective, informal funding is a means of resource mobilisation through informal structures, as well as balancing institutional gaps between formal and informal institutions (section 3.5). From the demand perspective, social embeddedness and institutional contexts (locally and at the macroeconomic level) interact with each other, and this interaction drives the prevalence of informal funders.

7.9 Theoretical model of informal funding process

These results are combined in the first holistic theoretical model of the informal funding process across four levels of analysis (see Figure 7-5 and Figure 7-6). The proposed framework offers an in-depth understanding of the phenomenon, and captures a range of perspectives. Consistent with the philosophical assumptions of the research (section 4.3.2), informal funding is pictured as a dynamic interactional process, rooted in heuristic decision-making, shaped by the context, and evolving through learning and self-corrective behaviour.

At the individual level, entrepreneurs treat informal finance as a source of last resource due to their reluctance to mix personal and business relationships, and the decreased benefits compared to the professional private venture capital market. This argument was first raised in the works of Bygrave et al. (2003) and Shane et. al. (2003) in relation to friends and family support. Feeney and Riding (1999) highlighted the occasional nature of informal funding, indirectly reinforcing the idea of the second choice.

Figure 7-5 Final holistic theoretical model of informal funding process

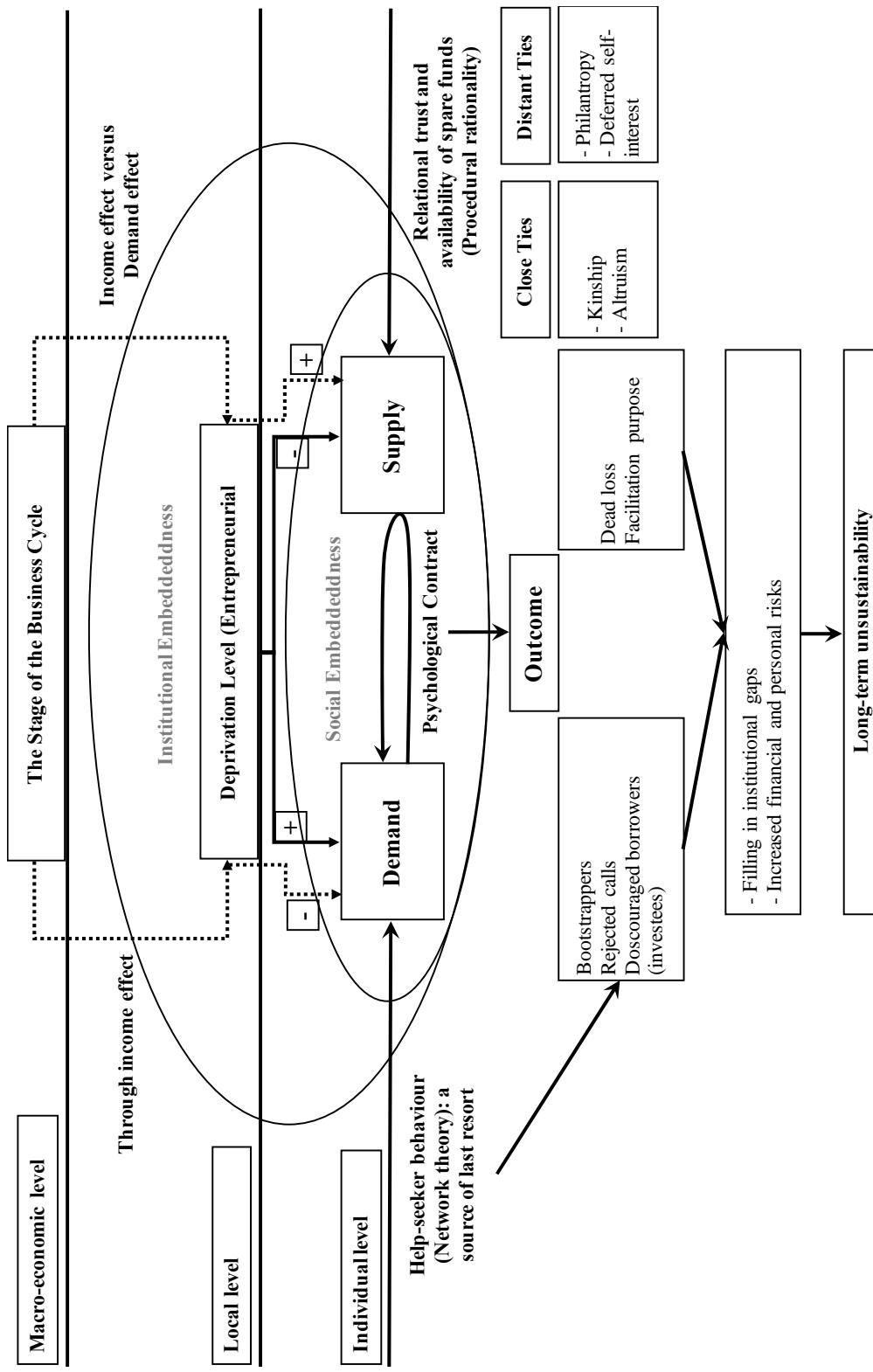


Figure 7-6 The process of informal funding across four levels of analysis: theory building and testing

Individual Level	InformalFunder	Entrepreneur
<p><i>Proposition 2a:</i> Bonding ties, underpinned by belief and trust, along with the availability of spare funds motivate an individual to make an investment or loan decision.</p> <p><i>Proposition 2b:</i> Individual-based approach is central in the decision-making process of informal funders.</p> <p><i>Proposition 2c:</i> The closer the social relation is the more altruism, philanthropy, and the deferred interest of self-realisation become dominant in the decision-making process.</p> <p><i>Proposition 2d:</i> The more distant the relationship, the more likely business-oriented features and pursue of economic gain will be taken into consideration by informal funders.</p> <p><i>Hypothesis 2b:</i> Socio-demographic factors, previous (or current) involvement in entrepreneurial activity, and positive entrepreneurial attitudes define the propensity of an individual to become an informal funder.</p> <p><i>Hypothesis 2c:</i> The higher the economic welfare of an individual is (in terms of education, work status, and disposable income) the more likely he or she is to become an informal funder.</p>	<p><i>Proposition 3a:</i> Entrepreneurs tend to consider informal funding as a 'last-choice option,' to which they refer when alternative sources are not available (due to internal and external reasons), or the implied conditions are not acceptable.</p> <p><i>Proposition 3b:</i> Entrepreneurs are inclined to rationalise their choice of informal funding and justify its economic sensibility, rather than accepting its altruistic nature.</p> <p><i>Proposition 3c:</i> Entrepreneurs favour professional investors and creditors more than informal ones in terms of their impact on the speed and efficiency of the business development.</p>	
<p><i>Deal Structuring</i></p>	<p><i>Proposition 1a:</i> Informal capital is implicitly demand-led - informal funders are typically the first to suggest they invest in an entrepreneur's business, after becoming aware, through informal communication, of the difficulties that an entrepreneur is facing in starting a business.</p>	<p><i>Hypothesis 2a:</i> The potential demand for informal funds defines the propensity of an individual to become an informal funder.</p>
<p><i>Deal Origination</i></p>	<p><i>Proposition 4a:</i> Informal funders are characterised by procedural rationality, which is incorporated in the deal structure and justify their decision.</p> <p><i>Proposition 4b:</i> Informal funders tend to draw a demarcation line between personal and business relationships – the more distant the relationship, the clearer the line is defined in the interaction.</p>	
<p><i>Post funding activity</i></p>	<p><i>Proposition 4c:</i> The more personal and business relationships are detached, the more funder's post-deal behaviour is similar to that of professional investors and lenders.</p>	<p><i>Proposition 6a:</i> The level of involvement depends on the shared philosophy, the stage of the business development, and autonomy of the entrepreneur.</p> <p><i>Proposition 6b:</i> The role of informal funder depends on his or her prior experience, the presence and relevance of which puts the funder in the position of a business advisor, mentor, or even inspirer, whereas alternatively his or her role becomes a sounding board and an observer.</p>
<p><i>Expectations and outcome</i></p>	<p><i>Proposition 5a:</i> Motivation of the informal funder regulates the expectations of the returns and justifies the level of risk-taking – the more economic reasoning is implied the greater the expectations are.</p> <p><i>Proposition 5b:</i> Informal funders tend to perceive the investment (or the loan) as an affordable loss financially, where possibility of economic gain is viewed as a bonus.</p>	<p><i>Proposition 5c:</i> Entrepreneur's optimism and self-confidence drive positive expectations of the outcome, at the same time prioritising formal commitments over informal ones.</p> <p><i>Proposition 6a:</i> Informal funding bridges the gap in finance for the entrepreneurs, serving as a stepping stone, where it has a vital impact on the progress of the business, but not performance.</p>

Informal Funder	Entrepreneur
<p><i>Hypothesis 2d:</i> The more deprived an area is the lower the probability that an individual will become an informal funder.</p>	<p><i>Proposition 1b:</i> Unfavourable external conditions both at the local and macroeconomic levels enhance the implicit demand for informal funds.</p>
<p><i>Hypothesis 4:</i> The deprivation level of a local community does not affect the relationship between an individual's socio-demographic characteristics, current or past involvement in entrepreneurial activity, and entrepreneurial attitudes, and the probability of being an informal funder.</p>	<p><i>Hypothesis 1a:</i> The potential demand for informal funds defines the propensity of an individual to become an informal funder.</p>
<p><i>Hypothesis 3:</i> The relationship between the potential demand for informal funds and the probability that an individual will become an informal funder varies across communities of different levels of deprivation.</p> <p><i>Hypothesis 3a:</i> In more deprived areas, the individual economic welfare factor is dominant over the demand factor leading to decreased informal fund rates.</p> <p><i>Hypothesis 3b:</i> In less deprived areas, the demand factor is dominant over the individual economic welfare factor leading to increased informal fund rates ('imposed' funding vs necessity funding).</p>	
<p><i>Proposition 5d:</i> Industry and macroeconomic conditions define both entrepreneur's and informal funder's expectations in terms of the potential business outcome.</p>	
<p><i>Hypothesis 2e:</i> The probability of an individual becoming an informal funder is a pro-cyclical variable: it decreases during economic slowdowns, and increases during economic upturns.</p>	<p><i>Proposition 1b:</i> The probability that an early entrepreneur will seek informal funding is a counter-cyclical variable: it increases during economic slowdowns, and decreases during economic upturns.</p>
<p><i>Hypothesis 5a:</i> In the more deprived areas the impact of the individual economic welfare factor is enhanced during the economic slowdown phase leading to a further decrease in informal funder rates.</p> <p><i>Hypothesis 5b:</i> In the more deprived areas the demand factor is enhanced during the economic slowdown phase leading to an increase in informal funder rates.</p> <p><i>Hypothesis 5c:</i> During economic slowdown the impact of the individual economic welfare factor still dominates the demand factor in more deprived areas, leading to decreased informal funder rates.</p> <p><i>Hypothesis 5d:</i> During economic slowdown the impact of demand factor still dominates the individual economic welfare factor in less deprived areas, leading to increased informal funder rates.</p>	

In this research, a help-seeker behaviour perspective within the close social network is proposed (section 3.2.2.3). It suggests that entrepreneurs tend to consider their networks to be a relational asset (Lin, 1999), which are ‘directly usable’ (Bourdieu, 1986, p. 22). However, close social ties bring less transformational value than weak ties, which are often not attainable in the short-term, and require effort and time to establish (Granovetter, 1985; Lin, 1999; Burt, 2009). The resource-based view also supports the argument of informal funding as a last resort, as it offers limited differentiation value to entrepreneurs, and does not meet the criteria of rareness, and non-substitutability (Barney, 1991). However, it does not explain the scale of this means of funding regardless its lack of competitiveness. Depending on the value being sought, informal funding users are proposed to be divided into three categories: bootstrappers (firms with growth aspirations); discouraged borrowers (investees), and rejected borrowers (investees).

For the first category, effortless and fast access to financial resources without sacrificing the ownership are the main benefits. The last category refers to friend and family when all other options proved to be unsuccessful. Such a classification fits well within Bygrave’s (2003) necessity- and opportunity-based spectrum of entrepreneurs, also supports the argument of Brush et al. (2006) that informal funding is demanded by all kinds of business owners. Finally, for the middle category it presents a seemingly easy way to secure funds which they perceive to be inaccessible in the formal finance market (Han *et al.*, 2009).

From the other side, informal funders are driven by relational trust and the availability of spare funds at the individual level as an actionable response to help-seeking behaviour. However, their risk perceptions, consideration of external conditions, imposed caps on informal funding amounts, and evaluation of the personal attributes of the entrepreneur reject the idea that pure empathetic motives are behind the funding decision. The long-standing social background of a relationship that has accumulated the precedents of the behavioural integrity, equitable allocation of rewards, and reciprocity that is seen in these funding processes contributes to trust building and minimises asymmetric information problems (Larson, 1992; Sapienza and Korsgaard, 1996; Cable and Shane, 1997; Shepherd and Zacharakis, 2001; Sørheim, 2003; Politis,

2008). Therefore, it sets the ground for procedural rationality (Dean and Sharfman, 1993; Chaserant, 2003), and the short-term sustainability of a psychological contract between the entrepreneur and their informal funder at the dyadic level (Nadler, 1991; Larson, 1992; Ring and Van de Ven, 1992; Mayer *et al.*, 1995; Whitener *et al.*, 1998) as a result of social embeddedness (Adler and Kwon, 2002).

Considering the expectations of informal funders, the concept of 'dead loss' is justified by the facilitation purpose, where returns are viewed as a bonus. Ultimately, the benefits for informal funders from such a transaction boil down to psychic income (Wetzel, 1983; Mason and Stark, 2004; Shane, 2009a), represented by satisfaction, and self-realisation for funders who are close ties, and philanthropic interests and potentially deferred self-interest for distant ties.

At the local level, environmental munificence (Tang, 2008) proved to play a significant role in the prevalence of informal funding, and in the propensity of an individual to provide financial help to relatives or friends for business purposes. Deprivation level affects the demand for informal finance positively, and its supply (income effect) negatively. However, taking the interactional effect of the demand on the supply into account, the ultimate outcome is pulled towards the occurrence of the deal. Entrepreneurs in the more deprived areas will explore alternative resource pools (Staw and Szwajkowski, 1975; Rouse and Jayawarna, 2011), which in their turn are becoming more limited in terms of household wealth and its allocation (Perraudin and Sørensen, 2000). The presence of the demand effect (Burke *et al.*, 2010; Burke *et al.*, 2014) partly compensates for the income effect in the most deprived areas, and overtakes it in the least deprived communities.

At the macroeconomic level no direct effects of the changes in the macroeconomic environment on the propensity of an individual to become an informal funder are revealed. Nonetheless, its moderation effects were established on the relationship between the deprivation level of the community and the occurrence of informal funding deals. An economic downturn fosters the demand for informal funds in the most deprived communities, and decreases the propensity of an informal funder to satisfy this demand (Berger and Udell, 1998; Martin and Rogers, 2000). However, the

demand effect is stronger for the least deprived areas, reinforcing the argument about demand creating its own supply at the macroeconomic level (Green and Zhou, 1998; Green and Zhou, 2002; Burke *et al.*, 2010; Rodriguez, 2013; Burke *et al.*, 2014; Chamley, 2014).

As shown above, both local and macroeconomic contexts either directly or indirectly shape the individual predisposition towards the informal funding deal, and the interaction between the parties at the dyadic level. In this vein, the external environment also defines the nature and the boundaries of the phenomenon through both formal and informal institutions (Bruton *et al.*, 2010). From one side, informal funding fills in the institutional gaps in deprived areas (areas of financial exclusion), and in other cases when formal institutions are not efficient. From the other side, it exposes an informal institution of family or friendship to increased risks, and generates a ‘free-rider’ problem on certain occasions. In any case, there is always at least one equilibrium, where the supply will meet the demand locally due to the socio-psychological dimension of the deal.

7.10 Summary

This chapter discussed the results of the research across four levels of analysis, combining the qualitative insights of Chapter 5 with the theory-testing by means of quantitative inquiry in Chapter 6. First, the portrait of an informal funder was elaborated upon to establish the boundaries between the professional and informal venture capital segments. The argument of the demand-led nature of informal funding was unraveled, specifying social, local, and macroeconomic contexts. That led to the re-visiting of the finance escalator, where friends and family support extends throughout the life-cycle of the business development. Second, the interaction between the demand and supply was considered at the dyadic level across the five stages. Similarly, fundamental differences with the professional private investment processes were identified, mainly in relation to the nature of the relationship, its settings, and expectations. Third, the impact of environmental munificence and macroeconomic fluctuations was evaluated in relation to the occurrence of informal funding deals. Finally, a holistic model of the informal funding process was presented and discussed.

New theoretical concepts (in respect to the nature of the relationship and the process) were established. The application of the theory to the individual propensity to become an informal funder was tested and mapped against the existing frameworks in the adjacent areas.

In the next Chapter, the findings of the research are brought together, and discussed in light of the theoretical contribution, and implications for policy makers and practitioners.

Chapter 8: Conclusions

8.1 Introduction

Drawing on the re-visited theoretical framework of informal funding process, this chapter consolidates the key findings. Given the paucity of academic literature specifically on this topic, the study provides a number of contributions, where the phenomenon of informal funding is explored at the four levels of analysis. The novelty of the research lies in empirically determining the scope and the role of informal funding, feeding directly into the entrepreneurial finance literature. The subtle nature of the informal finding relationship was explored, and the foundations in the basis of such a deal and its context were defined, drawing on the perspectives from social and psychological sciences. A particularly important aspect of the thesis accentuates the impact of local entrepreneurial munificence, expanding the conversations in the literature on social exclusion, discouraged borrowers, and structural gaps. As a result, a range of policy implications, and practical guidance are further discussed in relation to the findings. Finally, methodological limitations are summarised, and suggestions for the future research are outlined.

8.2 Key findings

Stemming from the objectives of the research, the key findings can be outlined across four levels of analysis. First, the nature of the phenomenon was explored at the individual level. Second, the role of informal funding was determined at the dyadic level in relation to the structure of the deal, and its outcomes. Finally, the impact of external context was evaluated at the local and macroeconomic levels, while its compounding effects were investigated to explain factors contributing to the proliferation of the phenomenon.

8.2.1 The nature of informal funding

Key Finding 1: Informal funding as a choice of last resort, often combined with other means of formal funding (banks loans, public grants, and/or professional investments).

At the individual level, it is proposed that entrepreneurs view informal funding as a source of last resort, which they try to avoid in the first instance, and fit one of three cases:

- 1) When they try to minimise the use of external funding consciously as a means of preserving ownership, and resources within a close social circle – '*bootstrappers*';
2) When they find informal funding as a quick and easy option, where the time is limited, and the procedures to access formal capital seem burdensome – '*discouraged borrowers/lenders*';
3) When they have been unsuccessful in trying to secure funding in the professional venture capital and/or lending market – '*rejected borrowers/lenders*'.

As a result, informal funding plays ‘resource-acquisition’ and ‘sounding board’ roles for entrepreneurs, who prefer to clearly separate professional and personal side of the relationship.

Key Finding 2: positive value-added contributions come from shared perspectives and philosophy with informal funders.

Informal funders appear only to become so, if they both have spare funds at their disposal and see them as available for sacrifice. Their motivation is mainly determined by the kinship (or friendship) relationship, and justified by the personal qualities and professional achievements of an entrepreneur. Therefore, the structure of the deal is quite relaxed and informal, where expectations of returns are replaced by feelings of satisfaction and/or self-realisation, and potential rewards are viewed as a bonus. This is the point where the perceptions of informal funders differ considerably from the

perceptions of entrepreneurs, who predominantly believe that economic rationale is prevalent in informal funding decision making.

Key Finding 3: informal funding involves the availability of spare funds (being part of household savings), which are treated as a ‘deadweight loss’.

The availability of spare funds is a necessary condition for an informal funding deal to take place. Other considered alternative uses of this money include an investment into the stock market or own business, keeping it on the bank savings account, or contributing to the mortgage. As a result, it is treated as a ‘deadweight loss’, which does not deteriorate the economic welfare of the household, and perceived as a risky endeavour, where the informal funder is prepared to lose.

Key Finding 4: the demand is a sufficient criterion for a funding process to be initiated.

A direct ask, or an implicit indication from an entrepreneur about financial their struggles (detected during the ‘Observation and interaction’ stage of the informal funding process) is a sufficient condition for the deal to occur provided the availability of spare funds.

Key Finding 5: the informal funding relationship is governed by procedural justice and the lack of expectations of financial returns.

The jeopardy of the social relationship within such a setting is recognised by both sides, and joint attempts are made to minimise it, in which the personal side is always prioritised over the economic side. This is implemented by means of trust, fairness, and reciprocity, which are deeply rooted into the decision-making, and underpin the attitudes towards the deal.

Key Finding 6: there is a need for formalisation and structuration of the informal funding process (to limit potential losses and track the amount of funding provided).

The awareness of the economic risk results in the need for imposing formal structures on the informal setting of the deal, such as an informal written agreement, setting out terms and conditions on the amount and the time-span of the funding in the interests

of the household, with the aim to preserve and prioritise the social relationship, and to keep the support within the boundaries of the available spare resources.

Key Finding 7: potentially negative implications for social relationships are acknowledged by both sides of the informal funding relationship.

The potential jeopardy of the social relationship when combined with an economic one is recognised by both parties, who are either intentionally, or unintentionally willing to draw a demarcation line between the two, and prefer not to mix the two together under alternative circumstances.

8.2.2 The role of informal funding in the early entrepreneurial activity

Key Finding 8: informal funding is not always the first step in the financing escalator, may involve continuous on-demand injections of capital, and can follow both successful and unsuccessful attempts of raising finance externally.

Considering the informal funding process at the dyadic level, it is proposed to re-visit the financing escalator, where the support from the non-professional segment can be spread across different stages of business development, depending on where it is most needed - a social embeddedness phenomenon.

Key Finding 9: informal funding can both complement and substitute formal (professional) sources of finance.

Depending on the type of help-seeker, informal funding can be the most accessible and cheapest funding source, the only available option in a particular situation, or a stepping stone towards external finance, that can also be used to fill in short-term liquidity gaps.

Key Finding 10: informal funding is a one-off deal, yet can involve several tranches of capital provided on demand.

Informal funding appears as a one-off deal with no perspective of any re-occurrence in the future as far as social relationships are involved. This outcome is a consequence

of Key Finding 7, where the mix of social relationship with an economic exchange is viewed as a threat to the former by both parties.

Key Finding 11: the demand for informal findings grows with the deprivation level of the community (demand effect).

Both the demand and supply sides are susceptible to the effects of the local environment (that is, they are institutionally embedded), specifically, to the level of deprivation (or munificence) in the community. At the local level, informal funding tends to substitute formal sources of finance in the most deprived areas, where they are less accessible, or attractive for entrepreneurs.

Key Finding 12: the supply of informal funds declines with the deprivation level of the community (income effect).

The opposite effect is observed in the most munificent areas, where informal funding tends to complement formal sources of finance, and being the least preferable option is less widely considered by early entrepreneurs. *Key Finding 13:* the interaction of the demand and supply factors leads to equilibrium at the local level for the communities, which are neither deprived, nor munificent.

The countervailing effects of both sides lead to the optimal level of informal funding at the local level, where the demand meets the supply. In such a state, funding in the most deprived areas is still out of reach, even from informal funders, whose disposable income in these areas is quite limited, and cannot be allocated for risky purposes.

Key Finding 14: informal funding is susceptible to macroeconomic fluctuations, where its supply is a pro-cyclical variable, and demand for it is a counter-cyclical one.

During the economic upturn, financially constrained early entrepreneurs seek for formal finance, particularly in the form of debt. While during the economic downturn, they mostly rely on equity finance, the lack of which under deteriorating economic conditions forces them to refer to the informal means of funding. From the other side, the disposable income of informal funders decreases during the recession, and increases – during the boom periods.

Key Finding 15: during the crisis period the two equilibria are possible at the local level – one for the least munificent areas, and one for the most munificent ones.

Combining the two effects, and taking the demand-driven nature of the supply into consideration, it responds to the increased demand during crisis period. Therefore, macroeconomic fluctuations impose similar countervailing effects as local conditions, allowing for two optimal states to be achieved, where the income effect dominates in the least deprived areas, and demand effect dominates in the most deprived communities.

8.3 Theoretical contribution

This thesis makes a theoretical contribution to two streams of literature: the literature on entrepreneurial finance, and private venture capital market in particular, and the literature on financial exclusion associated with spatial capital allocations.

8.3.1 Contribution to the entrepreneurial finance theory

The novelty of the research emerges from its focus on the informal private venture capital segment. This segment has been underestimated in the venture capital literature so far, by being excluded from analysis, combined with the professional private venture capital segment, or only occasionally considered separately within the category of friends and family (Farrell *et al.*, 2008). This study consolidates previous scattered insights on the informal funding process, extending the third wave of studies on informal funding (see section 2.3), which has tentatively started emphasising the social aspect of such a relationship. As a result, new theoretical foundations are proposed that help understand the development of the informal funding process across its various stages from the initiation of the deal through to exit perspectives - a continuation of the first elaboration articulated by Steier (2003). The propositions define the structure of the deal, the terms of its arrangement, conditions, perceptions, and expectations of the perspective outcomes.

The developed framework extends the conversation about the importance of social capital and trust when differentiating between close-ties and weak-ties investments,

started by Kwon and Arenius, (2010a). These authors predict that in the UK economy with high levels of generalised trust (World Value Survey, 1993-2014), the likelihood of supporting a friend's or a family member's business is low. The findings of this thesis provide an explanation for such an effect, where informal funding should be viewed as a demand-driven phenomenon, and a source of last resort for entrepreneurs. The argument was picked up later by Ding *et al.*, (2015), who state that social trust in combination with high entrepreneurial self-efficacy facilitates investments into strangers. Beyond that, the current research reveals the importance of relational trust. It is a subtle and evasive concept to capture, one which is deeply embedded into the social and institutional contexts, and has an impact on the initiation, the arrangement of the informal funding deal, and its potential outcome.

This thesis follows up the work of Burke *et al.* (2010; 2014) by further unravelling the demand-driven nature of informal funding. These authors considered the phenomenon at the macroeconomic level against the scope and the volume of formal venture capital, treating informal funders like any other kind of private investor. In this study, their hypotheses were tested in the local context, and were supported in relation to the complementarity and substitution effects of informal funding across the areas of different deprivation levels. The original argument was refined to emphasise the implicit nature of demand that was revealed during the qualitative inquiry at the individual and dyadic levels, where supply represents an actionable response to a help-seeking behaviour.

This thesis elaborates on the interplay between non-pecuniary motives and the monetary nature of the exchange relationship, and supports the findings of Klyver *et al.*, (2016) that the strength of social relational capital increases the likelihood of altruistic behaviour. The constituents of altruistic behaviour were further specified, where it was identified as a form of deferred self-interest, driven by procedural justice, and restrained by rational choices and risk considerations.

The integrated theoretical model developed in this thesis and in part tested empirically, complements the first recent attempts to explain the informal funding phenomenon (Lee and Persson, 2016). The study reinforces the argument about the mixture of social

and economic relationships raised by these authors, and the shadow costs which put entrepreneurs off using this source of finance. However, the results of this research further reveal that informal funders do not only support projects that are negatively evaluated by the market, but can also complement other means of finance, or substitute them in the cases where market mechanisms do not work. Thus, the pecking order perspective does not fit the observed reality, where the sources of finance can interplay with each other, depending on the current needs, and situational context.

8.3.2 Contribution to financial exclusion theory

The explanatory analysis demonstrates the dynamic and flexible nature of informal funder prevalence rates, which are highly susceptible to the local context and macroeconomic fluctuations. Therefore, building on the proposed arguments about the nature of informal funding, this adjustable informal market segment allows structural gaps in the economy to be filled in, where they arise.

Informal funding represents a favourable self-correcting mechanism on the occasions when the infrastructure is not in place, or the selection procedures exclude certain types of borrowers (or investees) from their target group by design (Kempson and Whyley, 1999; Leyshon, 2009; Appleyard, 2013). However, from the other side, the proliferation of an informal private venture capital segment can emanate from perceptual gaps, identified in the literature in relation to the funding, available to starting entrepreneurs (Fraser, 2009; Bates, 2010; Williams and Williams, 2011; Lee and Drever, 2014; Lee *et al.*, 2015; Cowling *et al.*, 2016). In this vein, it can be closely related to the discouragement effects, or potential non-viability of the ventures being supported by such mechanisms.

Moreover, the results suggest that only during the coupled effects of local deprivation and economic downturn can informal funding tackle the gaps in the least munificent areas, putting additional strains on overall household welfare. In all other cases, it is still a non-attainable (or non-desirable) option for the most deprived areas. At the macroeconomic level, this observed ‘double-whammy’ effect links with the poverty trap concept. Poor economies are not able to generate sufficient amounts of physical and human capital in order to stimulate positive increments in the development,

leading to the polarisation of the countries (Azariadis, 1996). The argument is valid at the local level, which explains the formation of economic clusters (section 2.2.5), caused capital market imperfections (Bowles *et al.*, 2006). The latter arises from the lack of finance to realise opportunities, resulting in a trap preventing both individuals, and regions to escape from poverty. In this light, not only formal market structures are exposed to its effect, but also the informal capital flows as shown in the findings. However, poverty traps arise not only as a result of a market failure, but also behavioural patterns of individuals with regard to their savings and investment strategies (Ghatak, 2015). In this vein, the perception of the investment/loan as a ‘deadweight loss’ by informal funders illustrates one of these patterns at the individual level.

As such, this thesis is the first study which investigates informal funding process at four levels of analysis: individual, dyadic, local, and macroeconomic. Ultimately, it integrates and empirically tests the mutual effects across these levels by looking at the supply side – the individual propensity to become an informal funder, and the demand side – the proportion of entrepreneurs at the early stage of their development nationally and across local communities. The theory building at the individual and dyadic levels sheds some light on the initiation, arrangement, and historical evolvement of the deal, focusing on the agents’ perceptions, and expectations.

8.4 Implications for policy makers

The encouragement of small business activity, and improving its framework conditions have been under close focus for the last several years when the UK Government introduced 2010-2015 policy targeting enterprise development. The targets were designed to promote lending to small and medium enterprises at lower interest rates, and to increase the efficiency of entrepreneurial finance system (Department for Business Innovations and Skills, 2015).

The programme started being realised through the establishment of a government-owned bank (British Business Bank) in September 2012 to attract funding from the private sector to support business lending. The initiative aims to create a single institution that addresses structural gaps in the market by making credit options for

new ventures more available and diverse. It also consolidates government funding for growing small firms, contributing to the creation of a new wholesale funding mechanism. As a result, a range of schemes has been designed under the umbrella of this institution with additional support of local governments (see Appendix 31) for the list of the relevant funding initiatives) to tackle small business funding market inefficiencies.

8.4.1 Policy interventions and market inefficiencies

Market failure ‘refers to where the market has not and cannot of itself be expected to deliver an efficient outcome’, and provides a reason for a government intervention as guided by the Green Book (HM Treasury, 2011, p. 11). In the case of entrepreneurial finance, market failure is manifested as the lack of accessible and affordable funding for a potentially viable business, the occurrence of which was reported in the literature (Beck and Demirguc-Kunt, 2006; North *et al.*, 2013). Van Der Schans, (2015) distinguishes five types of market failures in the entrepreneurial finance market:

- 1) *Imperfect information* - results in debt and equity finance gaps (De Meza and Webb, 2000; Baldock and Mason, 2015; Fraser *et al.*, 2015; Jones-Evans, 2015);
- 2) *Market power* - takes a form of bank concentration (CMA, 2014; Ryan *et al.*, 2014), and angel syndication (Mason and Botelho, 2014);
- 3) *Externalities* imply an under-supply of finance to potentially viable and high-growth businesses with expected social returns and spillover effects (Department for Business Innovation and Skills, 2014);
- 4) *Coordination failures* in the securitisation system of small business finance, where a more desirable outcome could have been achieved, if individual agents were motivated to assess capital markets and combine small loans in bundles;
- 5) *Regulatory failure* arises when government intervention distorts market mechanisms, resulting in an inefficient allocation of resources (Association of Chartered Certified Accountants (ACCA), 2012; Bridges *et al.*, 2014).

As can be seen from the list of government support schemes (see Appendix 31), most of them are dealing with information imperfection, market power, and externalities,

while coordination failure is hardly addressed. The findings identify three reasons for the use of informal funding as a replacement or an addition to the formal finance: 1) discouragement, 2) rejection, 3) exclusion, all of which are addressed by the schemes above. In this vein, either the problem stems from the lack of information about available sources (which is not the case from the exploratory research, where participants demonstrated some familiarity with, or even the use of some of the aforementioned schemes), or their distribution at the local level (see section 8.4.2), and the form of the support (see section 8.4.3).

8.4.2 Local initiatives to encourage informal funding

There is evidence that financial exclusion in deprived areas has been tackled by policy-makers (Jayawarna *et al.*, 2011; Lee and Cowling, 2013; Lee and Drever, 2014; Lee *et al.*, 2015; Cowling *et al.*, 2016). In a similar way, there is evidence of spatial proximity effects and equity gaps in the UK (Martin *et al.*, 2005; Breedon, 2012; Fraser *et al.*, 2015), where the Community Development Financial Institutions (CDFIs) initiative has partly addressed the problems (Appleyard, 2013). Hence, the social pressure on informal funders increases in the most deprived areas, where the gaps are wider.

The results show that in 2012 on average £18,272 were provided to starting ventures informally for the last three years (in current prices). Between 2.28% (the lower bound of the confidence interval) and 3.03% (the upper bound of the confidence interval) of the adult population in the UK were informal funders. Considering that the UK adult population constituted 41.7 million people in 2012 (Office for National Statistics, 2013), between £5.8 billion and £7.7 billion (in 2012 prices) were channelled to starting ventures from informal sources.

In the least deprived areas (below the median level of the overall deprivation score) the amount of informal funding is estimated at between £4.8 billion and £7.1 billion, whereas in the most deprived areas (above the median level of the overall deprivation score) between £3.7 billion and £5.6 billion. For comparison, CDFI start-up loans constituted £17 million in 2012 (CDFA, 2013). The majority of these (78%) were in the North West, South West, West Midlands and Yorkshire - less deprived areas

(Department for Local Communities and Local Government, 2015), leaving the remaining 3.7 million to the deprived communities.

From this perspective, the informal venture funding segment emerges as a very important part of the market, which is virtually invisible from the regulatory perspective, and, thus, is not a subject for explicit intervention. Community loan funds can be viewed as a means to eliminate social burdens to resolve the exclusion issue (where the pressure is shifted from the individual households to a more disseminated risk sharing) as a replacement for informal funding, along with other forms of informal cash-flows formalisation, such as microfinance and crowdfunding: market alternatives where legal responsibility replaces social debt (Lee and Persson, 2016).

If spare capital is available, then coordination failure can be resolved by developing ways to direct it to viable businesses. However, given that the main pre-requisite of informal funding is knowing someone from both personal and professional sides as a means of greater security, and given that relational trust is the main reason behind the action, then subtler measures are required to stimulate such cash flows. Informal funders contribute only to the businesses of those whom they know personally and appreciate for their individual merits. As such, de-personalised funds are unlikely to help attract their savings. Meanwhile, the funds matching schemes where informal funding is encouraged in combination with alternative finance sources can be beneficial. From one side entrepreneurs are still exposed to external evaluation and pressure to deliver, while preserving the social aspect of the relationship from the other side.

Furthermore, the findings suggest that informal funders are educated individuals, with previous entrepreneurial experience, who are likely to be employed. As such, encouraging partnerships at the local levels, to promote joint interests, and also to provide an opportunity for self-realisation and satisfaction to informal funders can be realised through networking activities within communities. In this light an appraisal of potential government intervention into the informal private venture capital market was performed (see Appendix 32) in accordance with the HM Treasury Green book approach (HM Treasury, 2011).

This appraisal suggests that the lack of government intervention to resolve the coordination market failure will induce deadweight loss outcomes, resulting in the enhancement of a ‘discouraged borrower’ phenomenon. Although the informal funding mechanism was found to have some protection against downside risks, potentially negative implications seem to prevail, considering the root of the failure itself. The most deprived areas are exposed the most due to the ‘double-whammy’ effect during economic downturns. Tackling financial exclusion and discouragement issues, along with formalisation of informal cash flows are the proposed intervention routes.

8.4.3 Monetary incentives versus managing socio-emotional wealth

Since private capital is coming from household disposable (after-tax) income, there is an expectation that tax rates might affect funding decisions, which was confirmed empirically (Boyns *et al.*, 2003; Bygrave and Hunt, 2004). Indeed, the use of tax-relief schemes was detected in the findings of the qualitative analysis in Chapter 5, although those were not cited as a prevalent reason for becoming an informal funder.

Gompers and Lerner (2003) elaborated further on whether government should support (through tax incentives) any kind of informal investor, implying both businesses angels and amateur investors (which to a certain extent can be referred to as informal funders in the context of this study). They argued that a selective approach could be more appropriate, where only funders who can add value to the ventures, and who can evaluate the business potential professionally should be targeted. Otherwise, the policy would encourage counter-productive cash flows into marginal businesses that are likely to fail, which is not beneficial from a societal perspective (Shane, 2009b). Some authors state that the input of friends and family investors is much less valuable than of business angels (e.g. Madill *et al.*, 2005). Within such a view, the government should not encourage informal funding, but, conversely, it should aim to eliminate negative consequences of this altruistic behaviour in the markets (Coate, 1995). However, the study demonstrates that, first, it is not always the case – especially where informal funders share the vision with the entrepreneur, and have relevant background experience to mentor and support the venture development. In the majority of the cases

the capital was allocated to a productive use, and directed to discouraged borrowers (investees), financially-excluded entrepreneurs in deprived areas, or served as a stepping stone to complement or to approach other formal financial sources. Moreover, the research proposes that often it is not advice that the business founders are looking for, but an opportunity to share their ideas, struggles, and successes, where the informal funder takes on a ‘sounding board’ role. As a result, the entrepreneur has an access to socio-emotional wealth beyond financial wealth, which is only accessible through close social ties (Gomez-Mejia *et al.*, 2011). In the remaining cases, the personal and economic relationships are clearly separated, where informal funders deliberately contribute only to the acquisition of resources. The findings show that informal capital, being a source of last resort for entrepreneurs, is rarely used in isolation, and usually complements government grants, bank loans, and on some occasions, professional private venture capital.

In this light, the dilemma narrows down not to the value-added question, but to the selection mechanisms, or whether informal funders support businesses which are inefficient from the market perspective. Among the three categories of entrepreneurs who use informal funding, attention should be diverted to the discouraged borrowers (investees), for whom easy and fast options seem more lucrative, and rejected borrowers and investees (by the formal capital providers). Notably, informal capital does not always come at the very beginning of the entrepreneurial journey, where entrepreneurs feel that they need to prove to their close ones the validity of their intentions and actions more than they would do it for the professional investors and lenders. Moreover, it is often preceded or complemented by other external sources. Therefore, the selection problem is not of a major concern either. The challenge can be located around the reason why entrepreneurs have to use informal funders against their will in the situations where alternative options are not possible, timely, or accessible. This brings the discussion back to section 0, where the form of the formal finance, and its local distribution are under the question.

The allocation argument also matters – it is not that there is insufficient spare capital in the economy, it is how it is directed to the right course, and allocated effectively into entrepreneurial effort (Baumol, 1990; Aernoudt *et al.*, 2007; Bowen and De

Clercq, 2008). Thus, considering that all the mechanisms are already in place, it is about coordination, and cooperation with informal cash flows. Aernoudt (2005) proposed that combining professional investments with informal funding might be the best solution, which facilitated knowledge exchange, and risk mitigation through co-investment mechanisms, syndication, and networking facilities. He also pointed out the importance of entrepreneurial education, where business owners should be trained to enhance their marketing skills, and achieve a better understanding of the venture structures, and growth avenues.

The importance of local support to shape regional entrepreneurial activity (Gertler, 2010) and policy customisation, which takes local context and needs into account (Mason and Brown, 2013), remain relevant. In this vein, apart from the formalisation of informal funds, work across the three dimensions is necessary in order to encourage the use of already available external financial resources:

- 1) *Discouragement from borrowing* - targeted support to enterprises with a social purpose, female entrepreneurs, and business owners from minority ethnic backgrounds.
- 2) *Formal finance rejection* - additional training to enhance skills, promoting syndication activities (bringing together professional and informal funders, public and informal funding). The example of business angel-networks can be followed as an efficient and cost-effective way to facilitate entrepreneurial activity (Collewaert, 2012) through match-making, and investors' training and education (Mason and Harrison, 2015).
- 3) *Deprivation* - tackling financial exclusion, and ensuring an even spread of opportunities geographically (to unload financial pressure of the households, where savings could have been allocated elsewhere).

8.5 Implications for practitioners

Despite the aforementioned presence of structural gaps, and financial exclusion, recent research demonstrated that individual determinants of entrepreneurs are key in defining the accessibility of external finance (see section 3.2.1.5). Considering the availability of funding in deprived areas of the UK, recent findings suggest that when

controlling for the company's and owner's characteristics, this factor does not matter in terms of access to finance (Lee and Cowling, 2013; Lee and Drever, 2014). As such, the focus on the individual perceptions of the environment, and the development of entrepreneurial and other relevant professional skills remains applicable in terms of practical implications of the research.

8.5.1 Implications for entrepreneurs

The results reinforce the positive impact of social embeddedness on firms' access to resources in situations when access to alternative sources is restrained. Therefore, a thoughtful utilisation of personal networks is particularly relevant for disadvantaged entrepreneurs, or those from an ethnic minority background (Drori and Lerner, 2002; Hafeez *et al.*, 2008; Wang and Altinay, 2012).

Informal funding tends to be effective in achieving business goals, when combined with other external financial sources to fill in the gaps, when cash is most needed. Ideally, the structure of the deal should resemble the one adopted in the professional market, where some form of evaluation is carried out, the objectives are set, and the limits are put in place. As such, it encourages entrepreneurs to be careful in what they promise, to ensure that the psychological contract is not violated in the future, and the social side of the relationship is preserved (Robinson and Morrison, 2000). The importance of realistic expectations (Astebro *et al.*, 2007; Koellinger *et al.*, 2007) is as much relevant as for any other formal deal, which can be achieved by preparation, research, and exploring additional sources of finance to get external views on the venture and its prospective development.

Increasing the amount of contact and communication through welcoming involvement and advice minimises the perceptions of breach of the psychological contract, keeping the social relationship on the safe side (Robinson and Morrison, 2000). However, on certain occasions, the involvement is not desirable if not mutually agreed and appreciated by both parties. In this case, honest and adequate explanations for the situation reduce potential losses from personal risks.

Supportive evidence was found in the research for the presence of cognitive biases, such as over-estimation, over-optimism, and risk aversion (Tversky and Kahneman, 1974) which tend to be quite widespread in the entrepreneurial behaviour and financial decision-making (Wright and Stiglani, 2013). They can be overcome through the accumulation of managerial experience, and careful consideration of the funding available in the market (Fraser and Greene, 2006). Financial literacy, and the acknowledgement of the origin of informal support (either from personal savings, mortgage, unexpected bonus, or anything else) ensure that helpers have sufficient funds, the withdrawal of which won't affect their quality of life, and help them avoid jeopardising their household wealth. Fairness of the conditions, both financial, and non-pecuniary ones, facilitates a healthy process, where the downside risks are under control, and the norms of the psychological contract are maintained (Guest and Conway, 2002).

8.5.2 Implications for informal funders

Recent elaborations about the availability of finance to starting entrepreneurs from the formal markets within a supply-side perspective (Fraser *et al.*, 2015; Cowling *et al.*, 2016) raise the question of the necessity of informal funding, and the role of the informal funders in business development. It was discovered that the main challenges a small company faces is to overcome a growth barrier, and get from a start-up to the scaling-up stage – the moment when additional financial and managerial difficulties arise (Mason and Brown, 2013; McLean and Zhao, 2014). The recent claim that private professional venture capital excels in nurturing entrepreneurial firms, by means of their hand-on mentoring approach, and through enhancing networking opportunities finds little evidence (Chemmanur and Fulghieri, 2014), despite the fact that due diligence and initial screening significantly increase the venture's long-term success (Shane, 2012; Kerr *et al.*, 2014). However, first, business angels deal with the top end of the entrepreneurial market, represented by firms with high-growth potential (Shane, 2012; Parhankangas and Ehrlich, 2014), and, second, recent tendencies towards syndication have de-personalised the hands-on approach, which is believed to contribute to business development (Wright *et al.*, 2015a; Mason *et al.*, 2016a).

In this vein, based on the qualitative findings from the research, the role of informal funders at the individual level can be twofold:

- Overcoming structural gaps (resource-acquisition role);
- Providing targeted support which extends beyond just professional insights, tapping into the benefits of socio-emotional wealth.

In the first case, where personal attributes, aspirations, and enthusiasm replace the product- and market-centered approach common among professional investors, informal funding increases the chances of rejected, discouraged, or financially excluded entrepreneurs realising their intentions. In the second case, informal funders normally follow up other formal financial options by offering continuous support, the demand for which may differ depending on the stage of business development (Zahra *et al.*, 2009). Hence, it extends the offerings of the professional market.

Meanwhile, the high-risk nature of the ventures, and the lack of appropriate professional expertise increases the likelihood of the downside risk both at the personal and financial levels. The findings reveal that in all the explored cases, informal funding was perceived as a one-off deal, which can only be repeated on the conditions of the availability of spare financial resources, kinship relationship, and a previous track record of determination, perseverance, and success. It is proposed that a range of signals from the entrepreneurial side can indicate the seriousness of intentions (Connelly *et al.*, 2011), and referring to informal funds as a source of last resort. Those include:

- The input of personal funds and resources;
- Professional success and experience in a similar industry;
- The use of formal means of finance along with the informal ones;
- The evidence of research, and effort put into the venture;
- The willingness to formalise the deal and establish boundaries of the financial relationship.

A timely initiation of the deal formalisation represents a mechanism for the risk monitoring and management through setting the expectations, establishing the

interactional procedures and controlling financial flows (Assmuth *et al.*, 2009). The process can comprise the following arrangements, that are mutually developed:

- Agreeing on the expected payoff time;
- Setting up expected payback amount (whether it is a loan with zero per-cent interest rate, a loan where interest is determined by the state of the company's development, a gift, an option, etc.);
- Defining the level of involvement into the business through establishing clear boundaries between personal and business relationships, the frequency of communications, and the formal mode of participation;
- Putting a cap on the amount of funding to minimise the downside risk;
- Communicating motivations, reservations, and expectations, if appropriate;
- Consideration of the overall household welfare, and alternative uses of spare financial capital (where kinship relationships apply).

The results suggest that previous professional and entrepreneurial experiences of an informal funder can positively contribute to business development, once negotiated and openly discussed. Participation in matching schemes and partnerships increases personal satisfaction of informal funders for weaker social ties, where joint interests can be achieved collaboratively at the level, that would be viable from a market perspective (Mohr and Spekman, 1994; Aarikka-Stenroos and Jaakkola, 2012).

8.6 Methodological limitations

In this study the mixed-method design addresses the research questions, and proposes an integrated framework of the informal funding process. Considering the lack of established theoretical perspectives in the area of entrepreneurial finance in relation to this phenomenon, the qualitative inquiry explored the experiences and perceptions by means of thematic analysis method at the individual and dyadic levels of analysis, where a range of propositions were derived. Hypotheses backed up by the theoretical insights from adjacent disciplines: sociology, psychology, and economics were subsequently tested in application to the local and macroeconomic contexts. Although both approaches complement each other, they bring about a number of methodological implications for the future research in entrepreneurship, entrepreneurial finance, and informal funding more specifically.

Limitations of the design in relation to the object of the study stem from its assumptions (Collis and Hussey, 2014). First, it is focused on a contemporary phenomenon within some real-life context. In this sense, recollection of situations in the past fully relies on the participant's memory, desire, and ability to lay out the sequence of events, their details, prerequisites, and consequences as much close to the reality as possible (Golder, 1992). Moreover, time allows participants to reflect on the past, which mostly fits with the rationale of the study – to capture the interpretations of the reality, leading to the observed outcome of informal funding. However, on certain occasions it might exaggerate or diminish certain actions, or factors leading to them. As a result, the dyadic design allows some control for such biases (Chandler and Lyon, 2001). Second, while contextualisation is an integral part of the process, it makes it challenging to separate the 'pure' phenomenon and submerge it into a different context (Welter, 2011). As a result, it is not possible to prove the probabilistic argument of becoming an informal funder - this issue is addressed at the next stage of the quantitative inquiry. Third, the richness of the data, underpinning the uniqueness of each case, imposes limited comparability of the results across them (Miles and Huberman, 1994a). This challenge is partly overcome by introducing an abduction logic, where patterns are re-iteratively identified. And, finally, limited generalisation emerging from the qualitative findings (Robinson, 2014), results in tentative theory

building, where a set of the developed propositions is still to be tested in application to alternative contexts.

The strength of GEM data mainly lies in the identification of the category of early-stage entrepreneurs, which is not captured by official business statistics (Amorós *et al.*, 2013). However, in this way, the level of entrepreneurship activity is overstated, and does not differentiate small firms from the entrepreneurial ones (Parker, 2008). Moreover, the study relied on the established measurements derived from GEM questionnaire, validated across a range of studies, and proved to be reliable in capturing early-stage entrepreneurial activity, entrepreneurial perceptions, and self-efficacy constructs (Reynolds *et al.*, 2005; Bergmann *et al.*, 2014). Although aggregate indicators were constructed for entrepreneurial attitudes and involvement into entrepreneurial activity, the use of multi-itemed measurements would improve validity and reliability by meeting the psychometric requirements (Diamantopoulos *et al.*, 2012). Although being used by several authors (e.g. Klyver and Hindle, 2007; Burke *et al.*, 2014), selected GEM variables (questions), being a one-item construct, present limited proxies for such notions as entrepreneurial networking and the potential demand for informal funding. For the purpose of the study, this limitation does not represent a major issue, as the measurement of potential demand for informal funding relates to the local context, and entrepreneurial networking is a part of an aggregate indicator, which characterises entrepreneurial capital in general. While the information is sufficient to examine the supply side at the individual level, and capture the demand-side at the local level, nothing can be said about the transaction-level attributes. In this way, qualitative inquiry complements the quantitative one.

Investigating the informal funding occurrence at the individual level involves a rare event bias, which was corrected using King's (2001) technique. However, there are alternative ways of dealing with the issue, depending on the parameters of the sample, and data measurements (Bradburn *et al.*, 2007). The hidden nature of the phenomenon limits its revelation both during the qualitative and quantitative inquiries. It often presents as a private and sensitive matter, occasionally implying negative experiences, which individuals are reluctant to reveal, feel uncomfortable about, or tend to distort

when sharing (Dickson-Swift *et al.*, 2009). In this light, triangulation of the perspectives is especially important to match the facts, and explore alternatives.

Although the data on multiple deprivation across the local areas in the UK uncovered a great potential for the contextualised research, the comparability of indicators remains an issue. Different methodologies adopted in the four countries (England, Wales, Scotland, and Northern Ireland) prevent researchers from comparing deprivation levels across its multiple dimensions (Payne and Abel, 2012). While the overall indicator aggregates different aspects of deprivation, their separation would allow one to distinguish the community effects more accurately, which would result in a higher explanatory power of the models.

The use of statistical methods, although justified, is a subject to certain limitations as well. First, since the sample is only representative among the adult population in the UK, no generalisations can be made when considering the population of informal funders, or early-stage entrepreneurs (Creswell, 2013). Nonetheless, in order to address the research questions articulated in the introduction, the use of aggregates (informal funders rate, or early entrepreneurial activity rate) is sufficient to predict the propensity of individual to become an informal funder. Second, the explanatory power of the models, although acceptable for social science research (Franck, 2013), is not high enough due to the presence of ‘unobserved’ factors. Albeit theoretical propositions from the qualitative analysis fill in the gap, transaction-level determinants and a wider (and more specific) range of contextual effects remain untested.

8.7 Directions for future research

Informal funding has only recently started receiving attention in the academic literature, initiated with descriptive overviews, followed by analyses of the micro- and macro-level factors contributing to its prevalence nationally and across the countries, and finally tapping into the mechanisms behind such relationships. As a result, the findings provide a fairly consistent portrait of an informal funder, explained by the widespread use of the GEM dataset. However, a limited understanding of the phenomenon was achieved – especially at the individual level (imposed by the data collection restrictions), and at the local level. Hence, there is much scope for

contributions to provide a deeper and richer picture that would infuse entrepreneurial finance and entrepreneurship research with more tailored practical implications, evaluation of current market and public mechanisms, and suggestions for its improvement.

Given the findings of the current research, further investigation of the multiplicity of contexts is needed (Steyaert and Katz, 2004; Welter, 2011):

1. *Business context* (e.g. Tang, 2008);
2. *Social context*:
 - Social network perspective especially where social ties are in the focus of the research in general (Davidsson and Honig, 2003), or in relation to ethnic minorities (e.g. Aldrich and Waldinger, 1990), female entrepreneurs (e.g. Carter and Rosa, 1998), or businesses in deprived areas (e.g. Rouse and Jayawarna, 2011);
 - Household and family context (e.g. Aldrich and Cliff, 2003; Carter, 2011).
3. *Spatial context* in relation to local communities and neighbourhoods (e.g. Lutz *et al.*, 2013);
4. Both *formal and informal institutional contexts* (e.g. Busenitz *et al.*, 2000; Klapper *et al.*, 2006).

The study captures multiple contexts in dynamics, as well as tracking the influences from within on those contexts. In this way, being a socially-embedded and institutionally-embedded phenomenon, informal funding influences the entrepreneurial finance choice at the individual level, and contributes to the support of entrepreneurial activity within a local area. That in its turn can have future implications both for community development, and individual decisions. In particular, an attempt to identify links between financial exclusion, poverty traps, and the informal funding activity would advance the understanding of the 'double-whammy effect' in the most deprived areas. Situational and contextual factors, contributing to the resource-acquisition strategy of entrepreneurs, and the role of informal funding in the situations of strong necessity are to be further investigated. Therefore, future studies would benefit from a dynamic analysis of the local framework conditions, and a richer range

of parameters accounted for at the macroeconomic level – especially in relation to government monetary and non-pecuniary incentives.

Cross-discipline research across different theoretical perspectives leads to richer pictures about experiences, perceptions, expectations, and subsequently behaviours (Busenitz *et al.*, 2000; Terjesen *et al.*, 2016). This thesis showed that psychological aspects of help-seeker behaviour trigger the supply of informal funds at the individual level, confirming the macroeconomic argument where demand generates its own supply at the national level. It is suggested that behavioural patterns are explored at a deeper level, revealing motives, incentives, and expectations. This would enable researchers to meet the ends of the process, and understand the origin of the outcomes, providing the basis for practical implications.

Previous studies on informal funding deal mostly with the supply side (mainly restricted by data availability), whereas the shift towards the demand-side (Fraser and Greene, 2006; Wright and Stiglani, 2013), and the interaction of both (Fraser *et al.*, 2015) represents the key area in understanding the whole process. The current research sets the first step in bringing them together at the individual and dyadic levels, however, subsequent verification of the propositions across the outlined contexts would significantly contribute to the field.

In recent years there has been a call in entrepreneurial research to concentrate on growing firms, and factors contributing to growth (Carlsson *et al.*, 2013; Mason and Brown, 2013; Wright and Stiglani, 2013; Zahra *et al.*, 2014; Wright *et al.*, 2015b). Fraser *et al.* (2015) recently outlined the idea of research exploring and explaining the relationship between various funding sources at different stages of business development and the business growth. Considering the argument about whether external funding is pertinent mostly to firms with high growth aspirations (Wiklund *et al.*, 2003; Breton-Miller and Miller, 2013) more profound explanations behind decision-making reasoning are needed. In this light, the combined use of various financial sources (along with informal funding) within multiple contexts would enrich the vision of a contemporary and continuously evolving finance escalator.

Moreover, different modes of entrepreneurial activity (George and Bock, 2011), its different nature (Stenholm *et al.*, 2013), and different ways of opportunity exploitation (Dimov, 2011) lead to the need for differentiation, which presumably brings about various outcomes. Future research endeavours could focus on understanding whether informal funding is only attributable to specific types of ventures, and to which extent it is associated with growth aspirations of entrepreneurs, and their potential.

Rapidly proliferating platform-mediated alternatives to traditional sources of funding, such as crowdfunding, peer-to-peer lending, and other forms of online secondary markets, as well as microfinance raise a new wave of research, where their mechanisms and impacts are explored, and linked to business growth (Belleflamme *et al.*, 2011; Bruton *et al.*, 2015; Culkin *et al.*, 2016). Personal networks including friends and family support play an important role in the success of crowdfunding campaigns (Mollick, 2014; Agrawal *et al.*, 2015; Colombo *et al.*, 2015). Therefore, there is an overlap between informal funding (as part of the private venture capital market) and online alternative finance market. Crowdfunding can be viewed as a tool for formalisation of an informal relationship between an entrepreneur and a family member or a friend, where the platform acts as an intermediary, thus facilitating financial relationship between family and friends by balancing the benefits and costs of social relationships. As such future insights could be directed to the structure of the ‘crowd’ in alternative funding, and interactions that determine the success of both the crowdfunding campaign, and business development.

It was proposed that friends and family can use social pressure to incentivise and encourage entrepreneurs, while their presence can also restrict their aspirations and intentions, since a failure might have a negative impact on the social relationship – a locking in effect (Fraser and Greene, 2006). Additionally, funding raised from family and friends can indicate either the wealth of the social networks, or send signals about the underlying quality of the firms, which had been rejected by the market investors and lenders (Lee and Persson, 2016). In this vein, future studies would benefit from looking at the returns generated by such companies, and compare the business development process of the firms funded informally with those who utilised formal means of finance available in the market. Besides, the results of this study propose

different behavioural patterns in a close-tie and distant-tie setting – this provides an opportunity to explore the differences, and compare the distant-ties informal relationships with private professional venture capital. Similarly, the interconnection between the discouragement from borrowing phenomenon (Kon and Storey, 2003) and informal funding can further be investigated, as it would allow one to determine whether the discouragement leads to the end of entrepreneurial intentions, or their further realisation by alternative means, and which effect it might have on the subsequent performance.

8.8 Summary and conclusion

This study explores the nature of the informal funding relationship, and establishes its role in the development of early-stage entrepreneurial activity within a particular local context across the macroeconomic cycle. This chapter consolidates the findings of the research, outlines its theoretical contributions, and draws a range of implications both for the policy-makers, and practitioners. As a result, this thesis provides the first attempt in the academic literature to bring together various aspects of the phenomenon, and develop an integral model of informal funding process. The findings reinforce the priority of formal funding sources over informal ones in the entrepreneurial decision-making, which contributes to the understanding of structural gaps, caused by financial exclusion, unfavourable circumstances, market failures, and discouragement from borrowing. From the other side, informal funders are not ‘fools’ as stigmatised in the literature, but individuals who are similar to professional private investors in their background and socio-demographic characteristics with the exception that non-pecuniary motives (driven mainly by the individual features of the entrepreneur) are prevailing in their decisions. Informal funding is particularly important in the most deprived areas, where it is least available. However, under the impact of adverse economic conditions, it turns out to be a way to entrepreneurial activity in such communities. As a result, the implications of the formalisation of informal capital arise to achieve their efficient use and allocation, whereas future studies could further explore the impact of these financing sources on firm development taking into account the multiplicity of contexts.

References

Aarikka-Stenroos, L. & Jaakkola, E. (2012) Value co-creation in knowledge intensive business services: A dyadic perspective on the joint problem solving process. *Industrial Marketing Management*, 41(1), pp. 15-26.

Abbas, S. A., Buitron, C. O., Denis, S., Ishis, K., Lama, R. & Norat, M. (July 2014) *United Kingdom: Selected Issues* 14/234). Available at: <http://www.imf.org/external/pubs/ft/scr/2014/cr14234.pdf>.

Ács, Z. J., Autio, E. & Szerb, L. (2014) National systems of entrepreneurship: Measurement issues and policy implications. *Research Policy*, 43(3), pp. 476-494.

Adams, G. R. & Schvaneveldt, J. D. (1985) *Understanding research methods*. New York: Longman Publishing Group.

Adler, P. S. & Kwon, S. W. (2002) Social capital: Prospects for a new concept. *Academy of Management Review*, 27(1), pp. 17-40.

Aernoudt, R. (1999) Business angels: should they fly on their own wings? *Venture Capital: An International Journal of Entrepreneurial Finance*, 1(2), pp. 187-195.

Aernoudt, R. (2005) Executive forum: Seven ways to stimulate business angels' investments. *Venture Capital*, 7(4), pp. 359-371.

Aernoudt, R., San José, A. & Roure, J. (2007) Executive forum: Public support for the business angel market in Europe—a critical review. *Venture Capital*, 9(1), pp. 71-84.

Aghion, P., Fally, T. & Scarpetta, S. (2007) Credit constraints as a barrier to the entry and post-entry growth of firms. *Economic Policy*, 22(52), pp. 731-779.

Agrawal, A., Catalini, C. & Goldfarb, A. (2015) Crowdfunding: Geography, Social Networks, and the Timing of Investment Decisions. *Journal of Economics & Management Strategy*, 24(2), pp. 253-274.

Ajzen, I. (1985) 'From intentions to actions: A theory of planned behavior', *Action Control*: Springer, pp. 11-39.

Ajzen, I. (1991) The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), pp. 179-211.

Akerlof, G. A. (1982) Labor contracts as partial gift exchange. *The Quarterly Journal of Economics*, pp. 543-569.

Aldrich, H. & Zimmer, C. (1986) 'Entrepreneurship Through Social Networks', in Sexton, D. & Smilor, R. (eds.) *The Art and Science of Entrepreneurship*. Cambridge, Massachusetts: Ballinger Publishing Company.

Aldrich, H. E. (1999) *Organizations Evolving* London: Sage.

Aldrich, H. E. & Cliff, J. E. (2003) The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of Business Venturing*, 18(5), pp. 573-596.

Aldrich, H. E. & Fiol, C. M. (1994) Fools rush in? The institutional context of industry creation. *Academy of Management Review*, 19(4), pp. 645-670.

Aldrich, H. E. & Pfeffer, J. (1976) Environments of organizations. *Annual Review of Sociology*, 2, pp. 79-105.

Aldrich, H. E., Rosen, B. & Woodward, W. (1987) The impact of social networks on business foundings and profit: a longitudinal study. *Frontiers of Entrepreneurship Research*, pp. 157-168.

Aldrich, H. E. & Waldinger, R. (1990) Ethnicity and entrepreneurship. *Annual Review of Sociology*, pp. 111-135.

Alexander, R. D. (1987) *The Biology of Moral Systems*. New Brunswick: Aldine Transaction.

Alicke, M. D., Braun, J. C., Glor, J. E., Klotz, M. L., Magee, J., Sederhoim, H. & Siegel, R. (1992) Complaining behavior in social interaction. *Personality and Social Psychology Bulletin*, 18(3), pp. 286-295.

Alvarez, S. A. & Barney, J. B. (2005) How do entrepreneurs organize firms under conditions of uncertainty? *Journal of Management*, 31(5), pp. 776-793.

Amatucci, F. M. & Sohl, J. E. (2004) Women entrepreneurs securing business angel financing: Tales from the field. *Venture Capital*, 6(2-3), pp. 181-196.

Amemiya, T. (1981) Qualitative response models: A survey. *Journal of Economic Literature*, 19(4), pp. 1483-1536.

Amit, R., Glosten, L. & Muller, E. (1990) Entrepreneurial ability, venture investments, and risk sharing. *Management Science*, 36(10), pp. 1233-1246.

Amorós, J. E., Bosma, N. & Levie, J. (2013) Ten years of global entrepreneurship monitor: Accomplishments and prospects. *International Journal of Entrepreneurial Venturing*, 5(2), pp. 120-152.

Anderson, J. G. & Aydin, C. E. (2005) *Evaluating the Organizational Impact of Healthcare Information Systems*. 2nd Edition edn. New York: Springer Science Business Media.

Andreoni, J. (1990) Impure altruism and donations to public goods: a theory of warm-glow giving. *The Economic Journal*, 100(401), pp. 464-477.

Antonides, G. & Van Der Sar, N. L. (1990) Individual expectations, risk perception and preferences in relation to investment decision making. *Journal of Economic Psychology*, 11(2), pp. 227-245.

Anyadike-Danes, M., Hart, M. & Du, J. (2015) Firm dynamics and job creation in the United Kingdom: 1998–2013. *International Small Business Journal*, 33(1), pp. 12-27.

Appleyard, L. (2013) The geographies of access to enterprise finance: the case of the West Midlands, UK. *Regional Studies*, 47(6), pp. 868-879.

Aram, J. D. (1989) Attitudes and behaviors of informal investors toward early-stage investments, technology-based ventures, and coinvestors. *Journal of Business Venturing*, 4(5), pp. 333-347.

Archer, M., Bhaskar, R., Collier, A., Lawson, T. & Norrie, A. (1998) *Critical realism: essential readings*. London and New York: Routledge.

Ardichvili, A., Cardozo, R. N., Tune, K. & Reinach, J. (2000) The role of angel investors in the assembly of non-financial resources of new ventures. *Frontiers of Entrepreneurship Research*, pp. 483-504.

Arenius, P. & Minniti, M. (2005) Perceptual variables and nascent entrepreneurship. *Small Business Economics*, 24(3), pp. 233-247.

Armstrong, A., Davis, E. P., Liadze, I. & Rienzo, C. (2013) *Evaluating Changes in Bank Lending to UK SMEs over 2001-12 – Ongoing Tight Cre*, London: National Institute of Economic and Social Research. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/193945/bis-13-857-evaluating-changes-in-bank-lending-to-uk-smes-2001-12.pdf.

Armstrong, D., Gosling, A., Weinman, J. & Marteau, T. (1997) The place of inter-rater reliability in qualitative research: an empirical study. *Sociology*, 31(3), pp. 597-606.

Arregle, J. L., Batjargal, B., Hitt, M. A., Webb, J. W., Miller, T. & Tsui, A. S. (2015) Family ties in entrepreneurs' social networks and new venture growth. *Entrepreneurship Theory and Practice*, 39(2), pp. 313-344.

Arrow, K. (1974) *The Limits of Organizations*. New York: Norton.

Arrow, K. J. (1964) The role of securities in the optimal allocation of risk-bearing. *The Review of Economic Studies*, 31(2), pp. 91-96.

Arrow, K. J. (1982) Risk perception in psychology and economics. *Economic Inquiry*, 20(1), pp. 1-9.

Assmuth, T., Hilden, M., Lyytimaki, J., Benighaus, C. & Renn, O. (2009) Big pictures, close-ups, roadmaps and mind-maps: perspectives on integrated treatment of multiple risks. *International Journal of Risk Assessment and Management*, 13(3-4), pp. 294-312.

Association of Chartered Certified Accountants (ACCA) (2012) *Basel III and SMEs: Getting the Trade-off Right*. Available at: <http://www.accaglobal.com/content/dam/acca/global/PDF-technical/small-business/pol-af-gtor.pdf>.

Åstebro, T. (2003) The Return to Independent Invention: Evidence of Unrealistic Optimism, Risk Seeking or Skewness Loving?*. *The Economic Journal*, 113(484), pp. 226-239.

Åstebro, T. & Bernhardt, I. (2003) Start-up financing, owner characteristics, and survival. *Journal of Economics and Business*, 55(4), pp. 303-319.

Astebro, T. B., Jeffrey, S. & Adomdza, G. K. (2007) Inventor perseverance after being told to quit: The role of cognitive biases. *Journal of Behavioral Decision Making*, 20, pp. 253-272.

Au, K., Chiang, F. F., Birtch, T. A. & Kwan, H. K. (2016) Entrepreneurial financing in new business ventures: a help-seeking behavior perspective. *International Entrepreneurship and Management Journal*, 12(1), pp. 199-213.

Audretsch, D. B., Hülsbeck, M. & Lehmann, E. E. (2012) Regional competitiveness, university spillovers, and entrepreneurial activity. *Small Business Economics*, 39(3), pp. 587-601.

Avdeitchikova, S. (2009) False expectations: Reconsidering the role of informal venture capital in closing the regional equity gap 1. *Entrepreneurship and Regional Development*, 21(2), pp. 99-130.

Avdeitchikova, S., Landström, H. & Månsson, N. (2008) What do we mean when we talk about business angels? Some reflections on definitions and sampling. *Venture Capital*, 10(4), pp. 371-394.

Azariadis, C. (1996) The economics of poverty traps part one: complete markets. *Journal of Economic Growth*, 1(4), pp. 449-486.

Babbie, E. R. (2008) *The basics of social research*. Wadsworth: Cengage Learning.

Bachher, J. S. & Guild, P. D. 'Financing early stage technology based companies: investment criteria used by investors'. *Frontiers of Entrepreneurship Research. 16th Annual Entrepreneurship Research Conference*, Babson College: Wellesley, MA., 363-376.

Bachher, J. S. & Guild, P. D. (1996b) 'Financing early stage technology based companies: investment criteria used by investors', in Reynolds, P.D., Bygrave, W.D., Butler, J.E., Birley, S. & Davidsson, P. (eds.) *Frontiers of Entrepreneurship Research*. Wellesley, MA.: Babson College, pp. 363-376.

Bacq, S., Ofstein, L. F., Kickul, J. R. & Gundry, L. K. (2016) Perceived entrepreneurial munificence and entrepreneurial intentions: A social cognitive perspective. *International Small Business Journal*, pp. 1-21.

Baeck, P., Collins, L. & Zhang, B. (2014) *Understanding Alternative Finance: The UK Alternative Finance Industry Report 2014*: Nesta. Available at: <https://www.nesta.org.uk/sites/default/files/understanding-alternative-finance-2014.pdf> (Accessed: 3 September 2015).

Bainbridge, L. & Sanderson, P. (1995) 'Verbal protocol analysis', *Evaluation of Human Work: a Practical Ergonomics Methodology*. 2nd Edition ed. London: Taylor & Francis Ltd, pp. 169-201.

Baker, T. & Nelson, R. E. (2005) Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, 50(3), pp. 329-366.

Baldock, R. & Mason, C. (2015) Establishing a new UK finance escalator for innovative SMEs: the roles of the Enterprise Capital Funds and Angel Co-Investment Fund. *Venture Capital*, 17(2), pp. 1-28.

Bammens, Y. & Collewaert, V. (2012a) Trust between entrepreneurs and angel investors exploring positive and negative implications for venture performance assessments. *Journal of Management*, 40(7), pp. 1980-2008.

Bammens, Y. & Collewaert, V. (2012b) Trust between entrepreneurs and angel investors exploring positive and negative implications for venture performance assessments. *Journal of Management*, pp. 1-29.

Bank of England (2009) *Trends in Lending*. Available at: <http://www.bankofengland.co.uk/publications/Documents/other/monetary/TrendsNovember09.pdf>.

Bank of England (2012) *Trends in Lending*. Available at: <http://www.bankofengland.co.uk/publications/Documents/other/monetary/TrendsOctober12.pdf>.

Bank of England (2015) *Credit Conditions Review*. Available at: <http://www.bankofengland.co.uk/publications/Documents/creditconditionsreview/2015/ccrq315.pdf>.

Bank of England (2017) *Monetary financial institutions' loans to non-financial businesses, by size of business*. Available at: <http://www.bankofengland.co.uk/statistics/Pages/bankstats/current/default.aspx> (Accessed: 2 September 2015).

Bar-Tal, D. (1986) Altruistic motivation to help: Definition, utility and operationalization. *Humboldt Journal of Social Relations*, pp. 3-14.

Barbalet, J. (2004) William James: Pragmatism, social psychology and emotions. *European Journal of Social Theory*, 7(3), pp. 337-353.

Barbour, R. & Kitzinger, J. (1998) *Developing focus group research: politics, theory and practice*. London: Sage.

Barczyk, D. & Kredler, M. (2014) A dynamic model of altruistically-motivated transfers. *Review of Economic Dynamics*, 17(2), pp. 303-328.

Barnet-Verzat, C. & Wolff, F.-C. (2002) Motives for pocket money allowance and family incentives. *Journal of Economic Psychology*, 23(3), pp. 339-366.

Barney, J. (1991) Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), pp. 99-120.

Barrett, L. F., Mesquita, B., Ochsner, K. N. & Gross, J. J. (2007) The experience of emotion. *Annual Review of Psychology*, 58, pp. 373.

Barslund, M., Rand, J., Tarp, F. & Chiconela, J. (2007) Understanding victimization: the case of Mozambique. *World Development*, 35(7), pp. 1237-1258.

Bates, T. (1991) Commercial bank financing of white-and black-owned small business start-ups. *Quarterly Review of Economics and Business*, 31(1), pp. 64-80.

Bates, T. (1997) Financing small business creation: The case of Chinese and Korean immigrant entrepreneurs. *Journal of Business Venturing*, 12(2), pp. 109-124.

Bates, T. (2010) Alleviating the financial capital barriers impeding business development in inner cities. *Journal of the American Planning Association*, 76(3), pp. 349-362.

Bates, T. & Robb, A. (2013) Greater access to capital is needed to unleash the local economic development potential of minority-owned businesses. *Economic Development Quarterly*, pp. 250-259.

Batson, C. D. & Weeks, J. L. (1996) Mood effects of unsuccessful helping: Another test of the empathy-altruism hypothesis. *Personality and Social Psychology Bulletin*, 22(2), pp. 148-157.

Baum, C. F. (2006) *An Introduction to Modern Econometrics Using Stata*. College Station, Texas: Stata Press.

Baum, J. A. C. (1996) 'Organizational ecology', in Clegg, S., Hardy, C. & Nord, W. (eds.) *Handbook of Organization Studies*. London: Sage, pp. 77-114.

Baumol, W. J. (1990) Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy*, pp. 893-921.

BBA (2013) *Geographical spread of SME borrowing*. Available at: https://www.bba.org.uk/wp-content/uploads/2013/07/Geographical_spread_of_SME_borrowing.pdf.

BDRC Continental (2016) *SME Finance Monitor*. Available at: http://bdrc-continental.com/wp-content/uploads/2016/03/BDRCContinental_SME_Finance_Monitor_Q4_2015.pdf.

Beck, J. R. & Shultz, E. K. (1986) The use of relative operating characteristic (ROC) curves in test performance evaluation. *Archives of Pathology & Laboratory Medicine*, 110(1), pp. 13-20.

Beck, T. & Demirguc-Kunt, A. (2006) Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance*, 30(11), pp. 2931-2943.

Becker, G. S. (1962) Investment in human capital: A theoretical analysis. *The Journal of Political Economy*, 70(5), pp. 9-49.

Becker, S. G. (1976) *The Economic Approach to Human Behaviour*. Chicago and London: The University of Chicago Press.

Becker-Blease, J. R. & Sohl, J. E. (2015) New venture legitimacy: the conditions for angel investors. *Small Business Economics*, 45(4), pp. 735-749.

Begley, T. M. & Tan, W.-L. (2001) The socio-cultural environment for entrepreneurship: A comparison between East Asian and Anglo-Saxon countries. *Journal of International Business Studies*, 32(3), pp. 537-553.

Belleflamme, P., Lambert, T. & Schwienbacher, A. 2011. Crowdfunding: Tapping the right crowd. *Center for Operations Research and Econometrics*. Belgium.

Benjamin, G. A. & Margulis, J. 1996. Finding your wings: how to locate private investors to fund your business. New York: Wiley, New York.

Berge, L. I. O., Bjorvatn, K. & Tungodden, B. (2014) Human and financial capital for microenterprise development: Evidence from a field and lab experiment. *Management Science*, 61(4), pp. 707-722.

Berger, A. & Udell, G. (1998) The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking & Finance*, 22(6), pp. 613-673.

Berger, A. N. & Udell, G. F. (2002) Small business credit availability and relationship lending: The importance of bank organisational structure. *The Economic Journal*, 112(477), pp. F32-F53.

Bergmann, H., Mueller, S. & Schrette, T. (2014) The use of global entrepreneurship monitor data in academic research: A critical inventory and future potentials. *International Journal of Entrepreneurial Venturing*, 6(3), pp. 242-276.

Bhide, A. (2000) *The Origin and Evolution of New Businesses*. Oxford University Press: New York.

Birley, S. (1986) The role of networks in the entrepreneurial process. *Journal of Business Venturing*, 1(1), pp. 107-117.

Black, S. E. & Strahan, P. E. (2002) Entrepreneurship and bank credit availability. *The Journal of Finance*, 57(6), pp. 2807-2833.

Blackburn, R. & Ram, M. (2006) Fix or fixation? The contributions and limitations of entrepreneurship and small firms to combating social exclusion. *Entrepreneurship and Regional Development*, 18(1), pp. 73-89.

Blakely, T. A., Kennedy, B. P., Glass, R. & Kawachi, I. (2000) What is the lag time between income inequality and health status? *Journal of Epidemiology and Community Health*, 54(4), pp. 318-319.

Blanchflower, D. & Oswald, A. J. (1990) *What makes an entrepreneur? Evidence on inheritance and capital constraints*: National Bureau of Economic Research. Available at: <https://www.andrewoswald.com/docs/entrepre.pdf>.

BMG Research (2013) *Small Business Survey 2012: SME employers*: Department for Business Innovation and Skills. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/193555/bis-13-p74-small-business-survey-2012-sme-employers.pdf.

Boettke, P. J. & Coyne, C. J. (2009) *Context matters: Institutions and entrepreneurship. Foundations and Trends in Entrepreneurship* (3 vols). Hanover, MA: Now Publishers Inc.

Bolino, M. C. & Turnley, W. H. (1999) Measuring impression management in organizations: A scale development based on the Jones and Pittman taxonomy. *Organizational Research Methods*, 2(2), pp. 187-206.

Bosma, N. (2013) The Global Entrepreneurship Monitor (GEM) and its impact on entrepreneurship research. *Foundations and Trends in Entrepreneurship*, 9(2).

Bosma, N., Van Praag, M., Thurik, R. & De Wit, G. (2004) The value of human and social capital investments for the business performance of startups. *Small Business Economics*, 23(3), pp. 227-236.

Bottazzi, L., Da Rin, M. & Hellmann, T. (2016) The importance of trust for investment: Evidence from venture capital. *Review of Financial Studies*, pp. 1-33.

Bourdieu, P. (1986) The forms of capital. *Handbook of theory and research for the sociology of education*, pp. 241 - 258.

Bowden, R. J. (1994) Bargaining, size, and return in venture capital funds. *Journal of Business Venturing*, 9(4), pp. 307-330.

Bowen, H. P. & De Clercq, D. (2008) Institutional context and the allocation of entrepreneurial effort. *Journal of International Business Studies*, 39(4), pp. 747-767.

Bowles, S., Durlauf, S. N. & Hoff, K. (2006) *Poverty traps*. New York: Princeton University Press.

Boyatzis, R. E. (1998) *Transforming qualitative information: thematic analysis and code development*. Thousand Oaks, CA: Sage.

Boyns, N., Cox, M., Spires, R. & Hughes, A. (2003) *Research into the Enterprise Investment Scheme and venture capital trusts*. London: Public and Corporate Economic Consultants.

Bozeman, D. P. & Kacmar, K. M. (1997) A cybernetic model of impression management processes in organizations. *Organizational Behavior and Human Decision Processes*, 69(1), pp. 9-30.

Bradburn, M. J., Deeks, J. J., Berlin, J. A. & Russell Localio, A. (2007) Much ado about nothing: a comparison of the performance of meta-analytical methods with rare events. *Statistics In Medicine*, 26(1), pp. 53-77.

Brannen, J. (1992) 'Combining Qualitative and Quantitative Approaches: An Overview', in Brannen, J. (ed.) *Mixing Methods: Qualitative and Quantitative Research*. Aldershot: Avebury, pp. 3-37.

Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), pp. 77-101.

Breedon, T. (2012) *Boosting finance options for business*, UK: Department for Business Innovation and Skills. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32231/12-669-boosting-finance-options-government-response.pdf.

Breton-Miller, L. & Miller, D. (2013) Socioemotional wealth across the family firm life cycle: A commentary on “Family Business Survival and the Role of Boards”. *Entrepreneurship Theory and Practice*, 37(6), pp. 1391-1397.

Brettel, M. (2003) Business angels in Germany: a research note. *Venture Capital: An International Journal of Entrepreneurial Finance*, 5(3), pp. 251-268.

Brettel, M., Mauer, R. & Appelhoff, D. (2013) The entrepreneur's perception in the entrepreneur–VCF relationship: the impact of conflict types on investor value. *Venture Capital*, 15(3), pp. 173-197.

Bridges, D., Gregory, M., Nielsen, S., Pezzini, A., Radia, A. & Spaltro, M. 2014. The Impact of Capital Requirements on Bank Lending. *Working Paper*. Bank of England.

Brinkmann, S. (2014) *Interview*. New York: Springer.

British Business Bank (2014) *SME Journey Towards External Finance*. Available at: <http://british-business-bank.co.uk/wp-content/uploads/2014/12/Final-BMG-SME-Journey-Research-Report.pdf>.

British Private Equity & Venture Capital Association (2013) *BVCA Private Equity and Venture Capital Report on Investment Activity 2012*: British Private Equity & Venture Capital Association. Available at: http://www.bvca.co.uk/Portals/0/library/Files/News/2013/RIA_2012.pdf (Accessed: 3 September 2015).

British Private Equity & Venture Capital Association (2016) *BVCA Private Equity and Venture Capital Report on Investment Activity 2015*: British Private Equity & Venture Capital Association. Available at: https://www.bvca.co.uk/Portals/0/library/documents/BVCA_RIA_2015.pdf (Accessed: 3 September 2015).

Brockhaus, R. H. & Horwitz, P. S. (1986) 'The Psychology of the Entrepreneur', in Krueger, N.F. (ed.) *Entrepreneurship: critical perspectives on business and management*, pp. 260-279.

Bromiley, P. & Harris, J. (2006) 'Trust, transaction costeconomics, and mechanisms', in Bachmann, R. & Zaheer, A. (eds.) *Handbook of Trust Research*. Northampton, MA: Edward Elgar Publishing, pp. 124-143.

Brüderl, J. & Preisendorfer, P. (1998) Network support and the success of newly founded business. *Small Business Economics*, 10(3), pp. 213-225.

Bruno, A. V. & Tyebjee, T. T. (1982) The environment for entrepreneurship. *Encyclopedia of Entrepreneurship*, 2, pp. 288-315.

Brush, C., Carter, N., Gatewood, E., Greene, P. & Hart, M. (2006) The use of bootstrapping by women entrepreneurs in positioning for growth. *Venture Capital: An International Journal of Entrepreneurial Finance*, 8(1), pp. 15-31.

Brush, C. G., Carter, N. M., Greene, P. G., Hart, M. M. & Gatewood, E. (2002) The role of social capital and gender in linking financial suppliers and entrepreneurial firms: a framework for future research. *Venture Capital: An International Journal of Entrepreneurial Finance*, 4(4), pp. 305-323.

Brush, C. G., Edelman, L. F. & Manolova, T. S. (2012) Ready for funding? Entrepreneurial ventures and the pursuit of angel financing. *Venture Capital*, 14(2-3), pp. 111-129.

Brush, C. G., Greene, P. G. & Hart, M. M. (2001) From initial idea to unique advantage: the entrepreneurial challenge of constructing a resource base. *Academy of Management Executive*, 15(1), pp. 64-80.

Bruton, G., Khavul, S., Siegel, D. & Wright, M. (2015) New Financial Alternatives in Seeding Entrepreneurship: Microfinance, Crowdfunding, and Peer-to-Peer Innovations. *Entrepreneurship Theory and Practice*, 39(1), pp. 9-26.

Bruton, G. D., Ahlstrom, D. & Li, H. L. (2010) Institutional theory and entrepreneurship: where are we now and where do we need to move in the future? *Entrepreneurship Theory and Practice*, 34(3), pp. 421-440.

Bryman, A. (2004) *Social Research Methods*. 2 edn. Oxford: Oxford University Press.

Bryman, A. (2006) Integrating quantitative and qualitative research: how is it done? *Qualitative Research*, 6(1), pp. 97-113.

Bryman, A., Becker, S. & Sempik, J. (2008) Quality criteria for quantitative, qualitative and mixed methods research: A view from social policy. *International Journal of Social Research Methodology*, 11(4), pp. 261-276.

Bucciol, A. & Miniaci, R. (2015) Household portfolio risk. *Review of Finance*, 19(2), pp. 739-783.

Buchanan, J. M. (1975) 'The Samaritan's Dilemma', in Phelps, E.S. (ed.) *Altruism, Morality and Economic Theory*. New York: Russell Sage Foundation, pp. 71-85.

Burke, A., Hartog, C., van Stel, A. & Suddle, K. (2010) How does entrepreneurial activity affect the supply of informal investors? *Venture Capital*, 12(1), pp. 21-47.

Burke, A., van Stel, A., Hartog, C. & Ichou, A. (2014) What determines the level of informal venture finance investment? Market clearing forces and gender effects. *Small Business Economics*, 42, pp. 467-484.

Burke, A. E., FitzRoy, F. R. & Nolan, M. A. (2000) When less is more: distinguishing between entrepreneurial choice and performance. *Oxford Bulletin of Economics and Statistics*, 62(5), pp. 565-587.

Burrell, G. & Morgan, G. (1979) *Sociological paradigms and organizational analysis*. London: Heinemann.

Burt, R. S. (1984) Network items and the general social survey. *Social Networks*, 6(4), pp. 293-339.

Burt, R. S. (1992) *Structural Holes: The Social Structure of Competition*. Cambridge, MA: Harvard University Press.

Burt, R. S. (1997) The contingent value of social capital. *Administrative Science Quarterly*, pp. 339-365.

Burt, R. S. (2009) *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.

Busenitz, L. W., Gomez, C. & Spencer, J. W. (2000) Country institutional profiles: Unlocking entrepreneurial phenomena. *Academy of Management Journal*, 43(5), pp. 994-1003.

Busenitz, L. W., West, G. P., Shepherd, D., Nelson, T., Chandler, G. N. & Zacharakis, A. (2003) Entrepreneurship research in emergence: Past trends and future directions. *Journal of Management*, 29(3), pp. 285-308.

Business Angels Europe (2015) *European Business Angels Market in Approximation*. Available at: <http://www.business-angels.de/wp-content/uploads/2015/12/BAE-The-European-Business-Angel-Market.pdf>.

Bygrave, W., Hay, M., Ng, E. & Reynolds, P. (2003) Executive forum: a study of informal investing in 29 nations composing the Global Entrepreneurship Monitor. *Venture Capital: An International Journal of Entrepreneurial Finance*, 5(2), pp. 101-116.

Bygrave, W. & Hunt, S. A. (2004) *Global Entrepreneurship Monitor financing report*, Wellesley, MA: Babson College and London Business School.

Bygrave, W. D. (1988) The structure of the investment networks of venture capital firms. *Journal of Business Venturing*, 3(2), pp. 137-157.

Bygrave, W. D. & Bosma, N. (2011) Investor Altruism: Financial Returns from Informal Investments in Businesses Owned by Relatives, Friends, and Strangers. *The Dynamics of Entrepreneurship: Evidence from Global Entrepreneurship Monitor Data*, pp. 77 - 99.

Bygrave, W. D. & Hunt, S. 'For love or money? A study of financial returns on informal investments in businesses owned by relatives, friends, and strangers'. *Regional Frontiers of Entrepreneurship Research*, Brisbane, Australia: Queensland University of Technology.

Cable, D. M. & Shane, S. (1997) A prisoner's dilemma approach to entrepreneur-venture capitalist relationships. *Academy of Management Review*, pp. 142-176.

Cacioppo, J. T. & Petty, R. E. (1982) The need for cognition. *Journal of Personality and Social Psychology*, 42, pp. 116-131.

Campbell, J. L. 1999. Asset Prices, Consumption, and the Business Cycle. *NBER Working Paper series*. National Bureau of Economic Research.

Campbell, J. L., Quincy, C., Osserman, J. & Pedersen, O. K. (2013) Coding in-depth semistructured interviews problems of unitization and intercoder reliability and agreement. *Sociological Methods & Research*, 00(0), pp. 1-27.

Carbó-Valverde, S., Rodríguez-Fernández, F. & Udell, G. F. (2016) Trade credit, the financial crisis, and SME access to finance. *Journal of Money, Credit and Banking*, 48(1), pp. 113-143.

Carley, K. (1993) 'Coding choices for textual analysis: A comparison of content analysis and map analysis', in Marsden, P. (ed.) *Sociological methodology*. Oxford: Blackwell, pp. 75-126.

Carlsson, B., Braunerhjelm, P., McKelvey, M., Olofsson, C., Persson, L. & Ylinenpää, H. (2013) The evolving domain of entrepreneurship research. *Small Business Economics*, 41(4), pp. 913-930.

Carmines, E. G. & Zeller, R. A. (1987) *Reliability and Validity Assessment. Quantitative Applications in the Social Sciences* London: Sage Publications.

Carpentier, C. & Suret, J.-M. (2015) Angel group members' decision process and rejection criteria: A longitudinal analysis. *Journal of Business Venturing*, 30(6), pp. 808-821.

Carpentier, C. & Suret, J. M. (2007) On the usefulness of tax incentives for informal investors. *Venture Capital*, 9(1), pp. 1-22.

Carter, N. M., Williams, M. & Reynolds, P. D. (1997) Discontinuance among new firms in retail: The influence of initial resources, strategy, and gender. *Journal of Business Venturing*, 12(2), pp. 125-145.

Carter, S. (2011) The rewards of entrepreneurship: Exploring the incomes, wealth, and economic well-being of entrepreneurial households. *Entrepreneurship Theory and Practice*, 35(1), pp. 39-55.

Carter, S. & Mwaura, S. (2014) *The Financing of Diverse Enterprises: Evidence from the SME finance monitor*: Enterprise Research Centre.

Carter, S., Ram, M., Trehan, K. & Jones, T. (2013) *Diversity and SMEs: Existing Evidence and Policy Tensions*: Warwick Business School.

Carter, S. & Rosa, P. (1998) The financing of male-and female-owned businesses. *Entrepreneurship & Regional Development*, 10(3), pp. 225-242.

Carter, S., Shaw, E., Lam, W. & Wilson, F. (2007) Gender, entrepreneurship, and bank lending: the criteria and processes used by bank loan officers in assessing applications. *Entrepreneurship Theory and Practice*, 31(3), pp. 427-444.

Casey, E. & O'Toole, C. M. (2014) Bank lending constraints, trade credit and alternative financing during the financial crisis: Evidence from European SMEs. *Journal of Corporate Finance*, 27, pp. 173-193.

Cassar, G. (2004) The financing of business start-ups. *Journal of Business Venturing*, 19(2), pp. 261-283.

Casson, M. (1982) *The Entrepreneur: An Economic Theory*. Oxford: Martin Robertson.

Casson, M. (2005) Entrepreneurship and the theory of the firm. *Journal of Economic Behavior & Organization*, 58(2), pp. 327-348.

Casson, M. & Della Giusta, M. (2007) Entrepreneurship and social capital Analysing the impact of social networks on entrepreneurial activity from a rational action perspective. *International Small Business Journal*, 25(3), pp. 220-244.

Castaneda, A., Diaz-Giménez, J. & Ríos-Rull, J.-V. (1998) Exploring the income distribution business cycle dynamics. *Journal of Monetary Economics*, 42(1), pp. 93-130.

Castrogiovanni, G. J. (1991a) Environmental Munificence: A Theoretical Assessment. *Academy of Management Review*, 16(3), pp. 542-565.

Castrogiovanni, G. J. (1991b) Environmental Munificence; A Theoretical Assessment. *Academy of Management Review*, 16(3), pp. 542-565.

CDFA (2013) *Inside Community Finance: The CDFI Industry in the UK*. Available at: <http://responsiblefinance.org.uk/responsible-finance-providers/lending-statistics/>.

Chakravarty, S. & Xiang, M. (2013) The international evidence on discouraged small businesses. *Journal of Empirical Finance*, 20, pp. 63-82.

Chamley, C. (2014) When demand creates its own supply: saving traps. *The Review of Economic Studies*, 81(2), pp. 651-680.

Chandler, G. N. & Hanks, S. H. (1994) Market attractiveness, resource-based capabilities, venture strategies, and venture performance. *Journal of Business Venturing*, 9(4), pp. 331-349.

Chandler, G. N. & Lyon, D. W. (2001) Issues of research design and construct measurement in entrepreneurship research: The past decade. *Entrepreneurship: Theory and Practice*, 25(4), pp. 101-114.

Chaserant, C. (2003) Cooperation, contracts and social networks: From a bounded to a procedural rationality approach. *Journal of Management and Governance*, 7(2), pp. 163-186.

Chemmanur, T. J. & Fulghieri, P. (2014) Entrepreneurial finance and innovation: An introduction and agenda for future research. *Review of Financial Studies*, 27(1), pp. 1-19.

Chiles, T. H. & McMackin, J. F. (1996) Integrating variable risk preferences, trust, and transaction cost economics. *Academy of Management Review*, 21(1), pp. 73-99.

Chittenden, F., Hall, G. & Hutchinson, P. (1996) Small firm growth, access to capital markets and financial structure: Review of issues and an empirical investigation. *Small Business Economics*, 8(1), pp. 59-67.

Choe, H., Masulis, R. W. & Nanda, V. (1993) Common stock offerings across the business cycle: Theory and evidence. *Journal of Empirical finance*, 1(1), pp. 3-31.

Chowla, S., Quaglietti, L. & Łukasz, R. (2014) How have world shocks affected the UK economy? *Bank of England Quarterly Bulletin*, 2, pp. 167-179.

Clark, C. (2008) The impact of entrepreneurs' oral 'pitch' presentation skills on business angels' initial screening investment decisions. *Venture Capital*, 10(3), pp. 257-279.

CMA (2014) *Banking services to small and medium-sized enterprises*. Available at: https://assets.publishing.service.gov.uk/media/53eb6b73ed915d188800000c/SME-report_final.pdf.

Coate, S. (1995) Altruism, the Samaritan's dilemma, and government transfer policy. *The American Economic Review*, pp. 46-57.

Cohen, L., Manion, L. & Morrison, K. (2013) *Research methods in education*. 7 edn. Milton Park: Routledge.

Coleman, J. S. (1988) Social capital in the creation of human capital. *American Journal of Sociology*, pp. 95-120.

Coleman, J. S. (1990) *Foundations of Social Theory*. Cambridge, MA: Harvard University Press.

Coleman, J. S. & Robb, A. (2012) *A Rising Tide: Financing Strategies for Women Owned Firms*. Stanford, CA: Stanford University Press.

Coleman, S. (2000) Access to capital and terms of credit: A comparison of men-and women-owned small businesses. *Journal of Small Business Management*, 38(3), pp. 37.

Collewaert, V. (2012) Angel investors' and entrepreneurs' intentions to exit their ventures: A conflict perspective. *Entrepreneurship Theory and Practice*, 36(4), pp. 753-779.

Collis, J. & Hussey, R. (2014) *Business Research: a practical guide for undergraduate and postgraduate students*. 4 edn. London: Palgrave.

Colombo, M. G., Franzoni, C. & Rossi-Lamastra, C. (2015) Internal social capital and the attraction of early contributions in crowdfunding. *Entrepreneurship Theory and Practice*, 39(1), pp. 75-100.

Comanor, W. S. & Leibenstein, H. (1969) Allocative efficiency, X-efficiency and the measurement of welfare losses. *Economica*, pp. 304-309.

Companies Act (2006) Parliament of the United Kingdom.

Congregado, E., Golpe, A. A. & Parker, S. C. (2012) The dynamics of entrepreneurship: hysteresis, business cycles and government policy. *Empirical Economics*, 43(3), pp. 1239-1261.

Connelly, B. L., Certo, S. T., Ireland, R. D. & Reutzel, C. R. (2011) Signaling theory: A review and assessment. *Journal of Management*, 37(1), pp. 39-67.

Cooper, A. C., Gimeno-Gascon, F. J. & Woo, C. Y. (1994) Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, 9(5), pp. 371-395.

Cooper, A. C., Woo, C. Y. & Dunkelberg, W. C. (1988) Entrepreneurs' perceived chances for success. *Journal of Business Venturing*, 3(2), pp. 97-108.

Cosh, A., Cumming, D. & Hughes, A. (2009) Outside entrepreneurial capital. *The Economic Journal*, 119(540), pp. 1494-1533.

Cosh, A. & Hughes, A. (2003) *Enterprise Challenged: Policy and performance in the British SME sector 1999-2002*. ESRC Centre for Business Research.

Coveney, P. & Moore, K. (1998) *Business angels: securing start up finance*. London: Wiley.

Covin, J. G., Slevin, D. P. & Covin, T. J. (1990) Content and performance of growth-seeking strategies: A comparison of small firms in high-and low technology industries. *Journal of Business Venturing*, 5(6), pp. 391-412.

Cowling, M., Cowling, M., Liu, W., Liu, W., Zhang, N. & Zhang, N. (2016) Access to bank finance for UK SMEs in the wake of the recent financial crisis. *International Journal of Entrepreneurial Behavior & Research*, 22(6), pp. 903-932.

Cowling, M., Liu, W. & Ledger, A. (2012) Small business financing in the UK before and during the current financial crisis. *International Small Business Journal*, 30(7), pp. 778-800.

Coyle-Shapiro, J. & Kessler, I. (2000) Consequences of the psychological contract for the employment relationship: A large scale survey. *Journal of Management Studies*, 37(7), pp. 903-930.

Creswell, J. W. (2013) *Research design: Qualitative, quantitative, and mixed methods approaches*. 4 edn. Thousand Oaks: Sage publications.

Croce, A., Tenca, F. & Ughetto, E. (2016) How business angel groups work: Rejection criteria in investment evaluation. *International Small Business Journal*, pp. 405-426.

Cropanzano, R. & Mitchell, M. S. (2005) Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), pp. 874-900.

Culkin, N., Murzacheva, E. & Davis, A. (2016) Critical Innovations in the UK Peer-to-Peer (P2P) and Equity Alternative Finance Markets for Small Firm Growth. *International Journal of Entrepreneurship & Innovation*, 17(4).

Cumming, D. & Dai, N. (2010) Local bias in venture capital investments. *Journal of Empirical Finance*, 17(3), pp. 362-380.

Cunliffe, A. L. (2008) 'Discourse Analysis', in Thorpe, R. & Holt, R. (eds.) *The SAGE Dictionary of Qualitative Management Research*. London: Sage, pp. 81-82.

Curran, J. & Blackburn, R. (2000) *Researching the small enterprise*. London: Sage.

Dacin, M. T., Goodstein, J. & Scott, W. R. (2002) Institutional theory and institutional change: Introduction to the special research forum. *Academy of Management Journal*, 45(1), pp. 45-56.

Dacin, M. T., Ventresca, M. J. & Beal, B. D. (1999) The embeddedness of organizations: Dialogue & directions. *Journal of Management*, 25(3), pp. 317-356.

Daft, R. (1983) *Organization Theory and Design*. New York: West.

Daniel, W. W. (1990) *Applied Nonparametric Statistics*. 2 edn. London: Cengage.

Davidsson, P. (2006) *Nascent entrepreneurship: empirical studies and developments. Foundations and Trends in Entrepreneurship* Hanover, MA: Now publishers inc.

Davidsson, P. & Honig, B. (2003) The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*, 18(3), pp. 301-331.

Davidsson, P., Hunter, E. & Klofsten, M. (2006) Institutional Forces The Invisible Hand that Shapes Venture Ideas? *International Small Business Journal*, 24(2), pp. 115-131.

Davidsson, P. & Wiklund, J. (2001) Levels of analysis in entrepreneurship research: Current research practice and suggestions for the future. *Entrepreneurship theory and Practice*, 25(4), pp. 81-100.

Davies, B. (1998) 'Psychology's Subject: A Commentary on the Relativism/Realism Debate.', in Parker, I. (ed.) *Social Constructionism, Discourse and Realism*. London: Sage.

Davies, R., Richardson, P., Katinaite, V. & Manning, M. (2010) *Evolution of the UK banking system*: Bank of England. Available at: <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb100407.pdf>.

Dawson, C. & Henley, A. (2013) Over-optimism and entry and exit from self-employment. *International Small Business Journal*, 31(8), pp. 938-954.

De Carolis, D. M. & Saparito, P. (2006) Social capital, cognition, and entrepreneurial opportunities: A theoretical framework. *Entrepreneurship Theory and Practice*, 30(1), pp. 41-56.

De Clercq, D. & Fried, V. H. (2005) Executive forum: How entrepreneurial company performance can be improved through venture capitalists' communication and commitment. *Venture Capital*, 7(3), pp. 285-294.

De Clercq, D., Fried, V. H., Lehtonen, O. & Sapienza, H. J. (2006) An entrepreneur's guide to the venture capital galaxy. *The Academy of Management Perspectives*, 20(3), pp. 90-112.

De Graaf, N. D. & Flap, H. D. (1988) "With a little help from my friends": Social resources as an explanation of occupational status and income in West Germany, The Netherlands, and the United States. *Social Forces*, 67(2), pp. 452-472.

de la Vega García-Pastor, I. & Coduras, A. (2011) The influence of entrepreneurial training on the propensity to become an investor in others' businesses. *4th Global Entrepreneurship Research Conference*, London.

De Meza, D. & Southey, C. (1996) The borrower's curse: Optimism, finance and entrepreneurship. *The Economic Journal*, pp. 375-386.

De Meza, D. & Webb, D. (2000) Does credit rationing imply insufficient lending? *Journal of Public Economics*, 78(3), pp. 215-234.

De Meza, D. & Webb, D. C. (1987) Too much investment: a problem of asymmetric information. *The Quarterly Journal of Economics*, 102(2), pp. 281-292.

De Noble, A. F. (2001) Raising finance from business angels. *Venture Capital: An International Journal of Entrepreneurial Finance*, 3(4), pp. 359-367.

Deakins, D., Whittam, G. & Wyper, J. (2010) SMEs' access to bank finance in Scotland: An analysis of bank manager decision making. *Venture Capital*, 12(3), pp. 193-209.

Dean, J. W. & Sharfman, M. P. (1993) Procedural rationality in the strategic decision-making process. *Journal of Management Studies*, 30(4), pp. 587-610.

Decrop, A. (1999) Triangulation in qualitative tourism research. *Tourism Management*, 20(1), pp. 157-161.

Delhey, J., Newton, K. & Welzel, C. (2011) How general is trust in "most people"? Solving the radius of trust problem. *American Sociological Review*, 76(5), pp. 786-807.

Delmar, F. (2006) 'Measuring growth: methodological considerations and empirical results', in Davidsson, P., Delmar, F. & Wiklund, J. (eds.) *Entrepreneurship and the Growth of Firms*. Cheltenham: Edward Elgar, pp. 62-85.

Denis, D. J. (2004) Entrepreneurial finance: an overview of the issues and evidence. *Journal of Corporate Finance*, 10(2), pp. 301-326.

Denscombe, M. (2014) *The good research guide: for small-scale social research projects*. 5th Edition edn. Maidenhead: McGraw-Hill Education.

Denzin, N. K. (1978) *The research act: A theoretical introduction to sociological methods*. New York: McGraw-Hill.

Denzin, N. K. (2012) Triangulation 2.0. *Journal of Mixed Methods Research*, 6(2), pp. 80-88.

Department for Business Innovation and Skills (2011) *BIS Small Business Survey 2010*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32228/11-p74-bis-small-business-survey-2010.pdf.

Department for Business Innovation and Skills (2013) *SME Access to Finance Schemes: Measures to Support SME Growth*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/192618/bis-13-p176b-sme-access-to-finance-measures.pdf.

Department for Business Innovation and Skills (2014) *Rates of return to investment in science and innovation*: Frontier Economics. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/333006/bis-14-990-rates-of-return-to-investment-in-science-and-innovation-revised-final-report.pdf.

Department for Business Innovation and Skills 2015. Small Business Survey 2014: SME employers. BIS Research Paper 214.

Department for Business Innovation and Skills 2016. Longitudinal Small Business Survey Year 1 (2015): SME employers. *BIS Research Paper*. BIS Research Paper 289.

Department for Business Innovations and Skills, HM Treasury (2015) *2010-2015 Government policy: business enterprise*.

Department for Communities and Local Government *English Indices of Deprivation*. Available at: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2010>.

Department for Local Communities and Local Government (2015) *The English Indices of Deprivation 2015*. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/465791/English_Indices_of_Deprivation_2015_-_Statistical_Release.pdf.

Desa, G. (2012) Resource mobilization in international social entrepreneurship: Bricolage as a mechanism of institutional transformation. *Entrepreneurship Theory and Practice*, 36(4), pp. 727-751.

Dess, G. G. & Beard, D. W. (1984) Dimensions of organizational task environments. *Administrative Science Quarterly*, 29(1), pp. 52-73.

DeTienne, D. R. (2010) Entrepreneurial exit as a critical component of the entrepreneurial process: Theoretical development. *Journal of Business Venturing*, 25(2), pp. 203-215.

Diamantopoulos, A., Sarstedt, M., Fuchs, C., Wilczynski, P. & Kaiser, S. (2012) Guidelines for choosing between multi-item and single-item scales for construct measurement: a predictive validity perspective. *Journal of the Academy of Marketing Science*, 40(3), pp. 434-449.

Diaz-Moriana, V. & O'Gorman, C. (2013) Informal investors and the informal venture capital market in Ireland. *Journal of Asian Scientific Research*, 3(6), pp. 630.

Dickert, S., Sagara, N. & Slovic, P. (2011) Affective motivations to help others: A two-stage model of donation decisions. *Journal of Behavioral Decision Making*, 24(4), pp. 361-376.

Dickson-Swift, V., James, E. L., Kippen, S. & Liamputpong, P. (2009) Researching sensitive topics: qualitative research as emotion work. *Qualitative Research*, 9(1), pp. 61-79.

DiMaggio, P. J. & Powell, W. W. (1991) 'Introduction', in DiMaggio, P.J. & Powell, W.W. (eds.) *The new institutionalism in organizational analysis*. Chicago: University of Chicago Press, pp. 1-38.

Dimov, D. (2011) Grappling with the unbearable elusiveness of entrepreneurial opportunities. *Entrepreneurship Theory and Practice*, 35(1), pp. 57-81.

Ding, Z., Au, K. & Chiang, F. (2015) Social trust and angel investors' decisions: A multilevel analysis across nations. *Journal of Business Venturing*, 30(2), pp. 307-321.

Djankov, S., Ganser, T., McLiesh, C., Ramalho, R. & Shleifer, A. (2010) The effect of corporate taxes on investment and entrepreneurship. *American Economic Journal: Macroeconomics*, 2(3), pp. 31-64.

Dore, R. (1983) Goodwill and the spirit of market capitalism. *British Journal of Sociology*, 34(4), pp. 459-482.

Dorling, D., Rigby, J., Wheeler, B., Ballas, D., Thomas, B., Fahmy, E., Gordon, D. & Lupton, R. (2007) *Poverty, wealth, and place in Britain, 1968 to 2005*. Plymouth: Latimer Trend.

Douglas, E. J. & Shepherd, D. (2002) Exploring investor readiness: assessments by entrepreneurs and investors in Australia. *Venture Capital: An International Journal of Entrepreneurial Finance*, 4(3), pp. 219-236.

Dow, S. C. (1998) 'Rationalisation in economics: Theory, methodology and action', *Rationality in Economics: Alternative Perspectives*: Springer, pp. 5-15.

Drori, I. & Lerner, M. (2002) The dynamics of limited breaking out: The case of the Arab manufacturing businesses in Israel. *Entrepreneurship & Regional Development*, 14(2), pp. 135-154.

Dubois, A. & Gadde, L.-E. (2002) Systematic combining: an abductive approach to case research. *Journal of Business Research*, 55(7), pp. 553-560.

Dufwenberg, M. & Kirchsteiger, G. (2004) A theory of sequential reciprocity. *Games and Economic Behavior*, 47(2), pp. 268-298.

Duxbury, L., Haines, G. & Riding, A. (1996) A personality profile of Canadian informal investors. *Journal of Small Business Management*, 34(2), pp. 44.

Dyer, J. H. & Singh, H. (1998) The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review*, 23(4), pp. 660-679.

Dyer, W. G. (2003) The Family: The Missing Variable in Organizational Research\$. *Entrepreneurship Theory and Practice*, 27(4), pp. 401-416.

Edmondson, A. C. & McManus, S. E. (2007) Methodological fit in management field research. *Academy of Management Review*, 32(4), pp. 1246-1264.

Ehrlich, S. B., De Noble, A. F., Moore, T. & Weaver, R. R. (1994) After the cash arrives: A comparative study of venture capital and private investor involvement in entrepreneurial firms. *Journal of Business Venturing*, 9(1), pp. 67-82.

Einhorn, H. J. (1970) The use of nonlinear, noncompensatory models in decision making. *Psychological bulletin*, 73(3), pp. 221.

Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D. & Rhoades, L. (2001) Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), pp. 42-51.

Eisenhardt, K. M. (1989a) Agency theory: An assessment and review. *Academy of Management Review*, 14(1), pp. 57-74.

Eisenhardt, K. M. (1989b) Building theories from case study research. *Academy of Management Review*, 14(4), pp. 532-550.

Eisenhardt, K. M. & Graebner, M. E. (2007) Theory building from cases: opportunities and challenges. *Academy of Management Journal*, 50(1), pp. 25-32.

El-Namaki, M. S. S. (1988) Encouraging entrepreneurs in developing countries. *Long Range Planning*, 21(4), pp. 98-106.

Elitzur, R. & Gavious, A. (2003) Contracting, signaling, and moral hazard: a model of entrepreneurs, 'angels,' and venture capitalists. *Journal of Business Venturing*, 18(6), pp. 709-725.

Elkjaer, B. & Simpson, B. (2011) Pragmatism: A lived and living philosophy. What can it offer to contemporary organization theory. *Research in the Sociology of Organizations*, 32, pp. 55-84.

Ellis, A. P., West, B. J., Ryan, A. M. & DeShon, R. P. (2002) The use of impression management tactics in structured interviews: a function of question type? *Journal of Applied Psychology*, 87(6), pp. 1200-1208.

Ellis, C. (2007) Telling secrets, revealing lives relational ethics in research with intimate others. *Qualitative inquiry*, 13(1), pp. 3-29.

Ellsworth, P. C. & Scherer, K. R. (2003) 'Appraisal processes in emotion', in Davidson, R.J., Scherer, K.R. & Goldsmith, H.H. (eds.) *Handbook of Affective Sciences*. New York: Oxford University Press., pp. 572-595.

Ellsworth, P. C. & Smith, C. A. (1988) From appraisal to emotion: Differences among unpleasant feelings. *Motivation and Emotion*, 12(3), pp. 271-302.

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K. & Kyngäs, H. (2014) Qualitative content analysis: a focus on trustworthiness. *Sage Open*, 4(1-10), pp. 2158244014522633.

Emerson, R. M. (1976) Social exchange theory. *Annual Review of Sociology*, pp. 335-362.

Epitropaki, O. (2013) A multi-level investigation of psychological contract breach and organizational identification through the lens of perceived organizational membership: Testing a moderated-mediated model. *Journal of Organizational Behavior*, 34(1), pp. 65-86.

Erikson, T. (2002) Entrepreneurial capital: the emerging venture's most important asset and competitive advantage. *Journal of Business Venturing*, 17(3), pp. 275-290.

Eriksson, P. & Kovalainen, A. (2015) *Qualitative Methods in Business Research: A Practical Guide to Social Research*. London: Sage.

Estrin, S., Korosteleva, J. & Mickiewicz, T. (2013) Which institutions encourage entrepreneurial growth aspirations? *Journal of Business Venturing*, 28(4), pp. 564-580.

Etzioni, A. (1988) *The Moral Dimension: Towards a New Economics*. New York: The Free Press.

Author (2007): *Manual on Business Demography Statistics*: OECD Publishing.

Evans, D. S. & Jovanovic, B. (1989) An estimated model of entrepreneurial choice under liquidity constraints. *The Journal of Political Economy*, pp. 808-827.

Fabowale, L., Orser, B. & Riding, A. (1995) Gender, structural factors, and credit terms between Canadian small businesses and financial institutions. *Entrepreneurship: Theory and Practice*, 19(4), pp. 41-66.

Fairchild, R. (2011) An entrepreneur's choice of venture capitalist or angel-financing: A behavioral game-theoretic approach. *Journal of Business Venturing*, 26(3), pp. 359-374.

Fama, E. F. & French, K. R. (2002) Testing trade-off and pecking order predictions about dividends and debt. *Review of financial studies*, 15(1), pp. 1-33.

Fama, E. F. & Jensen, M. C. (1985) Organizational forms and investment decisions. *Journal of Financial Economics*, 14(1), pp. 101-119.

Faria, J. R., Cuestas, J. C. & Gil-Alana, L. A. (2009) Unemployment and entrepreneurship: A cyclical relation? *Economics Letters*, 105(3), pp. 318-320.

Farrell, A. E. (1998) *Informal Venture Capital Investment in Atlantic Canada: A Representative View of "angels"*, Moncton, New Brunswick: Atlantic Canada Opportunities Agency.

Farrell, A. E. (2000) *Informal Venture Capital Investment in Atlantic Canada: A Year-2000 Review*, Moncton, Canada: Atlantic Canada Opportunities Agency.

Farrell, E., Howorth, C. & Wright, M. (2008) A review of sampling and definitional issues in informal venture capital research. *Venture Capital: An International Journal of Entrepreneurial Finance*, 10(4), pp. 331-353.

Feeley, L. & Riding, A. L. (1999) Private investors' investment criteria: insights from qualitative data. *Venture Capital: An International Journal of Entrepreneurial Finance*, 1(2), pp. 121-145.

Felzensztein, C., Gimmon, E. & Aqueveque, C. (2013) Entrepreneurship at the periphery: exploring framework conditions in core and peripheral locations. *Entrepreneurship Theory and Practice*, 37(4), pp. 815-835.

Fernandez, R. & Rogerson, R. (1998) Public education and income distribution: A dynamic quantitative evaluation of education-finance reform. *American Economic Review*, 88(4), pp. 813-833.

Fielding, N. G. & Lee, R. M. (1998) *Computer analysis and qualitative research*. Thousand Oaks, CA: Sage.

Fiet, J. O. (1995) Risk avoidance strategies in venture capital markets. *Journal of Management Studies*, 32(4), pp. 551-574.

Fili, A. & Grünberg, J. (2014) Business angel post-investment activities: a multi-level review. *Journal of Management & Governance*, 20, pp. 89-114.

Financial Services (Banking Reform) Bill. 2013. *HL Bill 38*.

Finucane, M. L., Peters, E. & Slovic, P. (2003) 'Judgment and decision making: The dance of affect and reason', in Schneider, S. & Shanteau, J. (eds.) *Emerging Perspectives on Judgment and Decision Research*. New York: Cambridge University Press, pp. 327-364.

Firkin, P. (2001) *Entrepreneurial capital: A resource-based conceptualisation of the entrepreneurial process*. Labour Market Dynamics Research Programme, Massey University.

Fischer, E. O., Heinkel, R. & Zechner, J. (1989) Dynamic capital structure choice: Theory and tests. *The Journal of Finance*, 44(1), pp. 19-40.

Foo, M. D. (2011) Emotions and entrepreneurial opportunity evaluation. *Entrepreneurship Theory and Practice*, 35(2), pp. 375-393.

Forgas, J. P. & George, J. M. (2001) Affective influences on judgments and behavior in organizations: An information processing perspective. *Organizational Behavior and Human Decision Processes*, 86(1), pp. 3-34.

Foss, N. J. & Ishikawa, I. (2007) Towards a dynamic resource-based view: Insights from Austrian capital and entrepreneurship theory. *Organization Studies*, 28(5), pp. 749-772.

Franck, R. (2013) *The explanatory power of models: bridging the gap between empirical and theoretical research in the social sciences*. New York: Springer Science & Business Media.

Frank, M. Z. & Goyal, V. K. (2008) 'Tradeoff and Pecking Order Theories of Debt', in Eckbo, B.E. (ed.) *Handbook of Corporate Finance*. Oxford: Elsevier, pp. 135-202.

Frankish, J. S., Roberts, R. G., Coad, A. & Storey, D. J. (2014) Is entrepreneurship a route out of deprivation? *Regional Studies*, 48(6), pp. 1090-1107.

Fraser, S. (2004) *2004 UK Survey of SME Finances: Finance for small and medium-sized enterprises*, University of Warwick.

Fraser, S. (2009) Is there ethnic discrimination in the UK market for small business credit? *International Small Business Journal*, 27(5), pp. 583-607.

Fraser, S., Bhaumik, S. K. & Wright, M. (2015) What do we know about entrepreneurial finance and its relationship with growth? *International Small Business Journal*, 33(1), pp. 70-88.

Fraser, S. & Greene, F. J. (2006) The effects of experience on entrepreneurial optimism and uncertainty. *Economica*, 73(290), pp. 169-192.

Fredrickson, B. L. (2001) The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), pp. 218-226.

Freear, J., Grinde, R. & Wetzel, W. (1997) The early stage financing of high-tech entrepreneurs. *17th Babson-Kauffman Foundation*.

Freear, J., Sohl, J. E. & Wetzel Jr, W. E. (1994) The private investor market for venture capital. *IEEE Engineering Management Review*, 22(3), pp. 91-97.

Freear, J. & Wetzel, W. E. (1989) Equity capital for entrepreneurs. *Frontiers of Entrepreneurship Research*, 13, pp. 230-244.

Freear, J. & Wetzel, W. E. (1990) Who bankrolls high-tech entrepreneurs? *Journal of Business Venturing*, 5(2), pp. 77-89.

Freel, M., Carter, S., Tagg, S. & Mason, C. (2012) The latent demand for bank debt: characterizing “discouraged borrowers”. *Small Business Economics*, 38(4), pp. 399-418.

Freeman, J. H. & Audia, P. G. (2006) Community ecology and the sociology of organizations. *Annual Review of Sociology*, pp. 145-169.

Freitag, M. & Traunmüller, R. (2009) Spheres of trust: An empirical analysis of the foundations of particularised and generalised trust. *European Journal of Political Research*, 48(6), pp. 782-803.

Fried, V. H. & Hisrich, R. D. (1994) Toward a model of venture capital investment decision making. *Financial Management*, pp. 28-37.

Fukuyama, F. (2001) Social capital, civil society and development. *Third World Quarterly*, 22(1), pp. 7-20.

Gartner, W. B. (1985) A conceptual framework for describing the phenomenon of new venture creation. *Academy of Management Review*, 10(4), pp. 696-706.

Gaston, R. J. (1989) The scale of informal capital markets. *Small Business Economics*, 1(3), pp. 223-230.

George, G. & Bock, A. J. (2011) The business model in practice and its implications for entrepreneurship research. *Entrepreneurship Theory and Practice*, 35(1), pp. 83-111.

Gertler, M. & Gilchrist, S. (1991) *Monetary policy, business cycles and the behavior of small manufacturing firms*: National Bureau of Economic Research.

Gertler, M. & Gilchrist, S. (1993) The role of credit market imperfections in the monetary transmission mechanism: arguments and evidence. *The Scandinavian Journal of Economics*, pp. 43-64.

Gertler, M. S. (2010) Rules of the game: the place of institutions in regional economic change. *Regional Studies*, 44(1), pp. 1-15.

Ghatak, M. (2015) Theories of poverty traps and anti-poverty policies. *The World Bank Economic Review*, 29(1), pp. 77-105.

Ghauri, P. & Grønhaug, K. (2005) *Research Methods in Business Studies: A Practical Guide*. 3 edn. Harlow: Financial Times Prentice Hall.

Gibbons, D. (2012) *Responding to the financial crisis in our communities: What we need our banks to do now*: Centre for Responsible Credit.

Gimeno, J., Folta, T. B., Cooper, A. C. & Woo, C. Y. (1997) Survival of the fittest? Entrepreneurial human capital and the persistence of underperforming firms. *Administrative Science Quarterly*, pp. 750-783.

Glaeser, E. L., Laibson, D. & Sacerdote, B. (2002) An economic approach to social capital. *The Economic Journal*, 112(483), pp. F437-F458.

Glanville, J. L. & Paxton, P. (2007) How do we learn to trust? A confirmatory tetrad analysis of the sources of generalized trust. *Social Psychology Quarterly*, 70(3), pp. 230-242.

Glaser, B. G. & Strauss, A. L. (1967) *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

Global Entrepreneurship Research Association *Overview of the APS Process*. Available at: <http://www.gemconsortium.org/wiki/1155>.

Gnyawali, D. R. & Fogel, D. S. (1994) Environments for entrepreneurship development: key dimensions and research implications. *Entrepreneurship Theory and Practice*, 18, pp. 43-43.

Golder, B. (1992) The Past is the Past—Or is it? The use of retrospective accounts as indicators of past strategies. *Academy of Management Journal*, 35(4), pp. 848-860.

Gomez-Mejia, L. R., Cruz, C., Berrone, P. & De Castro, J. (2011) The bind that ties: Socioemotional wealth preservation in family firms. *The Academy of Management Annals*, 5(1), pp. 653-707.

Gompers, P. & Lerner, J. (2003) 'Equity financing', in Acs, Z. & Audretsch, D. (eds.) *Handbook of Entrepreneurship Research*. New York: Springer, pp. 267-298.

Graham, J. R. (1996) Debt and the marginal tax rate. *Journal of Financial Economics*, 41(1), pp. 41-73.

Granovetter, M. (1985) Economic action and social structure: the problem of embeddedness. *American Journal of Sociology*, 91(3), pp. 481-510.

Granovetter, M. S. (1973) The strength of weak ties. *American Journal of Sociology*, pp. 1360-1380.

Grant, P. & Perren, L. (2002) Small business and entrepreneurial research meta-theories, paradigms and prejudices. *International Small Business Journal*, 20(2), pp. 185-211.

Green, E. J. & Zhou, R. (1998) A rudimentary random-matching model with divisible money and prices. *Journal of Economic theory*, 81(2), pp. 252-271.

Green, E. J. & Zhou, R. (2002) Dynamic monetary equilibrium in a random matching economy. *Econometrica*, 70(3), pp. 929-969.

Greene, J. C., Caracelli, V. J. & Graham, W. F. (1989) Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis*, 11(3), pp. 255-274.

Greene, P. G. & Brown, T. E. (1997) Resource needs and the dynamic capitalism typology. *Journal of Business Venturing*, 12(3), pp. 161-173.

Greene, P. G., Brush, C. G. & Brown, T. E. (2015) Resources in small firms: an exploratory study. *Journal of Small Business Strategy*, 8(2), pp. 25-40.

Greene, P. G., Brush, C. G., Hart, M. M. & Saparito, P. (2001) Patterns of venture capital funding: is gender a factor? *Venture Capital: An International Journal of Entrepreneurial Finance*, 3(1), pp. 63-83.

Greve, A. & Salaff, J. W. (2003) Social networks and entrepreneurship. *Entrepreneurship theory and practice*, 28(1), pp. 1-22.

Grilo, I. & Thurik, R. (2005) Entrepreneurial engagement levels in the European Union. *International Journal of Entrepreneurship Education (IJEE)*, 3(2), pp. 143-168.

Guba, E. G. & Lincoln, Y. S. (1994) Competing paradigms in qualitative research. *Handbook of Qualitative Research*, 2(6), pp. 105-117.

Guercini, S. (2014) New qualitative research methodologies in management. *Management Decision*, 52(4), pp. 662-674.

Guest, D. E. (1998) Is the psychological contract worth taking seriously? *Journal of Organizational Behavior*, pp. 649-664.

Guest, D. E. & Conway, N. (2002) Communicating the psychological contract: an employer perspective. *Human Resource Management Journal*, 12(2), pp. 22-38.

Gulati, R. (1995) Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Academy of Management Journal*, 38(1), pp. 85-112.

Gulati, R. (1998) Alliances and networks. *Strategic Management Journal*, pp. 293-317.

Gummesson, E. (2000) *Qualitative methods in management research*. 2nd Edition edn. Thousand Oaks, CA: Sage.

Haar, N. E., Starr, J. & MacMillan, I. C. (1989) Informal risk capital investors: investment patterns on the East Coast of the USA. *Journal of Business Venturing*, 3(1), pp. 11-29.

Hafeez, K., McEvoy, D., Keoy, K. H. & Rusinovic, K. (2008) Moving between markets? Immigrant entrepreneurs in different markets. *International Journal of Entrepreneurial Behavior & Research*, 14(6), pp. 440-454.

Haines, G. H., Madill, J. J. & Riding, A. L. (2003) Informal investment in Canada: financing small business growth. *Journal of Small Business and Entrepreneurship*, 16(3/4), pp. 13-40.

Haines, G. H., Orser, B. J. & Riding, A. L. (1999) Myths and realities: An empirical study of banks and the gender of small business clients. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 16(4), pp. 291-307.

Haines, R., Street, M. D. & Haines, D. (2008) The influence of perceived importance of an ethical issue on moral judgment, moral obligation, and moral intent. *Journal of Business Ethics*, 81(2), pp. 387-399.

Han, L., Fraser, S. & Storey, D. J. (2009) Are good or bad borrowers discouraged from applying for loans? Evidence from US small business credit markets. *Journal of Banking & Finance*, 33(2), pp. 415-424.

Hancock, G. 'Toward an understanding of the capital structure of friend and family financing', *Institute for Small Business and Entrepreneurship Conference*, Liverpool, UK.

Hanks, S. H., Watson, C. J., Jansen, E. & Chandler, G. N. (1993) Tightening the life-cycle construct: A taxonomic study of growth stage configurations in high-technology organizations. *Entrepreneurship: Theory and Practice*, 18(2), pp. 5-30.

Hanley, J. A. & McNeil, B. J. (1982) The meaning and use of the area under a receiver operating characteristic (ROC) curve. *Radiology*, 143(1), pp. 29-36.

Hansen, L. P. (1982) Large sample properties of generalized method of moments estimators. *Econometrica: Journal of the Econometric Society*, pp. 1029-1054.

Harding, R. (2002) Plugging the knowledge gap: an international comparison of the role for policy in the venture capital market. *Venture Capital: An International Journal of Entrepreneurial Finance*, 4(1), pp. 59-76.

Harding, R. & Cowling, M. (2006) Points of view: assessing the scale of the equity gap. *Journal of Small Business and Enterprise Development*, 13(1), pp. 115-132.

Harding, R., Hart, M., Jones-Evans, D. & Levie, J. (2007) *Global Entrepreneurship Monitor: United Kingdom 2007 Monitoring Report*.

Harrison, R. (2013) Crowdfunding and the revitalisation of the early stage risk capital market: catalyst or chimera? *Venture Capital*, 15(4), pp. 283-287.

Harrison, R., Mason, C. & Robson, P. (2010) Determinants of long-distance investing by business angels in the UK. *Entrepreneurship and Regional Development*, 22(2), pp. 113-137.

Harrison, R. T. & Baldock, R. (2015) Financing SME growth in the UK: meeting the challenges after the global financial crisis. *Venture Capital*, 17(1-2), pp. 1-6.

Harrison, R. T., Dibben, M. R. & Mason, C. M. (1997) The role of trust in the informal investor's investment decision: An exploratory analysis. *Entrepreneurship: Theory and Practice*, 21(4), pp. 63-82.

Harrison, R. T. & Mason, C. M. (1992) International perspectives on the supply of informal venture capital. *Journal of Business Venturing*, 7(6), pp. 459-475.

Harrison, R. T., Mason, C. M. & Girling, P. (2004) Financial bootstrapping and venture development in the software industry. *Entrepreneurship & Regional Development*, 16(4), pp. 307-333.

Hart, M., Bonner, K. & Levie, J. (2015) *Global Entrepreneurship Monitor United Kingdom 2015 Monitoring Report*.

Hart, M., Bonner, K. & Levie, J. (2016) *Global Entrepreneurship Monitor United Kingdom 2016 Monitoring Report*.

Hart, M. & Levie, J. (2010) *Global Entrepreneurship Monitor: United Kingdom 2010 monitoring report*.

Hart, M., Levie, J., Bonner, K. & Drews, C.-C. (2014a) *Global Entrepreneurship Monitor 2014 United Kingdom Monitoring Report*.

Hart, M., Levie, J., Bonner, K. & Drews, C.-C. (2014b) *Global Entrepreneurship Monitor: United Kingdom Monitoring Report*.

Hart, M. M., Greene, P. G. & Brush, C. G. 'Leveraging resources: building an organization on an entrepreneurial resource base', *17th Annual Babson Conference on Entrepreneurship Research*, Wellesley, MA, US.

Hartigan, J. A. & Wong, M. A. (1979) Algorithm AS 136: A k-means clustering algorithm. *Journal of the Royal Statistical Society. Series C (Applied Statistics)*, 28(1), pp. 100-108.

Haynes, G. W. & Haynes, D. C. (1999) The debt structure of small businesses owned by women in 1987 and 1993. *Journal of Small Business Management*, 37(2), pp. 1.

Hayton, J. C., George, G. & Zahra, S. A. (2002) National culture and entrepreneurship: A review of behavioral research. *Entrepreneurship Theory and Practice*, 26(4), pp. 33.

Hayward, M. L. A., Shepherd, D. A. & Griffin, D. (2006) A hubris theory of entrepreneurship. *Management Science*, 52(2), pp. 160-172.

Headd, B. (2003) Redefining business success: Distinguishing between closure and failure. *Small Business Economics*, 21(1), pp. 51-61.

Healy, M. & Perry, C. (2000) Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm. *Qualitative Market Research: An International Journal*, 3(3), pp. 118-126.

Hechavarriá, D. M., Matthews, C. H. & Reynolds, P. D. (2016) Does start-up financing influence start-up speed? Evidence from the panel study of entrepreneurial dynamics. *Small Business Economics*, 46(1), pp. 137-167.

Herriott, R. E. & Firestone, W. A. (1983) Multisite qualitative policy research: Optimizing description and generalizability. *Educational Researcher*, 12(2), pp. 14-19.

Hessels, J., Van Gelderen, M. & Thurik, R. (2008) Entrepreneurial aspirations, motivations, and their drivers. *Small Business Economics*, 31(3), pp. 323-339.

Hicks, J. R. (1946) *Value and Capital: An Inquiry into some Fundamental Principles of Economic Theory*. New York: Oxford University Press.

Higgins, D., McGowan, P., McDonald, S., Gan, B. C., Fraser, S. S., Oke, A. & Anderson, A. R. (2015) A review of research methods in entrepreneurship 1985-2013. *International Journal of Entrepreneurial Behavior & Research*, 21(3), pp. 291-315.

Hill, J. (1984) Human altruism and sociocultural fitness. *Journal of Social and Biological Structures*, 7(1), pp. 17-35.

Hindle, K. & Lee, L. (2002) An exploratory investigation of informal venture capitalists in Singapore. *Venture Capital: An International Journal of Entrepreneurial Finance*, 4(2), pp. 169-177.

Hite, J. M. & Hesterly, W. S. (2001) The evolution of firm networks: From emergence to early growth of the firm. *Strategic Management Journal*, 22(3), pp. 275-286.

Hitt, M. A., Ahlstrom, D., Dacin, M. T., Levitas, E. & Svobodina, L. (2004) The institutional effects on strategic alliance partner selection in transition economies: China vs. Russia. *Organization Science*, 15(2), pp. 173-185.

Hlady-Rispal, M. & Jouison-Laffitte, E. (2014) Qualitative research methods and epistemological frameworks: a review of publication trends in entrepreneurship. *Journal of Small Business Management*, 52(4), pp. 594-614.

HM Government (2017) *Building our industrial strategy*, January. Green paper.

HM Revenue & Customs (2013) *Guidance: Enterprise Investment Scheme*. Available at: <https://www.gov.uk/government/publications/the-enterprise-investment-scheme-introduction>.

HM Treasury (2011) *The Green Book: Appraisal and Evaluation in Central Government*, London: TSO. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf.

HM Treasury 2013. Financial Services (Banking Reform) Bill. *HL Bill 38*. House of Lords and House of Commons

Hmieleski, K. M. & Baron, R. A. (2009) Entrepreneurs' optimism and new venture performance: A social cognitive perspective. *Academy of Management Journal*, 52(3), pp. 473-488.

Hofmann, D. A., Lei, Z. & Grant, A. M. (2009) Seeking help in the shadow of doubt: the sensemaking processes underlying how nurses decide whom to ask for advice. *Journal of Applied Psychology*, 94(5), pp. 1261-1274.

Houthakker, H. S. & Taylor, L. D. (1966) *Consumer Demand in the United States, 1929-1970* Cambridge: Harvard University Press.

Howorth, C. A. (2001) Small firms' demand for finance: a research note.(Research Note). *International Small Business Journal*, 19(4), pp. 78-87.

Hruschka, D. J., Schwartz, D., John, D. C. S., Picone-Decaro, E., Jenkins, R. A. & Carey, J. W. (2004) Reliability in coding open-ended data: Lessons learned from HIV behavioral research. *Field Methods*, 16(3), pp. 307-331.

Hsu, D. K., Haynie, J. M., Simmons, S. A. & McKelvie, A. (2014) What matters, matters differently: a conjoint analysis of the decision policies of angel and venture capital investors. *Venture Capital*, 16(1), pp. 1-25.

Hughes, K. D., Jennings, J. E., Brush, C., Carter, S. & Welter, F. (2012) Extending women's entrepreneurship research in new directions. *Entrepreneurship Theory and Practice*, 36(3), pp. 429-442.

Huyghebaert, N. (2001) The capital structure of business start-ups: Determinants of initial financial structure. *Tijdschrift voor Bank-en Financiewezen*, (3), pp. 84-88.

Inglehart, R. (1997) *Modernization and postmodernization: Cultural, economic, and political change in 43 societies*. New Jersey: Princeton University Press, p. 440.

Irwin, D. & Scott, J. M. (2010) Barriers faced by SMEs in raising bank finance. *International Journal of Entrepreneurial Behavior & Research*, 16(3), pp. 245-259.

Isen, A. M. & Labroo, A. A. (2003) 'Some ways in which positive affect facilitates decision making and judgment', in Schneider, S.L. & Shanteau, J. (eds.) *Emerging perspectives on judgment and decision research*. New York: Cambridge University Press, pp. 365-393.

Jack, E. P. & Raturi, A. S. (2006) Lessons learned from methodological triangulation in management research. *Management Research News*, 29(6), pp. 345-357.

Jack, S. L. & Anderson, A. R. (2002) The effects of embeddedness on the entrepreneurial process. *Journal of business Venturing*, 17(5), pp. 467-487.

James, W. (1907) 'What pragmatism means', in James, W. (ed.) *Pragmatism: A new name for some old ways of thinking* London: Longmans, Green and Co., pp. 42-81.

Jayawarna, D., Jones, O. & Macpherson, A. (2011) New business creation and regional development: Enhancing resource acquisition in areas of social deprivation. *Entrepreneurship & Regional Development*, 23(9-10), pp. 735-761.

Jeffrey, S. A., Lévesque, M. & Maxwell, A. L. (2016) The non-compensatory relationship between risk and return in business angel investment decision making. *Venture Capital*, pp. 1-21.

Jennings, P. D., Greenwood, R., Lounsbury, M. D. & Suddaby, R. (2013) Institutions, entrepreneurs, and communities: A special issue on entrepreneurship. *Journal of Business Venturing*, 28(1), pp. 1-9.

Jensen, M. C. (2001) Value Maximization, Stakeholder Theory, and the Corporate Objective Function. *Journal of Applied Corporate Finance*, 14(3), pp. 8-22.

Jensen, M. C. & Meckling, W. H. (1976) Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), pp. 305-360.

Johns, G. (2006) The essential impact of context on organizational behavior. *Academy of Management Review*, 31(2), pp. 386-408.

Johnson, E. J. & Tversky, A. (1983) Affect, generalization, and the perception of risk. *Journal of Personality and Social Psychology*, 45(1), pp. 20-31.

Johnson, P. & Duberley, J. (2000) *Understanding management research: An introduction to epistemology*. Wiltshire: The Cromwell Press Ltd.

Jones, O. & Jayawarna, D. (2010) Resourcing new businesses: social networks, bootstrapping and firm performance. *Venture Capital*, 12(2), pp. 127-152.

Jones, O., Macpherson, A. & Jayawarna, D. (2014) *Resourcing the Start-Up Business: Creating Dynamic Entrepreneurial Learning Capabilities*. Oxon: Routledge.

Jones, T. M. (1995) Instrumental stakeholder theory: A synthesis of ethics and economics. *Academy of Management Review*, 20(2), pp. 404-437.

Jones-Evans, D. (2015) Access to finance to SMEs at a regional level—the case of Finance Wales. *Venture Capital*, 17(1-2), pp. 27-41.

Jones-Evans, D. & Thompson, P. (2009) The spatial dispersion of informal investment at a regional level: Evidence from the UK. *European Planning Studies*, 17(5), pp. 659-675.

Jøsang, A. & Presti, S. L. 'Analysing the relationship between risk and trust'. *International Conference on Trust Management*: Springer, 135-145.

Jung, K., Kim, Y.-C. & Stulz, R. (1996) Timing, investment opportunities, managerial discretion, and the security issue decision. *Journal of Financial Economics*, 42(2), pp. 159-186.

Kaplan, S. N. & Strömberg, P. (2003) Financial contracting theory meets the real world: An empirical analysis of venture capital contracts. *The Review of Economic Studies*, 70(2), pp. 281-315.

Kaplan, S. N. & Zingales, L. (1997) Do investment-cash flow sensitivities provide useful measures of financing constraints? *The Quarterly Journal of Economics*, pp. 169-215.

Karra, N., Tracey, P. & Phillips, N. (2006) Altruism and agency in the family firm: Exploring the role of family, kinship, and ethnicity. *Entrepreneurship Theory and Practice*, 30(6), pp. 861-877.

Katz, J. & Gartner, W. B. (1988) Properties of emerging organizations. *Academy of Management Review*, 13(3), pp. 429-441.

Keeble, D. & Walker, S. (1994) New firms, small firms and dead firms: spatial patterns and determinants in the United Kingdom. *Regional Studies*, 28(4), pp. 411-427.

Kelly, P. & Hay, M. (1996) Serial investors and early stage finance. *The Journal of Entrepreneurial Finance*, 5(2), pp. 159-174.

Kelly, P. & Hay, M. (2003) Business angel contracts: the influence of context. *Venture Capital*, 5(4), pp. 287-312.

Kelly, P. S. (2000) *Private investors and entrepreneurs: how context shapes their relationship*. London Business School (University of London).

Kempson, E. & MacKinnon, K. (2002) Self-employment in deprived communities. A report to the Bank of England.

Kempson, E. & Whyley, C. (1999) *Kept out or opted out? Understanding and combating financial exclusion*. York: Joseph Rowntree Foundation.

Kenessey, Z. (1987) The primary, secondary, tertiary and quaternary sectors of the economy. *Review of Income and Wealth*, 33(4), pp. 359-385.

Kerr, W. R., Lerner, J. & Schoar, A. (2014) The consequences of entrepreneurial finance: Evidence from angel financings. *Review of Financial Studies*, 27(1), pp. 20-55.

Keynes, J. M. (1936) *General theory of employment, interest and money*. New York: Harcourt, Brace and Company.

Khayesi, J. N., George, G. & Antonakis, J. (2014) Kinship in entrepreneur networks: Performance effects of resource assembly in Africa. *Entrepreneurship Theory and Practice*, 38(6), pp. 1323-1342.

Kiefer, J. & Wolfowitz, J. (1956) Consistency of the maximum likelihood estimator in the presence of infinitely many incidental parameters. *The Annals of Mathematical Statistics*, pp. 887-906.

King, G. & Zeng, L. (2001) Logistic regression in rare events data. *Political analysis*, 9(2), pp. 1047-1987.

Kiyotaki, N. & Moore, J. (1995) *Credit cycles*: National Bureau of Economic Research.

Klagge, B. & Martin, R. (2005) Decentralized versus centralized financial systems: is there a case for local capital markets? *Journal of Economic Geography*, 5(4), pp. 387-421.

Klapper, L., Laeven, L. & Rajan, R. (2006) Entry regulation as a barrier to entrepreneurship. *Journal of Financial Economics*, 82(3), pp. 591-629.

Kloosterman, R. C. (2010) Matching opportunities with resources: A framework for analysing (migrant) entrepreneurship from a mixed embeddedness perspective. *Entrepreneurship and Regional Development*, 22(1), pp. 25-45.

Klyver, K. & Hindle, K. 'Do social networks affect entrepreneurship? A test of the fundamental assumption using large sample, longitudinal data'. *ANZAM 2006: Management: pragmatism, philosophy, priorities: Proceedings of the 20th Australian and New Zealand Academy of Management Conference*: ANZAM.

Klyver, K. & Hindle, K. (2007) The role of social networks at different stages of business formation. *Small Enterprise Research*, 15(1), pp. 22-38.

Klyver, K., Lindsay, N. J., Suleiman, K. & Hancock, G. (2016) Altruistic investment decision behavior in early-stage ventures. *Small Business Economics*, pp. 1-18.

Koellinger, P., Minniti, M. & Schade, C. (2007) "I think I can, I think I can": Overconfidence and entrepreneurial behavior. *Journal of Economic Psychology*, 28(4), pp. 502-527.

Koellinger, P. D. & Thurik, R. A. (2012) Entrepreneurship and the business cycle. *Review of Economics and Statistics*, 94(4), pp. 1143-1156.

Kon, Y. & Storey, D. J. (2003) A theory of discouraged borrowers. *Small Business Economics*, 21(1), pp. 37-49.

Korajczyk, R. A. & Levy, A. (2003) Capital structure choice: macroeconomic conditions and financial constraints. *Journal of Financial Economics*, 68(1), pp. 75-109.

Koriat, A., Lichtenstein, S. & Fischhoff, B. (1980) Reasons for confidence. *Journal of Experimental Psychology: Human Learning and Memory*, 6(2), pp. 107-118.

Korsgaard, M. (1996) The role of procedural justice in entrepreneur-venture capital relations. *Academy of Management Journal*, 38, pp. 544-574.

Kotha, R. & George, G. (2012) Friends, family, or fools: Entrepreneur experience and its implications for equity distribution and resource mobilization. *Journal of Business Venturing*, 27(5), pp. 525-543.

Kramer, R. M., McClintock, C. G. & Messick, D. M. (1986) Social values and cooperative response to a simulated resource conservation crisis. *Journal of Personality*, 54(3), pp. 576-582.

Krauss, S. E. (2005) Research paradigms and meaning making: A primer. *The Qualitative Report*, 10(4), pp. 758-770.

Krippendorff, K. (2004) Reliability in content analysis. *Human Communication Research*, 30(3), pp. 411-433.

Kruskal, W. H. & Mosteller, F. (1988) Representative sampling. *Encyclopedia of Statistical Sciences*.

Kumar, N. (1996) The power of trust in manufacturer-retailer relationships. *Harvard Business Review*, 74(6), pp. 92-106.

Kwon, S.-W. & Arenius, P. (2010a) Nations of entrepreneurs: A social capital perspective. *Journal of Business Venturing*, 25(3), pp. 315-330.

Kwon, S. W. & Arenius, P. (2010b) Nations of entrepreneurs: A social capital perspective. *Journal of Business Venturing*, 25(3), pp. 315-330.

Kydland, F. E. (1984) Labor-force heterogeneity and the business cycle. *Carnegie-Rochester Conference Series on Public Policy*, 21, pp. 173-208.

Lam, W. (2010) Funding gap, what funding gap? Financial bootstrapping: Supply, demand and creation of entrepreneurial finance. *International Journal of Entrepreneurial Behavior & Research*, 16(4), pp. 268-295.

Landier, A. & Thesmar, D. (2009) Financial contracting with optimistic entrepreneurs. *Review of Financial Studies*, 22(1), pp. 117-150.

Landström, H. (1992) The relationship between private investors and small firms: an agency theory approach. *Entrepreneurship & Regional Development*, 4(3), pp. 199-223.

Landström, H. (1993) Informal risk capital in Sweden and some international comparisons. *Journal of Business Venturing*, 8(6), pp. 525-540.

Landström, H. (1998) Informal investors as entrepreneurs: Decision-making criteria used by informal investors in their assessment of new investment proposals. *Technovation*, 18(5), pp. 321-333.

Landström, H. (2007) 'Pioneers in venture capital research', in Landström, H. (ed.) *Handbook of Research on Venture Capital*. Cheltenham: Edward Elgar.

Larson, A. (1992) Network dyads in entrepreneurial settings: A study of the governance of exchange relationships. *Administrative Science Quarterly*, 37(1), pp. 76-104.

Larson, A. & Starr, J. A. (1993) A network model of organization formation. *Entrepreneurship Theory and Practice*, 17(2), pp. 5-16.

Leckie, G. (2010) *Module 7: Multilevel Models for Binary Responses*: Centre for Multilevel Modelling.

Lee, N. & Cowling, M. (2013) Place, sorting effects and barriers to enterprise in deprived areas: Different problems or different firms? *International Small Business Journal*, 31(8), pp. 914-937.

Lee, N. & Drever, E. (2014) Do SMEs in deprived areas find it harder to access finance? Evidence from the UK Small Business Survey. *Entrepreneurship & Regional Development*, 26(3-4), pp. 337-356.

Lee, N., Sameen, H. & Cowling, M. (2015) Access to finance for innovative SMEs since the financial crisis. *Research Policy*, 44(2), pp. 370-380.

Lee, S. & Persson, P. (2016) Financing from family and friends. *Review of Financial Studies*, 29(9), pp. 1-65.

Leech, N. L. & Onwuegbuzie, A. J. (2007) An array of qualitative data analysis tools: A call for data analysis triangulation. *School Psychology Quarterly*, 22(4), pp. 557-584.

Leininger, M. (1994) 'Evaluation criteria and critique of qualitative research studies', in Morse, J.M. (ed.) *Critical issues in qualitative research methods*. Thousand Oaks: Sage, pp. 95-115.

Leitch, C. M., Hill, F. M. & Harrison, R. T. (2010) The philosophy and practice of interpretivist research in entrepreneurship. *Organizational Research Methods*, 13(1), pp. 67-84.

Lerner, J. (1998) "Angel" financing and public policy: An overview. *Journal of Banking & Finance*, 22(6), pp. 773-783.

Lerner, J., Tiedens, L. & Gonzalez, R. (2006) Toward a model of emotion-specific influences on judgment and decision making: Portrait of the angry decision maker. *Journal of Behavioral Decision Making*, 19, pp. 115-137.

Levenson, A. R. & Willard, K. L. (2000) Do firms get the financing they want? Measuring credit rationing experienced by small businesses in the US. *Small Business Economics*, 14(2), pp. 83-94.

Levie, J. & Autio, E. (2008) A theoretical grounding and test of the GEM model. *Small Business Economics*, 31(3), pp. 235-263.

Levie, J. & Autio, E. (2011) Regulatory burden, rule of law, and entry of strategic entrepreneurs: an international panel study. *Journal of Management Studies*.

Levie, J., Autio, E., Acs, Z. & Hart, M. (2014) Global entrepreneurship and institutions: an introduction. *Small Business Economics*, 42(3), pp. 437-444.

Levie, J. & Hart, M. (2008) *Global Entrepreneurship Monitor: United Kingdom 2008 Monitoring Report*.

Levie, J. & Hart, M. (2009) *Global Entrepreneurship Monitor: United Kingdom 2009 Monitoring Report*.

Levie, J. & Hart, M. (2011) *Global Entrepreneurship Monitor: United Kingdom 2011 Monitoring Report*.

Levie, J. & Hart, M. (2012) *Global Entrepreneurship Monitor United Kingdom 2012 Monitoring Report*.

Levie, J., Hart, M. & Bonner, K. (2013) *Global Entrepreneurship Monitor: United Kingdom 2013 Monitoring Report*.

Levine, D. K. (1998) Modeling altruism and spitefulness in experiments. *Review of Economic Dynamics*, 1(3), pp. 593-622.

Levy, A. & Hennessy, C. (2007) Why does capital structure choice vary with macroeconomic conditions? *Journal of Monetary Economics*, 54(6), pp. 1545-1564.

Lewis, J. D. & Weigert, A. (1985) Trust as a social reality. *Social Forces*, 63(4), pp. 967-985.

Leyden, D. P., Link, A. N. & Siegel, D. S. (2014) A theoretical analysis of the role of social networks in entrepreneurship. *Research Policy*, 43(7), pp. 1157-1163.

Leyshon, A. (2009) Financial exclusion. *International Encyclopedia of Human Geography*, 4, pp. 153-8.

Lin, N. (1999) Building a network theory of social capital. *Connections*, 22(1), pp. 28-51.

Lin, N. (2001) *Social Capital – A Theory of Structure and Action*. New York & Cambridge: Cambridge University Press.

Lin, N. & Dumin, M. (1986) Access to occupations through social ties. *Social Networks*, 8(4), pp. 365-385.

Lin, N., Ensel, W. M. & Vaughn, J. C. (1981) Social resources and strength of ties: Structural factors in occupational status attainment. *American Sociological Review*, pp. 393-405.

Lincoln, Y. S., & Guba, E. (1985) *Naturalistic inquiry*. Beverly Hills: Sage.

Lindsay, N. J. (2004) Do business angels have an entrepreneurial orientation? *Venture Capital*, 6(2-3), pp. 197-210.

Lown, C. & Morgan, D. P. (2006) The credit cycle and the business cycle: new findings using the loan officer opinion survey. *Journal of Money, Credit and Banking*, pp. 1575-1597.

Lu, X. & White, H. (2014) Robustness checks and robustness tests in applied economics. *Journal of Econometrics*, 178, pp. 194-206.

Lucero, M. A. & Allen, R. E. (1994) Employee benefits: A growing source of psychological contract violations. *Human Resource Management*, 33(3), pp. 425-446.

Lumme, A., Mason, C. & Suomi, M. (1996) The returns from informal venture capital investments: an exploratory study. *The Journal of Entrepreneurial Finance*, 5(2), pp. 139-158.

Luo, X. & Chung, C.-N. (2005) Keeping it all in the family: The role of particularistic relationships in business group performance during institutional transition. *Administrative Science Quarterly*, 50(3), pp. 404-439.

Lutz, E., Bender, M., Achleitner, A.-K. & Kaserer, C. (2013) Importance of spatial proximity between venture capital investors and investees in Germany. *Journal of Business Research*, 66(11), pp. 2346-2354.

Lyons, B. & Mehta, J. (1997) Contracts, opportunism and trust: self-interest and social orientation. *Cambridge Journal of Economics*, 21(2), pp. 239-257.

Maas, C. J. M. & Hox, J. J. (2004) Robustness issues in multilevel regression analysis. *Statistica Neerlandica*, 58(2), pp. 127-137.

Mac an Bhaird, C. & Lucey, B. (2011) An empirical investigation of the financial growth lifecycle. *Journal of Small Business and Enterprise Development*, 18(4), pp. 715-731.

Macht, S. A. (2011a) Inexpert business angels: How even investors with 'nothing to add' can add value. *Strategic Change*, 20(7-8), pp. 269-278.

Macht, S. A. (2011b) The role of investee company managers in business angels' involvement: empirical insights from dyadic data. *Venture Capital*, 13(3), pp. 267-293.

Macht, S. A. & Robinson, J. (2009) Do business angels benefit their investee companies? *International Journal of Entrepreneurial Behavior & Research*, 15(2), pp. 187-208.

MacMillan, I. C., Kulow, D. M. & Khoylian, R. (1989) Venture capitalists' involvement in their investments: Extent and performance. *Journal of Business Venturing*, 4(1), pp. 27-47.

Madill, J., Haines Jr, G. H. & Riding, A. L. (2005) The role of angels in technology SMEs: A link to venture capital. *Venture Capital*, 7(2), pp. 107-129.

Malhotra, D. & Murnighan, J. K. (2002) The effects of contracts on interpersonal trust. *Administrative Science Quarterly*, 47(3), pp. 534-559.

Måansson, N. & Landström, H. (2005) Business Angels Investing at Early Stages—are They Different. *Institute of Economic Research, Lund University*.

Marlow, S. & Patton, D. (2005) All credit to men? Entrepreneurship, finance, and gender. *Entrepreneurship Theory and Practice*, 29(6), pp. 717-735.

Marlow, S. & Swail, J. (2014) Gender, risk and finance: why can't a woman be more like a man? *Entrepreneurship & Regional Development*, 26(1-2), pp. 80-96.

Marlow, S., Westall, A. & Watson, E. (2003) *Who Benefits? The Difficulties of Women Making the Transition from Unemployment to Self-Employment*. London: New Economics Foundation, p. 22.

Marquis, C., Lounsbury, M. & Greenwood, R. (2011) Introduction: Community as an institutional order and a type of organizing. *Research in the Sociology of Organizations*, 33, pp. ix-xxvii.

Marsden, P. V. & Campbell, K. E. (1984) Measuring tie strength. *Social Forces*, 63(2), pp. 482-501.

Marsden, P. V. & Hurlbert, J. S. (1988) Social resources and mobility outcomes: A replication and extension. *Social Forces*, 66(4), pp. 1038-1059.

Marshall, M. N. (1996) Sampling for qualitative research. *Family Practice*, 13(6), pp. 522-526.

Martin, P. & Rogers, C. A. (2000) Long-term growth and short-term economic instability. *European Economic Review*, 44(2), pp. 359-381.

Martin, R. (1999) The new economic geography of money. *Money and the Space Economy*, January, pp. 3-27.

Martin, R., Berndt, C., Klagge, B. & Sunley, P. (2005) Spatial proximity effects and regional equity gaps in the venture capital market: evidence from Germany and the United Kingdom. *Environment and Planning A*, 37(7), pp. 1207-1231.

Martin, R., Sunley, P. & Turner, D. (2002) Taking risks in regions: the geographical anatomy of Europe's emerging venture capital market. *Journal of Economic Geography*, 2(2), pp. 121-150.

Mason, C. (2010) Entrepreneurial finance in a regional economy. *Venture Capital: An International Journal of Entrepreneurial Finance*, 12(3), pp. 167-172.

Mason, C., Botelho, T. & Harrison, R. (2016a) The transformation of the business angel market: empirical evidence and research implications. *Venture Capital*, 18(4), pp. 321-344.

Mason, C., Botelho, T. & Zygmunt, J. (2016b) Why business angels reject investment opportunities: Is it personal? *International Small Business Journal*, June, pp. 1-16.

Mason, C. & Brown, R. (2013) Creating good public policy to support high-growth firms. *Small Business Economics*, 40(2), pp. 211-225.

Mason, C. & Harrison, R. (2000a) 'Informal venture capital in the UK', in Storey, D. (ed.) *Small Business: Critical Perspectives on Business and Management*. London: Routledge, pp. 755-818.

Mason, C. & Harrison, R. (2003) Closing the regional equity gap? A critique of the Department of Trade and Industry's regional venture capital funds initiative. *Regional Studies*, 37(8), pp. 855-868.

Mason, C., Harrison, R. & Botelho, T. (2015) 'Business Angel Exits: Strategies and Processes', in Hussain, J.G. & Scott, J.M. (eds.) *International Research Handbook on Entrepreneurial Finance*: Edward Elgar.

Mason, C. & Kwok, J. (2010) Investment readiness programmes and access to finance: a critical review of design issues. *Local Economy*, 25(4), pp. 269-292.

Mason, C. & Pierrakis, Y. (2013) Venture capital, the regions and public policy: the United Kingdom since the post-2000 technology crash. *Regional Studies*, 47(7), pp. 1156-1171.

Mason, C. & Stark, M. (2004) What do Investors Look for in a Business Plan?: A Comparison of the Investment Criteria of Bankers, Venture Capitalists and Business Angels. *International Small Business Journal*, 22(3), pp. 227-248.

Mason, C. M. (2007) 'Venture capital: a geographical perspective', in Landström, H. (ed.) *Handbook of Research on Venture Capital*. Cheltenham: Edward Elgar, pp. 86-112.

Mason, C. M. & Botelho, T. (2014) *The 2014 survey of business angel investing in the UK: a changing market place*: University of Glasgow.

Mason, C. M. & Harrison, R. T. (1996) Informal venture capital: a study of the investment process, the post-investment experience and investment performance. *Entrepreneurship & Regional Development*, 8(2), pp. 105-126.

Mason, C. M. & Harrison, R. T. (1997) Business angel networks and the development of the informal venture capital market in the UK: Is there still a role for the public sector. *Small Business Economics*, 9(2), pp. 111-123.

Mason, C. M. & Harrison, R. T. (2000b) 'Informal Venture Capital And The Financing Of Emergent Growth Businesses', in Sexton, D. & Landström, H. (eds.) *The Blackwell Handbook of Entrepreneurship*. Blackwell: Oxford, pp. 221-239.

Mason, C. M. & Harrison, R. T. (2002a) Barriers to investment in the informal venture capital sector. *Entrepreneurship & Regional Development*, 14(3), pp. 271-287.

Mason, C. M. & Harrison, R. T. (2002b) The geography of venture capital investments in the UK. *Transactions of the Institute of British Geographers*, 27(4), pp. 427-451.

Mason, C. M. & Harrison, R. T. (2002c) Is it worth it? The rates of return from informal venture capital investments. *Journal of Business Venturing*, 17(3), pp. 211-236.

Mason, C. M. & Harrison, R. T. (2004) Improving access to early stage venture capital in regional economies: a new approach to investment readiness. *Local Economy*, 19(2), pp. 159-173.

Mason, C. M. & Harrison, R. T. (2008) Measuring business angel investment activity in the United Kingdom: a review of potential data sources. *Venture Capital*, 10(4), pp. 309-330.

Mason, C. M. & Harrison, R. T. (2010) *Annual Report on the Business Angel Market in the United Kingdom: 2008/09*: UK Business Angels AssociationURN 10/994). Available at: http://www.ukbusinessangelsassociation.org.uk/sites/default/files/media/files/bbaa_annual_market_report_2008-2009.pdf (Accessed: 3 September 2015).

Mason, C. M. & Harrison, R. T. (2011) *Annual report on the business angel market in the United Kingdom: 2009/10*: UK Business Angels AssociationURN 11/P116). Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32218/11-p116-annual-report-business-angel-market-uk-2009-10.pdf (Accessed: 3 September 2015).

Mason, C. M. & Harrison, R. T. (2015) Business angel investment activity in the financial crisis: UK evidence and policy implications. *Environment and Planning C: Government and Policy*, 33(1), pp. 43-60.

Mason, C. M. & Rogers, A. (1996) Understanding the business angel's investment decision. *Venture Finance Working Paper*, 14.

Masterson, S. S. & Stamper, C. L. (2003) Perceived organizational membership: An aggregate framework representing the employee–organization relationship. *Journal of Organizational Behavior*, 24(5), pp. 473-490.

Maula, M., Autio, E. & Arenius, P. (2005) What drives micro-angel investments? *Small Business Economics*, 25(5), pp. 459-475.

Maxwell, A. L., Jeffrey, S. A. & Lévesque, M. (2009) Business angel early stage decision making. *Journal of Business Venturing*.

Maxwell, A. L., Jeffrey, S. A. & Lévesque, M. (2011) Business angel early stage decision making. *Journal of Business Venturing*, 26(2), pp. 212-225.

Maxwell, A. L. & Lévesque, M. (2014) Trustworthiness: A critical ingredient for entrepreneurs seeking investors. *Entrepreneurship Theory and Practice*, 38(5), pp. 1057-1080.

Mayer, R. C., Davis, J. H. & Schoorman, F. D. (1995) An integrative model of organizational trust. *Academy of Management Review*, 20(3), pp. 709-734.

McFadden, D. F. (1974) 'Conditional logit analysis of qualitative choice behavior', in Zaremba, P. (ed.) *Frontiers in Econometrics*. New York: Academic Press, pp. 105-142.

McIntyre, Z. & McKee, K. (2012) Creating sustainable communities through tenure-mix: the responsibilisation of marginal homeowners in Scotland. *GeoJournal*, 77(2), pp. 235-247.

McLean, R. D. & Zhao, M. (2014) The business cycle, investor sentiment, and costly external finance. *The Journal of Finance*, 69(3), pp. 1377-1409.

Meek, W. R., Pacheco, D. F. & York, J. G. (2010) The impact of social norms on entrepreneurial action: Evidence from the environmental entrepreneurship context. *Journal of Business Venturing*, 25(5), pp. 493-509.

Miles, M. B. & Huberman, A. M. (1994a) *Qualitative Data Analysis*. Thousand Oaks, C.A.: Sage.

Miles, M. B. & Huberman, A. M. (1994b) *Qualitative data analysis: An expanded sourcebook*. 2nd Edition edn. Thousand Oaks, CA: Sage.

Miller, D. & Friesen, P. H. (1983) Strategy-making and environment: The third link. *Strategic Management Journal*, 4(3), pp. 221-235.

Mincer, J. (1958) Investment in human capital and personal income distribution. *The Journal of Political Economy*, 66(4), pp. 281-302.

Mitchell, R. K., Busenitz, L. W., Bird, B., Marie Gaglio, C., McMullen, J. S., Morse, E. A. & Smith, J. B. (2007) The central question in entrepreneurial cognition research 2007. *Entrepreneurship Theory and Practice*, 31(1), pp. 1-27.

Mitteness, C., Sudek, R. & Cardon, M. S. (2012a) Angel investor characteristics that determine whether perceived passion leads to higher evaluations of funding potential. *Journal of Business Venturing*, 27(5), pp. 592-606.

Mitteness, C. R., Baucus, M. S. & Sudek, R. (2012b) Horse vs. jockey? How stage of funding process and industry experience affect the evaluations of angel investors. *Venture Capital*, 14(4), pp. 241-267.

Moen, Ø., Sørheim, R. & Erikson, T. (2008) Born global firms and informal investors: examining investor characteristics. *Journal of Small Business Management*, 46(4), pp. 536-549.

Moerbeek, M., Van Breukelen, J. P. & Berger, M. P. (2008) 'Optimal Designs for Multilevel Studies', in de Leeuw, J. & Meijer, E. (eds.) *Handbook of Multilevel Analysis*. New York: Springer, pp. 177-206.

Mohr, J. & Spekman, R. (1994) Characteristics of partnership success: partnership attributes, communication behavior, and conflict resolution techniques. *Strategic Management Journal*, 15(2), pp. 135-152.

Molina-Azorín, J. F., López-Gamero, M. D., Pereira-Moliner, J. & Pertusa-Ortega, E. M. (2012) Mixed methods studies in entrepreneurship research: Applications and contributions. *Entrepreneurship & Regional Development*, 24(5-6), pp. 425-456.

Mollick, E. (2014) The dynamics of crowdfunding: An exploratory study. *Journal of Business Venturing*, 29(1), pp. 1-16.

Molm, L. D. (1994) Dependence and risk: Transforming the structure of social exchange. *Social Psychology Quarterly*, pp. 163-176.

Molm, L. D. (2003) Theoretical comparisons of forms of exchange. *Sociological Theory*, 21(1), pp. 1-17.

Molm, L. D., Takahashi, N. & Peterson, G. (2000) Risk and trust in social exchange: An experimental test of a classical proposition. *American Journal of Sociology*, pp. 1396-1427.

Monroe, K. R. (1994) A Fat Lady in a Corset: Altruism and Social Theory. *American Journal of Political Science*, 38(4), pp. 861-893.

Morgan, D. L. (1998) Practical Strategies for Combining Qualitative and Quantitative Methods: Applications for Health Research. *Qualitative Health Research*, 8, pp. 362-376.

Morgan, G. & Smircich, L. (1980) The case for qualitative research. *Academy of Management Review*, 5(4), pp. 491-500.

Morrison, E. W. & Robinson, S. L. (1997) When employees feel betrayed: A model of how psychological contract violation develops. *Academy of Management Review*, 22(1), pp. 226-256.

Morse, J. M. (1991) Approaches to Qualitative-Quantitative Methodological Triangulation. *Nursing Research*, 40(2), pp. 120-123.

Morse, J. M., Barrett, M., Mayan, M., Olson, K. & Spiers, J. (2002) Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods*, 1(2), pp. 13-22.

Mosey, S. & Wright, M. (2007) From human capital to social capital: A longitudinal study of technology-based academic entrepreneurs. *Entrepreneurship Theory and Practice*, 31(6), pp. 909-935.

Mostyn, B. (1985) 'The Content Analysis of Qualitative Research Data: A Dynamic Approach', in Brenner, M., Brown, J. & Canter, D. (eds.) *The Research Interview, Uses and Approaches*. London: Academic Press, pp. 115-146.

Mullins, J. W. & Forlani, D. (2005) Missing the boat or sinking the boat: A study of new venture decision making. *Journal of Business Venturing*, 20(1), pp. 47-69.

Myers, S. C. 1984. Capital structure puzzle. National Bureau of Economic Research Cambridge, Mass., USA.

Nadler, A. (1991) 'Help-seeking behavior: psychological costs and instrumental benefits', in Clark, M.S. (ed.) *Review of personality and social psychology* New York: Sage, pp. 290-312.

Nahapiet, J. & Ghoshal, S. (1998) Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), pp. 242-266.

Nick, H. & Craig, P. (January 2013) *Mind the financial gap: Evidencing demand for community finance*: Community Development Finance Association.

Nisbett, R. E. & Wilson, T. D. (1977) Telling more than we can know: Verbal reports on mental processes. *Psychological Review*, 84(3), pp. 231.

Noble, M., McLennan, D., Wilkinson, K., Whitworth, A., Barnes, H. & Dibben, C. (2008) *The English Indices of Deprivation*. London: Communities and Local Government.

Nofsinger, J. R. & Wang, W. (2011) Determinants of start-up firm external financing worldwide. *Journal of Banking & Finance*, 35(9), pp. 2282-2294.

Nolan, B. (1987) *Income distribution and the macroeconomy*. Cambridge: Cambridge University Press, p. 204.

North, D., Baldock, R. & Ekanem, I. (2010) Is there a debt finance gap relating to Scottish SMEs? A demand-side perspective. *Venture Capital*, 12(3), pp. 173-192.

North, D., Baldock, R. & Ullah, F. (2013) Funding the growth of UK technology-based small firms since the financial crash: are there breakages in the finance escalator? *Venture Capital*, 15(3), pp. 237-260.

Northern Ireland Statistics and Research Agency *Northern Ireland Multiple Deprivation Measure*. Available at: http://www.nisra.gov.uk/deprivation/nimdm_2010.htm.

O'Gorman, C. & Terjesen, S. (2006) Financing the Celtic tigress: Venture financing and informal investment in Ireland. *Venture Capital*, 8(1), pp. 69-88.

Oakey, R. (2007) A commentary on gaps in funding for moderate 'non-stellar' growth small businesses in the United Kingdom. *Venture Capital*, 9(3), pp. 223-235.

Office for National Statistics (2008-2011) *Key Economic Time Series Data*.

Office for National Statistics (2009) *UK Standard Industrial Classification of Economic Activities 2007 (SIC 2007)*, Southampton: Palgrave Macmillan.

Office for National Statistics (2013) *National Population Projections: 2012-based Statistical Bulletin*.

Office for National Statistics (2014) Quality and Methodology Information: UK Business Statistics. *Information Paper*.

Office for National Statistics (2017) Regional gross disposable household income (GDHI): 1997 to 2015.

Oksanen, E. H. & Spencer, B. G. (1972) Testing an Aggregate Consumption Model for Canada. *The Canadian Journal of Economics/Revue canadienne d'Economique*, 5(1), pp. 96-109.

Onwuegbuzie, A. J. & Leech, N. L. (2005) Taking the "Q" out of research: Teaching research methodology courses without the divide between quantitative and qualitative paradigms. *Quality and Quantity: International Journal of Methodology*, 39(3), pp. 267-296.

Panchanathan, K. & Boyd, R. (2004) Indirect reciprocity can stabilize cooperation without the second-order free rider problem. *Nature*, 432(7016), pp. 499-502.

Parhankangas, A. & Ehrlich, M. (2014) How entrepreneurs seduce business angels: An impression management approach. *Journal of Business Venturing*, 29(4), pp. 543-564.

Parker, S. C. (2002) Do banks ration credit to new enterprises? And should governments intervene? *Scottish Journal of Political Economy*, 49(2), pp. 162-195.

Parker, S. C. (2003) Asymmetric information, occupational choice and government policy. *The Economic Journal*, 113(490), pp. 861-882.

Parker, S. C. (2008) 'Statistical Issues in Applied Entrepreneurship Research: Data, Methods and Challenges', in Congregado, E. (ed.) *Measuring Entrepreneurship*. New York: Springer, pp. 9-20.

Parker, S. C. (2009) *The Economics of Entrepreneurship*. New York: Cambridge University Press.

Parmigiani, A. & Rivera-Santos, M. (2011) Clearing a path through the forest: A meta-review of interorganizational relationships. *Journal of Management*, 37(4), pp. 1108-1136.

Paul, S., Whittam, G. & Johnston, J. B. (2003) The operation of the informal venture capital market in Scotland. *Venture Capital*, 5(4), pp. 313-335.

Paul, S., Whittam, G. & Wyper, J. (2007a) The pecking order hypothesis: does it apply to start-up firms? *Journal of Small Business and Enterprise Development*, 14(1), pp. 8-21.

Paul, S., Whittam, G. & Wyper, J. (2007b) Towards a model of the business angel investment process. *Venture Capital*, 9(2), pp. 107-125.

Payne, R. A. & Abel, G. A. (2012) UK indices of multiple deprivation-a way to make comparisons across constituent countries easier. *Health Statistics Quarterly*, (53), pp. 22-37.

Peirce, C. S. (1905) 'What pragmatism is', in Thayer, H.S. (ed.) *Pragmatism: The classic writings* Indianapolis: Hackett Publishing Company, pp. 101-120.

Pérez Carrillo, E. F. (2007) Corporate Governance: Shareholders' Interests and Other Stakeholders' Interests. *Corporate Ownership & Control*, 4(4), pp. 96-102.

Perraudin, W. R. & Sørensen, B. E. (2000) The demand for risky assets: Sample selection and household portfolios. *Journal of Econometrics*, 97(1), pp. 117-144.

Perren, L. & Ram, M. (2004) Case-study method in small business and entrepreneurial research: mapping boundaries and perspectives. *International Small Business Journal*, 22(1), pp. 83-101.

Petty, J. W. & Bygrave, W. D. (1993) What does finance have to say to the entrepreneur? *The Journal of Entrepreneurial Finance*, 2(2), pp. 125-137.

Pfeffer, J. (1972) Size and composition of corporate boards of directors: The organization and its environment. *Administrative Science Quarterly*, 17, pp. 218-228.

Pfeffer, J. & Salancik, G. R. (1976) *The External Control of Organizations*. New York: Harper & Row.

Pfeffer, J. & Salancik, G. R. (2003) *The external control of organizations: A resource dependence perspective*. Stanford, California: Stanford University Press, p. 300.

Phan, P. H. (2004) Entrepreneurship theory: Possibilities and future directions. *Journal of Business Venturing*, 19(5), pp. 617-620.

Phelps, E. S. (1975) *Altruism, Morality, and Economic Theory*. New York: Russell Sage Foundation.

Phillips, D. C. & Burbules, N. C. (2000) *Postpositivism and educational research*. Lanham, Maryland: Rowman & Littlefield Pub Inc.

Piliavin, J. A. & Charng, H.-W. (1990) Altruism: A review of recent theory and research. *Annual Review of Sociology*, 16, pp. 27-65.

Piskorski, M. J. & Anand, B. (2005) *Resources, power, and prestige: Formation of structural inequality in social exchange networks*: Working paper, Harvard Business School.

Pittaway, L. (2005) Philosophies in entrepreneurship: a focus on economic theories. *International Journal of Entrepreneurial Behaviour & Research*, 11(3), pp. 201-221.

Polanyi, K. (2001) *The great transformation: the political and economic origins of our time*. Second Edition edn. Boston, USA: Beacon Press Books.

Polit, D. F. & Beck, C. T. (2013) *Essentials of nursing research: Appraising evidence for nursing practice*. 4th Edition edn. Philadelphia: Lippincott Williams & Wilkins.

Politis, D. (2008) Business angels and value added: what do we know and where do we go? *Venture Capital*, 10(2), pp. 127-147.

Politis, D. & Landström, H. (2002) Informal investors as entrepreneurs--the development of an entrepreneurial career. *Venture Capital: An International Journal of Entrepreneurial Finance*, 4(2), pp. 78-101.

Poppo, L., Zhou, K. Z. & Li, J. J. (2016) When can you trust “trust”? Calculative trust, relational trust, and supplier performance. *Strategic Management Journal*, 37(4), pp. 724–741.

Portes, A. (1998) Social Capital: Its Origins and Applications in Modern Sociology."Annual Review of Sociology. *Annual Review of Sociology* 22, pp. 1-24.

Portes, A. 'The two meanings of social capital'. *Sociological forum*: Springer, 1-12.

Portes, A. & Sensenbrenner, J. (1993) Embeddedness and immigration: Notes on the social determinants of economic action. *American Journal of Sociology*, pp. 1320-1350.

Pratt, J. W. (1964) Risk aversion in the small and in the large. *Econometrica*, 32(1/2), pp. 122-136.

Pret, T., Shaw, E. & Drakopoulou Dodd, S. (2016) Painting the full picture: The conversion of economic, cultural, social and symbolic capital. *International Small Business Journal*, 34(8), pp. 1004-1027.

Putnam, R. D. (1995) Bowling alone, revisited. *Responsive Community*, 5(2), pp. 18-33.

Quill, M., Bosma, N. & Minniti, M. (2006) *Global Entrepreneurship Monitor technical assessment*. Babson Park, MA: Babson College.

Rabe-Hesketh, S. & Skrondal, A. (2008) *Multilevel and Longitudinal Modeling using Stata*. 2nd Edition edn. USA: Stata Press.

Ram, M. & Jones, T. (2008) Ethnic-minority businesses in the UK: a review of research and policy developments. *Environment and Planning C: Government and Policy*, 26(2), pp. 352-374.

Ram, M., Woldesenbet, K. & Jones, T. (2011) Raising the 'table stakes'? Ethnic minority businesses and supply chain relationships. *Work, Employment & Society*, 25(2), pp. 309-326.

Rampini, A. A. (2004) Entrepreneurial activity, risk, and the business cycle. *Journal of Monetary Economics*, 51(3), pp. 555-573.

Randolph, W. A. & Dess, G. G. (1984) The congruence perspective of organization design: a conceptual model and multivariate research approach. *Academy of Management Review*, 9(1), pp. 114-127.

Rea, L. M. & Parker, R. A. (2014) *Designing and conducting survey research: A comprehensive guide*. 4th Edition edn. San Francisco: John Wiley & Sons.

Reitan, B. & Sørheim, R. (2000) The informal venture capital market in Norway? investor characteristics, behaviour and investment preferences. *Venture Capital: An International Journal of Entrepreneurial Finance*, 2(2), pp. 129-141.

Reynolds, P., Bosma, N., Autio, E., Hunt, S., De Bono, N., Servais, I., Lopez-Garcia, P. & Chin, N. (2005) Global entrepreneurship monitor: Data collection design and implementation 1998–2003. *Small Business Economics*, 24(3), pp. 205-231.

Reynolds, P. D., Camp, S., Bygrave, W., Autio, E. & Hay, M. (2002) Global entrepreneurship monitor gem 2001 summary report. *London Business School and Babson College*.

Reynolds, P. D., Hay, M., Bygrave, W. D. & Autio, E. (2000) *Global Entrepreneurship Monitor: 2000 Executive Report*.

Riding, A. (1993) *Informal investors in Canada: The identification of salient characteristics*. Carleton University, School of Business, Faculty of Social Sciences.

Riding, A. (2005) *Estimating informal investment in Canada*. Ottawa: Industry Canada, Small Business Policy Branch.

Riding, A. L. (2008) Business angels and love money investors: segments of the informal market for risk capital. *Venture Capital*, 10(4), pp. 355-369.

Riding, A. L. & Short, D. M. (1988) On the estimation of the investment potential of informal investors: A capture/recapture approach. *Journal of Small Business & Entrepreneurship*, 5(5), pp. 26-40.

Ring, P. S. (1996) Fragile and resilient trust and their roles in economic exchange. *Business & Society*, 35(2), pp. 148-175.

Ring, P. S. & Van de Ven, A. H. (1992) Structuring cooperative relationships between organizations. *Strategic Management Journal*, 13(7), pp. 483-498.

Ring, P. S. & Van de Ven, A. H. (1994) Developmental processes of cooperative interorganizational relationships. *Academy of Management Review*, 19(1), pp. 90-118.

Robb, A. M. & Robinson, D. T. (2012) The capital structure decisions of new firms. *Review of Financial Studies*, 27(1), pp. 153-174.

Robinson, O. C. (2014) Sampling in interview-based qualitative research: A theoretical and practical guide. *Qualitative Research in Psychology*, 11(1), pp. 25-41.

Robinson, S. L. (1996) Trust and breach of the psychological contract. *Administrative Science Quarterly*, pp. 574-599.

Robinson, S. L. & Morrison, E. W. (2000) The development of psychological contract breach and violation: A longitudinal study. *Journal of Organizational Behavior*, 21(5), pp. 525-546.

Rockenbach, B. & Milinski, M. (2006) The efficient interaction of indirect reciprocity and costly punishment. *Nature*, 444(7120), pp. 718-723.

Rodríguez, G. (2013) Models for count data with overdispersion. *Princeton University*.

Romaní, G., Atienza, M. & Amorós, J. E. (2012) Informal investors in Chile: an exploratory study from a gender perspective. *Journal of Business Economics and Management*, 13(1), pp. 111-131.

Roper, S. & Scott, J. M. (2009) Perceived financial barriers and the start-up decision an econometric analysis of gender differences using GEM data. *International Small Business Journal*, 27(2), pp. 149-171.

Rosenbusch, N., Rauch, A. & Bausch, A. (2013) The mediating role of entrepreneurial orientation in the task environment performance relationship: a meta-analysis. *Journal of Management*, 39(3), pp. 633-659.

Rostamzadeh, R., Ismail, K. & Zavadskas, E. K. (2014) Multi criteria decision making for assisting business angels in investments. *Technological and Economic Development of Economy*, 20(4), pp. 696-720.

Rotter, J. B. (1971) Generalized expectancies for interpersonal trust. *American Psychologist*, 26(5), pp. 443-452.

Rouse, J. & Jayawarna, D. (2006) The financing of disadvantaged entrepreneurs: are enterprise programmes overcoming the finance gap? *International Journal of Entrepreneurial Behavior & Research*, 12(6), pp. 388-400.

Rouse, J. & Jayawarna, D. (2011) Structures of exclusion from enterprise finance. *Environment and Planning-Part C*, 29(4), pp. 659-676.

Rousseau, D. M. (1989) Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, 2(2), pp. 121-139.

Rousseau, D. M. (1995) *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, CA: Sage.

Rousseau, D. M., Sitkin, S. B., Burt, R. S. & Camerer, C. (1998) Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23(3), pp. 393-404.

Rowley, T., Behrens, D. & Krackhardt, D. (2000) Redundant governance structures: An analysis of structural and relational embeddedness in the steel and semiconductor industries. *Strategic Management Journal*, 21(3), pp. 369-386.

Rubin, J. S. (2010) Venture capital and underserved communities. *Urban Affairs Review*, 45(6), pp. 821-835.

Rumelt, R. P. (1984) 'Towards a Strategic Theory of the Firm', in Lamb, R.B. (ed.) *Competitive Strategic Management*. New Jersey: Englewood Cliffs.

Ryan, R. M., O'Toole, C. M. & McCann, F. (2014) Does bank market power affect SME financing constraints? *Journal of Banking & Finance*, 49, pp. 495-505.

Sætre, A. (2003) Entrepreneurial perspectives on informal venture capital. *Venture Capital: An International Journal of Entrepreneurial Finance*, 5(1), pp. 71-94.

Samila, S. & Sorenson, O. (2011) Venture capital, entrepreneurship, and economic growth. *The Review of Economics and Statistics*, 93(1), pp. 338-349.

Sandefur, R. L. & Laumann, E. O. (1998) A paradigm for social capital. *Rationality and society*, 10(4), pp. 481-501.

Sapienza, H. J. (1992) When do venture capitalists add value? *Journal of Business Venturing*, 7(1), pp. 9-27.

Sapienza, H. J. & Korsgaard, M. A. (1996) Procedural justice in entrepreneur-investor relations. *Academy of Management Journal*, 39(3), pp. 544-574.

Sapsford, R. & Jupp, V. (2006) *Data collection and analysis*. 2 edn. New Delhi: Sage.

Sarasvathy, S. D., Dew, N., Velamuri, S. R. & Venkataraman, S. (2010) 'Three views of entrepreneurial opportunity', in Acs, Z.J. & Audretsch, D.B. (eds.) *Handbook of entrepreneurship research: Vol. 5*: Springer, pp. 77-96.

Sayer, A. (2010) *Method in Social Science: Revised 2nd Edition*. New York: Routledge.

Scarborough, H., Swan, J., Amaeshi, K. & Briggs, T. (2013) Exploring the Role of Trust in the Deal-Making Process for Early-Stage Technology Ventures. *Entrepreneurship Theory and Practice*, 37(5), pp. 1203-1228.

Schroeder, D. A., Penner, L. A., Dovidio, J. F. & Piliavin, J. A. (1995) *The psychology of helping and altruism: problems and puzzles*. New York: McGraw-Hill.

Schultz, T. P. (1998) Inequality in the distribution of personal income in the world: how it is changing and why. *Journal of Population Economics*, 11(3), pp. 307-344.

Schulze, W. S., Lubatkin, M. H. & Dino, R. N. (2003) Toward a theory of agency and altruism in family firms. *Journal of Business Venturing*, 18(4), pp. 473-490.

Scott, J. (1994) *Poverty and Wealth: Citizenship, Deprivation and Privilege* London: Longman.

Scott, W. R. (2001) *Institutions and organizations*. 2nd edn. Thousand Oaks, CA: Sage.

Seidman, S. (2012) *Contested knowledge: Social theory today*. John Wiley & Sons.

Seo, M.-G. & Barrett, L. F. (2007) Being emotional during decision making—good or bad? An empirical investigation. *Academy of Management Journal*, 50(4), pp. 923-940.

Seymour, R. G. (2006) Hermeneutic phenomenology and international entrepreneurship research. *Journal of International Entrepreneurship*, 4(4), pp. 137-155.

Shalin, D. N. (1986) Pragmatism and social interactionism. *American Sociological Review*, pp. 9-29.

Shane, S. (2009a) *Fool's Gold: The truth behind angel investment in America*. New York: Oxford University Press, Inc.

Shane, S. (2009b) Why encouraging more people to become entrepreneurs is bad public policy. *Small Business Economics*, 33(2), pp. 141-149.

Shane, S. (2012) The importance of angel investing in financing the growth of entrepreneurial ventures. *The Quarterly Journal of Finance*, 2(02), pp. 1250009.

Shane, S. & Cable, D. (2002) Network ties, reputation, and the financing of new ventures. *Management Science*, 48(3), pp. 364-381.

Shane, S., Locke, E. A. & Collins, C. J. (2003) Entrepreneurial motivation. *Human Resource Management Review*, 13(2), pp. 257-279.

Shane, S. & Venkataraman, S. (2000) The promise of entrepreneurship as a field of research. *Academy of Management Review*, 25(1), pp. 217-226.

Shapiro, E. G. (1980) Is seeking help from a friend like seeking help from a stranger? *Social Psychology Quarterly*, pp. 259-263.

Shepherd, D. A., Douglas, E. J. & Shanley, M. (2000) New venture survival: Ignorance, external shocks, and risk reduction strategies. *Journal of Business Venturing*, 15(5), pp. 393-410.

Shepherd, D. A. & Zacharakis, A. (2001) The venture capitalist-entrepreneur relationship: control, trust and confidence in co-operative behaviour. *Venture Capital: An International Journal of Entrepreneurial Finance*, 3(2), pp. 129-149.

Sheppard, B. H. & Sherman, D. M. (1998) The grammars of trust: A model and general implications. *Academy of Management Review*, 23(3), pp. 422-437.

Short, D. M. & Riding, A. L. (1989) Informal investors in the Ottawa-Carleton region: experiences and expectations. *Entrepreneurship & Regional Development*, 1(1), pp. 99-112.

Shyam-Sunder, L. & Myers, S. C. (1999) Testing static tradeoff against pecking order models of capital structure. *Journal of Financial Economics*, 51(2), pp. 219-244.

Simon, H. A. (1959) Theories of decision-making in economics and behavioral science. *The American Economic Review*, 49(3), pp. 253-283.

Simon, H. A. (1978) Rationality as process and as product of thought. *The American Economic Review*, pp. 1-16.

Simon, H. A. (1986) Rationality in psychology and economics. *Journal of Business*, pp. 209-224.

Simon, H. A. (1993) Altruism and economics. *The American Economic Review*, pp. 156-161.

Simon, M., Houghton, S. M. & Aquino, K. (2000) Cognitive biases, risk perception, and venture formation: How individuals decide to start companies. *Journal of Business Venturing*, 15(2), pp. 113-134.

Singer, S., Amoros, J. E. & Moska, D. (2015) *Global Entrepreneurship Monitor 2014 Global Report*: Global Entrepreneurship Research Association (GERA).

Slack, J. (2005) The new entrepreneur scholarships: self-employment as a means to tackle social deprivation. *Education+ Training*, 47(6), pp. 447-455.

Smith, A. (1991) *The Wealth of Nations*. London: David Campbell Publishers Ltd.

Smith, D. J., Harrison, R. T. & Mason, C. M. (2010) Experience, heuristics and learning: The angel investment process. *Frontiers of Entrepreneurship Research*, 30(2), pp. 1-13.

Snijders, T. A. (2005) 'Power and Sample Size in Multilevel Linear Models', in Everitt, B.S. & Howell, D.C. (eds.) *Encyclopedia of Statistics in Behavioral Science*. Chichester Wiley, pp. 1570–1573.

Sober, E. (1988) What is evolutionary altruism? *Canadian Journal of Philosophy*, 18(1), pp. 75-99.

Sohl, J. (2003) The private equity market in the USA: lessons from volatility. *Venture Capital: An International Journal of Entrepreneurial Finance*, 5(1), pp. 29-46.

Sohl, J. (2012) 'The changing nature of the angel market', in Landström, H. & Mason, C. (eds.) *The Handbook of Research on Venture Capital: Volume II*. Cheltenham: Edward Elgar, pp. 17-41.

Sorenson, O. & Stuart, T. E. (2001) Syndication networks and the spatial distribution of venture capital investments1. *American Journal of Sociology*, 106(6), pp. 1546-1588.

Sørheim, R. (2003) The pre-investment behaviour of business angels: a social capital approach. *Venture Capital*, 5(4), pp. 337-364.

Sørheim, R. (2005) Business angels as facilitators for further finance: an exploratory study. *Journal of Small Business and Enterprise Development*, 12(2), pp. 178-191.

Sørheim, R. & Landström, H. (2001) Informal investors-A categorization, with policy implications. *Entrepreneurship & Regional Development*, 13(4), pp. 351-370.

Spradley, J. P. (1979) *The ethnographic interview*. Long Grove, Illinois: Waveland Press.

Staehle, H. (1943) Ability, wages, and income. *The Review of Economic Statistics*, 25(1), pp. 77-87.

Stake, R. E. (2005) 'Qualitative case studies', in Denzin, N. & Lincoln, Y. (eds.) *Sage Handbook of Qualitative Research*. 3 ed. London: Sage Publications.

Stamper, C. L., Masterson, S. S. & Knapp, J. (2009) A typology of organizational membership: Understanding different membership relationships through the lens of social exchange. *Management and Organization Review*, 5(3), pp. 303-328.

Stats Wales Welsh Index of Multiple Deprivation. Available at: <https://statswales.gov.wales/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation/Archive>.

Staw, B. M. (1976) Knee deep in the big muddy: the effect of personal responsibility and decision consequences upon commitment to a previously chosen course of action. *Organization Behavior and Human Performance*, 16, pp. 27-44.

Staw, B. M., McKechnie, P. I. & Puffer, S. M. (1983) The justification of organizational performance. *Administrative Science Quarterly*, pp. 582-600.

Staw, B. M. & Szwajkowski, E. (1975) The scarcity-munificence component of organizational environments and the commission of illegal acts. *Administrative Science Quarterly*, pp. 345-354.

Stedler, H. & Peters, H. H. (2003) Business angels in Germany: an empirical study. *Venture Capital: An International Journal of Entrepreneurial Finance*, 5(3), pp. 269-276.

Steele, F. (2009) *Concepts. Module 7: Multilevel Models for Binary Responses*: Centre for Multilevel Modelling.

Steier, L. (2003) Variants of agency contracts in family-financed ventures as a continuum of familial altruistic and market rationalities. *Journal of Business Venturing*, 18(5), pp. 597-618.

Steier, L. & Greenwood, R. (2000) Entrepreneurship and the evolution of angel financial networks. *Organization Studies*, 21(1), pp. 163-192.

Stemler, S. (2001) An overview of content analysis. *Practical Assessment, Research & Evaluation*, 7(17), pp. 137-146.

Stenholm, P., Acs, Z. J. & Wuebker, R. (2013) Exploring country-level institutional arrangements on the rate and type of entrepreneurial activity. *Journal of Business Venturing*, 28(1), pp. 176-193.

Stevenson, H. & Coveney, P. (1994) *Fallacies corrected and six distinct types of angel identified*: Templeton College Oxford.

Stewart, V. & Stewart, A. (1981) *Business Applications of Repetory Grid*. Maidenhead: McGraw-Hill.

Steyaert, C. & Katz, J. (2004) Reclaiming the space of entrepreneurship in society: geographical, discursive and social dimensions. *Entrepreneurship & Regional Development*, 16(3), pp. 179-196.

Stiglitz, J. 'Distribution, efficiency and voice: designing the second generation of reforms'. *Conference on Asset Distribution, Poverty, and Economic Growth*.

Storey, D. J. (2011) Optimism and chance: The elephants in the entrepreneurship room. *International Small Business Journal*, pp. 1-19.

Storey, D. J. & Johnson, S. (1987) Regional variations in entrepreneurship in the UK. *Scottish Journal of Political Economy*, 34(2), pp. 161-173.

Strauss, A. & Corbin, J. (1990) *Basics of qualitative research: grounded theory, procedures and techniques*. Newbury Park: Sage Publications, Inc.

Stronks, K., Van De Mheen, H., Van Den Bos, J. & Mackenbach, J. P. (1997) The interrelationship between income, health and employment status. *International Journal of Epidemiology*, 26(3), pp. 592-600.

Sudek, R. (2006) Angel investment criteria. *Journal of Small Business Strategy*, 17(2), pp. 89-103.

Sullivan, M. K. & Miller, A. (1996) Segmenting the informal venture capital market: Economic, hedonistic, and altruistic investors. *Journal of Business Research*, 36(1), pp. 25-35.

System of National Accounts (2008) *European Communities, International Monetary Fund, Organisation for Economic Co-operation and Development, United Nations, and World Bank*. New York.

Szerb, L., Rappai, G., Makra, Z. & Terjesen, S. (2007a) Informal investment in transition economies: Individual characteristics and clusters. *Small Business Economics*, 28(2), pp. 257-271.

Szerb, L., Terjesen, S. & Rappai, G. (2007b) Seeding new ventures—green thumbs and fertile fields: Individual and environmental drivers of informal investment. *Venture Capital*, 9(4), pp. 257-284.

Tang, J. (2008) Environmental munificence for entrepreneurs: entrepreneurial alertness and commitment. *International Journal of Entrepreneurial Behaviour & Research*, 14(3), pp. 128-151.

Tashakkori, A. & Teddlie, C. (1998) *Mixed Methodology: Combining Qualitative and Quantitative Approaches*. Thousand Oaks, CA: Sage.

Tashiro, Y. (1999) Business angels in Japan. *Venture Capital: An International Journal of Entrepreneurial Finance*, 1(3), pp. 259-273.

Taylor, M. & Plummer, P. (2003) Promoting local economic growth: the role of entrepreneurship and human capital. *Education+ Training*, 45(8/9), pp. 558-563.

Taylor, S. J., Bogdan, R. & DeVault, M. (2015) *Introduction to qualitative research methods: A guidebook and resource*. 4th Edition edn. New Jersey: John Wiley & Sons.

Terjesen, S., Hessels, J. & Li, D. (2016) Comparative International Entrepreneurship A Review and Research Agenda. *Journal of Management*, 42(1), pp. 299-344.

Thaler, R. H. & Johnson, E. J. (1990) Gambling with the house money and trying to break even: The effects of prior outcomes on risky choice. *Management Science*, 36(6), pp. 643-660.

The European Parliament and the Council (2008) Establishing a common framework for business registers for statistical purposes and repealing Council Regulation (EEC) No 2186/93. *Official Journal of European Union*, 177/2008.

The Scottish Government *Scottish Index of Multiple Deprivation*. Available at: <http://www.gov.scot/Topics/Statistics/SIMD/DataAnalysis>.

The Scottish Government (2012) Scottish Index of Multiple Deprivation.

The World Bank (2017) GDP Growth (Annual %).

Thompson, P., Jones-Evans, D. & Kwong, C. (2008) Entrepreneurship and the Domains of Deprivation in Wales. *Regional Studies Association International on Regions: The Dilemmas of Integration and Competition, Prague*, pp. 27-29.

Thornton, P. H. & Ocasio, W. (2008) 'Institutional logics', in Greenwood, R., Oliver, C., Sahlin, K. & Suddaby, R. (eds.) *The SAGE Handbook of Organizational Institutionalism*. London: Sage, pp. 99-129.

Townsend, P. (1987) Deprivation. *Journal of Social Policy*, 16(2), pp. 125-146.

Tsai, W. (2002) Social structure of "cooperation" within a multiunit organization: Coordination, competition, and intraorganizational knowledge sharing. *Organization Science*, 13(2), pp. 179-190.

Tversky, A. & Kahneman, D. (1974) 'Judgment under uncertainty: Heuristics and biases', *Utility, probability, and human decision making*: Springer, pp. 141-162.

Tyebjee, T. T. & Bruno, A. V. (1984) A model of venture capitalist investment activity. *Management Science*, 30(9), pp. 1051-1066.

Ucbasaran, D., Westhead, P. & Wright, M. (2001) The focus of entrepreneurial research: contextual and process issues. *Entrepreneurship Theory and Practice*, 25(4), pp. 57-80.

UK Data Service Census Support ***GeoConvert***. Available at: <http://geoconvert.ukdataservice.ac.uk/>.

University of Strathclyde (2014) ***Research Data Policy***. Available at: https://www.strath.ac.uk/media/ps/cs/gmap/academicaffairs/policies/Research_Data_Policy_v1.pdf.

Uzzi, B. (1997) Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly*, 42(1), pp. 35-67.

Uzzi, B. (1999) Embeddedness in the making of financial capital: How social relations and networks benefit firms seeking financing. *American Sociological Review*, 64(4), pp. 481-505.

Valliere, D. (2010) Reconceptualizing entrepreneurial framework conditions. *International Entrepreneurship and Management Journal*, 6(1), pp. 97-112.

Van Der Schans, D. (2015) The British Business Bank's role in facilitating economic growth by addressing imperfections in SME finance markets. *Venture Capital*, 17(1-2), pp. 7-25.

Van Osnabrugge, M. (2000) A comparison of business angel and venture capitalist investment procedures: an agency theory-based analysis. *Venture Capital: An international journal of entrepreneurial finance*, 2(2), pp. 91-109.

Van Osnabrugge, M. & Robinson, R. J. (2002) *Angel Investing: Matching Startup Funds with Startup Companies - The Guide for Entrepreneurs and Individual Investors*. San Francisco, CA: Jossey-Bass.

Vanacker, T. R. & Manigart, S. (2010) Pecking order and debt capacity considerations for high-growth companies seeking financing. *Small Business Economics*, 35(1), pp. 53-69.

Velleman, P. F. & Wilkinson, L. (1993) Nominal, ordinal, interval, and ratio typologies are misleading. *The American Statistician*, 47(1), pp. 65-72.

Venkataraman, S. (1997) The distinctive domain of entrepreneurship research. *Advances in Entrepreneurship, Firm Emergence and Growth*, 3(1), pp. 119-138.

Verbeek, M. (2008) *A guide to modern econometrics*. Hoboken, USA: John Wiley & Sons.

Vine, I. (1983) Sociobiology and social psychology—Rivalry or symbiosis? The explanation of altruism. *British Journal of Social Psychology*, 22(1), pp. 1-11.

Vissa, B. (2011) A matching theory of entrepreneurs' tie formation intentions and initiation of economic exchange. *Academy of Management Journal*, 54(1), pp. 137-158.

Walker, G., Kogut, B. & Shan, W. (1997) Social capital, structural holes and the formation of an industry network. *Organization science*, pp. 109-125.

Wang, C. L. & Altinay, L. (2012) Social embeddedness, entrepreneurial orientation and firm growth in ethnic minority small businesses in the UK. *International Small Business Journal*, 30(1), pp. 3-23.

Watson, J. & Everett, J. E. (1996) Do small businesses have high failure rates? *Journal of Small Business Management*, 34(4), pp. 45.

Weber, E. U. & Milliman, R. A. (1997) Perceived risk attitudes: Relating risk perception to risky choice. *Management Science*, 43(2), pp. 123-144.

Weber, E. U., Siebenmorgen, N. & Weber, M. (2005) Communicating asset risk: how name recognition and the format of historic volatility information affect risk perception and investment decisions. *Risk Analysis*, 25(3), pp. 597-609.

Weigel, R. M. (1981) The distribution of altruism among kin: a mathematical model. *American Naturalist*, pp. 191-201.

Weinberger, M., Ferguson J.A., Westmoreland G., Mamlin L.A., Segar D.S., Eckert G.J., Greene J.Y., Martin, D. K. & Tierney, W. (1998) Can raters consistently

evaluate the content of focus groups? . *Social Science and Medicine*, 46, pp. 929-933.

Weinstein, N. D. (1980) Unrealistic optimism about future life events. *Journal of Personality and Social Psychology*, 39(5), pp. 806-820.

Weinzimmer, L. G., Nystrom, P. C. & Freeman, S. J. (1998) Measuring organizational growth: Issues, consequences and guidelines. *Journal of Management*, 24(2), pp. 235-262.

Welch, M. R., Rivera, R. E., Conway, B. P., Yonkoski, J., Lupton, P. M. & Giancola, R. (2005) Determinants and consequences of social trust. *Sociological Inquiry*, 75(4), pp. 453-473.

Welter, F. (2011) Contextualizing entrepreneurship—conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, 35(1), pp. 165-184.

Welter, F. & Smallbone, D. (2011) Institutional perspectives on entrepreneurial behavior in challenging environments. *Journal of Small Business Management*, 49(1), pp. 107-125.

Wennekers, S., Uhlaner, L. & Thurik, R. (2002) Entrepreneurship and its conditions: a macro perspective. *International Journal of Entrepreneurship Education (IJEE)*, 1(1), pp. 25-64.

Wernerfelt, B. (1984) A resource-based view of the firm. *Strategic Management Journal*, 5(2), pp. 171-180.

Wetzel, W. (1983) Angels and informal risk capital. *Sloan Management Review*, 24(4), pp. 23-34.

Wetzel, W. E. (1981) Technovation and the informal investor. *Technovation*, 1, pp. 15-30.

Wetzel, W. E. (1987) The informal venture capital market: Aspects of scale and market efficiency. *Journal of Business Venturing*, 2(4), pp. 299-313.

Whitener, E. M., Brodt, S. E., Korsgaard, M. A. & Werner, J. M. (1998) Managers as initiators of trust: An exchange relationship framework for understanding managerial trustworthy behavior. *Academy of Management Review*, 23(3), pp. 513-530.

Wigren, C. (2007) 'Assessing the quality of qualitative research in entrepreneurship', in Neergaard, H. & Ulhøi, J.P. (eds.) *Handbook of Qualitative Research Methods in Entrepreneurship*. Cheltenham: Edward Elgar, pp. 383-405.

Wiklund, J., Davidsson, P. & Delmar, F. (2003) What Do They Think and Feel about Growth? An Expectancy-Value Approach to Small Business Managers'

Attitudes Toward Growth1. *Entrepreneurship Theory and Practice*, 27(3), pp. 247-270.

Wiklund, J. & Shepherd, D. A. (2008) Portfolio entrepreneurship: Habitual and novice founders, new entry, and mode of organizing. *Entrepreneurship Theory and Practice*, 32(4), pp. 701-725.

Wilkinson, R. G. & Pickett, K. E. (2006) Income inequality and population health: a review and explanation of the evidence. *Social Science & Medicine*, 62(7), pp. 1768-1784.

Williams, B. A. O. (1973) 'Egoism and altruism', *Problems of the self: philosophical papers 1956-1972*: Cambridge University Press.

Williams, M. & Cowling, M. (2009) *Annual Small Business Survey 2007/2008*: Department for Business, Innovation & Skills. Available at: <https://www.gov.uk/government/publications/small-business-survey-2007-to-2008>.

Williams, N. & Williams, C. C. (2011) Tackling barriers to entrepreneurship in a deprived urban neighbourhood. *Local Economy*, 26(1), pp. 30-42.

Williams, N. & Williams, C. C. (2012) Evaluating the socio-spatial contingency of entrepreneurial motivations: A case study of English deprived urban neighbourhoods. *Entrepreneurship & Regional Development*, 24(7-8), pp. 661-684.

Williams, N. & Williams, C. C. (2014) Beyond necessity versus opportunity entrepreneurship: some lessons from English deprived urban neighbourhoods. *International Entrepreneurship and Management Journal*, 10(1), pp. 23-40.

Williamson, O. E. (1985) *The Economic Institutions of Capitalism*. New York: The Free Press.

Williamson, O. E. (1993) Calculativeness, trust, and economic organization. *The Journal of Law & Economics*, 36(1), pp. 453-486.

Wiltbank, R., Read, S., Dew, N. & Sarasvathy, S. D. (2009) Prediction and control under uncertainty: Outcomes in angel investing. *Journal of Business Venturing*, 24(2), pp. 116-133.

Wiltbank, R., Read, S., Sarasvathy, S., Dew, N., Zahara, S., Brush, C., Davidsson, P., Fiet, J., Greene, P. & Harrison, R. (2005) Prediction and control: Angel investing at the individual level. *Frontiers of Entrepreneurship Research*, pp. 551-566.

Wiltbank, R. E. (2009) *Siding with the Angels: Business angel investing – promising outcomes and effective strategies*: NESTA and British Business Angels Association.

Winborg, J. & Landström, H. (2001) Financial bootstrapping in small businesses: examining small business managers' resource acquisition behaviors. *Journal of Business Venturing*, 16(3), pp. 235-254.

Winton, A. & Yerramilli, V. (2008) Entrepreneurial finance: Banks versus venture capital. *Journal of Financial Economics*, 88(1), pp. 51-79.

Wolff, E. N. (1998) Recent trends in the size distribution of household wealth. *The Journal of Economic Perspectives*, 12(3), pp. 131-150.

Wong, P. K. & Ho, Y. P. (2007) Characteristics and determinants of informal investment in Singapore. *Venture Capital*, 9(1), pp. 43-70.

Woolcock, M. (1998) Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*, 27(2), pp. 151-208.

World Value Survey (1993-2014) *Interpersonal Trust Attitudes*. Available at: <https://ourworldindata.org/trust>.

Wright, M., Hart, M. & Fu, K. (2015a) *A Nation of Angels: Assessing the impact of angel investing across the UK* UK Business Angels Association.

Wright, M., Roper, S., Hart, M. & Carter, S. (2015b) Joining the dots: Building the evidence base for SME growth policy. *International Small Business Journal*, 33(1), pp. 3-11.

Wright, M. & Stiglani, I. (2013) Entrepreneurship and growth. *International Small Business Journal*, 31(1), pp. 3-22.

Wynarczyk, P., Watson, R., Storey, D., Short, H. & Keasey, K. (1993) *The Managerial Labour Market in Small and Medium-Sized Enterprises*. London: Routledge

Yauch, C. A. & Steudel, H. J. (2003) Complementary use of qualitative and quantitative cultural assessment methods. *Organizational Research Methods*, 6(4), pp. 465-481.

Yin, R. K. (2009) *Case study research: design and methods*. Applied social research methods series 4 edn. Thousand Oaks: Sage Publications, Inc., p. 219.

Yu, P.-L., Huang, S.-D. & Zhang, D. (1989) 'Decision rationality and habitual domain analysis', *Improving Decision Making in Organisations*: Springer, pp. 24-33.

Zahra, S. A., Filatotchev, I. & Wright, M. (2009) How do threshold firms sustain corporate entrepreneurship? The role of boards and absorptive capacity. *Journal of Business Venturing*, 24(3), pp. 248-260.

Zahra, S. A., Wright, M. & Abdelgawad, S. G. (2014) Contextualization and the advancement of entrepreneurship research. *International Small Business Journal*, pp. 479-500.

Zhang, B., Baeck, P., Ziegler, T., Bone, J. & Garvey, K. (2016a) *The 2015 UK Alternative Finance Industry Report* Nesta. Available at: https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2015-uk-alternative-finance-industry-report.pdf.

Zhang, B., Ziegler, T., Burton, J., Garvey, K., Wardrop, R., Lui, A. & James, A. (2016b) *Sustaining Momentum: the 2nd European Alternative Finance Industry Report*: Cambridge Centre for Alternative Finance. Available at: https://www.jbs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2016-european-alternative-finance-report-sustaining-momentum.pdf.

Zider, B. (1998) How venture capital works. *Harvard Business Review*, 76(6), pp. 131-139.

Zucker, L. G. (1986) Production of trust: Institutional sources of economic structure, 1840–1920. *Research in Organizational Behavior*, 8, pp. 53-111.

Zwiebel, J. (1996) Dynamic capital structure under managerial entrenchment. *The American Economic Review*, pp. 1197-1215.

Appendices

Appendix 1 An overview of the studies, where definitions of informal investors were introduced

Study	The object of the study	Theoretical perspectives	Type of the study	Money from friends and relatives, and other individuals, who are not 'business angels'	Informal capital definition	Country	Time period
Wetzel, (1983)	Informal venture (risk) capital: business angels (descriptive characteristics)	Market efficiency (the sources of inefficiency)	Qualitative (133 business angels)	Friendly money' - considered outside the external risk capital	Business angels (wealthy individuals, who invested into someone's business on a regular basis)	USA (New England)	1976-1980
Haar <i>et al.</i> , (1989)	Informal venture investors (business angels): descriptive characteristics	Referral networks	Quantitative (130 informal investors)	Friends and business colleagues are included in the definition	Investments by private individual into a young company	East Coast of the USA	Not specified
Short and Riding, (1989)	Informal investors: descriptive characteristics	Not specified	Mixed method: (50 informal investors)	Not mentioned (not implied)	Informal (risk capital) investors - those investors who are willing to supply funds to emerging firms with high growth potential.	Ottawa-Carleton	1981-1986
Aram, (1989)	Informal investors: descriptive characteristics	Not specified	Quantitative: descriptive (55 informal investors)	Not mentioned (not implied)	Informal investors - individuals having substantial personal wealth who deploy a portion of their assets in	USA, Great Lakes region	1987

				early-stage, high-risk, high-return ventures		
Harrison and Mason, (1992)	Informal venture capital: descriptive characteristics	Market efficiency (the sources of inefficiency)	Quantitative: descriptive (86 informal investors)	Private individuals who provide risk capital directly to new and growing ventures	UK	Not specified
Landström, (1992)	Private Investors (the performance of the portfolio firm)	Agency theory	Quantitative (62 unlisted small firms)	Private investors: 1) individuals in the firm's business environment; 2) private individuals with no prior relationship to the firm; 3) informal risk capitalists ('business angels'); 4) professional private investors		
Freear <i>et al.</i> , (1994)	Informal venture capital: defining high net-worth individuals	Not specified	Quantitative: descriptive (3700 high net-worth individuals out of which 146 - business angels, and 38 - potential investors)	Friends and family funding is excluded from the definition	Sweden	Not specified
Sullivan and Miller, (1995)	Segmentation of informal venture capital market according to the underlying benefits	Marketing approach to segmentation	Quantitative: factor analysis (493 potential informal investors - individuals from specific occupational groups)	Informal venture capital market is a diverse set of high net worth individuals (business angels) who invest a portion of their assets in high-risk, high-return entrepreneurial ventures	USA (Connecticut and Massachusetts)	1982-1989
Mason and Harrison, (1997)	Informal venture capital:	Market efficiency (the sources of inefficiency)	Quantitative: descriptive (17)	Money provided by a private individual to a private business through non-institutional channels. The investment could be in the form of equity (such as stock, warrants, or options to buy stock) or a loan.	USA (South-East)	Not specified
				Family members are excluded from the definition	UK	1993-1995

	descriptive characteristics	Business-Angel Networks)	growing businesses by private individuals (or business angels) with no family connection with the business
Landström, (1998)	Informal investors' decision-making criteria	Conjoint method (44 informal investors)	Informal risk capital market - private individuals who invest their own capital in small unlisted firms
Tashiro, (1999)	Business angels: descriptive characteristics	Mixed: descriptive (20 firms and 1124 high net-worth individuals)	Business angels - wealthy individuals investing into entrepreneurial business
Aernoudt, (1999)	Complementarities between business angels and the formal venture capital market	Friends and family are positioned before informal investors	Friends and family are positioned before informal investors
Reitan and Sørheim, (2000)	Comparison of informal investors in Norway, Sweden, and the UK	Quantitative: descriptive 425 informal investors	Friends and family are positioned before informal investors
Reynolds <i>et al.</i> , (2000)	Global Entrepreneurship Monitor (the first global report)	GEM Conceptual Model (Entrepreneurial Framework Conditions)	The definition includes friends and family funding explicitly (not only equity)

Sørheim and Landström, (2001)	Classification of informal investors	Not specified	Cluster analysis (425 informal investors)	Family members are excluded from the definition	Private individuals who provide risk capital to unlisted companies in which they have no previous formal or family-related connections.	Not specified
Stedler and Peters, (2003)	Business angels: descriptive characteristics	Not specified	Quantitative (232 business angels)	Not mentioned (not implied)	Business angels as referred to the previous studies	Not specified
Brettel, (2003)	Business angels: descriptive characteristics	Not specified	Qualitative (48 business angels)	Not mentioned (not implied)	Business angels as referred to the previous studies	Germany
Setre, (2003)	Business angels: added value (entrepreneurial perspective)	Social capital perspective	Qualitative longitudinal (4 companies)	Not mentioned (not implied)	Informal investors as referred to the previous studies	1999-2000
Sørheim, (2003)	Business angels: pre-investment behaviour	Social capital perspective	Qualitative (5 informal investors)	Not mentioned (not implied)	Private individuals using their own money directly in unquoted companies in which they have no family connection	1999-2002
Madill <i>et al.</i> , (2005)	The role of business angels in facilitating subsequent venture capital investments	Not specified	Mixed method: 42 angel-financed firms	Friends and family funding is excluded from the definition	Individuals who provide risk capital directly to new and growing businesses with which they have had no previous relationship.	2001-2002
Måansson and Landström, (2005)	Dynamics of business angel market (under the impact of changing economic conditions)	Time-focused approach	Quantitative (253 business angels - members of Business Angel Networks)	Not mentioned (not implied)	Informal investors as referred to the previous studies	1992 vs 2004 Sweden

Carpentier and Suret, (2007)	Tax incentives and informal investors	Quantitative: evaluation of the tax-incentive programme (portfolio analysis)	Suppliers of informal venture capital: business angels (that invest in businesses owned by strangers) as well as family members and friends ('love money').	Quebec	1998-2003
	Business angels: value added	Resource-based theory, Agency theory, Theories of Relational Governance	The definition includes friends and family funding explicitly (not only equity)	Business angels are individuals who offer risk capital to unlisted firms in which they have no family-related connections.	Cross-national
Politis, (2008)	Sampling and definitional issues in the research on informal investments	Meta-analysis: 14 empirical studies	Family members are excluded from the definition	A business angel/informal venture capital	1992-2005
Farrell <i>et al.</i> , (2008)	Methodological issues	Meta-analysis	The definition includes friends and family funding (non-lending)	individual private equity investor should be defined as an individual, non-professional, debt/equity investor (not lender) investing their own funds in unquoted firm/s in which they are not the entrepreneur.	Cross-national
Riding, (2008)	Rates of return made by business angels compared to friends and family investments	Quantitative: descriptive (8112 business owners, from which approx. 10% are informal investors)	Friends and family funding is included explicitly	Wealthy individuals who invest into entrepreneurial firms: business angels (with entrepreneurial experience, sophisticated investors), and 'love' money providers (friends and family members)	1981-2007
	Not specified			Canada	2002 and 2005

Moen <i>et al.</i> , (2008)	Comparing 'born global' informal investors with those investing locally	Quantitative: analysis of variance (around 1000 out of which 476 were identified as informal investors)	Not mentioned (not implied)	Informal investors as referred in previous studies	Not specified
	Spatial allocation of informal investments	Geographical model based on the post-Keynesian capital market theory	Quantitative: regression analysis (Random survey of 24,166 private individuals, 846 informal investors)	Informal investors are private individuals who invest risk capital directly in unquoted companies to which they have no family connection	Not specified
Avdeitchikova, (2009)	Representative estimates of angel investment activity	Not specified	Quantitative: GEM along with other multiple sources of information	Friends and family are considered separately from business angels and informal investors, however both equity and loan are admitted	Sweden
Shane, (2012)	Legitimacy judgments of potential angel investors	Not specified	Quantitative: regression analysis (216 participants (businesses) in the Speed Venture Summits, judged by 5 business angels)	Informal investor is an individual (not an institution) who uses his own money to provide capital to a private business owned and operated by someone else	USA
Becker-Blease and Sohl, (2015)			Not mentioned (not implied)	Informal investors as business angels- high-net-worth individuals, often with relevant business experience, who make personal investments in new ventures	2008-2009

Appendix 2 An overview of the studies, where definitions of informal investors were introduced

Study	The object of the study	Theoretical perspectives	Type of the study	Money from friends and relatives, and other individuals, who are not 'business angels'	Informal capital definition	Country	Time period
Wetzel, (1983)	Informal venture (risk) capital: business angels (descriptive characteristics)	Market efficiency (the sources of inefficiency)	Qualitative (133 business angels)	Friendly money' - considered outside the external risk capital	Business angels (wealthy individuals, who invested into someone's business on a regular basis)	USA (New England)	1976-1980
Haar <i>et al.</i> , (1989)	Informal venture investors (business angels): descriptive characteristics	Referral networks	Quantitative (130 informal investors)	Friends and business colleagues are included in the definition	Investments by private individual into a young company	East Coast of the USA	Not specified
Short and Riding, (1989)	Informal investors: descriptive characteristics	Not specified	Mixed method: (50 informal investors)	Not mentioned (not implied)	Informal (risk capital) investors - those investors who are willing to supply funds to emerging firms with high growth potential.	Ottawa-Carleton	1981-1986
Aram, (1989)	Informal investors: descriptive characteristics	Not specified	Quantitative: descriptive (55 informal investors)	Not mentioned (not implied)	Informal investors - individuals having substantial personal wealth who deploy a portion of their assets in early-stage, high-risk, high-return ventures	USA, Great Lakes region	1987
Harrison and Mason, (1992)	Informal venture capital: descriptive characteristics	Market efficiency (the sources of inefficiency)	Quantitative: descriptive (86 informal investors)	Not mentioned (not implied)	Private individuals who provide risk capital directly to new and growing ventures	UK	Not specified

<p>Landström, (1992)</p> <p>Private Investors (the performance of the portfolio firm)</p>	<p>Agency theory</p> <p>Informal venture capital: defining high net-worth individuals</p>	<p>Quantitative (62 unlisted small firms)</p>	<p>Friends and family funding is excluded from the definition</p>	<p>Private investors: 1) individuals in the firm's business environment; 2) private individuals with no prior relationship to the firm; 3) informal risk capitalists ('business angels'); 4) professional private investors</p>	<p>Not specified</p>
<p>Freear <i>et al.</i>, (1994)</p>	<p>Segmentation of informal venture capital market according to the underlying benefits</p>	<p>Marketing approach to segmentation</p>	<p>Quantitative: factor analysis (493 potential informal investors - individuals from specific occupational groups)</p>	<p>Friends and family, as well as loans are included explicitly</p>	<p>Informal venture capital market is a diverse set of high net worth individuals (business angels) who invest a portion of their assets in high-risk, high-return entrepreneurial ventures</p>
<p>Sullivan and Miller, (1996)</p>	<p>Informal venture capital: descriptive characteristics</p>	<p>Market efficiency (the sources of inefficiency)</p>	<p>Quantitative: descriptive (17 Business-Angel Networks)</p>	<p>Family members are excluded from the definition</p>	<p>USA (Connecticut and Massachusetts)</p>

				1989-1994
Landström, (1998)	Informal investors' decision-making criteria	Not specified	Conjoint method (44 informal investors)	Informal risk capital market - private individuals who invest their own capital in small unlisted firms
Tashiro, (1999)	Business angels: descriptive characteristics	Not specified	Mixed: descriptive (20 firms and 1124 high net-worth individuals)	Not mentioned (not implied)
Aernoudt, (1999)	Complementarities between business angels and the formal venture capital market	Not specified	Meta-analysis: previous studies	Family, relatives and friends are treated separately
Reitan and Sørheim, (2000)	Comparison of informal investors in Norway, Sweden, and the UK	Not specified	Quantitative: descriptive 425 informal investors	Friends and family are positioned before informal investors
Reynolds <i>et al.</i> , (2000)	Global Entrepreneurship Monitor (the first global report)	GEM Conceptual Model (Entrepreneurial Framework Conditions)	Quantitative: descriptive (minimum 2000 individuals)	The definition includes friends and family funding explicitly (not only equity)
Sørheim and Landström, (2001)	Classification of informal investors	Not specified	Cluster analysis (425 informal investors)	Family members are excluded from the definition
Stedler and Peters, (2003)	Business angels: descriptive characteristics	Not specified	Quantitative (232 business angels)	Not mentioned (not implied)
				Sweden
				Japan
				Cross-national
				Norway
				Not specified
				2000-till present (on an annual basis)
				Countries - participants of the project
				Private individuals who provide risk capital to unlisted companies in which they have no previous formal or family-related connections.
				Norway
				Not specified
				Germany

Brettel, (2003)	Business angels: descriptive characteristics	Not specified	Qualitative (48 business angels)	Not mentioned (not implied)	Business angels as referred to the previous studies	Germany	1999-2000
Seatre, (2003)	Business angels: added value (entrepreneurial perspective)	Social capital perspective	Qualitative longitudinal (4 companies)	Not mentioned (not implied)	Informal investors as referred to the previous studies	Norway	1999-2002
Sørheim, (2003)	Business angels: pre-investment behaviour	Social capital perspective	Qualitative (5 informal investors)	Not mentioned (not implied)	Private individuals using their own money directly in unquoted companies in which they have no family connection	Norway	2001-2002
Madill <i>et al.</i> , (2005)	The role of business angels in facilitating subsequent venture capital investments	Not specified	Mixed method: 42 angel-financed firms	Friends and family funding is excluded from the definition	Individuals who provide risk capital directly to new and growing businesses with which they have had no previous relationship.	Ottawa, Canada	2000
Måansson and Landström, (2005)	Dynamics of business angel market (under the impact of changing economic conditions)	Time-focused approach	Quantitative (253 business angels - members of Business Angel Networks)	Not mentioned (not implied)	Informal investors as referred to the previous studies	Sweden	1992 vs 2004
Carpentier and Suret, (2007)	Tax incentives and informal investors	Agency theory	Quantitative: evaluation of the tax-incentive programme (portfolio analysis)	The definition includes friends and family funding explicitly (not only equity)	Suppliers of informal venture capital: business angels (that invest in businesses owned by strangers) as well as family members and friends ('love money').	Quebec	1998-2003
Politis, (2008)	Business angels: value added	Resource-based theory, Agency theory, Theories of Relational Governance	Meta-analysis: 14 empirical studies	Family members are excluded from the definition	Business angels are individuals who offer risk capital to unlisted firms in which they have no family-related connections.	Cross-national	1992-2005

<p>Sampling and definitional issues in the research on informal investments</p> <p>Farrell <i>et al.</i>, (2008)</p>	<p>Methodological issues</p> <p>Riding, (2008)</p>	<p>Meta-analysis</p> <p>Rates of return made by business angels compared to friends and family investments</p>	<p>Quantitative: descriptive (8112 business owners, from which approx. 10% are informal investors)</p>	<p>Friends and family funding is included explicitly</p>	<p>Quantitative: analysis of variance (around 1000 out of which 476 were identified as informal investors)</p>	<p>Not mentioned (not implied)</p>	<p>Informal investors as referred in previous studies</p>	<p>Norway</p>	<p>Not specified</p>

			informal investors, however both equity and loan are admitted	provide capital to a private business owned and operated by someone else
Becker-Blease and Sohl, (2015)	Legitimacy judgments of potential angel investors	Quantitative: regression analysis (216 participants (businesses) in the Speed Venture Summits, judged by 5 business angels)	Informal investors as business angels - high-net-worth individuals, often with relevant business experience, who make personal investments in new ventures	2008-2009

Appendix 3 The business angels' portrait – the evolution of definitions

	(Wetzel, 1983), US	(Haar <i>et al.</i> , 1989), US	(Aram, 1989), US	(Short and Riddling, 1989), Canada
The size of the investment	\$50 000 (average)	Under \$500 000 (average)	\$48,766 (average)	\$109,000 (average)
Frequency of the deals	1 deal every 2 years	n/a	0.7 investments per year (on average)	1 deal every year
Type of the firms	Technology-based manufacturing firms (less than 5 years old)	Start-ups, manufacturing businesses and high technology projects	Mostly in start-up firms, mostly non-technology-based businesses	High technology manufacturing sector; young and start-up companies
The role of the investor	Consulting role, serving on a working board of directors	Not involved in managing company's risk ('checker' and 'evaluator' behaviours)	37% served on the board of directors; 25% - with immediate or potential voting control	34-73 years old, mainly business owners and managers, highly-educated, wealthy, co-investments with others
Competencies and/or attributes	Well-educated, experienced in management of start-up situations	Male, mid-forties, graduate education, high income, enthusiastic, and persistent	Wealthy, sophisticated, and well-educated	

Location	Geographical proximity	Not important	Within 50 miles	Within 50 miles
Expectations of returns (for a holding period)	50% a year - for start-ups, 38% - infant firms, 30% - young firms, 23% - established firms	38% reported they made money	On average expected to have 3.9 'losers' out of the portfolio of 10 ventures; 28.4% return (average across all portfolios)	For a portfolio of young or start-up firms - 32%
Holding period (until exit)	5-7 years	5 years	n/a	5 years (mean)
Expectations of non-financial rewards	A sense of social responsibility; a psychic income ('hot buttons')	Tax-shelter purposes	n/a	lifetime personal capital gains tax exemption (not major consideration)
Deal search	The network of friends and business associates	Friends and business colleagues	n/a	n/a
Criteria	Confidence in management, satisfactory risk/reward ratios, well-defined business plan; the investor's familiarity with products, processes, or markets	The management ability of the venture team and a clear, demonstrated need for the product or service, preferably in a market with large potential	Detailed business plan	Confidence in managerial abilities to succeed the business
Sampling method	Snowball through partnering organisations: a survey of 133 business angels	A combination of sampling techniques from a population of high net-worth individuals, predominantly from personal networks: a survey of 130 business angels	Snowball through CEOs of funded companies: 55 business angels	Telephone interviews and mail survey of adult population: 57 informal investors identified, 25 took part in the survey
				(Sørheim and Landström, 2001), Norway

	(Harrison and Mason, 1992), UK	(Landström, 1998), Sweden	(Tashiro, 1999), Japan	
The size of the investment	Under £46,000 (US \$80,000) (average)	1.5 million SEK (approximately £120000) (median)	¥700,000 - ¥250M	US \$275, 294 (average for the whole period of observation)
Frequency of the deals	1-2 investments in 3 years	1 investment per year	0.5 - 5 investments per year	1-2 investments per year
Type of the firms	Service sector	High-tech manufacturing start-up or seed firms	High-tech industry with growth potential	Unlisted new and young companies

The role of the investor	An active role in entrepreneurial process	Stand-in, co-entrepreneur	Passive role (financial commitment only)	Mostly board members or consultants
Competencies and/or attributes	Male, with an entrepreneurial background, financially well-off	Aged 45-64, 42% have an academic degree, nearly all have entrepreneurial experience	Late 40s- early 50s	35-55 years old, well-educated, with work and managerial experience, co-investment with others
Location	Geographical proximity	Within 80 km	No geographical limitations	Geographical proximity
Expectations of returns (for a holding period)	Under 40%	n/a	10-50%	n/a
Holding period (until exit)	3-5 years	n/a	5 years (mean)	2 years
Expectations of non-financial rewards	The fun of making informal investments	Participation in the creation process	Have fun in developing new companies, and to contribute to the local and national economy	n/a
Deal search	Friends and business associates	n/a	Personal networks, but also nationally and internationally	Personal networks, the media, and other financial institutions
Criteria	The characteristics and expertise of the entrepreneur and management team and the growth potential of the market	Entrepreneurial ability, the business potential of the investment, the relationship between the entrepreneur and investor	The company's level of technology and patents, the abilities of the entrepreneur and the management team, and the business plan and management policy	n/a
Sampling method	Postal survey and snowball sample: 86 informal investors	A subjective sample of business angels through previous contacts: a survey of 22 informal investors	Survey of high net-worth individuals (377 potential business angels), plus interviews with 10 active business angels	Mail survey of potential informal investors who are part of networks and organisations (in combination with snowball method): 425 informal investors

	(Reitan and Sørheim, 2000), Norway	(Stedler and Peters, 2003), Germany	(Riding, 2008), Canada	(Withbank, 2009), UK
The size of the investment	US \$76,300 (average for three years)	Not more than €500 000	\$56,800 (average for 2003-2004); \$113,900 (average for 2001)	£42,000 per investor (average for late 2008), the majority - less than £100,000
Frequency of the deals	3.7 investments in 3 years (on average)	3.3 investments (average)	1.33-1.56 for probable angels; 0.5-0.3 for passive entrepreneurs; 0.6-0.7 for active money (in a year)	1.5 (average) investments per year
Type of the firms	Unlisted new and young companies (industry and technology)	IT enterprises at the seed or a start-up phase	Early-stage businesses	Early-stage, pre-revenue ventures
The role of the investor	Passive role (shareholders meetings attendance)	Active in the supervision and support of the enterprises	Mostly active role	Limited involvement
Competencies and/or attributes	Males aged between 35 and 55 years of age, well-educated, with extensive work experience and substantial finances, co-investment with others	Male, aged between 40 and 55, employed in a senior management position in his own or another enterprise.	Business owners (only in the sample)	Male, with professional and/or entrepreneurial experience, educated. Most angels are involved in co-investment, 10% of the wealth, 8% - equity in the company
Location	Geographical proximity	n/a	Most angels invested within 250km of their home	
Expectations of returns (for a holding period)	Less than 50%	n/a	Probable angels - under 50%; passive love money - lost money; serial entrepreneurs - lost money and 1-50%, active love money - lost money	
Holding period (until exit)	2-5 years	n/a	n/a	2.2 times the initial investment
Expectations of non-financial rewards	n/a	Positive contribution to a successful business start-up	n/a	4 years
Deal search	Personal networks, media and banks/brokers/venture companies and business connections	Personal and professional acquaintances	n/a	n/a

Criteria	n/a	Product and market (sales), personal impression and growth potential	n/a	n/a
Sampling method	Mail survey of potential informal investors who are part of networks and organisations (in combination with snowball method); 425 informal investors	Survey of business angels from ten networks: 232 responses	Surveys conducted of Statistics Canada of the SME owners; additional questions to the ones, identified as business angels (415 in 2002 and 787 in 2005)	A survey of 121 business angels from 13 angel groups (through networking)
The size of the investment	£192,634 (average for 2008/2009), mostly under £100,000	(Mason and Harrison, 2011), UK 70% invested under £75,000 for solo angels (2009/2010); under £200,000 for either solo or in groups	(Shane, 2012), US \$10,000 (Typical investment in 2001 and 2003)	Under £100,000 (investing along with other angels) Mostly co-investment
Frequency of the deals	0.4 investments per year	At least one investment per year	2.7 companies per year (average)	4-6 or more than 10 (for the life-time) 2.5 (median number of investments)
Type of the firms	Start-up, early/early growth stages, mostly IT and medical healthcare businesses	Start-up, early/early growth stages, mostly IT and medical healthcare businesses	Retail and personal service businesses (2001 and 2003), the typical average age of the business - 13.3 years (later-stage companies)	Start-ups and early-stage innovative, mainly technology businesses Technology-intense businesses
The role of the investor	n/a	n/a	Passive investors	Mainly passive
Competencies and/or attributes	Male, middle-aged, employed or involved into entrepreneurial activity, with high	The majority are part of networks	Male, over 45 years old, well-educated (university degree), with working and entrepreneurial	Male, employed, 75% are under 54 years old, the majority invest as part of a syndicate, half - involved in follow-up investments. More women and younger individuals are involved.

	income levels, part of networks, involved in follow-on investments	entrepreneurial activity, apprx. 20% equity in the company, minority involved in follow-up investments	experience, the vast majority - members of groups	
Location	n/a	n/a	n/a	58% invested outside their home region
Expectations of returns (for a holding period)	n/a	n/a	19.2% (net return for 3.5 year investment)	1-5 times the initial investment
Holding period (until exit)	n/a	n/a	3.5 years	n/a
Expectations of non-financial rewards	n/a	n/a	n/a	Increased interest in businesses to achieve social impact (26%)
Deal search	Network	Network	n/a	Gatekeepers, and other angels
Criteria	n/a		Previous entrepreneurial activity of the owner	Product and market potential, the quality of management team
Sampling method	A survey of 147 individual business angels - members of networks from British Business Angels Association and LINC Scotland	A survey of 153 business angels - members of 20 networks from British Business Angels Association and LINC Scotland	Data from the survey of the ACA (Angel Capital Association) members and non-representative surveys of angel investors, such as the AIPP (Angel Investor Performance Project)	An online survey of 403 individual angels, detailed follow-up telephone interviews with 42 individual angels, and an online survey of 28 angel syndicate and network leads

Appendix 4 A review of Global Entrepreneurship Monitor studies on the informal funders

Authors	Country	Time period	Object of the study	Theoretical frameworks used	Main findings
Bygrave <i>et al.</i> , (2003)	29 countries	2001	Description of informal investment activity across gender, age, the amount of investment, and linking it to the prevalence of opportunity-pull entrepreneurship	GEM conceptual model	Informal investment is a significant factor in the nation's economy, which correlates with opportunity-driven early entrepreneurial activity
Maula <i>et al.</i> , (2005)	Finland	2000-2002	Micro-level determinants of informal ("micro-angel") investments in businesses owned by a close family member compared to more distant ones.	Household portfolios theory; Theory of planned behaviour	Important determinants: personal familiarity with entrepreneurs, status as an owner-manager in a firm, and perceived skills - explain better the investments into businesses, owned by other than close family members
O'Gorman and Terjesen, (2006)	Ireland	2002-2004	Gender differences in relation to the supply of and the demand for new venture finance	Female entrepreneurship, access to finance, and informal investment literature	No capitalisation differences are found between male and female nascent entrepreneurs, where the latter tend to invest less personal resources. No differences are found between male and female informal investors in terms of the amount of the investments.
Wong and Ho, (2007)	Singapore	2000-2004	The individual-level determinants that differentiate informal investors from other individuals	Social Psychological Theory of Planned Behaviour; Sociological Theory of Social Networks; Socio-Psychological Theories of Interpersonal Trust; Economic Theory of Household Portfolio Allocation	The propensity of an individual to become an informal investor is mainly defined by the involvement into entrepreneurial networks, prior entrepreneurial experience, and self-perceived skills

			Limited business owner experience determines low rates of informal investment activity, and small amounts of investments. Heterogeneity of informal investors in terms of their socio-demographic characteristics, start-up skills, ownership status, opportunity perception, and country of residence
Szerb <i>et al.</i> , (2007a)	Croatia, Hungary, and Slovenia	2001-2004	Individual-level factors which drive informal investments
Szerb <i>et al.</i> , (2007b)	31 countries	2001-2003	Individual- and macro-level determinants of informal investments (across four types of informal investors, categorised based on the business ownership experience and the relationship with the investee)
Jones-Evans and Thompson, (2009)	UK	2005	Regional variations in the informal investment activity across the UK
Burke <i>et al.</i> , (2010)	45 countries	2002-2004	The determinants of informal investment deals at the cross-national level, where entrepreneurial activity and institutional
			Classic business angels are most likely to be found in developed, high growth environments in which entrepreneurship is high status and there is low power distance. 'Kin owners' and 'classic love money' are more likely to be found in developing countries.
			Informal investment literature and institutional theory
			While formal and informal investments are heavily concentrated in highly prosperous areas such as London and the South East of England, informal investments make a larger relative contribution to early stage and expansion equity capital within poorer regions.
			Previous literature on the regional allocation of venture capital
			Classical economics' limited resource allocation theory, Keynesian economics, human resource management theory, (labour economics) and entrepreneurial capital theory

	venture capital are the key factors under consideration	informal investor. Institutional (formal) venture capital market has a positive effect on this probability in the economies with high levels of entrepreneurial activity.
Kwon and Arenius, (2010b)	The effect of social capital on the weak-tie investments at both individual and national levels	Social capital theory, Kirznerian view of opportunity perception, theories on trust
de la Vega García-Pastor and Coduras, (2011)	The impact of the entrepreneurial training in the propensity of becoming an informal investor at the individual- and macro-levels	The significant (but moderate) effect of entrepreneurship training on the propensity of an individual to become an informal investor along with income, gender, positive self-perception of skills, knowledge, and entrepreneurial opportunities - as other powerful determinants.
Noftinger and Wang, (2011)	The determinants of the initial start-up financing (less than 6 months old): the role of informal investors, who differ from business angels in terms of their professionalism, and personal relationships	Product type and entrepreneurial experience are important in overcoming information asymmetry and moral hazard problems when accessing start-up capital. New product is associated with informal investors, who are less concerned with legal protection,

			where the risks are reduced through the social norms of fairness and obligation.
Romaní <i>et al.</i> , (2012)	Chile	2007-2008	<p>The gender differences in informal investments with respect to social factors, entrepreneurial perceptions, relationship with the investee, and expected returns.</p> <p>Role investment theory, Self Interest, Altruism and Agency Theory</p>
Diaz-Moriana and O'Gorman, (2013)	Ireland	2006-2011	<p>Description of the extent and nature of informal venture capital activity in Ireland, including the estimation of the size of the informal venture capital market.</p> <p>Previous literature on the informal investments</p>
Burke <i>et al.</i> , (2014)	21 countries	2002-2006	<p>The determinants of the volume of informal venture capital at the national level, estimating the net effect of the entrepreneurial activity</p> <p>Classical economics' limited resource allocation theory, Human capital theory, Gender effects in social behaviour</p>

				the increase in the informal investor rate, and the decrease in the amount invested per investor, where the former effect is dominating.
Ding <i>et al.</i> , (2015)	25 countries	2005-2007	A multilevel model of the direct and indirect effects of social trust on individuals' angel-investment decisions (strangers)	Both the level of trust and the radius of trust are found to enhance the positive relationship between an individual's perceived entrepreneurial skills and angel investment. However, these factors weaken the relationship between the perception of new business opportunities and angel investment.
Klyver <i>et al.</i> , (2016)	USA, France, Spain, and UK	2004-2008	Expectations of returns by informal investors: the impact of social capital on the engagement in altruistic behaviour	The closer the social ties are, the more likely the incurrence of altruistic behaviour is - the impact is stronger for men, than for women. However, overall women are more likely to engage in altruistic behaviour than men.

Appendix 5 Sampling procedures and outcomes

Organisation	Linking Person/Platform	First Contact Person	Second Contact Person	Connection	Contact with the participant	Outcome
Bloom VC	Founder of Thrive for Business Enterprise	Chief Communications Officer	N/A	3 connections	1 contact	1 interview (no linkage to informal funder - not used in the study)
Business Gateway	Business Mentor (University of Strathclyde)	Manager	N/A	N/A	No positive response	
Direct Contact	Interviewee	Entrepreneur	N/A	1 connection	1 contact	No interviews took place
Entrepreneurial Scotland	Website	CEO, Saltire Foundation	N/A	N/A	Cross-reference	
Entrepreneurial Spark	Supervisor	CEO, Founder Business Change advisor	Manager	2 connections	2 contacts	2 interviews (no linkage to informal funder - not used in the study)
Glasgow city Council	Fellow PhD student	N/A	N/A	N/A	No positive response	
Hillington Innovation centre	Website	General enquiries	N/A	N/A	No response	
Hunter Centre for Entrepreneurship	Supervisor	Head of SME Engagement, Entrepreneurial Exchange	N/A	30 connections	8 contacts	2 interviews (1 dyad) - does not fit sampling criteria, not used in the study; 3 interviews (no linkage to informal funder) - not used in the study; 8 interviews (4 dyads) used in the study
Hunter Centre for Entrepreneurship	Personal contact	Colleague	N/A	1 connection	1 contact	1 interview (no linkage to informal funder - not used in the study)
Saltire Foundation	Supervisor	CEO	N/A	1 connection	1 contact	2 interviews (1 dyad) - used in the study
Scottish Enterprise	Enterprise Advisor	Manager	N/A	N/A	No positive response	

Scottish Entrepreneurs	Fellow PhD student	LinkedIn	N/A	N/A	N/A	No positive response	
Smart: Scotland Strathclyde Commercial Team	Fellow PhD student	LinkedIn Commercialisation Infrastructure Manager	N/A	N/A	N/A	No positive response	
Strathclyde Entrepreneurial Framework	Website Supervisor	Enterprise Advisor (University of Strathclyde)	N/A	N/A	N/A	No positive response	
Strathclyde University Incubator	Website	Enterprise Partner	1 connection	1 contact	2 interviews (1 dyad) - used in the study	Cross-reference	
The Prince's Scottish Youth Business Trust Thrive for Business	Supervisor	Head of Growing Businesses, Youth Business Scotland	N/A	N/A	2 interviews (1 dyad) - used in the study; 1 interview (no linkage to informal funder - not used in the study)	Reference to BloomVC	

Appendix 6 Cover letter to ‘Gate Keepers’

Dear ...!

... from ... kindly advised me to contact you and provided your contact details.

I am a PhD researcher in Strathclyde Business School, and I am investigating the relationships between informal funders (family members, friends, neighbours, and work colleagues) and the business owners that they finance.

I am writing to you, as I need your help for my research.

I would appreciate if you could introduce me to the entrepreneurs who recently or in the past attracted funding through informal networks and connections, for example, family members, friends, work colleagues, neighbours, and other “non-professional investors”. It is an important source of funding of new ventures across the world. However, it is relatively rare in the UK. I am investigating this phenomenon for my PhD.

I am looking for the businesses, which have been generating revenue for at least 3 months. Informal funding should have occurred for business purposes, but could be one of the multiple sources of funding (along with grants, loans, VC, and business angels’ investments).

The current state of the business, its performance, sector, the age of the entrepreneur do not matter.

I am seeking to have face-to-face interviews with entrepreneurs. I will wish to ask questions concerning the kind of the business, and the nature of the relationships with the informal funder. I will also ask to put me in touch with their informal funder for a subsequent interview as well. The conversation will take approximately one hour.

The confidentiality and anonymity of individuals will be maintained. I am completely flexible in time and location.

Thank you very much, I appreciate your help.

With kind wishes,
Ekaterina Murzacheva
PhD Researcher

Hunter Centre for Entrepreneurship
7.3.1 Strathclyde Business School
199 Cathedral Street,
G4 0QU, U.K.

Tel.: 0141 5484848
Mobile: 075 64161365
Email: ekaterina.murzacheva@strath.ac.uk

Appendix 7 Covering letter to participants

Dear ... !

I am a PhD student in Strathclyde Business School's Hunter Centre for Entrepreneurship, and I am undertaking a study of the relationships between informal funders (family members, friends, neighbours, and work colleagues) and the business owners that they finance.

I am writing to ask for your participation in this study in the form of face-to-face interviews with you and the person who helped you financially to start your own business.

The funders and business owners should be aged 18-64, and the business should have been paying wages or salaries for at least three months.

Please note that:

- You can withdraw at any time, and in that event data arising from your participation will be destroyed unless we agree on other terms;
- Your confidentiality and anonymity will be maintained;
- The data will be securely stored;
- I will also seek to arrange an interview with the informal investor that you refer me to;

The detailed information about the investigation and your participation is provided in the attachment.

I look forward to hearing from you. I can be contacted on ekaterina.murzacheva@strath.ac.uk or
Tel.: +44 0141 548 4848
Mobile: +44 075 64161365

Yours sincerely

Ekaterina Murzacheva
Hunter Centre for Entrepreneurship
7.3.1 Strathclyde Business School
199 Cathedral Street,
G4 0QU, U.K.

Appendix 8 Participant Information Sheet for Entrepreneur

Participant Information Sheet

Name of department:

*Hunter Centre for Entrepreneurship
Strathclyde Business School*

Title of the study:

Drivers of informal investments in the UK

**Introduction**

Ekaterina Murzacheva is a PhD student in the Hunter Centre for Entrepreneurship, Strathclyde Business School. Her research is concerned with the financial aspects of early entrepreneurship – its estimated and real structure, role of different sources, the drivers of investments, and the macroeconomic effect of informal capital flows.

What is the purpose of this investigation?

The objective is to identify the motivation behind the decision made by an informal funder (family member, friend, work colleague, neighbour) to support a new business and investigate the relationships between the funder and the business owner.

Do you have to take part?

The objective of the interview is to reveal motives, reasoning, and expectations behind the relations between an entrepreneur and his/her informal investor.

You are invited to take part in the investigation.

Your participation is voluntary.

You can refuse to participate or withdraw participation at any time without detriment.

What will you do in the project?

We will interview you and your informal funder separately. We will wish to ask questions concerning the kind of your business, the nature of the relationships with your informal funder, your evaluation of the funding process and expectations about it. The interview will take approximately one hour. If you are agreeable I would like to record the interview to avoid the need to take detailed notes.

In addition, we will ask you to complete a short questionnaire comprising six questions, covering basic demographic information about you. It will take less than 3 minutes to complete.

The interview will be scheduled according to your time and venue preferences in the period from the 1st of May 2012 till the 1st of December 2013.

Why have you been invited to take part?

We are looking for business owners who fall into any of the following categories:

New business owners – individuals who are active as owner managers of a new business that has paid wages or salaries for more than 3 months, but less than 42 months;

Established owners – individuals who are active as owner managers of a business that has paid wages or salaries for more than 42 months;

Discontinued owners – individuals who have discontinued their business for the last 12 months.

Business owners should be between 18 to 64 years old.

Business owners should have started (or developed) their business with funds raised from relatives, friends, neighbours, or work colleagues (either from one of these sources or from several of them at once).

If the business owner has started more than one business, then we wish to focus on the most recent one.

We will seek a referral from the business owner to the specified informal funder. We will subsequently contact this funder with the intention of arranging an in-depth interview.

What are the potential risks to you in taking part?

No risks are involved during the investigation.

What happens to the information in the project?

The confidentiality and anonymity of individuals will be maintained. The data will be reported in aggregate format. The information received will be used for research purposes and will be presented at the conferences, papers, articles, and in other academic formats.

The data gathered will be securely stored.

The University of Strathclyde is registered with the Information Commissioner's Office who implements the Data Protection Act 1998. All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998.

Thank you for reading this information – please ask any questions if you are unsure about what is written here.

What happens next?

If you are happy to be involved in the project, we will ask you to sign a consent form to confirm this.

If you do not want to be involved in the project, then we appreciate and respect your decision. We are grateful for taking time to get acquainted with the project.

Once you are interested in the results, we will send you the summary of the findings on their completion.

This investigation was granted ethical approval by the University of Strathclyde ethics committee.

If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or further information may be sought from, please contact:

Secretary to the University Ethics Committee

Research & Knowledge Exchange Services

University of Strathclyde

Graham Hills Building

50 George Street

Glasgow

G1 1QE

Telephone: 0141 548 3707

Email: ethics@strath.ac.uk

Appendix 9 Participant Information Sheet for Informal Funder

Participant Information Sheet

Name of department:

*Hunter Centre for Entrepreneurship
Strathclyde Business School*

Title of the study:

Drivers of informal investments in the UK

**Introduction**

Ekaterina Murzacheva is a PhD student in the Hunter Centre for Entrepreneurship, Strathclyde Business School. Her research is concerned with the financial aspects of early entrepreneurship – its estimated and real structure, role of different sources, the drivers of investments, and the macroeconomic effect of informal capital flows.

What is the purpose of this investigation?

The objective is to identify the motivation behind the decision made by an informal funder (family member, friend, work colleague, neighbour) to support a new business and investigate the relationships between the funder and the business owner.

Do you have to take part?

The objective of the interview is to reveal motives, reasoning, and expectations behind the relations between an entrepreneur and his/her informal funder.

You are invited to take part in the investigation.

Your participation is voluntary.

You can refuse to participate or withdraw participation at any time without detriment.

What will you do in the project?

We will interview you and the entrepreneur that you supported financially to start (or develop) a business separately. We will wish to ask questions concerning the nature of the relationships with the business owner, your evaluation of the investment process and expectations about it. The interview will take approximately one hour. If you are agreeable I would like to record the interview to avoid the need to take detailed notes.

In addition, we will ask you to complete a short questionnaire comprising six questions, covering basic demographic information about you. It will take less than 3 minutes to complete.

The interview will be scheduled according to your time and venue preferences in the period from the 1st of May 2012 till the 1st of December 2013.

Why have you been invited to take part?

We are looking for dyads of business owner and his/her informal funder.

The entrepreneur was contacted first, and was asked to give a reference to you.

We define *Informal funders* as individuals who in the past three years have personally provided funds for a new business started by a family member, friend, work colleague, or neighbour, excluding any purchases of stocks or mutual funds.

Informal funders should be between 18 to 64 years old.

What are the potential risks to you in taking part?

No risks are involved during the investigation.

What happens to the information in the project?

The confidentiality and anonymity of individuals will be maintained. The data will be reported in aggregate format. The information received will be used for research purposes and will be presented at the conferences, papers, articles, and in other academic formats.

The data gathered will be securely stored.

The University of Strathclyde is registered with the Information Commissioner's Office who implements the Data Protection Act 1998. All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998.

Thank you for reading this information – please ask any questions if you are unsure about what is written here.

What happens next?

If you are happy to be involved in the project, we will ask you to sign a consent form to confirm this.

If you do not want to be involved in the project, then we appreciate and respect your decision. We are grateful for taking time to get acquainted with the project.

Once you are interested in the results, we will send you the summary of the findings on their completion.

This investigation was granted ethical approval by the University of Strathclyde ethics committee.

If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or further information may be sought from, please contact: Secretary to the University Ethics Committee

Research & Knowledge Exchange Services

University of Strathclyde

Graham Hills Building

50 George Street

Glasgow

G1 1QE

Telephone: 0141 548 3707

Email: ethics@strath.ac.uk

Researcher Contact Details:

Ekaterina Murzacheva

Hunter Centre for Entrepreneurship

7.3.1 Strathclyde Business School

199 Cathedral Street,

G4 0QU, U.K.

Appendix 10 Consent form for the participants

Consent Form



Name of department:

*Hunter Centre for Entrepreneurship
Strathclyde Business School*

Title of study:

Drivers of informal investments in the UK

- I confirm that I have read and understood the information sheet for the above project and the researcher has answered any queries to my satisfaction.
- I understand that my participation is voluntary and that I am free to withdraw from the project at any time, without having to give a reason and without any consequences.
- I understand that I can withdraw my data from the study at any time.
- I understand that any information recorded in the investigation will remain confidential and no information that identifies me will be made publicly available.
- I consent to being a participant in the project
- I consent to being audio recorded as part of the project

(PRINT NAME)	Hereby agree to take part in the above project
Signature of Participant:	Date

Appendix 11 Interview guidelines for entrepreneurs

1. General information (conditions and circumstances identification)

- When did you start your business (name at least the year)?
- What kind of business is (was) it?
- How did the business idea come about? Has it changed since then? If so, then when and why?
- What kind of skills did you need to get the business started? Where did you get those skills? Would you change anything, if you had the experience you have now?
- How do you estimate the success of your business? What are the reasons for it? What could it make the business more successful, if you were back at the beginning stage?
- Did you approach someone else (besides the informal investor) to get the funding for your business? Specify, please.

If yes, then:

- Did you succeed and get the finance from these sources?
- If no, could you, please, specify the reasons for the rejections you received?
- What was your relationship with the person that provided you with the informal financial support (family member, relative, friend, neighbour, work colleague)?
- Who was the initiator of this funding relationship?
- Was it a one-time funding or did you receive the funds several times during some period?

If it is a several tranches funding then additional questions should be asked:

- How many times did you receive the funds to this start-up from the informal funder specified, and what was the period for it?
- What was the reason for the division of the funding into several parts?

2. Financial information

- How much money in total was required to start this business?
- How much of your own money, in total, did you provide to the business?
- Where did your own money come from for this funding? Was it a considerable part of your budget (financial assets)? (Was it your spare resources, long-term savings, money for your current expenditures?)
- What was the stage of the business when you received the money from the specified informal funder? (When did the informal funder come in?)
- Did the amount of funds you asked (the specified informal funder) correspond to the amount you received?
- How long do you think it will be before you pay back the full amount of the money received from the specified informal funder?
- In the next ten years, what payback do you expect to provide on the money you received from the specified informal funder?

3. The nature of the decision

- Why did you decide to refer to (or make use of the suggestion of) the specified informal funder?
- How do you think, what attracted the specified informal funder to support your business financially?
- How do you think, what influenced his/her decision to fund?
- Was this new business developed by or separated from an existing business controlled within your family?
- What was the purpose of the funding from the specified informal funder (R&D; resources attraction, scaling up the existing business – recruitment, marketing, production, sales)?

4. Control

- Were you interested in the specified informal funder to take part in managing or consulting the business?
If yes, then:
 - What exactly did you want him/her to help you with the business?

If no, then:

 - Why didn't you want the investor to take part/help in managing or consulting the business?

- Did (does) the funder participate in managing or consulting the business?
- Did (do) you consider his advice/actions to be useful? Did (do) you follow the funder's advice?
- What were the terms and conditions of the funding?
- From your point of view, what was the funder asking for (expecting from you), when providing funds to your business? What information did you offer to the funder? How did it correspond with the information the informal funder asked from you?
- Did (do) you keep your funder informed about the business operations?

If yes, then:

- Were you the first to initiate the provision of feedback? How often do (did) you share the information with the funder?
- If no, then:*
- Did the funder ask you to share the information with him/her?
- Why don't (didn't) you keep the funder informed about the business operations?

5. Risk

- Do (did) you have a fear of failure of this business?
- Have you considered the amount of risk, associated with your business?

If yes, then:

- Was the degree of the risk acceptable for you?
- How do you personally estimate the level of the *business risk* - the possibility of financial losses caused by either the personal attributes of the entrepreneur (lack of knowledge, realistic expectations, necessary personal qualities) or the attributes of the business (poor management team, poor profit potential, wrong market strategy, unsuccessful technology or product design)?

6. Trust

- What is (was) your estimation of the success of the venture so far?
- To what extent are (were) you satisfied with your relations with the investor?
- To what extent are (were) you open to the investor?
- Do you think, if you had received this (part of the) funding from a business angel or any formal investor(lender), would you have allocated it differently (for different purpose, or attracted at another stage of the business development)?
- Do you trust the funder? Can you scale it (much/little)?

7. Outcome

- Do you think this funding had (are having) an effect on the business results? What are these results? Do you think, if you had received this (part of the) funding from a business angel or any formal investor/lender, would the business results have been different?
- If you had an opportunity to attract the necessary funds from other sources (your own capital, business angel, formal investor) would you have still attracted the money from the specified informal funder? What reasons would have been for that?

If applicable:

- When did this business discontinue?
- What was the reason for it?

Appendix 12 Interview guidelines for informal funders

1. General information (conditions and circumstances identification)

- When did you provide the funds for a recent business for the first time (name at least the year of investments/lendings)?
- What kind of business did you fund?
- Was this first time when you made the investment (provided a loan)?
- Were you searching for the project proactively or did the investee/borrower find you himself/herself?
- Were there any other funders before you in the project? (Banks, investment companies, business angels, other private persons).
- What was your relationship with the person that received your most recent personal funding (family member, relative, friend, neighbour, stranger)?
- Was it a one-time funding or did you provide the funds several times during some period?
If it is a several tranches funding, then additional questions should be asked:
- How many times did you provide the funds to this start-up, and what was the period for it?
- Why did you divide the funding into several parts?

2. Financial information

- Approximately how much, in total, have you personally provided to recent business start-ups in the past three years, not counting any investments in publicly traded stocks or mutual funds?
- Where did the money come from for this deal?
- Was it a considerable part of your budget? (Was it your spare resources, long-term savings, money for your current expenditures?)
- Did the amount of funds asked correspond to the amount you provided?
- In the next ten years, what payback do you expect to get on the money you put into this start-up?
- How long do you think it will be before they pay back the full amount of your contribution to this new firm?

3. The nature of the business supported

- Did the kind of the business (the idea, the essence) influence your decision to invest?
If yes, then:

- What exactly attracted you in the business?
If no, then:
- What influenced your decision to fund?

- Was this new business developed by or separated from an existing business controlled within your family?
- What was the stage of the business when you invested/lent your money?
- What was the purpose of the funding (R&D; resources attraction, scaling up the existing business – recruitment, marketing, production, sales)?
- Does the business you supported fit your own experience, knowledge, or skills?

4. Control

- Were you taking part in managing or consulting the business you funded?

If yes in any form, then:

- What was the extent to which the entrepreneur followed your advice?

- What were the terms and conditions of your funding?
- What information about the business was the entrepreneur offering you? From your point of view, did it correspond with what you were asking for?
- Were you expecting the entrepreneur to share the information with you?

If yes, then:

- How can you estimate the timeliness of the feedback from the entrepreneur?

5. Risk

- Suppose, you hadn't funded this business, what would you have done with this money?

- Do you have a fear of failure of this business? Would the failure of this business concern you financially or morally?
- Have you considered the amount of risk, associated with your funding?

If yes, then:

- Was the degree of the risk acceptable for you?

- How do you personally estimate the level of the *business risk* - the possibility of financial losses caused by either the personal attributes of the entrepreneur (lack of knowledge, realistic expectations, necessary personal qualities) or the attributes of the business (poor management team, poor profit potential, wrong market strategy, unsuccessful technology or product design)?

6. Trust

- What was your attitude to the possibility of negative consequences?
- What was your estimation of the success of the venture?
- To what extent were you satisfied with the decisions made by the entrepreneur?
- To what extent was the owner honest and open to you?
- Do you trust the entrepreneur? Can you scale it (much/little)?

7. Outcome

- Is this business still up and running?

If yes, then:

- How do you think, did your funding have an effect on the business results? What are these results?

If no, then:

- When did this business discontinue?
- What was the reason for it?

- Might you fund someone else's business in the future?

Appendix 13 Follow up questionnaire

This questionnaire is designed to gather basic social and demographic information. It will be used only in aggregation for the research purposes and won't be disclosed to anyone. *The estimated time taken – no more than 3 minutes.*

Could you, please, provide the information about yourself?

1. Your name: _____

2. Your home postcode (if you do not remember, please, specify the region/area/district): _____

3. Your age (in years): _____

4. Which of these is the highest level of education that you have attained so far?

- A Doctorate or equivalent
- Master's degree or equivalent
- Bachelor's degree or equivalent
- A-level or equivalent
- GCSE/O-level or CSE
- Vocational qualifications
- Other (please, specify)

5. Which one of the following describes your employment status (besides your business owner status):

- Employed by others in full-time work
- Employed by others in part-time work
- Self-employed
- Seeking employment
- Not working because of the retirement/disability
- A student
- A full time homemaker
- Other (please, specify)

6. Here are the bands of total household income that is the annual income from all sources, before tax and other deductions. Can you tell me which your household falls into? Please be assured that this is just for classification purposes:

- Up to £11,499
- £11,500 to £17,499
- £17,500 to £29,999
- £30,000 to £49,999
- £50,000 to £99,999
- £100,000 or more

Thank you very much for your collaboration!

If you are interested with the results, we are happy to provide you with the research findings.

**Appendix 14 IMD adjusted scores matched with the postcodes in the GEM dataset
2007-2012**

2007	Adjusted IMD before crisis		Adjusted IMD after crisis	
	Mean	Count	Mean	Count
England	20.9	21238	20.91	21238
Wales	35.78	7671	36.35	7671
Scotland	22.97	1909	22.98	1909
N. Ireland	30.16	4000	31.77	4000
2008	Adjusted IMD before crisis		Adjusted IMD after crisis	
	Mean	Count	Mean	Count
England	20.03	16741	19.99	16741
Wales	32.95	2215	33.45	2215
Scotland	19.95	1487	20.14	1487
N. Ireland	28.79	1552	30.28	1552
2009	Adjusted IMD before crisis		Adjusted IMD after crisis	
	Mean	Count	Mean	Count
England	20.69	15799	20.62	15799
Wales	35.1	2194	35.51	2194
Scotland	21.17	1549	21.23	1549
N. Ireland	28.65	1585	30.1	1585
2010	Adjusted IMD before crisis		Adjusted IMD after crisis	
	Mean	Count	Mean	Count
England	21.34	2608	21.09	2608
Wales	33.89	2261	34.45	2261
Scotland	21.34	1528	21.24	1528
N. Ireland	29.12	804	30.64	804
2011	Adjusted IMD before crisis		Adjusted IMD after crisis	
	Mean	Count	Mean	Count
England	19.33	2046	19.41	2046
Wales	34.09	2173	34.62	2173
Scotland	20.02	1519	19.93	1519
N. Ireland	27.96	1797	29.42	1797
2012	Adjusted IMD before crisis		Adjusted IMD after crisis	
	Mean	Count	Mean	Count
England	20.79	2410	20.82	2410
Wales	38.12	2120	38.23	2120
Scotland	20.95	1612	21.02	1612
N. Ireland	27.89	821	29.37	821

Appendix 15 Original GEM variable list used in the analysis

Name (original)	Description	Values	Scale
yrsurv	Year of survey		Interval
gender	Gender	1 – male	Nominal
		2 – female	
		8 – don't know	
		9 – refused	
age	Age at the time of the interview		Discrete, ratio
busang	1d: Business angel in last three years	0 – no	Nominal
		1 – yes	
		8 – don't know	
		9 – refused	
discent	1f: shut down business in past 12 months	0 – no	Nominal
		1 – yes	
		8 – don't know	
		9 – refused	
knowent	1g: personally know entrepreneur in past 2 years	0 – no	Nominal
		1 – yes	
		8 – don't know	
		9 – refused	
opport	1h: lots of good opportunities in starting a business in 6 months	0 – no	Nominal
		1 – yes	
		8 – don't know	
		9 – refused	
suskill	1i: has knowledge, skills to do a start-up	0 – no	Nominal
		1 – yes	
		8 – don't know	
		9 – refused	
fearfail	1j: fear of failure prevents start-up effort	0 – no	Nominal
		1 – yes	
		8 – don't know	
		9 – refused	
equalinc	1k: people prefer uniform living standard	0 – no	Nominal
		1 – yes	
		8 – don't know	
		9 – refused	
nbgoodc	1l: starting a new business is a good career choice	0 – no	Nominal
		1 – yes	
		8 – don't know	
		9 – refused	
ndstatus	1m: successful new business leads to status	0 – no	Nominal
		1 – yes	
		8 – don't know	
		9 – refused	
nbmedia	1n: lots of media coverage of new business	0 – no	Nominal
		1 – yes	
		8 – don't know	

		9 – refused	
sunewcst	2e1: start-up: product/service new to customers	1 - new to all	Ordinal
		2 – new to some	
		3 – not new to any	
		8 – don't know	
		9 - refused	
		1 – new technology, less than 1 year old	
sunewtec	2e3: start-up: technology available	2 – intermediate technology: 1-5 years old	Ordinal
		3 – old technology, over 5 years old	
		8 – don't know	
		9 – refused	
		1 – over 90% export	
		2 – 75% export	
suxexport	2e4: proportion customers out of the country	3 – over 50% export	Ordinal
		4 – over 25% export	
		5 – more than 10% export	
		6 – 10% or less export	
		7 – no exports	
		8 – don't know	
		9 - refused	
		0 – none	Discrete, ratio
		999998 – don't know	
suyr5job	2f2: start-up: number of jobs in five years post birth	999999 – refused	
		999999997 = "not required"	Continuous, ratio
		999999998 – don't know	
sumontotal	2h1: start-up money total	999999999 - refused	
		999999997 = "not required"	Continuous, ratio
		999999998 – don't know	
sumonown	2h2: start-up: the total amount of self-funding	999999999 - refused	
		0 - none	Continuous, ratio
		999999997 = "does not apply"	
bafund	4a: informal funding in past three years (total amount)	999999998 – don't know	
		999999999 - refused	
		1 – full or part time	Nominal
		2 - part time only	
gemwork	Gem harmonized work status	3 – retired/disabled	
		4 – homemaker	
		5 – student	
		6 – not working: other	
		7 – missing/cannot code	
		33 – lowers third	Ordinal
		3467 – middle third	
gemhhinc	Income recoded into thirds	68100 – upper third	
		99999 – miss/cannot code	
gemeduc	Educational attainment	0 – none	Ordinal
		111 – some secondary	

		1212 – secondary degree 1316 – post secondary 1720 – graduate experience 9999 – cannot code	
estbbuso	Manages and owns a business that is older than 42 months	1 – yes	Nominal
		0 – no	
teaXX	Involved in Total early-stage Entrepreneurial Activity	1 – yes	Nominal
		0 – no	
teaXXsta	TEA 2007: Stage of activity	1 – nascent entrepreneur	Nominal
		2 – baby business owner-manager	
teaXXopp	Involved in Opportunity early-stage Entrepreneurial Activity	1 – yes	Nominal
		0 – no	
teaXXnec	Involved in Necessity early-stage Entrepreneurial Activity	0 – no	Nominal
		1 – yes	
homepost	Home postcode		Nominal
q2h3_1	Where expect to get rest of money needed to start business: From a close family member such as a spouse, parent or sibling	1 – yes	Nominal
		2 – no	
		99998 – don't know	
		99999 - refused	
q2h3_2	Where expect to get rest of money needed to start business: Other relatives, kin or blood relations	1 – yes	Nominal
		2 – no	
		99998 – don't know	
		99999 - refused	
q2h3_3	Where expect to get rest of money needed to start business: Work colleagues	1 – yes	Nominal
		2 – no	
		99998 – don't know	
		99999 - refused	
q2h3_4	Where expect to get rest of money needed to start business: A stranger	1 – yes	Nominal
		2 – no	
		99998 – don't know	
		99999 - refused	
q2h3_5	Where expect to get rest of money needed to start business: Friends or neighbours	1 – yes	Nominal
		2 – no	
		99998 – don't know	
		99999 - refused	
q2h3_6	Where expect to get rest of money needed to start business: Banks or other financial institutions	1 – yes	Nominal
		2 – no	
		99998 – don't know	
		99999 - refused	
q2h3_7	Where expect to get rest of money needed to start business: Government programmes	1 – yes	Nominal
		2 – no	
		99998 – don't know	
		99999 - refused	
q2h3_8	Where expect to get rest of money needed to start business: Other source	1 – yes	Nominal
		2 – no	
		99998 – don't know	
		99999 - refused	

Appendix 16 Modified GEM variable list used in the analysis

New variable Name	Description	Values	Scale
Entrepreneurial Attitudes (for all population)			
posstatind	Positive individualistic status perception 1l=1 and 1m=1	1 – positive individualistic status perception 0 - negative or neutral individualistic status perception	Nominal
posstatcol	Positive collectivistic status perception 1n =1 and 1k=0	1 - positive collectivistic status perception 0 - negative or neutral collectivistic status perception	Nominal
posstatentr	Positive entrepreneurial status perception (Positive individualistic status perception or collectivistic status perception)	1 - positive entrepreneurial status perception 0 – negative or neutral entrepreneurial status perception	Nominal
posopcap	Positive perceived opportunities or capabilities: 1h=1 or 1i=1	1 - positive perceived opportunities or capabilities 0 – negative perceived opportunities or capabilities	Nominal
riskav	Positive fear of failure perception (risk aversion): 1j = 0	1 - positive fear of failure perception 0 - negative fear of failure perception	Nominal
network	Availability of entrepreneurial personal networks: 1g =1	1 - involved in entrepreneurial networks 0 – not involved in entrepreneurial networks	Nominal
posentrselfef	(posopcap = 1 & riskav = 1) (posopcap = 1 & network = 1) (riskav = 1 & network = 1)	1 – positive entrepreneurial self-efficacy perception 0 - negative entrepreneurial self-efficacy perception	Nominal
posentrat	<i>posentrselfef = 1 and posstatentr = 1</i>	<i>1 – positive entrepreneurial attitudes</i> <i>0 – negative entrepreneurial attitudes</i>	Nominal
Entrepreneurial Aspiration (for nascent entrepreneurs)			
nascinnov	Innovation-driven nascent entrepreneurs (2e1 =1 or 2e1 =2) or (2e3 = 1)	1 – yes 0 – no	Nominal
nasceexp	Export-oriented nascent entrepreneurs (proportion of customers out of the country is over 1% percent) 2e4 =1 2e4 = 2 2e4 = 3 2e4 = 4 2e4 = 5 2e4 = 6	1 – yes 0 – no	Nominal

nascgrowth	Growth-oriented nascent entrepreneurs (expect to create 6 or more jobs in the next 5 years) (2f2) suyr5job = 6	1 – yes 0 – no	Nominal
posentrasp	Positive entrepreneurial aspirations (the availability of at least one of the aspirational aspect: innovation, growth, or export)	1 – yes 0 – no	Nominal
Industry Classification			
indtype	Industry type for an early entrepreneur (based on the question q2e): 100-990 – primary sector 1000-4400 – secondary sector 4500-5630 and 8600-9820 – tertiary sector 5800-8299 and 8500-8560 – quaternary sector	1 – primary sector 2 – secondary sector 3 – tertiary sector 4 – quaternary sector 5 - unclassified	Ordinal
Business Discontinuation			
busdic	Business discontinuation in the past 12 months discent = 1	1 – yes 0 – no	Nominal
Social Indicators			
workstat	Work status (based on gemwork): 1 and 2 - working full or part time 3, 4, 5 – retired/disabled, homemaker, student 6 – not working: other 7 – missing/cannot code	1 –working full or part time 2 –retired/disabled, homemaker, or student 3 – not working	Ordinal
educat	Educational attainment (based on gemeduc): 0 – none (zero frequency) 111 and 1212 – some secondary or secondary degree 1316 and 1720 – post secondary or graduate experience 9999 – cannot code	1 – some secondary or secondary degree 2 – post secondary or graduate experience 3 – post graduate experience or degree	Ordinal
incthirds	Household income recoded into thirds (based on gemhhinc): 33 – lowers third 3467 – middle third 68100 – upper third	1 – lowest third 2 – middle third 3 – upper third	Ordinal

	99999 – miss/cannot code		
Informal funders			
infinv	For the last three years provided funds for a new business started by a family member, friend, work colleague, or neighbour, excluding any purchases of stocks or mutual funds busang (1d) = 1	1 - yes 0 - no	Nominal
inffund	Total amount of informal funding for the past 3 years in pounds (the question addressed to the informal investors)		Continuous, ratio
Entrepreneurial Finance			
startuptot	Total amount of money required for a start-up	0 – no money required	Continuous, ratio
owncap	Total amount of self-funding	0 – not required	Continuous, ratio
famfinance	The intention to attract the rest of the funding from family members q2h3_1 = 1 or q2h3_2 = 1	1 –yes 0 – no	Nominal
frfinance	The intention to attract the rest of the funding from work colleagues, friends, or neighbours q2h3_3 = 1 or q2h3_5 = 1	1 –yes 0 – no	Nominal
strfinance	The intention to attract the rest of the funding from a stranger q2h3_4 = 1	1 –yes 0 – no	Nominal
bankfinance	The intention to attract the rest of the funding from bank q2h3_6 = 1	1 –yes 0 – no	Nominal
govfinance	The intention to attract the rest of the funding from government programmes q2h3_7 = 1	1 –yes 0 – no	Nominal
Inf_funds_demand	famfinance = 1 frfinance = 1 strfinance = 1 Intention to attract informal funds by early entrepreneurs	1 – Yes 0 - No	Nominal

Appendix 17 Sample sizes and frequencies

Indicator	2007	2008	2009	2010	2011	2012
Number of observations	34818	21995	21127	7201	7535	6963
Number of informal investors	467	316	241	204	186	185
Number of early entrepreneurs	1943	1215	1217	469	574	663
Number of nascent entrepreneurs	1038	611	570	228	334	379
Number of nascent entrepreneurs, who intend to self-fund the business	580	324	315	117	190	206
Number of nascent entrepreneurs, who intend to attract family funding	127	90	61	15	14	40
Number of nascent entrepreneurs, who intend to attract friends funding	109	87	56	30	47	50
Number of nascent entrepreneurs, who intend to attract stranger funding	41	27	20	5	4	19
Number of nascent entrepreneurs, who intend to attract bank funding	232	129	108	40	75	79
Number of nascent entrepreneurs, who intend to attract government funding	111	95	79	32	43	61
Number of new business owners	905	604	675	248	241	301
Number of individuals with positive entrepreneurial aspirations	689	435	379	154	268	268
Number of individuals with positive entrepreneurial attitudes	21517	13130	11937	6048	5702	5242
Number of individuals with positive entrepreneurial self-efficacy	8481	5383	4696	2932	3075	2925
Number of individuals who discontinued business in the last 12 months	687	463	443	120	152	104
Number of early entrepreneur with opportunistic motivation	1521	955	917	368	466	484
Number of early entrepreneurs, who are necessity-oriented	215	176	197	53	88	125

Appendix 18 Normality tests for the quantitative variables

Normality test (Kolmogorov-Smirnov)	2007	
	Statistic	Significance
The intended amount of start-up capital	0.391	0
The intended amount of own capital	0.233	0
The amount of informal funding provided	0.309	0
Normality test (Kolmogorov-Smirnov)	2008	
	Statistic	Significance
The intended amount of start-up capital	0.444	0
The intended amount of own capital	0.426	0
The amount of informal funding provided	0.366	0
Normality test (Kolmogorov-Smirnov)	2009	
	Statistic	Significance
The intended amount of start-up capital	0.505	0
The intended amount of own capital	0.359	0
The amount of informal funding provided	0.302	0
Normality test (Kolmogorov-Smirnov)	2010	
	Statistic	Significance
The intended amount of start-up capital	0.354	0.014
The intended amount of own capital	0.365	0.009
The amount of informal funding provided	0.301	0.08
Normality test (Kolmogorov-Smirnov)	2011	
	Statistic	Significance
The intended amount of start-up capital	0.507	0
The intended amount of own capital	0.533	0
The amount of informal funding provided	0.467	0
Normality test (Kolmogorov-Smirnov)	2012	
	Statistic	Significance
The intended amount of start-up capital	0.533	0
The intended amount of own capital	0.528	0
The amount of informal funding provided	0.401	0

Appendix 19 Descriptive statistics of continuous ratio variables used in the analysis

2007						
Variable	Mean	Median	Standard Deviation	Minimum	Maximum	Interquartile range
<i>Informal funders</i>						
Age	39.94	40	12.65	18	64	21
Total amount of informal funding for the past 3 years in pounds	30174.83	5000	142548.09	1000	4100000	18000
<i>Early entrepreneurs</i>						
Age	38.86	38	11.25	18	64	17
Total amount of money required for a start-up in pounds	260496.18	10000	4136352.6	1000	100000000	38651.8
Total amount of self-funding in pounds	37521.4	7042.14	113318.97	1000	1000000	24929.43
2008						
<i>Informal funders</i>						
Age	40.46	41	13.23	18	64	21
Total amount of informal funding for the past 3 years in pounds	27560.28	6500	77967.8	2000	800000	17000
<i>Early entrepreneurs</i>						
Age	39.13	38	11.16	18	64	17
Total amount of money required for a start-up in pounds	710601.52	10000	7337539.46	1000	100000000	47789.28
Total amount of self-funding in pounds	47046.48	6852.19	218244.4	1000	3000000	19000
2009						
<i>Informal funders</i>						
Age	40.68	40	13.38	18	64	21
Total amount of informal funding for the past 3 years in pounds	106458.92	10000	755262.43	1000	10000000	23000
<i>Early entrepreneurs</i>						
Age	39.54	39	11.33	18	64	18
Total amount of money required for a start-up in pounds	1034542.74	10172.93	14950455	1000	250000000	46000
Total amount of self-funding in pounds	46085.53	10000	211195.7	1000	3000000	37162.12
2010						
<i>Informal funders</i>						
Age	41.48	42	13.31	18	64	26
Total amount of informal funding for the past 3 years in pounds	17917.61	4000	56760	1000	1000000	13000
<i>Early entrepreneurs</i>						

Age	39.02	38.67	11.07	18	64	17
Total amount of money required for a start-up in pounds	41225.99	9000	130445.51	1000	1000000	36737.49
Total amount of self-funding in pounds	236373.39	7286.82	982733.97	1000	5000000	24000
2011						
<i>Informal funders</i>						
Age	41.9	43	11.33	18	64	15
Total amount of informal funding for the past 3 years in pounds	18351.36	6000	49547.84	1000	1000000	11000
<i>Early entrepreneurs</i>						
Age	39.24	40	12.48	18	64	21
Total amount of money required for a start-up in pounds	754896.4	10000	12998786.99	1000	500000000	34000
Total amount of self-funding in pounds	285218.07	10000	5067613.58	1000	100000000	49000
2012						
<i>Informal funders</i>						
Age	42.97	42	11.5	18	64	17
Total amount of informal funding for the past 3 years in pounds	18947.68	5000	35065.06	1000	250000	13000
<i>Early entrepreneurs</i>						
Age	38.89	39	11.33	18	64	17
Total amount of money required for a start-up in pounds	355595.43	10000	4489195.83	1000	120000000	46000
Total amount of self-funding in pounds	348362.62	10000	5727095.48	1000	100000000	19022.42

Appendix 20 Frequencies of nominal and ordinal variables used in the analysis for the sample of informal funders

		2007	2008	2009	2010	2011	2012
Gender							
	Male	294	214	159	144	128	119
	Female	173	102	82	60	58	67
Educational attainment							
	Some secondary or secondary degree	197	130	118	84	68	51
	Post secondary or graduate experience	267	170	114	116	115	135
Work status							
	Working full or part time	395	270	184	162	149	161
	Retired/disabled, homemaker, or student	44	34	35	32	22	21
	Not working	28	9	22	5	15	0
Income							
	Lowest third	44	36	18	16	25	10
	Middle third	170	43	38	41	16	76
	Upper third	197	178	133	121	120	79
Positive entrepreneurial attitudes							
	Yes	291	295	228	201	172	168
	No	176	21	13	3	15	17
Involvement into early-stage entrepreneurial activity							
	Yes	121	77	72	41	30	43
	No	345	239	169	163	156	142
Involvement into established entrepreneurial activity							
	Yes	68	42	20	27	24	25
	No	398	274	201	177	162	161
Expectations of return							
	At least to return the provided amount	245	180	n/a	n/a	n/a	n/a
	Return up to 5 times	99	39	n/a	n/a	n/a	n/a
	Return more than 10 times	28	31	n/a	n/a	n/a	n/a

Appendix 21 Frequencies of nominal and ordinal variables used in the analysis for the sample of early entrepreneurs

		2007	2008	2009	2010	2011	2012
Gender							
	Male	1308	814	824	328	382	430
	Female	635	401	393	142	192	233
Educational attainment							
	Some secondary or secondary degree	951	593	535	206	227	224
	Post secondary or graduate experience	989	524	638	253	344	439
Work status							
	Working full or part time	1775	1100	1053	395	517	559
	Retired/disabled, homemaker, or student	78	55	47	40	15	33
	Not working	86	55	116	29	40	48
Income							
	Lowest third	284	180	193	88	92	125
	Middle third	819	202	223	78	104	262
	Upper third	588	648	611	238	294	204
Industry							
	Primary sector	23	20	9	1	14	2
	Secondary sector	46	56	38	14	43	28
	Tertiary sector	428	258	253	108	106	195
	Quaternary sector	422	210	220	85	196	135
	Unclassified	85	53	52	0	19	14

Appendix 22 The distribution of informal funders and early entrepreneurs among adult population across 50 IMD clusters (1 – the lowers level of deprivation, 50 – the highest level of deprivation)

IMD Clusters	2007 (pre-crisis period)		2008-2009 (crisis period)	
	The percentage of early entrepreneurs among adult population	The percentage of informal funders among adult population	The percentage of early entrepreneurs among adult population	The percentage of informal funders among adult population
1	5.36%	2.03%	4.47%	1.22%
2	7.25%	1.96%	7.47%	0.69%
3	6.25%	1.14%	3.38%	1.62%
4	4.62%	0.58%	6.41%	1.92%
5	4.99%	1.00%	8.10%	1.46%
6	6.84%	1.05%	5.19%	1.17%
7	5.85%	1.51%	7.43%	1.61%
8	8.16%	0.84%	6.08%	0.72%
9	6.34%	2.18%	8.25%	2.16%
10	5.13%	0.65%	6.31%	1.12%
11	5.86%	2.83%	5.95%	2.12%
12	6.51%	2.39%	5.10%	0.41%
13	8.40%	0.40%	7.76%	1.34%
14	7.19%	1.85%	5.79%	0.69%
15	4.64%	0.97%	7.41%	1.19%
16	6.67%	0.79%	7.02%	1.08%
17	4.87%	3.13%	6.52%	1.02%
18	7.38%	3.26%	6.16%	3.29%
19	4.35%	1.52%	4.32%	1.11%
20	5.87%	2.13%	6.76%	1.33%
21	5.65%	3.56%	4.47%	0.89%
22	5.63%	1.01%	7.82%	0.64%
23	9.33%	1.62%	5.76%	1.23%
24	5.43%	0.56%	4.29%	1.39%
25	5.62%	0.94%	5.48%	1.51%

	26	3.78%	2.09%	2.89%	0.91%
	27	4.73%	0.39%	5.52%	1.21%
	28	6.58%	0.91%	4.46%	1.19%
	29	9.34%	0.54%	4.64%	1.31%
	30	4.64%	1.86%	4.51%	0.58%
	31	4.74%	1.65%	4.85%	0.78%
	32	6.42%	3.31%	4.45%	0.86%
	33	6.50%	0.57%	4.84%	0.57%
	34	9.13%	2.38%	8.07%	0.58%
	35	3.04%	1.79%	4.71%	0.59%
	36	5.90%	1.25%	2.61%	1.84%
	37	7.68%	3.08%	9.64%	0.52%
	38	6.46%	0.61%	6.12%	2.79%
	39	7.45%	0.39%	4.31%	0.29%
	40	6.73%	2.06%	3.48%	1.58%
	41	4.71%	2.02%	3.92%	0.31%
	42	5.35%	0.89%	4.13%	0.55%
	43	3.14%	1.11%	6.01%	1.95%
	44	5.60%	0.77%	6.58%	2.78%
	45	3.34%	0.53%	8.55%	1.01%
	46	5.71%	1.25%	5.64%	0.74%
	47	3.61%	0.19%	5.95%	1.02%
	48	6.26%	0.18%	5.24%	1.56%
	49	3.56%	1.31%	5.25%	1.56%
	50	4.00%	0.50%	4.02%	0.89%

Appendix 23 The distribution of informal funders, early entrepreneurs, early entrepreneurs expecting to attract informal funding across IMD deciles

		2007			2008			2009			2010		
Deprivation Deciles (1- the least deprived area, 10 - most deprived area)	Mean IMD Score	The percentage of informal funders among adult population	The percentage of early entrepreneurs who expect to attract informal funding	The percentage of early entrepreneurs among adult population	Deprivation Deciles (1- the least deprived area, 10 - most deprived area)	Mean IMD Score	The percentage of informal funders among adult population	The percentage of early entrepreneurs who expect to attract informal funding	The percentage of early entrepreneurs among adult population	Deprivation Deciles (1- the least deprived area, 10 - most deprived area)	Mean IMD Score	The percentage of informal funders among adult population	The percentage of early entrepreneurs who expect to attract informal funding
1	3.73	1.34%	5.71%	5.37%	1	3.67	1.38%	5.33%	5.33%	1	3.73	1.34%	13.48%
2	6.99	1.30%	6.28%	8.54%	2	6.81	1.49%	6.86%	6.86%	2	6.99	1.30%	13.04%
3	9.74	1.68%	6.55%	6.98%	3	9.33	1.07%	5.96%	5.96%	3	9.74	1.68%	9.00%
4	12.49	2.49%	5.90%	9.09%	4	11.79	1.26%	5.86%	5.86%	4	12.49	2.49%	14.29%
5	15.68	1.30%	5.85%	5.88%	5	14.52	1.50%	6.35%	6.35%	5	15.68	1.30%	9.43%
6	19.36	0.84%	5.93%	15.48%	6	17.96	1.55%	4.30%	4.30%	6	19.36	0.84%	6.94%
7	24.02	1.91%	5.85%	17.65%	7	22.4	0.78%	6.09%	6.09%	7	24.02	1.91%	5.88%
8	30.22	1.95%	7.19%	14.89%	8	28.56	0.90%	4.13%	4.13%	8	30.22	1.95%	4.35%
9	39.27	0.88%	4.17%	9.17%	9	37.59	0.96%	5.38%	5.38%	9	39.27	0.88%	24.44%
10	59.46	0.61%	4.78%	17.60%	10	57.74	1.85%	5.20%	5.20%	10	59.46	0.61%	27.59%

		2011					2012				
Deprivation Deciles (1- the least deprived area, 10 - most deprived area)	Mean IMD Score	The percentage of informal funders among adult population	The percentage of early entrepreneurs who expect to attract informal funding	The percentage of early entrepreneurs who expect to attract informal funding	Deprivation Deciles (1- the least deprived area, 10 - most deprived area)	Mean IMD Score	The percentage of informal funders among adult population	The percentage of early entrepreneurs who expect to attract informal funding	The percentage of informal funders among adult population	The percentage of early entrepreneurs who expect to attract informal funding	
3	9.4	1.09%	6.57%	5.79%	3	11.51	3.71%	8.63%	4	4.17%	4.17%
4	11.9	1.74%	6.09%	8.93%	4	14.59	4.26%	5.69%	5	6.82%	6.82%
5	14.93	1.03%	5.59%	10.68%	5	18.27	2.75%	7.71%	6	23.21%	23.21%
6	18.45	0.71%	4.84%	8.99%	6	22.4	1.47%	6.35%	7	28.21%	28.21%
7	22.79	0.65%	4.79%	9.09%	7	27.74	2.17%	4.80%	8	16.13%	16.13%
8	28.94	1.90%	5.82%	11.21%	8	34.64	1.29%	6.11%	9	2.63%	2.63%
9	38.54	1.25%	6.41%	11.02%	9	45.75	1.65%	8.57%	10	3.85%	3.85%
10	59.02	0.76%	5.11%	17.02%	10	66.98	2.21%	8.44%	11	0.00%	0.00%

Appendix 24 The list of main Stata® commands used in the analysis

1. Individual-level logistic modelling

```
logit infinv age age2 gender educat incthirds workstat posentrat entr_act_inv IMD IMD2 IMDln pre_crisis
crisis incthirds_crisis incthirds_pre_crisis IMD_crisis IMD_pre_crisis[pweight = UKGORWGT1]
stepwise, pr(0.1) lockterm1 : logit infinv (age gender educat) age2 incthirds workstat posentrat
entr_act_inv IMD IMD2 pre_crisis crisis incthirds_crisis incthirds_pre_crisis IMD_crisis
IMD_pre_crisis[pweight = UKGORWGT1]
stepwise, pe(0.1) lockterm1 : logit infinv (age gender educat) IMD IMD2 IMD_crisis IMD_pre_crisis
age2 incthirds workstat posentrat entr_act_inv pre_crisis crisis incthirds_crisis incthirds_pre_crisis
[pweight = UKGORWGT1]
stepwise, pr(0.1) lockterm1 : logit infinv (age gender educat) IMD [pweight = UKGORWGT1]
stepwise, pr(0.1) lockterm1 : regress IMD (age gender educat) incthirds entr_act_inv posentrat pre_crisis
crisis[pweight = UKGORWGT1]
stepwise, pe(0.1) lockterm1 : logit infinv (age gender educat) incthirds posentrat entr_act_inv (pre_crisis
crisis) incthirds_crisis incthirds_pre_crisis [pweight = UKGORWGT1]
```

2. The instrumental Variable Estimator

```
ivprobit infinv age gender posentrat (IMD = incthirds entr_act_inv educat pre_crisis incthirds_pre_crisis)
[pweight = UKGORWGT1]
```

3. Multi-level modelling

- *'Empty' model*

```
xtmelogit infinv || IMD_groups_50:, variance intpoints(15)
```

- *Random intercept modelling*

```
xtmelogit infinv age gender posentrat educat entr_act_inv incthirds pre_crisis crisis pre_crisis_incthirds || IMD_groups_50:, variance
```

```
xtmelogit infinv age gender posentrat incthirds || IMD_groups_50:, variance
```

```
xtmelogit infinv age gender posentrat teac || IMD_groups_50:, variance
```

- *Random intercept modelling with community-level predictors*

```
xtmelogit infinv age gender tea posentrat pre_crisis crisis age_comm || IMD_groups_50:, variance
```

```
xtmelogit infinv age gender tea posentrat pre_crisis crisis gender_comm || IMD_groups_50:, variance
```

```
xtmelogit infinv age gender tea posentrat pre_crisis crisis tea_comm || IMD_groups_50:, variance
```

```
xtmelogit infinv age gender tea posentrat pre_crisis crisis posentrat_comm || IMD_groups_50:, variance
```

```
xtmelogit infinv age gender tea posentrat pre_crisis crisis incthirds_comm || IMD_groups_50:, variance
```

```
xtmelogit infinv age gender tea posentrat pre_crisis crisis educat_comm || IMD_groups_50:, variance
```

```
xtmelogit infinv age gender tea posentrat pre_crisis crisis workstat_comm || IMD_groups_50:, variance
```

- *Random slope modelling*

```
xtmelogit infinv age gender posentrat tea crisis pre_crisis|| IMD_groups_50: gender,
covariance(unstructured) mle variance intpoints(3)
```

```
xtmelogit infinv age gender posentrat tea crisis pre_crisis|| IMD_groups_50: posentrat,
covariance(unstructured) mle variance intpoints(3)
```

```
xtmelogit infinv age gender posentrat tea crisis pre_crisis|| IMD_groups_50: tea, covariance(unstructured)
mle variance intpoints(3)
```

```
xtmelogit infinv age gender crisis pre_crisis tea_comm|| IMD_groups_50: tea_comm,
covariance(unstructured) mle variance intpoints(3)
```

```
xtmelogit infinv age gender crisis pre_crisis tea_comm tea_comm_crisis tea_comm_pre_crisis|| IMD_groups_50: tea_comm, covariance(unstructured) mle variance intpoints(3)
```

Appendix 25 Robustness check for the basic logistic regression estimates

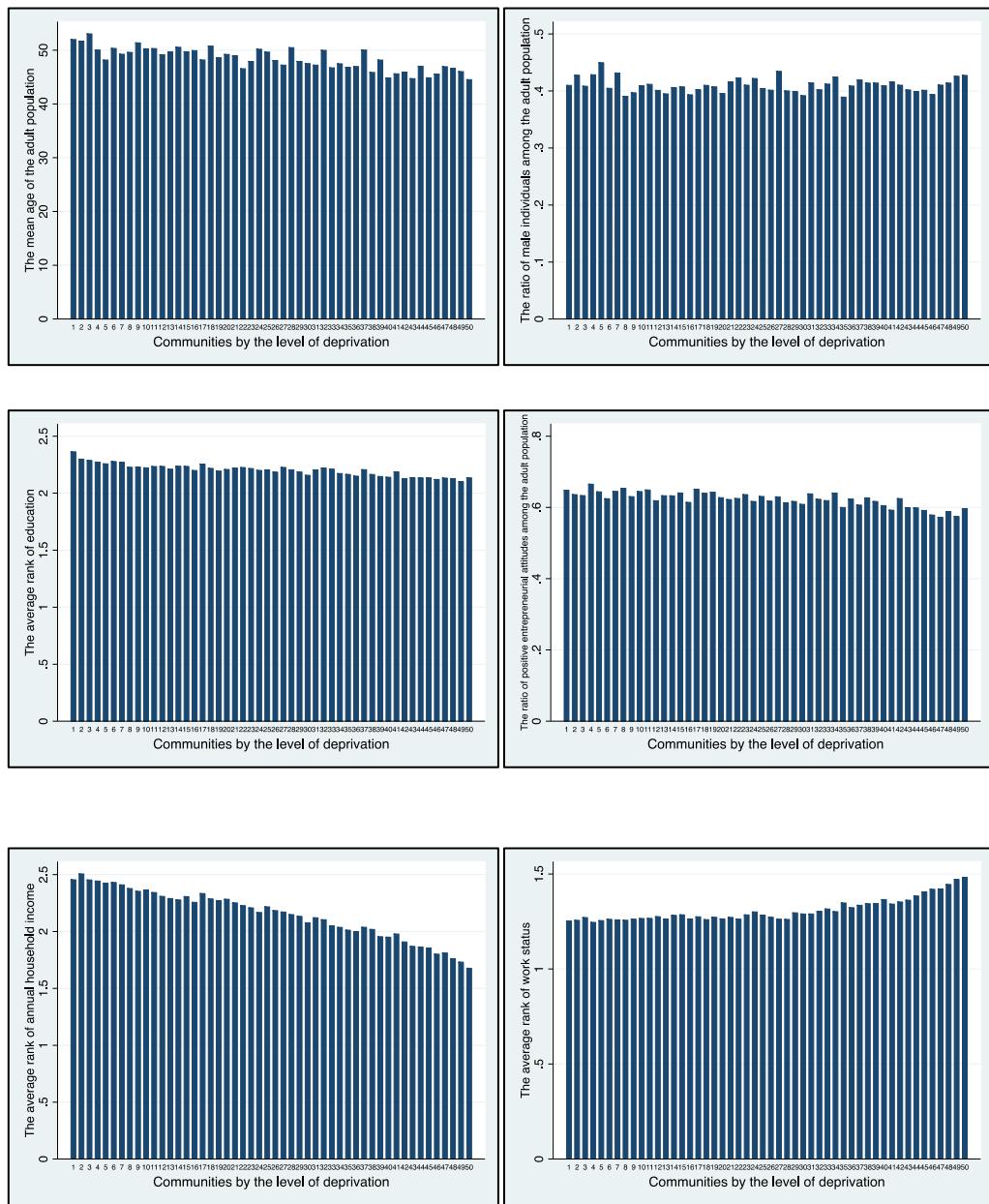
Core variables	Max	Min	Mean	AvgSTD	PercSig ni	Perc +	Perc -	AvgT
Age	0.000	0.001	0.000	0.001	0.000	0.063	0.938	0.677
Gender	0.725	0.342	0.511	0.060	1.000	1.000	0.000	8.512
Education	0.402	0.140	0.267	0.047	1.000	1.000	0.000	5.789
Testing variables	Max	Min	Mean	AvgSTD	PercSig ni	Perc +	Perc -	AvgT
Income	0.636	0.104	0.316	0.039	0.792	0.708	0.292	7.882
Attitudes towards entrepreneurship	2.018	1.662	1.829	0.115	1.000	1.000	0.000	15.959
Involvement into entrepreneurial activity	1.554	1.224	1.380	0.061	1.000	1.000	0.000	22.561
Pre-crisis	-0.032	0.394	0.226	0.068	0.750	0.000	1.000	3.325
Income*crisis	0.004	0.234	0.113	0.027	0.688	0.063	0.938	4.043

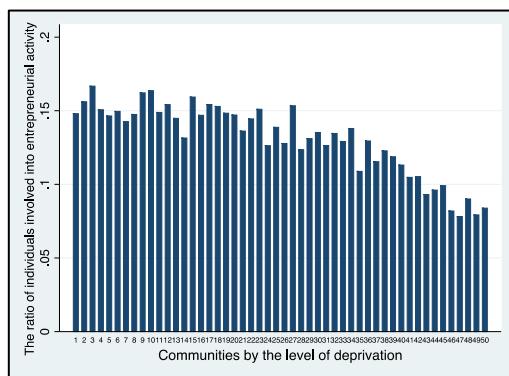
Appendix 26 Estimates for different numbers of integration points reported with the percentage difference between each estimate and that based on 15 integration points

Parameter	1	2	3	7	15
Constant	-4.242	-4.241	-4.241	-4.241	-4.242
Change, %	0.000	-0.024	-0.024	-0.024	0.000
The between-community variance	0.032	0.032	0.032	0.032	0.032
Change, %	0.000	0.000	0.000	0.000	0.000
Log Likelihood	-6200.27	-6200.283	-6200.295	-6200.282	-6200.282
Change, %	0.000	0.000	0.000	0.000	0.000

The estimates are received based on the method suggested by Leckie, (2010). The table shows that the estimates of the constant, and the between-community variance stabilise after two integration points are used onwards. The difference from the model with 15 integration points is minimal – 0.024% for the former parameter, and 0% for the latter. From the seventh integration point the Log Likelihood reaches the estimate for 15 points, as such the default setting of seven integration points was used.

Appendix 27 The distribution of socio-demographic and entrepreneurial characteristics of individuals across the communities with different levels of deprivation





Appendix 28 Kruskal-Wallis equality-of-populations rank test across 50 communities of different levels of deprivation

	Chi-Square test with ties	P-value
<i>Age</i>	542.592	0.0001
<i>Gender</i>	52.655	0.3345
<i>Education</i>	582.517	0.0001
<i>Work status</i>	1050.794	0.0001
<i>Household annual income</i>	4873.563	0.0001
<i>Positive entrepreneurial attitudes</i>	161.774	0.0001
<i>Involvement into entrepreneurial activity</i>	465.452	0.0001

Appendix 29 Mixed-effects two-level logistic regression: final model with contextual effects for Sample 1

<i>Number of observations</i>	41172
<i>Number of groups</i>	50
<i>Minimum number of observations per group</i>	650
<i>Average number of observations per group</i>	823
<i>Maximum number of observations per group</i>	1857
<i>Log Likelihood</i>	-2835.89
<i>LR test vs. logistic regression</i>	1.75
<i>P-value</i>	0.093

Estimations of an individual to be an informal funder	Coef./Estimate	Std. err.	z	P-value
<i>Age</i>	0.012	0.004	3.37	0.001
<i>Gender</i>	0.583	0.086	6.76	0.000
<i>Involvement into early entrepreneurial activity</i>	1.690	0.153	11.03	0.000
<i>Positive entrepreneurial attitude</i>	1.138	0.108	10.51	0.000
<i>Pre-crisis</i>	-0.444	0.104	-5.40	0.000
<i>Crisis</i>	-0.539	0.100	-5.39	0.000
<i>The share of entrepreneurs at the early stage of their development in the community</i>	17.471	6.318	2.77	0.006
<i>Constant</i>	-7.174	0.409	-17.55	0.000
<i>Random-effects parameters</i>				
<i>Var(constant)</i>	0.025	0.023	n/a	n/a

Appendix 30 Logistic regression: the community effects of early entrepreneurial activity, individual characteristics, and macroeconomic cycle on the probability of an individual to become an informal funder

<i>Number of observations</i>	82352
<i>LR Chi²(7)</i>	1019.39
<i>Prob >Chi²</i>	0
<i>Pseudo R²</i>	0.0826
<i>Log Likelihood</i>	-5658.7897

Estimations of an individual to be an informal funder	Coef.	Std. err.	z	P-value
<i>Age</i>	0.01263	0.00250	5.06	0.00
<i>Gender</i>	0.50970	0.06061	8.41	0.00
<i>Involvement into entrepreneurial activity</i>	1.29453	0.07341	17.63	0.00
<i>Positive entrepreneurial attitudes</i>	1.76095	0.11146	15.80	0.00
<i>Pre-crisis period</i>	-0.34620	0.07317	-4.73	0.00
<i>Crisis period</i>	-0.48211	0.07094	-6.80	0.00
<i>The share of entrepreneurs at the early stage of their development in the community</i>	14.78992	3.84396	3.85	0.00
<i>Constant</i>	-7.14979	0.26130	-27.36	0.00

Appendix 31 A list of government funding initiatives to support early-stage entrepreneurial activity in the UK: selected active programmes

Programme name	The start date	Administrator/Initiator	Brief description	Conditions	Corresponding market failure
Community Development Finance Institutions (CDFIs)	2002	HM Treasury	Serve a specific disadvantaged geographic area or disadvantaged group by providing loans to start-up companies, individuals and established enterprises from within that area or community who are unable to access finance from more traditional sources.	Small-scale local loans (usually from £100 up to £150K) to existing or starting ventures normally without use of impersonal computerised credit scoring.	Externalities
Enterprise Finance Guarantee	2009	British Business Bank	Encourages lending to viable UK businesses that would be turned down for a loan or other form of debt finance due to inadequate security.	A government-backed guarantee for 75% of the loan value.	Imperfect information: lending gap
Business Finance Partnership (BFP)	2012	HM Treasury	Aims to increase the supply of capital through non-bank lending channels and, in the longer term, to help to diversify the sources of finance available to businesses.	The BFP will co-invest a total of £1.2bn through these channels, matched by at least equal private sector capital.	Market power
Business Finance Partnership (BFP): Small Business Tranche	2012	The Department for Business, Innovation and Skills (BIS)	Aims to both increase the supply of capital through non-bank channels and, in the longer term, to help to diversify the sources of finance available to businesses.	BIS will invest up to £100 million of the BFP through non-traditional lending channels that lend directly to small businesses. These channels include mezzanine finance funds, supply chain finance schemes and peer-to-peer lenders.	Market power
Start-up Loans	2012	The Start-up Loans Company (supported by BBB)	Provides support to young people (18-30 yrs) to help them start up their own business who would not normally be able to access traditional forms of finance for a lack of track record or assets.	The average loan size is around £4,500. The applicant will be required to pay back the loan within five years at a fixed-rate of interest – currently 6%.	Externalities

ENABLE	2014	British Business Bank	Government-backed portfolio guarantees, and improving the provision of asset and lease finance to smaller UK businesses.	Covers a portion of a designated lending portfolio's net credit losses in excess of an agreed 'first loss' threshold in exchange for a fee.	Coordination failure
The Investment Programme	2014	British Business Bank	Promotes greater choice in the supply of lending.	Investments into: equity, equity-like and debt instruments in financial institutions; debt funds or asset backed lenders that lend directly to businesses; or on-bank channels, such as supply chain finance, peer-to-peer lending and other lending platforms.	Market Power
Enterprise Capital Funds	2006	British Business Bank	Combine private and public money to make equity investments in high growth businesses to encourage venture capital funds to operate in a part of the market where smaller businesses are not able to access the growth capital they need.	Public funding to two-thirds of funding (up to £50m) for each fund, which is matched by at least one-third private sector investment.	Imperfect information: equity gap
The UK Innovation Investment Fund	2009	British Business Bank	Supports the creation of viable investment funds targeting UK high growth technology-based businesses (life science, clean technologies and low carbon, digital technologies and advanced manufacturing sectors).	Equity investments into businesses are made by the two underlying funds purely on a commercial <i>pari passu</i> basis.	Externalities
Business Angel CoFund	2011	British Business Bank and UK Business Angels Association	Backs promising UK businesses and helps develop the important business angel investment market.	Initial investments of between £100K and £1M, alongside syndicates of business angels.	Imperfect information: equity gap
Community Investment Tax Relief	2012	HM Revenue and Customs	Encourages investment in disadvantaged communities by giving tax relief to investors who back businesses and other enterprises in these areas by investing in accredited CDFIs.	The tax relief is available to individuals and companies and is worth up to 25% of the value of the investment in the CDFI. The relief is spread over five years.	Externalities
Seed Enterprise Investment Scheme (SEIS)	2012	HM Revenue and Customs	Helps small, early-stage companies to raise equity finance through encouraging individual investors to purchase new shares in qualifying companies.	The scheme will apply to individuals investing in small companies of less than 25 employees with assets of fewer than £200,000. Companies can receive a maximum of £150,000 under SEIS.	Imperfect information: equity gap

ECF Catalyst Fund	2013	British Business Bank	Invests in commercially viable venture capital funds that might otherwise fail to reach a satisfactory first close.	Investments between £5 and £10m in funds nearing first close.	Externalities
Innovation Voucher Scheme Scotland	2009	Scottish Funding Council	Research cost awards for joint projects between small to medium-sized enterprises (SMEs) and higher education institutions in Scotland to create new products, services and processes that benefit the business, the institution and the economy.	The award of up to £5,000 covers the cost of the academic research team undertaking a specific feasibility study in conjunction with the company.	Imperfect Information
SMART: Scotland	2012	Scottish Enterprise	Individuals planning to set up a business and small and medium-sized businesses, including university spin-off companies, are eligible if they're based in Scotland or planning to set up in Scotland.	Supporting up to 70% of the eligible costs for a small enterprise and up to 60% of the eligible costs for a medium enterprise. Projects must last between 6 and 36 months, and the maximum grant is £600,000.	Externalities

Source: Department for Business Innovation and Skills, (2013)

Appendix 32 An appraisal of government intervention into informal funding market in the UK

Reasons for Government Intervention	Market failure: coordination	The distribution of spare financial capital from informal funding providers to new starting ventures.
Negative implication if nothing is changed	Self-correcting market mechanisms	<ul style="list-style-type: none"> • Funding to potentially non-viable businesses; • Deadweight loss outcomes; • The enhancement of a 'discouraged borrower' phenomenon; • Reduced value-added; • Concentration of risks within one household; • Minimum control of informal financial flows.
Positive implications if nothing is changed	Leakage effects and positive externalities	The provision of only available spare funds limits the downside risks without any external intervention.
The cause of the market failure	Discouragement, information imperfection, and structural gaps	<ul style="list-style-type: none"> • Discouraged borrowers and unsuccessful lending/investment attempts; • Unawareness of local initiatives and alternative funding options; • The most cost-efficient option ('quick and easy solution'); • Inaccessibility of formal funding sources.
Current and projected trends	Double-whammy effect in the most deprived areas	The demand-driven nature of informal funding (susceptible to local and macroeconomic environment).
Potential beneficiaries (from the intervention)	Start-up owners, informal funders, local communities	<ul style="list-style-type: none"> • Start-up owners in the deprived areas; • Households in the deprived areas; • Local communities (social benefits, and increased welfare).
Technological developments	Formalisation of the informal cash flows	Alternative finance proliferation
Effects over time	Tackling financial exclusion and effective wealth distribution	Effective use of spare household savings (long-term macroeconomics effects).

Source: author's findings.