THEORISING BANK GOVERNANCE: THE CASE OF MEXICO

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Abstract

This is a study of bank governance. The proposed theory stipulates that direction and control is determined by the interaction of the internal and external forces constituting the bank governance system. The internal forces of governance, mainly managers and owners, act on behalf of private interests. The external forces, mainly the market and the regulator, act on behalf of the public interest in a safe and efficient banking system.

Post-positivism is the methodological basis of theory construction. Its main elements are: firstly, social phenomena are studied in their socio-economic context, and, secondly, both qualitative and quantitative methods are used in empirical analyses of typical governance events. The study offers an alternative approach to shareholder theory of corporate governance; it offers a more comprehensive explanation of how firms, especially banks, are governed.

The theoretical approach (methodology and theory) is used to explain the Mexican banking crisis, treating it as a typical governance event. The main findings of the study are: (i) financial system reforms in Mexico created a new system of bank governance in which the powers of the external forces were weakened, and those of the internal forces were strengthened; (ii) the new system lacked appropriate preventive regulations, thereby making bank owners the main source of systemic risk; (iii) the financial reforms assumed the market would discipline private interests, thereby creating a strong asymmetry in risk sharing between public and private interests; (iv) this asymmetry explains the scale of the banking crisis and the associated level of fiscal cost expended in the rescue of the banks.

The study's main theoretical contribution is the systematic integration of regulation, including the legal framework, in the structure of bank governance. The theory provides a basis for a new research agenda on bank governance appropriate for empirical studies of banks in diverse socio-economic contexts.

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CHAPTER 1

FINANCIAL REFORM AND BANK GOVERNANCE

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1.1: Introduction

This dissertation is concerned with corporate governance. A general theory of governance is developed and applied to the specifics of bank governance, and the banking crisis in Mexico. This chapter has two main objectives. The first is to provide an overview of the background events that motivated the research; the second is to provide an overview of the thesis – its core theoretical argument and main empirical results. The relative novelty of banks as a research object in corporate governance studies, and the atypical features of the empirical case dictate the need for a detailed introduction to the dissertation.

This chapter is organised into four sections. The first section sets out the puzzle that motivated the study. The second section provides a thumbnail sketch of the specific events associated with the Mexican banking crisis, and the similarities to the general pattern evidenced world-wide. It identifies changes in the system of governance as the common factor linking the two. The third section considers a governance perspective on the Mexican banking crisis. It sets out the factors specific to the direction and control of banks that need to be integrated into a theory of bank governance. The fourth section details the aims of the dissertation research and sets out the overall plan of exposition.

1.2: The Puzzle That Is Corporate Governance Research

From the standpoint of a former banker and economist, the current preoccupation of mainstream corporate governance research is more than a little puzzling.[1] On one hand, the privileged point of departure in the main body of research is prescriptive. On the other hand, its nearly exclusive empirical focus is on non-financial firms. This implies that research ignores the most highly visible and well-publicised incidents of banking problems in recent history: failing bank corporations and the associated fiscal costs of intervention to prevent the collapse of banking systems. The experience of the author's dissertation, as a CEO of a Mexican public bank,

[1] The situation conforms to the three main definitions of a puzzle: 1) a problem that is difficult to solve, 2) behaviour or motives that are difficult to understand and 3) a test of skill or intelligence (Encarta World English Dictionary, 1999).

teaches him that in both public and private banks, regulation plays a key role in their governance. Thus, in considering how banks are governed, I am aware that there is present not only the private interest, related to owners and managers, but also the public interest (Cruickshank, 2000). A major theme in the dissertation is identifying the methodological and theoretical reasons why corporate governance research has ignored the problems of bank governance.

One piece of the puzzle in corporate governance is how the subject of governance is characterised. There are two approaches. Keasey *et al.* (1997) following the work of Blair (1995), identifies four competing perspectives: (i) the principal-agent, or finance model, (ii) the myopic market model of the value of the firm in the medium and long run, (iii) the abuse of executive power model (iv) the stakeholder model (social function of the corporation: reputation and extensive stakeholders). O'Sullivan (2000a) proposes a different interpretation; she suggests that there are only two competitive perspectives on corporate governance. The first three approaches of Keasey *et al.* (1997) are identified by O'Sullivan (2000a) as the shareholder theory of corporate governance; the last (the stakeholder approach) is called by her the stakeholder theory of corporate governance. She indicates that the stakeholder theory is more a political approach.

One can say that the myopic market model and the executive power approaches are fundamentally expressions of the principal-agent approach. Thus, description of governance perspectives drawn by Keasey *et al.* (1997) make distinctions that are not theoretically pertinent because almost all of them reference the principal-agent framework at the heart of the research model.[2] The discussion on governance in this chapter adopts O'Sullivan's characterisation because the categorization of research as having a shareholder theory perspective is theoretically more pertinent.

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[2] Keasey *et al.* (1999, pp. *ix*) said that "CG consists of a interrelated set of mechanisms; notably institutional shareholders, boards of directors, managers remunerated according to performance, the market for corporate control, ownership structure, financial structure, relational investors and product market competition." Apart from the diverse empirical subject referred, this characterisation of corporate governance appears not to improve O'Sullivan two-fold taxonomy or Blair's four-fold taxonomy. Furthermore, it is fundamentally associated with the external factors controlling managers identified by Strong and Waterson (1987).

However, there are limits to O'Sullivan's characterisation that need to be highlighted. The characterisation refers to theories that are prescriptive. This indicates that a more comprehensive or inclusive conceptualisation of governance would help to overcome the prescriptive bias in corporate governance and enable better explanations of diverse systems of governance in different national contexts.

The characterisation of research by Blair (1995) is far too restricted because she asserts that corporate governance is only related to corporations. Today, research on the subject includes considerations of other types of organisations, (both public and private), other levels of analysis, including comparative systems of corporate governance (Charkham, 1995; Prowse, 1994), and the effects on these systems arising from regulation (O'Sullivan, 2000; O'Sullivan, 2000a). Moreover, Blair's definition confines us to the analysis of "playing of the game", rather than the "rules of the game". In this context, Williamson (2002) identified corporate governance as being related to issues of hierarchy of public and private ordering contracts. He explains that the first order of contracts is related to the "rules of the game." The second order of contracts is related to the "play of the game." The view in this dissertation is that researchers have confined the firm's existence and its governance to the private ordering contract, that is, to the "play of the game".

Another piece of the puzzle is that the interest of corporate governance research is almost exclusive in non-financial firms; there are very few studies of corporate governance in financial firms such as commercial banks.[3] This limited interest in the corporate governance of banks is surprising when one considers that the problematic conduct by bank owners and managers has been at the centre of a series of global

[3] In this dissertation, what is meant by the term 'bank' is highly restricted; it refers to those operations of private sector corporations directly linked to intermediation between depositors and borrowers. The operations of taking deposits and lending then is the focal point of the public interest in the safety and soundness of *banking systems* and the stated purpose of the regulation of banks. It is outside the scope of this paper to consider the varied ways in which regulators have sought to re-define banks because of the effects of changes in the financial services industry (e.g. the emergence of conglomerates in which the deposit-taking/lending function is deemed to form only a small part of operations and system risk). Thus, as results of these changes in some countries, such as the USA, banks have been re-defined according to the law (Rose, 1999). In other countries, such as the UK, in order to regulate banks, it is recommended that some financial services be legally defined (Cruickshank, 2000).

financial crises, from 1980 to the present. The resolution of these crises has given rise to some of the largest wealth transfers ever recorded.[4] Illustrative of the scale of the wealth transfer arising from defective bank governance is the ubiquity of bank failures evidenced in the episodes of crisis, in all major regions of the world.[5] During the period 1980 to 1997, almost three quarters of the member countries of the International Monetary Fund (over 130 countries), experienced significant problems in their banking systems (Lindgren, *et al.*, 1996). Not only have most governments experienced problems with their banking system, these banking crises have been more frequent and significantly more severe than those documented in 1920-1930, the pre-bank regulation period in which problems were endemic[6] (Bordo, *et al.*, 2001).

Particular attention was drawn to the fact that banking crises emerged after deregulation of financial systems (including deregulation of bank operations)[7] (Stiglitz, 2002; OECD, 1995). This revived longstanding theoretical debates in economics as to the role played by regulation in assuring the safety and soundness of banks and the overall system they comprise (Mishkin, 1992, 1997; McKinnon, 1993; Long and Vittas, 1992; Volcker, 1996). Of urgent concern was the fact that local

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[4] The wealth transfer arising from government bailouts of commercial banks are different but no less a transfer of wealth than that which is supposed to arise from unresolved agency problems in non-financial corporations. In developing countries, the broad outline of the wealth transfer will be from the less well-off to the more well off. This is because income distribution and thus savings, in the form of bank deposits, is highly skewed to the better off. In addition, the less well-off bear the greatest burden from cut backs in essential public services arising from the need to bail-out banks. There are also wealth transfers related to *de facto* underwriting of the unsound commercial loans that are often the proximate cause of bank failure. In general terms, the income and wealth effects of commercial lending are skewed towards the more well-off. Thus, the use of public funds for the costly re-capitalisation of banks implies a further wealth transfer to the better off. Finally, there is the issue of the *macroeconomic* effects of bank governance failures; lender of last resort interventions to deal with serious banking problems resolve *past* decisions; they do not ensure that *future* lending will give rise to the levels of investment required to generate production and employment.

[5] There is a degree of judgment in these classifications. However, following Sundararajan and Balino (1991), crisis refers to cases of runs, other substantial portfolio shifts, collapses of financial firms requiring general government intervention. They classify evidence of generalized weakness of the banking system as a significant problem.

[6] The decade following World War I was the last time that wide-spread turmoil was evidenced in the national financial systems of the main economies. After 1930, most governments (whether fascist or representative democracies) introduced significant levels of regulation of their financial systems and these were a characteristic feature of the post-World War II period through about 1980.

[7] Hausmann and Rojas-Suarez (1996) have pointed out that the Latin American region offers numerous examples of deficiencies in regulatory and supervisory procedures that, they argue, caused the newly liberalized financial institutions to operate under a system of "distorted incentives."

crises were easily propagated across national borders (Delhaise, 1998; Perry and Lederman, 1998). Deregulation had the global effect of integrating local systems into a global funds-flow architecture, which meant that nearly all local crises posed greater (or lesser) threats to the stability of the global financial system. Awareness of this prompted an unprecedented level of government bail-outs of insolvent banks aimed at stabilising national banking systems to prevent the spread of crisis to counter-parties in the global system. Either individually, or in concert with international financial institutions, governments assumed extremely large fiscal costs in the rescues of these mainly privately owned banks (Enoch, *et al.*, 1999).

The scale of the wealth transfer related to bank failure has differed across the 130 countries affected, depending on the scale of events. In some countries, the entire banking system collapsed. For example, in Indonesia, efforts to resolve the banking crisis involved fiscal costs equivalent to 24% of the GDP (Bordo, *et al.*, 2001). In others, the crisis involved mainly the largest banks, the failure of any one of which would bring down the system. In Japan, rescue has required nearly a decade of intervention (The Economist, Nov.6Th-12th 1999); the fiscal cost of providing liquidity to insolvent banks reached $300 billion USD in 1999. In Mexico, the fiscal cost of bailing out bank governance failures reached 20% of GDP in 2000 (Lopez, 1999).

As the documented evidence demonstrates, the sheer scale of fiscal costs and the associated wealth transfers arising from bank failures is probably far greater than those arising from defective corporate governance in non-financial firms. Moreover, because the wealth transfer involves a wider range of social actors (e.g., the government, depositors and borrowers, *in addition to* the owners and managers), understanding bank governance and its role in banking crises is of potentially greater importance. This dissertation is focused on bank governance and takes as its case study the banking crisis in Mexico.

1.3: An Overview of Events in Mexico

The Mexican banking crisis occurred in the context of an economic turmoil,[8] generated by the devaluation of the Mexican peso, in December of 1994 (Solis, 1996; Mathieu, 1998; Rivera, 1997; Rueda, 1998; Hausmann and Rojas-Suarez, 1996). On December 22, 1994, facing losses in the Mexican securities markets, portfolio investors (mainly U.S.) sought to reverse their investments. This created enormous sell-side imbalance in the foreign exchange market, resulting in a rapid devaluation of the peso; it depreciated by approximately 71 % with respect to the U.S. Dollar (Solis, 1996). The Mexican economic crisis triggered international concerns; however, the banking crisis was seen as a domestic problem. It was argued that the economic crisis caused the banking crisis. This view, and challenges to it, will be discussed in the next three parts of this section. The first part discusses the international ramifications of the economic crisis, the second reviews standard explanations of the banking crisis, and the third critiques these explanations.

1.3.1 The Ramifications of the Economic Crisis

The devaluation of the peso provoked an international financial crisis because the Mexican government's foreign borrowings included USD $24 billion denominated short-term bonds (Banco de México, 1996). The magnitude of these liabilities (and other liabilities), prompted fears that crisis would propagate throughout the international financial system via counter-parties to those directly involved. Acting on these fears, the World Bank, the International Monetary Fund, the Inter-American Development Bank, and the US government[9] provided a financial support package totalling USD $53 billion (Banco de México, 1996; Solís, 1996).

The support package achieved the main aims of the international actors, preventing further propagation of crises through the international financial system. The

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[8] In 1993, the Mexican trade deficit was USD $18.9 billion; in 1994, it was USD $24.3 billion. In 1994, the current account deficit was 8% of the GDP. In the realm of the financial sector, in 1993, non-performing loans of commercial banks represented 2.2% of the GDP, increasing in 1994 to 3.3% (Rueda, 1998).

[9] Members of the US Congress opposed participation in the support programme but President Clinton asserted the rights of the executive branch over a specific fund within the treasury department and contributed this to the support package.

Mexican government was left to deal, as best it could, with the domestic consequences of the devaluation. In the event, the main consequences were an abrupt halt to economic growth, provoking a serious and wide-spread economic crisis from which the economy has still not recovered.[10] In the midst of the deepening economic crisis, serious problems with the main commercial banks became evident in mid-1995, prompting the central bank to intervene as the lender of last resort. The central bank initiated a rescue of individual banks, in a series of financial programmes devised during the period 1995-1997 (Solis, 1998; Solis, 2000, Bustamante and Kershenobich, 1997; Priego, 1997; Graf, 1999).

By 1998, the fiscal costs of the various intervention programmes were large enough to provoke intense political debate in a system unused to such high levels of open dissent.[11] One year later, the fiscal cost arising from the government intervention, amounted to around USD $100 billion - 20% of the GDP (Lopez, 1999; Solis, 2000). However, even this amount has proved insufficient to resolve the problems in the banking sector. The main expression of the continuing crisis in the sector is the (covert) refusal of banks to restore normal credit allocation operations, thus prolonging the crisis in the real economy. The severe rationing of credit by the banks led the former president, Ernesto Zedillo (El Universal, July 15, 1999), and the current president, Vicente Fox (La Jornada, July 8, 2000), to intervene publicly, criticising the banks for not fulfilling their "social" function as financial intermediaries.

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[10] Illustrating the extent of the crisis are macroeconomic measures of 6.9 % real reduction of the GDP, and an employment decline of 7% in 1995. Interest base rate to lending was 54% in that year.

[11] The political system in Mexico was then characterised by de-facto one party rule and had been so since 1929, when the Institutionalised Revolutionary Party (PRI) was formed as corporate party expressing the interests of distinct groups (farmers, trade unions, etc). In such a system, disagreements were negotiated within the party structures rather than within the formal bodies of government (e.g. the upper and lower chambers of congress) From 1929 to 1982, this form of government achieved important social and economic success. At the beginning of that period, the national illiteracy rate (over age 15) was 63.6; in 1995 it was 10.4%. Life expectancy increased from 34 years in 1930 to 72 years in 1995. During the period 1929-1945, the average annual rate of growth of the GDP was 4.2 %. In the period 1945-1972, it reached 6 %; from 1972 to 1981 it was 5.5 %. The upward trend of economic growth and social development changed completely after 1981. Thus, from 1981 to 1996 the average annual rate of growth declined to 1.5 %. Similarly, the GDP per capita (at 1970 PPP prices) was, in 1930, US D$ 313. In 1980, it reached US D$ 1163, after which it stagnated at an average, between 1990-1995, to US D$ 1098 (Thorp, 1998). Thus, the context for the political debate on the fiscal cost of the banking crisis was the 15 years of declining economic and social progress.

1.3.2 Standard Explanations of the Mexican Banking Crisis

The main body of explanations of the banking crisis emphasise that it was a consequence of the macroeconomic turmoil created by the 1994 devaluation.[12] Among the macroeconomic events that could have affected the banks adversely, some emphasised the sharp increase in interest rates (the lending rate was over 80% in February of 1995), the sharp fall in the GDP (-6.9% in 1995), and the increase in capital outflows (Hausmann and Rojas-Suarez; 1996a; Solis, 1996). Others saw the banking crisis as a result of the neo-liberal reforms adopted in Mexico from 1988 onwards (Cypher, 1996; Padierna, 2000; Huerta; 1997; Rueda, 1998).

More recently, some have deemed the banking crisis to be the result of the interaction between macroeconomic causes, financial deregulation, and banking sector conditions. Among these, Krugman (1999) emphasises the moral hazard in the domestic finance market. Lack of transparency and market discipline, as well as lax prudential regulation, have also been cited as important causes of the crisis (Perry and Lederman 1998). This latter strand of research has emphasised deposit insurance and the legal framework as key factors in the crisis (Mathieu, 1998; Demirguc and Detragiache, 1997).

At the level of bank operations, increased lending prior to the economic crisis has been proffered as an essential factor in forging the banking crisis (Eatwell and Taylor, 2000; Mishkin, 1997; Bustamante and Kershenobich, 1997). This strand of research also concluded that the high concentration of consumer loans in the banking system's portfolio better explains the Mexican banking crisis than the 1994 peso devaluation does.

1.3.3 Critique of the Standard Explanations

This brief sketch indicates that most research on the banking crisis has either a macroeconomic or microeconomic focus, varying from emphasising exogenous

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[12] The former Mexican President, Carlos Salinas, said that the Mexican economic problems were of great magnitude because there was not any programme to deal with the peso devaluation. He concluded that the banking crisis was the result of the lack of a devaluation programme (Grupo Reforma, 2000).

shocks operating at the macroeconomic level, to those emphasising endogenous causes emanating from decisions of bank managers. The two sets of explanations are not connected, however, nor do analysts provide a theoretical perspective that would enable one to link them in empirical studies of banks.

Explanations of the crisis, at the level of the banking sector, have focussed on quite disparate issues; these include some aspects of bank operations, issues of accounting transparency, issues related to the legal framework, specific features of regulation, and so forth. As a result, there is not a coherent and comprehensive analysis linking bank operations and banking regulation of the sector as a whole. Finally, the emphasis on the economic crisis assumes a point which requires empirical demonstration: that the banking system (and the individual banks that comprise it) was more or less safe and sound before the peso devaluation and the spread of economic difficulty. If one were to confirm that the banks *were* in trouble before the economic crisis, research would have to focus on why that was the case. In other words, the interest would shift to the governance of banks and its effects on the overall banking system.

An additional motive for looking at bank governance comes from the fact that the pattern of events in Mexico was replicated in many other countries. The Mexican banking crisis was one among many occurring in context of the wave of economic reforms initiated world-wide in the 1980's (Hausmann and Rojas Suarez, 1996), and is also similar to numerous bouts of national financial instability, experienced by a wide range of national economies over the past twenty years (Mishkin, 1997; Mishkin, 1994).

One of the most important reforms initiated was liberalisation of financial systems in developed and developing countries. The standard package of advocated reforms included deregulation of controls on capital flows, interest rates, bank lending powers, and in some countries, privatisation of state-owned banks (Caprio *et al.*, 1996). In most places, serious banking problems emerged *after* the reforms (Atiyas *et al.*, 1996). At sites of reform as diverse as Sweden and Indonesia experienced

similar problems in their banking system. This should have given rise to theoretical considerations of the relationship between the effects of the new regulatory structures (Lindgren *et al.*, 1996) on the conduct of bank corporations (e.g., their corporate governance).

As in the Mexican case, the standard explanations of these crises are mostly limited to economic factors beyond the specific conduct of the owners and managers of commercial banks (e.g. the corporate governance of banks). In spite of the volume of studies, few studies offer a fine-grain analysis of institutional factors, such as regulation, that define the context within which the controllers of banks act. In addition, the condition of the management of banking firms themselves has not been subject to detailed analysis.

Obviously, regulation plays a significant role in bank management. A central argument made in this dissertation is that the common factor in the banking crises may be a transformed system of bank governance, which resulted from financial reforms. In the case of Mexico, this new system gave incentives to bank owners and managers to engage in conduct that increased systemic risk. Systemic risk "refers to potential threats to stability of the financial system as a whole arising from risk taking by individual financial actors" (OECD, 1995, pp. 11). Even though it is widely acknowledged in official (and academic) studies that the banking crises followed the deregulation of financial systems in the 1980's and 1990's (Dewatripont and Tirole, 1994), most explanations of these crises do not provide a theoretically informed explanation of the links between the reforms and the crises. The argument made in this dissertation is that the system of governance links the two because of the special nature of banks, and the particular role of regulation in their governance. This is discussed in the next part.

1.4: Regulation and Bank Governance

Governance is the missing link between financial system reforms and the banking crisis, because bank owners and managers act in the context of a specific set of institutions devoted to the regulation of banks. These regulatory institutions are

meant to represent the public interest and the regulator's stated purpose is to assure the safety and soundness of the system (Dewatripont and Tirole, 1994). Doing so implies that the regulatory institutions have powers over the individual banks that comprise the banking system.

Four theoretical issues are associated with corporate governance of any bank and all are related to regulation. First, what is the aim of regulation, the bank or the market in which it acts? Second, what is the nature of the market in which banks act? Third, what is the relationship between the market and the banks? Fourth, how might regulation affect both the market and the banks?

1.4.1: What Is the Object of Regulation

In general, policies on bank regulation emphasise maintenance of the integrity of the market system (Vittas, 1992). Largely, this is a legacy of the strong spill-over effects of the financial market crash of 1929. The spectre of debt deflation crises triggered by events in the banking sector continues to preoccupy bank regulators (Vittas, 1992a; Hausmann and Rojas-Suarez, 1996; Rojas-Suarez and Weisbrod, 1997; Mishkin, 1997). In bank research, attention has focused firmly on the management of exogenous shocks to the banking system, through tools such as deposit insurance, and "lender of last resort" facilities by central governments (Demirguc and Detragiache, 1997).

As a method for dealing with bank problems, the operations of the "lender of last resort" are inevitably indiscriminate; they bail out all banks, regardless of their previous conduct. In general terms, such actions shift the cost of risk to all the stakeholders in the system because the owners' capital at risk is much lower than the aggregate value of the potential risk facing the banking system. This sort of asymmetry in the cost of risk means the regulator, as a bearer of the system risk, will be willing to assume the lower cost of indemnifying the owners of a single bank (Eatwell and Taylor, 2000). In the same sense, if a system of insurance partially covers deposits, the burden of risk assumed by the bank can be very small indeed. Finally, if corporations in charge of insuring deposits are instituted in central banks

(or strongly related to them), this usually means that governments have in effect "insured" the banks and thus will be forced to assume all of the cost arising from rescuing them (Dale, 1994). Thus, from a governance standpoint, regulations instituted to protect the market create potential hazards arising from the conduct of banks, and create an institutional space that indemnifies owners against the cost of bank failures.

The potential for excessive risk taking by individual banks, and the structure of regulation in place to deal with it have important implications for the market system. This is because of economic agents' common membership in a network of interdependent fund-flows and to the banks' monopoly of the payment system.[13] There is potential for a rapid transmission of problems created by one bank to the banking sector, and thereby to the rest of the economic system.

Thus far, research has paid scarce attention to governance as constituting an endogenous source of bank failures. Additionally, little attention has been paid to the role that deregulation may play in constituting environments that trigger banking crises (De Juan, 1996). A central argument of this dissertation is that bank governance is an endogenous source of systemic risk, and analysis of the structures of governance should be included in any assessment of the safety and soundness of a banking system.

1.4.2: Theoretical Implications of Regulation

A central argument of this dissertation is that the implications of regulation for theories of corporate governance have been ignored in most of the current research. Thus, in explaining the rise of the modern corporation, even prominent economic historians have noted the failure of analysts to appreciate the influence of

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[13] While outside the scope of this paper it may be useful to briefly address the claim that financial innovation has altered this. Financial innovations affect the extent and complexity of the credit linkages in an economic system (Edwards and Mishkin, 1995). They do not, however, replace the fundamental requirement for an end-point. At the end of any chain of credit is the terminal transaction in which the debt is satisfied by the payment of cash and the wealth claim of the creditor is realised. Banks continue to have a monopoly over the transmission of these essential "moments" of the realisation of asset values and ownership claims in the economic system.

regulation[14] (Cf. Chandler, 1969; Berle, 1963; Tricker, 1984). Indeed, it is fair to say that most economics-based theories neglect how regulation can bring firms into existence. However, Coase's writings (1988) do indicate that the allocation of factors of production in an economy will be the result not only of markets and firms, but also of regulation, including the legal framework. The implication for empirical research is that it may be necessary to stipulate a third type of firm - the regulated firm operating in a regulated market - in order to explain the observed allocation of resources in the economic system studied.

It has been argued thus far that regulation not only affects the types of firms that come into existence, but also the efficiency calculus between markets and firms.[15] Thus, the firm and the market (in this case, banks and their market) are not logical alternatives, as assumed in research invoking the early work of Coase (1993). Even if one wished to abstract from history and stipulate that the only alternative resource allocation mechanisms are planning (resource allocation within firms),[16] or market prices, the possible effects of regulation on both cannot be ignored (Coase, 1994a). While this dissertation confines itself to the study of bank governance, Coase (1994a, 1988) saw the importance of regulation and the law for all firms. This highlights the need for theories of how firms are governed that include regulation, including the legal system.

It has to be emphasised that few theories debate the need to regulate banks within the economic system. The issue debated is whether the cost of banking regulation can be reduced, or whether it is possible to achieve some of the aims of regulation by alternative means (Vittas, 1992a). Therefore, any theory of bank governance will

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[14] Berle (1960) pointed out that the separation between ownership and control was no longer the main feature of the public corporation because of the role of the institutional investors as main shareholders of the modern corporation who, as institutions, have functionally re-concentrated ownership and control in the hands of a few decision-makers.

[15] Coase's work (1993) was written within the context of a strong debate between communist system - planning- and capitalist system –market. The debate on the economic efficiency of those systems was ignited at the end of the 1920's as consequence of the world-wide economic crisis.

[16] Coase (1993) defined the firm as a sort of planning process, in which each of the economic factors play a distinctive role. In addition, he said, "to have an efficient economic system, it is necessary not only to have a market but also areas of planning within organisations of the appropriate character" (Coase, 1994, p8).

need to address the issue of how, and to what extent, regulation functions as a third force shaping resource allocation by firms, markets and the socio-economic system they constitute. Finally, if the market is treated as a parameter in formal models of the firm called bank, the observed nature of regulation must be taken into account. Otherwise, the resulting models may be tautological rather than explanatory.

Regulation is conceptualised in many different ways. In this dissertation I adopt Ogus' definition (2001), which states that regulation is an instrument of public law, enforced by government, or semi-autonomous public agencies. By implication, in this study the term "public sector" refers to the government. When referring to regulation or the regulator, I refer to governmental or semi-autonomous governmental organizations. Whatever the institutional architecture, the cost of a banking crisis is assumed to be borne by the government.

1.4.3: Agency Theory and Corporate Governance in Banks

The hegemonic view in corporate governance studies is the same as that proposed in agency theory.[17] A central argument of this dissertation is that the specific concepts of the market and the firm that underpin agency theory are unsuited to the study of banks, and therefore to the construction of theories of bank governance.

The market in agency theory is assumed to be one that is characterised by perfect competition. However, as both Campbell (1994) and Hodgson (1993) point out, perfect competition is not a workable concept for explaining the specific features of bank markets. The existence of banking regulation affects the nature of the markets in which banks operate (Visentini, 1997). Therefore, the specific constraints in bank markets should become the building blocks of both prescriptive (normative) and empirical models of best practice in corporate governance in banks.

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[17] One indication of the dominance of the "Agency" framework is the publication of a 4 volume compilation of published research on corporate governance (Keasey *et al.*, 1999). All frame the diverse empirical material in agency theory terms. In this compilation, there is only one article related to banks.

Additionally, regulation cannot only impose constraints on the disciplinary power of market forces; it can also increase transaction costs to banks. These costs affect not only contractual arrangements at the level of the firm, but also impose constraints on the number of banks that come into existence, thereby affecting the structure of the market (Gorton, 1994). Thus, regulation can limit not only the scope and the scale of banks as financial institutions, but also define the competitive field in which they act (Coase, 1994a).

In one of his later works, Coase (1994) emphasised that financial markets and financial institutions (such as banks) may well be the result of regulation rather than the cause. Thus, banks can, in some cases, come into existence because they have been granted the right to do so by the regulator. All this points to the role played by regulation in constructing the conditions of existence of bank firms, and thus to the possible influence regulation has on the conduct of the owner and the managers of bank firms.

In the agency theory of the firm, derived from Coase (1993), firms and the market are treated as if they were independent of each other. However, from the perspective of the socio-economic system as a whole, it is obvious that the market and the firm interact with each other. The market arises out of the operational needs of firms to purchase inputs from, or sell outputs to, other firms. This implies that they establish some sort of contract with their clients. In the case of banks, commercial clients are not the only ones that banks are required to contract with (Stiglitz, 1985). They are also required to enter into contracts with regulatory authorities. It is obvious, therefore, that even at a very abstract level, one can say that bank markets and firms are in a dynamic interaction and that regulation is central to that interaction.

1.4.4: Regulation and the Concept of Governance

The limitations of previous research raise the question of which conceptual terms can be used to capture the complex interaction between banking firms, the markets in which they act, and the regulations defining their institutional context in which they function.

In mainstream corporate governance research, the dominant theoretical framework is agency theory. Corporate governance has become synonymous with agency theory and is concerned with control problems resulting from wealth-transfer, in what is assumed to be a typical firm. The typical firm is taken to be the managerial firm, one in which ownership is dispersed and managers are in day-to-day control of the firm. This separation of ownership and control is assumed to create a need to control the agent (the manager). Thus, the agency problem is at the theoretical centre of corporate governance (Jensen 2000).

This framework further assumes that an idealised free market provides the main external means to discipline the manager. Last, but not least, a central characteristic of agency theory research is its preoccupation with identifying the interventions (prescriptions) that will align the manager's behaviour with the owner's (Clarke and McGuinness, 1987), so that wealth transfers from shareholders are minimized. Thus, in mainstream research, two terms have been combined: "corporate" and "governance",

The capture of the concept "corporate governance" by the agency theory raises the issue of terminology in this dissertation on commercial banks. It is argued that banks do not qualify as a typical firm, even though they often display separation of ownership and control. Banks are regulated, and bank markets are regulated. When we describe a corporation as a regulated firm, we are saying that the corporation is constrained, by contractual agreements, to observe both implicit and explicit regulatory obligations (Ogden, 1997). As such, regulations constitute a social structure that defines the parameters of the conduct of owners and managers.[18] The agency theory of the firm, however, focuses on a two-party conflict of control (owners and managers; owners and creditors, and so forth), and ignores other institutional actors, such as regulators. However, the concept term "corporate governance" is strongly identified with both agency theory[19] and the locus of control that is its exclusive focus. Therefore,

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[18] Whilst Ogden's research (1997) considers non-banking firms, it is instructive that he emphasises the powers of the regulator on the privatised water companies in the UK context.

[19] In the Douma and Schreuder (1998) approach to agency theory, two streams can be distinguished: the positive theory of agency -the firm as a set of contracts- and the theory of principal and agent. As a matter of fact, this latter advances a prescriptive approach to the firm and is the basic framework used in studies of corporate governance.

using the concept term "corporate governance" in the dissertation could lead to confusion.

To avoid confusion, the term *governance* is used to mean a more comprehensive concept of control. Such a term is required in discussions of banks because there are multiple loci of control, involving various relational nexus between the three main actors in the conduct of bank corporations: the owners, the managers *and* the regulator. The term *governance* has two main virtues: it has historically denoted a more general concept of direction and control, and it does not suffer from the problem of being linked with a specific theoretical perspective on control.

While considered by some to be a term of recent use[20] (Zingales, 1998), the term "governance" actually has a long history of usage in the English language (Cadbury, 1998). According to the Oxford English Dictionary (1989), the term was used as early as 1660. It defines governance as "The manner in which something is governed or regulated; method of management, system of regulations." Another definition is the "Conduct of life or business; mode of living, behaviour, demeanour...proceedings, doings (pp.710)." According to that dictionary, in 1656 Stanley said: "Wise Princes ought not to be admired for their Government, but Governance." Etymologically, governance denotes action, process, state or quality to steer, pilot or govern[21] (Ernest Klein, 1971).

For at least four centuries, the concept of governance has been used in English-language discussions concerned with the condition (state) of an organisation and the procedure (process) for its operation (action) to assure (govern) some objectives (quality). Thus, in the Cadbury Report (1992), it is said that corporate governance is a concept referring to how corporations are directed and controlled[22] with no

[20] Some authors limit the diffusion of the concept in academic research to the 1990's (Keasy, Thompson and Wright, 1997). Non-academic use of the term in contemporary discourse is documented as early as 1964-70 with, then Prime Minister, Harold Wilson's use of it in a political context.

[21] This is evidenced in the Latin roots of Governance as a composite word composed of the root *govern* (steer, pilot, etc) and the suffix *ance* (process of).

[22] It is used the term of corporation in reference for a joint-stock company (Pass, *et al.*, 1995).

implication that the locus of control is restricted to the internal forces of governance. The term "corporate" is adjectival, denoting its specific concern with business organisations.

It is possible to say that the concept of governance has been important in written English for a long time, and that historically it has denoted a more comprehensive concept of control than is implied in contemporary usage. Thus, the term *governance* is adopted in this dissertation to denote a comprehensive concept of control and the term "corporate governance" is restricted to discussion of the control issues arising between owners and managers in business firms in which regulation is assumed to be absent.

1.5: Aims of the Dissertation and the Plan of Exposition

Overall, the dissertation has two main aims: (i) to elucidate the general relationship between bank governance and the emergence of a banking crisis and (ii) to explain the specific relationship between governance in Mexican banks following the financial systems reforms, and the costly banking crisis that resulted. It is, therefore, *not* a study about corporate governance in banks examined in the light of the conflict that emerges between the principal and the agent. It is also not a study about regulation or the regulator. Nor is it a study about how regulation can assure the agent's interests are aligned to the principal's interest, or how government's banks are governed. It is a study about how the conduct of managers, owners, the regulator and the market in a bank governance system can affect the overall safety and soundness of a banking system.

The broad outline of the dissertation argument is that, in general, the primary context of bank manager decision-making is a governance system. The features of this governance system, in turn, dictate the overall level of risk in the overall banking system (e.g., whether it is high or low), and thereby government intervention that

may be required to resolve banking crises.[23] In the case of Mexico, the pathway of the specific financial reforms and their effects on the conduct of bank corporations is documented. This is analysed in detail to demonstrate the pertinence of the theoretical approach of bank governance proposed in this dissertation and the link it establishes between financial reform, changes in the system of bank governance, subsequent corporate conduct, banking crisis and its associated fiscal cost.

The theoretical framework developed proposes a structural theory of governance; it defines governance as a system comprised of internal and external forces. The forces of governance internal to the banking firm are those conventionally regarded as comprising "corporate governance" and associated with the private interests internal to the firm. The forces of governance external to the banking firm are composed of institutional structures associated with interests external to the firm. These include factors that determine the disciplinary power of market forces and those that determine the disciplinary powers of regulation, understood as the institutional expression of the public interest. In this dissertation, the term public interest is used in a constrained sense, mainly from the perspective of economics.[24] Thus, public interest issues are identified as associated with consumers' welfare, economic stability, financial stability, and so forth. The theory argues that the system of governance is constituted by the dynamic interaction of these internal and external forces of governance. As such, the level of risk in the banking system is the joint outcome of the conduct of the main actors in the system of governance.

In the Mexican case, the level of risk in the banking system increased substantially after the financial reforms; the explanation for this is that the reforms altered

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[23] An inherent feature of any banking system is *systemic risk*. This is the risk arising from the dependence of each bank on the credit-worthiness and standard of probity of all other banks in the system. The meaning of risk when used in discussion of banking system risk is broader than that proposed in finance theory (risk as variance of outcomes around an expected mean) and thus partakes of the more general definition of risk as the likelihood of adverse outcomes of high material consequences (Ciancanelli, *et al.*, 2001).

incoherently the relationship between the internal and external forces of governance. In the new system of governance, the internal forces were largely free to pursue their private interests. Owners had the means and the opportunity to maximise without constraints their private interests in the shortest possible time-frame. Bank managers were not disciplined by owners or by the external forces of governance. The external forces of governance, on the other hand, were weak. The disciplinary power of market forces, always weak in banking sectors (Visentini, 1997), was further weakened by reforms, which increased the oligopoly structure of the sector. The disciplinary power of the regulator, always present in the banking sector, was structurally weakened by changes in the legal framework and operationally weakened by reforms that fragmented supervisory know-how.

Thus, the new system of governance evidenced a potent combination of unconstrained opportunism by private interests and highly constrained definitions of the public interest. A costly banking crisis was an almost inevitable outcome of the system's operations.

The plan of exposition of the dissertation reflects the scientific method proposed by Popper (1997). Thus, the discussion follows the sequence proposed by Popper (1997), "problems - theories - criticisms (new theories) - new problems", and asserts the need for contextualising social phenomenon.

The dissertation is organised in two main parts, each comprised of a number of related chapters. The first part (Part I), comprising chapters two - four, establishes why an alternative approach to corporate governance in banks is required, the methodology that is pertinent to build a new theory and the features of the proposed theory of banks governance. The central argument is that governance, as a more comprehensive concept of control, provides the theoretical link between financial

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[24] The term "public interest" has many possible meanings (International Encyclopaedia of the Social Sciences, 1968). It is concerned with well-being (The Oxford English Dictionary, 1989) and the common welfare (Shorter Oxford English Dictionary, 2002). From a legal point of view, public interest refers to "Something in which the public, the community at large, has some pecuniary interest, or some interest by which their legal rights or liabilities are affected" (Black's Law Dictionary, 1951, pp. 1393).

reforms and banking crises, the latter being a manifestation of incoherence in the post-reforms system of governance.

The details of Part I are as follow. The second chapter undertakes a critique of the concept of control dominating mainstream studies of corporate governance. Through an analysis of the contexts in which the concept emerges, it is demonstrated that the concept of control is socio-economic-specific and dominated by a normative or prescriptive theory of corporate conduct. The third chapter provides an account of how a more comprehensive or general concept of control can be theorised, setting forth the methodological foundations of the dissertation and defining the types of qualitative and quantitative evidence that requires analysis. The fourth chapter provides a formal exposition of the theoretical framework developed to interpret evidence related to governance structures, analysing in detail the theoretical implications of a structural approach to governance of banks.

Part II, comprising chapters five - eight, applies the theory of bank governance to explain the Mexican banking crisis. In chapter five, discussion of the methods adopted to research empirical evidence is discussed. It describes the link between the methodological perspective adopted and the methods used. The main focus of the chapter is on the details of the various archives consulted, their reliability and the relevance of various types of evidence to the main lines of the theoretical framework.

In chapters six-eight, it is argued that the banking crisis in Mexico was an inevitable result of an incoherent system of governance that was biased toward the private interests of bank owners. In the post-reform system of governance, the bank owners had the means, motive and opportunity to maximise their interests but the regulator had few powers to protect the public interest and they were rarely invoked. Thus, control of the level of systemic risk in the overall system was ceded to private interests, associated with the internal forces of governance. This explanation of the banking crisis is constructed from three different evidence perspectives.

In chapter six, the structure of bank governance in Mexico is placed in a historical perspective, emphasising changes in the legal framework, ownership, market structure and regulation in the period 1980-1993. Chapter seven analyses the main consequences of the new system of bank governance in place on the eve of the crisis, highlighting its incoherence and how this amplified moral hazard, encouraging conduct by the regulator and the bank owners that made the banking crisis an inevitable outcome. Chapter eight considers the quantitative evidence on the effects of the system of governance, proposing an econometric analysis of the banking crisis' fiscal cost modelled as a governance event. The fiscal cost of the crisis is proposed as the joint outcome of the behaviour of the main parties in the structure of governance. Chapter nine offers a discussion of the conclusions reached from the research discussed in parts I and II.

PART I: THEORISING BANK GOVERNANCE

CHAPTER 2

PERSPECTIVES ON CORPORATE GOVERNANCE: A REVIEW

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2.1: Introduction

The objective of this chapter is to elucidate the actual historical and theoretical contexts that have given rise to the concept of corporate governance.[1] This is necessary because the empirical focus of this research is different to the majority of corporate governance research. Most of the previous research and associated theories have been concerned with non-financial firms in the U.S. and the UK. In contrast, this research is concerned with the governance of commercial banks in Mexico. As a result of this different focus, it has been necessary to identify the underlying institutional and methodological assumptions of corporate governance research, in order to assess its relevance for banks in non Anglo-American contexts. Two types of assessment are required. The first focuses on the socio-economic contexts in which the concept was originally theorised and the associated institutional assumptions it reflects: this is the subject matter of this chapter. The second focuses on methodology and the knowledge assumptions underpinning the main theoretical perspective adopted in corporate governance research. This is the subject matter of the following chapter.

The assessment in this chapter demonstrates that the mainstream approach to corporate governance is not a general approach. It is a socio-economic specific (Anglo-American) concept of control relevant to an historical period, now long past. Moreover, the framework relies on a prescriptive version of that concept of control (agency theory) that assumes, rather than analyses, the institutional structures influencing governance at the level of the firm. The framework is concerned with how to control the controllers, rather than with the problem of control per se.

This assessment serves two main purposes. The first purpose is to create the theoretical space required to analyse socio-economic contexts outwith the Anglo-American ambit, in this case the Mexican context. The second is to establish the special importance of socio-economic and institutional structures in the analysis of

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[1] Strictly speaking, the term corporate governance was devised to deal with corporations; that is, a specific type of business or firm. However, the concept is now used in a general way, referring to how any business is governed. This conventional usage will be observed in this dissertation.

bank governance, emphasising that regulation is the governance context in which bank owners and managers act. Thus, the assessment establishes the need for an alternative approach to studying corporate governance in banks in particular, and for studying corporate governance in business systems other than those of the U.S. and the UK.

Apart from this introduction, the chapter has three main sections. The next two sections demonstrate that the mainstream approach to corporate governance is seriously compromised by its intellectual debts to a *socio-economic specific* (Anglo-American) concept of control, and by over-reliance on a *prescriptive* version of the control problem. The discussion emphasises that agency theory is not an explanatory theory but a tautological one because it can only assess how well empirical observations conform to its assumptions. Thus, the mainstream approach to corporate governance severely hampers efforts either to describe the range of control problems arising in diverse business firms, or to devise interpretative frameworks explaining the observed behaviour of owners and managers as governance phenomena.

In the third section, the institutional issues arising in the study of governance in commercial banks are identified. It is pointed out that regulation is the over-riding context in which bank managers and owners act. The theoretical implications of this are developed, emphasising that bank corporations are characterised by a unique set of agency relations whose dynamics creates a qualitatively different control problem that the one assumed to characterise non-bank firms. Conclusions are presented at the end of the chapter.

2.2: The Socio-Economic Context: Corporate Governance as an Anglo-American Concept of Control

In recent years, the subject of corporate governance has gained importance in policy debates throughout the world (Pinto and Visentini, 1998; OECD, 1998, Perry, 1998). The interest in governance has arisen with regard to the conduct of large companies

(Sternberg, 1998) and to the possibility of defective monitoring and control by owners of corporations (Keasey, *et al.*, 1997).

Of particular concern is the governance of privatised (formerly state-owned) companies, including commercial banks (Ogden and Watson, 1996; Hodges, *et al.*, 1996; OECD, 1998a; Scott, 1994). This has encouraged research comparing the outcomes on corporate governance in diverse national business systems (Charkham, 1995; Prowse, 1994; Monks and Minow, 1995). In addition, there is extensive research in accounting that references socio-economic diversity influencing accounting practices, the profession and the role of accounting standards to different national contexts (Roberts, *et al.*, 2000; Gray, 1988).

The diversity and breadth of these policy analyses is not reflected in mainstream research on corporate governance. The predominantly Anglo-American perspective of this body of research is socio-economic specific, rather than general. This Anglo-American perspective has profoundly shaped the theoretical framework dominating the research, wherever it has been conducted. Moreover, agency theory is so dominant that the research agenda has been mostly devoted to the production of *prescriptions* to resolve one particular control problem, rather than to establish empirically whether that problem is present in business systems in, and outwith, the Anglo-American business structure.

The aim of this section is to demonstrate that current research in corporate governance reflects a particular historical concept of control rather than a general concept of control. The first part of this section considers the intellectual influence of Berle and Means (1932) on the Anglo-American concept of control, and emphasises that the associated *shareholder* theory of corporate governance does not include public regulation[2] as an important external force of governance. The second

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[2] For the purposes of the dissertation, the term 'regulator' refers to powers assigned by governments, including the legal framework, rules of organisational conduct, administrative requirements and so forth. The regulator may not be a single governmental body but composed of several different organisations. Thus, in Mexico, the regulator comprises departments of the Central Bank, The

part details the specific limitations of agency theory as the theoretical basis of corporate governance. In the third part, the paradigmatic Anglo-American approach to corporate governance is analysed and others perspectives are considered.

2.2.1: Berle and Means: The Anglo-American Concept of Control

The interpretation of corporate governance that dominates contemporary research[3] is anchored in the early work of Berle and Means[4] (1932). Their work demonstrated that most large corporations were controlled by managers, rather than by their owners because of the dispersion of ownership. As a result, most of the research takes corporate governance to be concerned with issues that emerge when ownership is separated from control[5] (Fanto, 1998).

Following on from this, the agency problem is stipulated as the key issue in research on corporate governance (Watson and Head, 1998). It is argued that because there is a separation between ownership and management, managers (agents) have information that permits them to direct the use of the resources of the firm in favour of their own interest, rather than the interests of the owners (principals) (Jensen and Meckling, 1991). Thus, the main preoccupation of research on corporate governance is how to compel the managers to act in the owners' interest, that is, how to resolve the control problem identified by Berle and Means.[6]

Banking National Commission (Comisión Nacional Bancaria) and of the Ministry of Finance (Secretaría de Hacienda y Crédito).

[3] Research on corporate governance is mainly economics based (i.e., economics, finance and accounting) but also includes research from other academic disciplines, including law and sociology.

[4] It is noteworthy that Berle and Means (1932) analysed the American corporation in an evolutionary context, focussing on changes in the control of the corporation over the previous half century. By 1930, it was clear that in American corporations there was a relative decline in the amount of shares in hands of increasing number of investors. Thus, the "modern corporation" was located in an historical and cultural context.

[5] The term 'management' normally refers to the board of directors but more importantly, the executive directors that actually control and run the corporation.

[6] It is expected that the conflict of interests can be manipulated in favour of the agent because he or she has information that the principal does not have. This asymmetric information, in the mechanical view of the textbooks, generates adverse selection and moral hazard problems (Mishkin, 1992). In a prescriptive and normative way, resolving the agency problem has been studied mainly from the perspective of structuring the compensation of the agent, so that it aligns his or her incentives with the principal's interests (Jensen and Smith, 1984).

One can say that this preoccupation establishes the focus of financial management research on how to control the assumed controller, rather than to study how the firm is controlled. Therefore, corporate governance has been focused mainly on one of the firm's internal control issues, rather than the control of the firm itself. Thus, prescriptions are proposed to align the interests of the managers with those of owners, rather than on governing the firm as a whole.

From the types of prescriptions it makes, agency theory research infers an implicit acceptance that corporate governance involves two distinct *forces of governance:* internal and external forces. Thus, in agency theory at the most general level, internal forces of governance shape the relationship between owners and managers while external forces of governance are composed basically of market forces. Agency research on corporate governance generally regards the market as the primary external mechanism to discipline the agent (McCahery, Piccioto and Scott, 1994). Thus, it is usually argued that a free market is the essential external force required to discipline the agent: free markets are expected to impose discipline through such devices as takeovers, leveraged buyouts, and so forth[7]. The managerial market is introduced as specific sub-market that will discipline the agent (Fama, 1984). Thus, it does not seem an exaggeration to say that agency theory reduces corporate governance to one concern (control) and one main prescription (deregulated or free markets).

It is interesting to contrast the above theoretical reduction with the observation made by Berle (1960), one of the originators of the concept of control as used in agency theory:

> *Control is great deal, but by no means everything, Directors, when elected were not, and, in law, are not now his agents. They are at liberty to defy instructions. Their judgment ... must govern (the corporation) until the owners replace them* (pp.70).

Pinto (1998) makes a similar observation from the perspective of the institutional environment, in the light of the law.

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[7] In economics, the judgment of the market place is assured to be a powerful means of controlling and disciplining the management. However, given the importance of its internal financing, the power of the capital market over the firm is limited. Additionally, given that big companies can control prices, the power of the market could be limited.

Pinto (1998) writes:

> *Although the common shareholders are owners who select the directors, the relationship between them is not legally an agency-principal relationship because the principal does not control the decisions of the agent* (pp.259).

Based on these two observations, one can conclude that corporate governance is reduced to one concern (the control of the agent) and one prescription (control basically by only one external force of governance - the free market). This results in a loss of realism that severely limits the explanatory capacity of agency theory as the theoretical explanation of how the firm is governed.

Two types of prescriptions can be identified in the literature: those directed at the corporation and those directed at the market. The prescriptions directed at the corporations are those that can be implemented by internal decision making.[8] The prescriptions advanced at the market require regulatory action of some type, including actions aimed at liberalising these markets to permit their operation (Jensen, 2000). As Berle himself wrote in 1963, there is no such thing as an uncontrolled and automatic market; markets reflect government rules and regulations. Thus, advocacy of "free" markets implies the existence of constraints, which in turn imply an existing higher power able to grant markets the "freedom" to operate (Campbell, 1994). The nature, consequences and scope of this power on the operation of the firm is not theorised in agency theory.

Even in very recent research, the characterisation of corporate governance continues to focus on prescriptions to align interests in favour of the owners. Moreover, the legal system is referenced solely in relation to aligning interests with those of the owner. Thus, Denis and McConnell (2003) assert that the governance mechanisms that have been most extensively studied in the U.S. are the board of directors, the

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[8] Prescriptions at the level of corporations appear unlimited in number. They include devices such as: bonuses and share options intended to align the agent's interests with those of owners, the appointment of non-executive directors to supervise the agent's conduct, restrictions on sources of finance (such as long term borrowings) to ensure control over agent's use of free cash flows, and so forth. See for a review: Jensen, 1986; Baker, Jensen & Murphy, 1988; Finkelstein & Hambrick; 1988; Gibbons and Murphy, 1990; Kaplan and Stein, 1990; and Main, 1991.

ownership structure of the firm, and the market for corporate control. Remarkably, the legal system is assumed to be devoted to protecting the owners' interest. Thus, there is no recognition that the legal system is, as Coase (1988) points out, a condition of the firm's very existence.

As Berle (1963) pointed out, the fiction that the state does not guide and is not responsible for the operations of the economy has to be discarded. In any observed socio-economic system, both the agent and the principal will be immersed in a specific institutional framework in which public regulation has a crucial role (Ogus, 2001). How important regulation is to the relationship between the agent and the principal, and how important it is in defining the system by which the firm is governed, is an entirely empirical question (Ogus, 1994). Since the prescription to deregulate markets presupposes the existence of a regulation, and since the existence of contracts between the agent and the principal presupposes some institutional means to enforce them, the exclusion of the regulator, as party involved with corporate governance, is difficult to justify. Indeed, the main argument in subsequent chapters is that public regulation is a key external force of governance, supplementary to the market, regardless of how market dynamics are understood.

2.2.2 Socio-Economic Perspectives on Regulation

Consideration of the role of regulation, especially its legal framework, is a feature of historical research on the evolution of Anglo-American companies (Tricker, 1984; Cheffins, 2001). Studies of corporate governance in UK companies place their evolution in context of the overall history of the British business system.[9] In this history, the emergence of the separation of ownership and management is considered in light of changes in the legal framework and regulation (Tricker, 1984; Cheffins, 2001). The question this raises is the theoretical stance toward regulation and the public interest.

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[9] According to Tricker (1984, pp.147), the "Dramatic evolution of the company concept in Britain stems from the mid-nineteenth-century, and by the end of that century the joint-stock and limited liability companies were strong (ly) instituted." These replaced the previously dominant companies: "Many an old family firm (s) was replaced by a Limited Liability Company, with a bureaucracy of

In neo-classical economics, public regulation is conceived as an exceptional economic situation, for instance, when there is a market failure (e.g. private monopoly and public utilities) (Stigler, 1975; Haid, 2001). More recently, this strand of economic theory interprets regulation as damaging to consumer interests because it distorts resources allocation (Stigler, 1975a), and, because regulations inevitably reflect the interests of those who have managed to politically capture the regulatory process (Becker, 1983; Becker, 1985). In contrast, New Keynesian Economics, an approach that has gained importance in recent years, argues that public regulation can be understood as an important tool for solving problems arising from imperfect information endemic in the operations of markets (Stigliz, 2002; Stiglitz, 2002a). They argue that regulation comes into existence in order to promote consumer welfare and protect public interest by correcting problems inherent in the market mechanism.

The New Keynesian perspective is supported by research from legal scholars (Ogus, 2001; Ogus, 2001a; Ogus, and Amass 1997; Masten, 1993; Masten, 2002). In their view, regulation and the legal framework are foundational and thus 'built-in' to the governance of the firm. In economic parlance, one could say that legal scholars regard regulation as inherent to a system of governance. Because the firm cannot exist without the law, regulation is a condition of the existence of the firm. This is obvious in the case of banks, which are firms subject to general and specific laws.

Thus, there is ample support for a different vision of regulation to that proposed by neo-classical economists. The institutional emphasis of Stiglitz (2002; Stiglitz, 2002a), legal scholars such as Ogus (2001) and Masten (2002), and the work of Tinker and Okcabol (1991) and Cheffins, 2001) support Visentini's (1997) view that public regulation plays an important role in bank governance.

Public regulation affects how the firm is governed because it constitutes a politico-economic reality shaped by different systems of economic organisation, and their

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salaried managers" (Trevelyan, 1947, pp. 572). This gave rise to a new structure of control and management as a result of their dispersed ownership structure and means of financing.

corresponding specific legal forms. Those systems and their regulations reflect community and social valuation of different economic activities (Ogus, 1994). Thus, regulations reveal and reflect society's preferences (given an economic system and legal framework). In that broad sense, regulation represents the public interest. Therefore, a theory of bank governance needs to include regulation as a force of governance.

In the Anglo-American context, debates of corporate governance have been confined to shareholder theory (O'Sullivan 2000a; Jensen, 2001). A contrasting perspective is offered by stakeholder theories of corporate governance. Stakeholder theories propose the inclusion of a broader number of interests in how the firm is governed (e.g., employees, community, and the environment). According to O'Sullivan (2000a), to an extent, stakeholder theories justify these broader interests by appealing to explicit political values, rather than deriving their existence from alternative economic or financial management theory.[10] However, in spite of the significant differences between them, both neglect the legal and regulatory framework in which firms operate. Either they ignore regulation entirely or they invoke the institutional environment in an *ad hoc* way (Jawahar and McLaughlin, 2001). Both theories fail to offer a systematic assessment of regulation, its effects on the firm, and the diverse actors implicated by the way the institution is actually governed.

Studies concerned with international differences in corporate governance highlight differences in the institutions of financing, the respective legal framework, and the framework of public regulation (Charkham, 1995; Pinto and Visentini, 1998; Chew, 1997). This body of regulations is seen to impact the structure of transaction costs, the distribution of business activities, and relations between the market and the firms (Williamson, 1996). Thus, institutional differences in national contexts are the basis of a general view that not only will corporate governance itself vary from one

[10] O'Sullivan (2000a) said that Blair (1995) assumed a more economic approach to this stakeholder perspective on corporate governance. Thus, Blair accepts that shareholders are the residual claimants of the firm, but she emphasises that employees are an important part of the valuable assets of the firm.

country to another, but also the concept of corporate governance itself can be expected to vary.

An alternate perspective on governance requires that the institutional environment, in light of public regulation, be regarded as an important factor in explaining how firms are governed.[11] Therefore, if the object of studies in corporate governance is to devise theoretical frameworks to explain observed corporate governance phenomena, it is likely that the actual concerns and prescriptions related to governance will be broader than those that typify the mainstream approach. For these reasons, the definition of governance proposed in this dissertation emphasises a system composed of external and internal forces, which jointly control the firm.

2.2.3 Diverse Meanings of Governance

Thus far, the dominant shareholder theory of corporate governance has been discussed as if there were only one concept. In fact, within corporate governance research, a number of different ideas are subsumed under the term "corporate governance." While most make "control" the core issue of governance, researchers and practitioners trying to explain how specific firms are governed seem to revise the concept in an ad hoc way, to suit the problem studied. Nonetheless, one can identify three distinct meanings attached to the concept of corporate governance. These are performance and accountability, procedures, and the structure adopted to operate the firm. Each level implies certain conditions to be fulfilled. Performance and accountability can only be fulfilled if there are objectives and expected results set prior to the corporation's operation. "Procedures" denotes the processes by which the corporation operates; "structure" is related to how and by whom the corporation is run and controlled.

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[11] In the first part of the 1990's, as a result of criticisms of Anglo-American company performance, a discussion about the best national system of control emerged, regarding how to govern firms. In those years, the Japanese and German systems of company control were also considered (O'Sullivan, 2000). However, according to O'Sullivan, at present, the dominant view of corporate governance seems to be the Anglo-American one as a consequence of so-called globalization.

Corporate governance is said to deal with how the suppliers of finance to corporations assure themselves that they receive an adequate return on their investment (Shleifer and Vishny, 1997; Jensen, 2000). Others propose that corporate governance is concerned with the procedures, structures, and satisfaction of accountability to those outside the organisation (Hodges, *et al.*, 1996). Prowse (1997), with a different emphasis, labels corporate governance as a system in which corporate control mechanisms are crucial issues. For Pourd (2000) corporate governance is concerned with the power shift from agent to owner.[12] The well-known UK government document, The Cadbury Report (1992), characterises corporate governance as the system by which corporations are directed and controlled. Watson and Head (1998) refer to corporate governance as being concerned with the relationship between the agent and the principal, and the structure and nature of mechanisms by which owners govern the management.

In a broader approach, MacMillan and Downing (1999) denote stakeholders and societal interests as essential aspects of corporate governance. For Williamson (1996), governance structure is the institutional framework within which transactions are decided.[13] Cadbury (1998) emphasises that the concept of corporate governance is concerned with external and internal governance forces, as well as rules affecting firms.

Distinguishing the three mentioned meanings attached to corporate governance enables one to establish that previous research conceives of corporate governance as a *process*, operating at the level of the firm itself. This implies analysis of corporate governance will be concerned with understanding the antecedents to, the dynamics during, and the results of the firm's operations. Of course, the main interest in governance studies is how, and by whom, the firm is run. This is directly related to how, and by whom, it is controlled. However, what is easily overlooked is that how, and by whom, the firm is controlled is not merely an *internal* issue to the firm; other

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[12] Pourd (2000) says that the shift does not create more smoothly run profitable corporations.

[13] Williamson (1996) pointed out that markets and hierarchies are two of the main alternatives for corporate governance structure.

parties (the regulator) and other structures (e.g. the socio-economic environment, the legal framework) undoubtedly affect the process of corporate governance and the outcomes that result.

The socio-economic environment can be seen to affect how, and by whom, corporations are controlled and directed. North (1991) emphasises that the legal system, regulation, culture and traditions are the most important features of the institutional framework within which firms operate. These institutional features can be regarded as "external" to the corporation *per se*; however, their existence can be seen to affect the corporation itself.

Kim and Hoskissom (Keasey, *et al.*, 1997) assert that, in Anglo-Saxon scholarship, there is a pervasive and implicit assumption that the concepts and theories developed apply universally. This results in a systematic neglect of the differences between countries, economies and cultures. For instance, in other languages, such as Italian, Spanish, and French, the concept 'corporate governance' did not exist until quite recently (Tartaglia, 2000). In Spanish, the term "corporate governance" does not even formally exist today. Similarly, in Italian and French, the term has been imported as a neologism from the original English word, and appears in foreign language research texts[14] (Paravia, 2001, Dictionare des Affaires du Commerce et de la Finance, 1996; Gran Diccionario Español- Inglés, English-Spanish, 1993).

Wholesale introduction of important theoretical concepts into studies of non-Anglo-American settings should be regarded with some concern. Since the concept of corporate governance emerged and evolved in a particular socio-economic institutional setting, the question should be whether it can be applied, without modification, to firms operating in entirely different societies. Is it possible that scholars applying an essentially Anglo-American view of corporate governance may fail to attend to how their own country's context differs? Moreover, in their eagerness to adopt the mainstream theoretical framework, researchers may ignore the

[14] In Spanish, the term governance is related to the government and the authority. In Italian, it is translated as "governo", meaning government.

institutional environment that shaped the observable corporate governance phenomena in their own society (Raghuram and Zingales, 2001). Neglect of the specific differences between the society in which an interpretative framework evolved, and the society one in which it is applied, courts the danger of theoretical and practical misunderstandings. This leads scholars to prescribe governance recommendations that are entirely unsuited to non Anglo-American settings.

Even though Jensen and Meckling (1991) emphasise that the firm is a legal fiction (and hence, not a true economic actor), in reality the status of the firm as a legal person reflects laws, administrative regulations and so forth, that stipulate how the corporation is governed (e.g. the role of employees in the structure of governance in Germany). In that sense, the regulatory framework is one of the main "authors" of the firm's conduct. The regulations, mainly in the form of laws, grant permission for, and establish limits on the firm's engagement in specific actions. In this way, the firm *per se* does act as an institutional structure (Berle, 1955); it has effects on both individuals, and on the structures of the social system. As emphasised by North (1986), the institutional framework establishes the rules and regulations that affect how corporations are to be governed (Cadbury, 1998). In the terms of Williamson (2002) the "rules of the game" are related to the first order of contract (public) and the "play of the game" is related to the second order of contract (private).

Indeed, apart from the market, one could say that the main external forces of governance are embodied in regulations related to laws, administrative rules and best-practices codes. Recognition of the existence of those governance forces can help to elucidate the reasons that have given rise to them. One of the key reasons proposed, is that societies deem it necessary or desirable to look after interests other than the immediate self-interests of the agent and the principal, while also looking after their interests (Ogus, 1994). A comprehensive or general theory of governance would integrate these external forces in its interpretative scheme. The scope of the concept of governance would have to integrate, in a coherent way, the internal and external forces governing the firm and the interests associated with each of them. This implies the need for significant revisions of the mainstream concept of control,

and for a less mechanical adoption of the agency theory approach. Indeed, it is argued in this research that both such amendments are essential if the concept of governance is be relevant in the analysis of firms governed in non-Anglo-American contexts.

2.3 Perspectives on Agency Theory[15]

Arguments have already been made regarding agency theory's exclusion of institutional structure (rules, regulations, legal framework) in its analysis of corporate governance. In addition, it is possible to supplement this with another set of criticisms made by researchers. The discussion in this section is devoted to a review of criticisms of agency theory, emphasising its limitations as a socio-economic theory of corporate governance. The criticisms are somewhat wide-ranging but it is possible to identify two main types. One type argues that agency theory is a political ideology; the other concentrates mainly on flaws in its formal attributes, arguing that it is an inadequate basis for theories of corporate governance. Both types are discussed below.

2.3.1 Agency Theory as an Ideology

The critics of agency theory as ideology argue that the theory has an "esoteric symbolic idiom [that] lends an aura of scientific credibility to its findings" (Armstrong, 1991. pp.2). Because of its foundations in neoclassical economics (Ogden, 1993), the theory has been judged and criticised as an ideology (Hunt and Hogler, 1990). Another view argues that agency theory is the materialisation of social conflict (Tinker, 1988). In a more systematic analysis, Whitley (1988) points out that agency theory constitutes a sort of ideological community, which is able to bar entry and thus avoid questions raised by so-called outsiders.

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[15] The dissertation proposes two different levels of critique of Agency theory. One is related to its shortcomings as a theory (e.g., its lack of 'realism' including the arguments made earlier in this chapter regarding its exclusion of institutional structure as a condition of existence of corporate governance). The other is related to its shortcomings as a theory per se. This second level of critique is concerned with the methodological requirements for building *any* theory of governance. This level of critique is presented in the next chapter (Chapter 3).

Criticisms of agency theory as an ideology create difficulties for efforts to develop a general theory of governance. What are the criteria by which ideas are judged to be ideological, rather than explanatory hypotheses? On what grounds are the ideas of the critics they excluded from the self-same charge of ideology? To accuse an opponent of being "ideological" is inherently weak. It assumes either that the opponents' views are not "objective", whereas one's own criticism is objective; or, it assumes that all systematic argument (theory) is a form of ideology. Furthermore, the claim that a theory is ideological implies that this negates the theory from having the power to explain reality; however, as Duverger (1972) argues, ideology is a type of explanation of reality.[16] The issue requiring analysis is how ideological explanations differ from what critics imagine are "objective" or "scientific" explanations of corporate governance. The failure of these critics to provide an analysis of this point limits the force of their own criticisms.

The preferred starting point for assessing any theory is analysis of its ontological point of departure. Does it assume that reality exists *per se*, external to and independent of the views of researchers, scientists, theoreticians and politicians? If realism is the ontological point of departure, judgement of the resulting theory would depend on whether, and to what extent, it is able to explain an observed phenomenon that falsifies its conjecture (Popper, 1997). In the case of agency theory, the ontological point of departure is not realism; rather, it could be described as a form of *idealism*. This is because its prescriptions aim to create a world matching its idealised vision of a particular firm, in which a specific control problem is found. Thus, the theory doesn't seek to explain "reality" but to shape reality in line with its conjecture. According to Masten (2002), the empirical application of agency theory is limited to the set of phenomena able to be modeled by its framework.

Critics, such as Whitley (1988), who emphasise that agency theory ignores its critics by excluding them, make a highly problematic argument. Kuhn (1970) argued that any orientation toward the construction of theory constitutes a paradigm. Such an

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[16] According to Duverger (1972, pp. 96), "Ideologies are collections of rationalized and systematized beliefs, reflecting the situation of the society in which they originate."

orientation is applied, developed, anchored and maintained by social means, in communities of scientists who work within the paradigm (Kuhn, 1970). The sociology of communities understands that maintenance of a scientific community usually requires that insiders act to limit or prevent the influence of outsiders. As Kuhn (1970) argued, this exclusionary process operates until the dominant paradigm is replaced by another. That then becomes the basis of a new dominant scientific community.

Although Kuhn's concept of a "paradigm" relates mainly to natural sciences communities, its application to the social sciences can offer a less contentious explanation of why for long periods of time observations that cannot be explained by the dominant theory, and new theoretical perspectives on them will be dismissed as anecdotal and unscientific. One can ask of critics such as Whitley; why expect the research community to act otherwise? The behaviour described by Whitley is sufficiently similar to that described by Kuhn, as typical of all research communities who apply, develop and maintain a shared paradigm.

2.3.2: Agency Theory as a Socio-Economic Theory

Some researchers have criticised agency theory from a methodological standpoint. The major themes in this research are that agency theory is a coherent socio-economic theory but fails to consider the complexity of the firm and the public interest in the firm's conduct. Thus, Arrow (1985) has argued that as a descriptive framework, agency theory could help to explain many contractual relationships. However, he argues that, as a prescriptive theory, it offers very poor guidance for understanding the actual terms of contracts. This is because, many of the terms and conditions surrounding contracts are regulated by custom and tradition and, in this regard, real world practice and observed behaviour is usually quite different to the assumptions made in agency theory. Following on this point, Ogden (1993) has argued that the agency

> *"[M]odel fails to take adequate and explicit account of the power relations that inform employer-employee relationships, the range of substantive and control issues that may become subject to dispute, and the extent to which workers may collectively resist management initiatives to enhance labour productivity (pp.180)."*

Aoki (1986) criticised agency theory, with regard to its claims that the market is a device to align agent behaviour with the principal's interest. He argues that a competitive managerial market would require some means to separate managerial productivity, from the general productivity of the firm. However, because general productivity is the result of the action of a team (of which the manager is only one member), the managerial market is unlikely to have specific information about the manager's productivity. The market's lack of information would make it difficult, if not impossible, to discipline the agent directly. In addition, Aoki argued that there is a great deal of evidence that some corporations are not price-takers, but rather set prices instead. Thus, discipline from the product markets will vary according to the oligopoly powers at the firm's disposal. Finally Aoki emphasised, that in some cases a sub-set of shareholders (e.g., institutional investors) are in a position to prevent take-overs, and thus there can be important limitation on the ability of the market to discipline the agent.[17]

Tinker and Okcabol (1991) make an important contribution in developing an analysis of the public interest, as raised in Arrow's work (1985). They argue that agency theory's division of private and public interests is fallacious. Thus, in the face of market imperfections, regulation is a means to enhance market discipline. It is also possible that such an alignment can be achieved with public policy instruments such as taxes, legal sanctions, and so on. In other words, if the market cannot discipline the agent, public regulation has the power to do so. Tinker's analysis highlights the extent to which agency theory ignores the possible use of regulation to align the interests of the agent and the principal. Even supporters of agency theory (Strong and Walker, 1987) accept that while it "offers mathematically precise prescriptions for the design of optimum incentive schemes in the presence of uncertainty, risk aversion and information asymmetry (pp.202)...at times, the literature of the positive theory of agency seems like the apologetics of corporate capitalism" (pp.202).

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[17] Berle (1960) emphasised that the institutional investors were the new controllers of the firm.

The strongest and most robust methodological criticism of agency theory is made by Armstrong (1991). He developed his analysis, by drawing on the categorisation of the sociological paradigms of organisational analysis[18] by Burrel and Morgan (1979). He not only analysed the theory in light of its ontology, epistemology and methodology, but also in light of its implicit view of social action. Because his analysis is of greater complexity than the others, it is useful to consider it in some detail.

According to Armstrong, agency theory regards itself as having an "objective" view of reality. Thus, its self-stated ontology would be classified as realism, and its epistemology can be classified as positivism. These claims to theoretical objectivity are based on the claim that agency theory is derived from observations of reality. The overall methodology of this theory, understood as how it claims to gain knowledge of the real world, can be classified as nomothetic. By this, Armstrong means the theory only accepts quantitative analysis of data, as demonstration or falsification of its theoretical models.

Armstrong further stipulates that agency theory's perspective on human nature is deterministic; it assumes a fixed relationship between humans and their environment. Thus, because society is characterised by consensus, co-operation is achieved by social regulation in a sort of "social contract". As a result, agency theory asserts the existence of a functional (harmonious) relationship, between a deterministic human nature within the firm, and regulated social action. Based on his analysis, he judges agency theory to be internally coherent. However, if one analyses its functionalism, important limitations can be identified in its assumptions and operational implications. The most important limitation is the theory's claim that social regulation guarantees the social order. If this is accepted as a reasonable proposition, it implies that social regulation would have a profound effect on individual behaviour. However, agency theory ignores social structure as a factor in shaping

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[18] The paradigm is the general orientation of a discipline (Vogt, 1999). The organisational analysis can be defined as the study of organizations, with particular regard to decision-making within them (Pass, *et. al.*, 1995). A theory is "a statement or groups of statements about how some part of the world works - frequently explaining relations among phenomena" (Vogt, 1999: pp.290).

individual conduct, and the relationship between the agent and the principal (Arrow, 1985). This raises a serious problem; the theory may be attributing the effects of a specific social structure to "deterministic" human nature. The challenge facing agency theory is how it proposes to analyse and separate the effects of human nature, and the institutional environment on the conduct of agent and principal?

Armstrong (1991) identifies a further problem. Agency theory does not explain, in a comprehensive way, how the social environment guarantees the so-called "social order". Furthermore its stress on the market ignores other external forces, such as social regulation or even the social structure it presupposes. Agency theory does not explain why such forces can be ignored. Indeed, the presence of regulation is never systematically considered, even though the theory invokes the existence of social order, presupposing that some form of regulation exists. The existence of social order implies that individual behaviour is circumscribed by the specific environment in which it occurs (Hodgson, 1993). It further implies that individuals establish relationships amongst themselves, and that these relationships embody some type of regulation. Thus, a key limitation of agency theory is its lack of conceptual tools to explain the relationship between any socio-economic environment, and the behaviour of individuals acting within it.[19]

Armstrong (1991) further stipulates that agency theory is a narrow variant of functionalism, because it assumes only one motive for human action: the individual self-interest. It evaluates any and all social institutions, in this case the firm, according to that sole motive. Furthermore, he argues that sociological functionalism cannot explain endogenous changes, because there is no explanation of the contradictions or conflicts that give rise to the need or desire to change social arrangements. Extending Armstrong's argument, one can say that theoretical considerations both of the effects of regulation on owners and managers, and of the sources and effects of changes in those regulations do not form any part of agency

[19] The new "institutionalists" attempt to explain the emergence, existence and performance of social institutions, on the basis of taking the individual for granted. "It is assumed that the individual actions lead to the formation of institutions, but institutions do not change individuals, other than by supplying information or constraints" (Hodgson, 1993; pp. 8-9).

theory. This failure to consider the effects of regulation is egregious, since Jensen (2000) himself makes the argument that, since the 1930's in the U.S., laws and regulations have put most of the power in management hands, frequently at the expense of the owner's interest.

The main thrust of the above research is the limitation of agency theory, as a theory of the firm in its institutional context. Armstrong, in particular, concedes that the theory is internally coherent, accepting that it has a narrow competence as a financial management theory.[20] This, however, is not enough. A stronger challenge to the theory would be posed by a critique that goes beyond its limits as a social theory of corporate conduct. What is required is a full-scale critique; one that identifies the theory's failure in logic and lack of coherence as a theoretical basis for studies of governance. Thus, the effort will be made in the next chapter to develop an internal critique of the theory. This will seek to demonstrate, that the assumptions and operational-theoretical features limit agency theory's pertinence for empirical studies of corporate conduct and governance.

2.4: The Structure of Agency Relationships in Banks: An Alternative Perspective

In this section, it is explained why it is especially important in efforts to study banks that governance is analysed in its institutional context. In the first part of this section, agency relationships in banks are contrasted with those conventionally identified by agency theory. In the second part, regulation and the agency relationships in banks are analysed. I discuss why banks are regulated, and why this characteristic creates a need to go beyond the agency theory framework in governance studies.

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[20] Remarkably, Jensen and Meckling (1991) pointed out that its seminal paper "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure" drew on progress in the theory of property rights, agency and finance in order to develop a theory of the structure of ownership. This amalgam of subjects may cast doubts on the theoretical strength of that work. Additionally, it seems to try to cover many theoretical fields to conclude that agency theory is founded on the self interest of all the individuals and leads to create structures and incentives that minimize cost due to conflicts of interests between them.

Before beginning the discussion, it is important to note there is only a small body of empirical and theoretical research on corporate governance in banks and that most of this work uses an agency theory framework. Thus, the focus of discussion in this section is the specific theoretical deficiencies debarring its use in analysing governance in banks. The chief limitation highlighted is that agency theory describes a "two-person" contest for control of the firm. In banks, however, there is normally a 'third party' (the regulator), who defines the parameters of this two-party contest for control. Therefore, studies of bank governance require some theoretical means to deal with this "third party", and some understanding that bank owners and managers act under institutional conditions quite different from those in non-bank corporations (Goodhart, *et al.*, 1998; Dowd, 1996; Fry, 1995; Lindgren, *et al.*, 1996).

Introducing the regulator as an external force of governance brings to light another limitation in agency theory, i.e., its exclusive preoccupation with a microeconomic, or firm-level, analysis. Because agency theory focuses solely on relations between owners and managers, empirical investigations assume a static macroeconomic context. The integration of the regulator requires a change in the level of analysis, from a microeconomic to a *meso-economic* (sectoral) level. This is the level at which the three parties interact. The regulator acts at the level of the sector as a whole, and the actions taken by them define the parameters of principal and agent conduct at the level of the banking firm.

2.4.1 Agency Theory Versus Agency Relationships in Banks

Awareness that commercial banks differ from other corporations may explain why there has been very little research, either empirical or theoretical, on their corporate governance (Lindgren, *et al.*, 1996). Previous research of corporate governance is limited mainly to empirical research using data from the U.S. banks. This research assumes that banks conform to the concept of the firm used in agency theory. That is, the research assumes moral hazard in banks is the same as that identified for any firm in which ownership and management are separated (Berle and Means, 1932). One strand of this literature is concerned specifically with managerial conduct (Saunders, *et al.*, 1990; Allen and Cebenoyan, 1991; Gorton and Rosen, 1995;

Diamond, 1984; Glassman and Rhodes, 1980; Edwards, 1977); the other considers the different elements of the corporate governance mechanism in banks (Prowse, 1995; Houston and James, 1995; Crawford, *et al.*, 1995). In both strands, banks are treated as if they are structurally the same as any other firm.

While in recent decades most governments have adopted financial deregulation[21] as a central element of the reform of national financial systems,[22] banks and banking as a whole continue to be regulated. Deregulation has been about changes in the rules of the game rather than the abandonment of rules altogether. No country has adopted a completely laissez-faire approach to their financial systems (Long and Vittas, 1992). Thus, the important implication for research on corporate governance is that regulation is a transcendental feature of bank governance everywhere in the world today. Banks do not operate in the same type of competitive markets and are managerially structured by different forces. This is an overriding reality of the condition of their existence, as evidenced by the large body of research issues on banks (Dowd, 1996). Therefore, to assume that banks operate in the same type of competitive markets, and are managerially structured by the *same* forces as other firms, produces an unrealistic view of how banks are governed.

First of all, specialists in banking studies (whether economists or political scientists) regard banks as different and distinct from "ordinary firms", either because that is the empirical state of affairs (e.g. they are regulated), or because their specific characteristics require regulation (Ogus, 1994; Goodhart, *et al.*, 1998; Dowd, K. 1996). This means that no serious analysis of banking assumes competitive markets. Secondly, because bank governance involves a 'third party' (the regulator), the relationship between the owner and the principal is contracted in a significantly different context than "ordinary" firms (Dowd, 1996; Gorton, 1994; Visentini, 1997;

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[21] As early as the middle of the 1980's, some prescient observers pointed out the crisis potential of such rapid and far-reaching financial deregulation (Diaz-Alejandro, 1985).

[22] Three kinds of financial system are identified: State directed enterprises financed mainly by bank loans, bank directed enterprises financed mainly by bank loan, and market directed enterprises financed by debt and equity securities (Arbor, 1995).

Vittas, 1992a). Thus, the possible effects of regulation have very important theoretical implications.

Firstly, governance research on banks needs to attend to the disciplinary power that the regulator has over bank managers and owners. Secondly, and most important, the inclusion of the regulator cannot be purely formal; it is not merely a question of introducing a third party into the equation because this will obscure the effects of the regulator's presence on the conduct of principals and agents (Visentini, 1997). However, in the small body of research on corporate governance in banks, most has attempted to use agency theory to explain the presence of regulator in banks and propose that the regulator be viewed as the principal and the bank as the agent (Goodhart, *et al.*, 1998). However, because banks can be seen as the principal and borrowers as the agent (Stiglitz, 1985), theoretically, this implies that agent-bank and principal-regulators are equals with homogenous interests, leading to a focus on a presumed contract between the regulator and the bank. In addition, the question is whether the regulator can be treated as the bank owner? Once the regulator is stipulated to be the principal and the firm to be the agent, the firm itself is once again a "black box", precisely one of the problems that agency theory claims it has resolved.

It is argued that agency theory cannot accommodate three party contests for control. According, to Waterson and McGuinness (1987), as a result of the external environment of the firm, "control over managers in fact involves a nexus of (partly implicit) contracts between these various interest groups and management, involving multiple principals (Stiglitz, 1985) and perhaps multiple agents (pp.25). Thus, agency theory has theoretical space for only two positions in the control game, as evidenced in the body of agency research on banks in which only two parties are associated with debt contracting, deposit, lending and so forth (Stiglitz, 1985). Therefore, the purely formal inclusion of the regulator has led to enormous confusion as to the effects of regulation on the behaviour of owners and managers. However, it may also generate a sterile debate as to who ought to be named as the principal and who ought to be named as the agent.

When one contrasts what is assumed in agency theory with empirical research on banks, the disparity between the two becomes clear. The key points outlined below systematically compares agency theory's assumptions of the characteristics of banks identified in the literature.

Firstly, agency theory makes three key assumptions:

- The market in which firms act is a *competitive* market
- The nexus of information asymmetry is the relationship between owners and managers.
- The choice of capital structure can be used to discipline the agent.

In contrast, it is commonplace in banking literature (Polizatto, 1992; Gorton, 1994; Visentini, 1997) that commercial banks are special because:

- They operate in *regulated* markets.
- The agency relationship is more complex due to the presence of the regulator.
- The capital structure adopted in banks reflects their function as a financial intermediary.[23]

These differences mean that in banks there are at least three other nexuses of asymmetric information, additional to the one between the principal and agent:

- Between depositors, the bank as such, and the regulator
- Between the owner, the managers and the regulator
- Between the borrowers, the managers and the regulator.

These additional nexuses imply that in banks there are at least four distinct types of moral hazard, three more than stipulated by agency theory:

- Type 1 is discussed in agency theory itself.
- Type 2 refers that the depositor is the principal; the bank is the agent.
- Type 3 arises when the regulator is required to protect the banking system.[24]

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[23] Banks are highly leveraged by design. To deal with this, regulators impose fiduciary obligations and, in recent years, have stipulated a minimum capital that owners must keep in the business (Dale, 1994).

- Type 4 is the moral hazard arising if the regulator does not fulfil its statutory duties or fulfils them in a partial or limited way.

From a governance point of view, the four types of moral hazard identified need to be integrated into a bank governance theory. By stipulating the existence of a more complex structure of information asymmetry, and by specifying its main features, the distinctive nature of the control problem in banks can be detailed and the character of the governance problem specified.

Banking regulation creates not only three additional nexuses of information asymmetry, but also shapes the nature of the banking firm. Due to the role of the regulator in preventing banking problems, business risk, which in the normal firm is borne by the owner, is now shared with the regulator. Because the regulator insures the depositors, and because of regulations on the bank's capital structure, risk has to be seen as operating at two distinct levels. There is the risk to the stability of the overall banking system arising from the banks' conduct (Vittas, 1992; Vittas, 1992a; Hausmann and Rojas-Suarez, 1996; Rojas-Suarez and Weisbrod, 1997; Fry, 1995; Mishkin, 1997) and there is the business risk faced by owners of the banks.

However, business risk can have sources other than the self-seeking actions of the managers. Owners may actively encourage risk-taking because a bank's high leverage creates the possibility of a "one-way" bet. Bank owners are in the unique position of being able to profit from risky ventures but lose only their relatively small capital stake if the ventures fail. Bank owners are assured of this because, if the business risks they take expose the entire banking system to runs or collapse, the regulator will step in. He will indemnify the losses of one bank because it is far less costly to bail out one imprudent set of owners and mangers than to compromise the safety and soundness of the entire banking system (Eatwell and Taylor, 2000). The

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[24] Depending on the type of protection offered, banks may be encouraged to take excessive risks. Type 3 also includes the conventional treatments of moral hazard in the banking literature, which emphasises that the borrower knows more about his ability to repay a bank loan than the bank does (Stiglitz and Weiss, 1992).

regulator can always be relied on to socialise the cost of imprudent lending (act as the lender of last resort) because that is always cheaper than a banking system crisis.

2.4.2: Bank Regulation and Its Theoretical Implications

Agency theory purports to have been strongly influenced by the work of Coase (1937), especially his early formulation of the "black box" problem and his characterisation of the efficiency trade-off (from a social standpoint) between costs in markets and firms. In his often-ignored later work, Coase (1994) revised his emphasis on costs, shifting to a framework emphasising the effects of the legal system (including regulation) on the existence of the firm.

Coase's mature works have not been properly integrated into work on corporate governance. They are highly relevant to the study of corporate conduct. In addition, it is regarded as especially pertinent in the assessment of the theories of corporate governance claiming Coase as their progenitor[25], even though it is evident enough that they have ignored his later works.

Coase (1988), in one of his later works, stressed that the legal framework may be seen to be the core controller of the economic system. In addition, he argued that regulations exist to reduce transaction costs resulting in an increase in the level of trading. This amendment of the original framework implied that the core concepts of his original theoretical framework needed to be refined. Thus, he wrote:

> *What are traded on the market are not, as is often supposed by economists, physical entities but the rights to perform certain actions, and the rights which individuals possessed are established by the legal system* (Coase, 1994, pp.11).

Additionally, Coase (1988) said that for "anything approaching perfect competition to exist, an intricate system of rules and regulations would be needed."

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[25] Even though Coase (1994) emphasised the need for empirical research on the firm's fulfilment of contracts, few follow up on the implications of his work for creating non-prescriptive research on the agency problem.

Coase's later work is very important for the study of bank governance. It points to at least three areas where further research is required. First, bank governance research should not overlook the framework of regulation; second, bank governance needs to treat banks as a "concession" of the state because in an abstract and formal sense their powers can be seen to be derived from the rights granted by the government regulator. Thirdly, opposite to the case in normal firms, the aim of regulation in banks is not only the reduction of transaction costs to increase trading but also as a means of assuring greater confidence (reducing perceived risk), reducing moral hazard and ensuring "fair" trade (e.g. fiduciary obligations).

According to the above, the legal framework and specific regulation creates a qualitatively different context for the writing of contracts between the firm and the regulator (Williamson, 2002). Banks assume specific obligations to follow particular rules. If a bank disregards the rules, it can be punished. Secondly, the regulator has diverse means to assure that banks are honouring the rules. The regulator can punish banks at administrative, financial and/or legal levels. Thirdly, the regulatory framework constrains the conduct of the managers and owners. In general, the owner and manager must conform to the rules attached to ownership and management. Therefore, because bank owners and managers are required to accept the rules and obligations defined by regulation, this third "party" can be seen to affect the agency relationship between the principal and the agent. All of this implies that the control problem in banks is likely to be quite different than in other firms.

Regulation also shapes the relationship between firms and consumers, creating a distinctive nexus between them. In general, it is thought that regulation reduces the transaction costs for the consumers, especially with respect to information costs (Goodhart, *et al.*, 1998). In addition, because banks, as intermediaries, rely chiefly on the financial resources of depositors, the regulator has a fiduciary relationship with the banks' depositors. Thus, consumers expect that the regulator will not only ensure that the banks provide information about services, but also protect their savings. This fiduciary responsibility means the relationship between the consumer

and the banking firm is distinctive and qualitatively different the relationship between consumers and non-bank firms. Both of these relationships are central to bank regulation, because the regulator is obliged to act on behalf of interests other than those of the owner and managers (e.g. the public's interest as consumers, and their general interest in the safety and soundness of the banking system to which they have entrusted their savings).

It has been argued, that from a theoretical perspective, regulation makes governance in banks more complex than that of other firms. Due to the presence of the regulator, the agency relationships in banks are more numerous and further reaching in their governance implications. Because the regulator assumes obligations to the stability of the banking system as a whole, and acts as a fiduciary for depositors, the cost of governance failures can be borne by the regulator more than any other party. These distinctive features have two key theoretical implications. First, observed governance in banks will be different to corporate governance of non-bank firms and, second, the control problem theorised will require further theorisation.

2.5: Conclusions

The objective of this chapter was to elucidate the contexts that have given rise to the concept of corporate governance. It focussed on the socio-economic contexts in which the concept was originally theorised and the assumptions on which it relies. Three main arguments were advanced. Firstly, it was argued that the concept of control is culture specific, rather than an abstract-universal concept. This critique implies that any theory of the governance of any firm has to be located within the specific social-institutional context in which the firm operates (Popper, 1997). I have suggested that the mainstream concept of corporate governance has an Anglo-American approach to control and have argued that in financial management research this concept is captured by the agency theory.

Secondly, it was shown that previous empirical research in accounting and finance has been preoccupied with non-bank firms. Unless the standard theoretical framework of corporate governance is modified, it is not suitable for studying

governance in banks. The analysis of governance in banks requires that a third actor (the regulator) be integrated in a way that recognises their powers over the owner and managers are not reciprocal. Third, I argued that a comprehensive concept of control is required when analysing governance in banks; this more comprehensive concept is denoted by the term 'governance'.

The evidence in the chapter demonstrates that the limitations of the dominant perspective on corporate governance are severe enough to require construction of a more general framework. However, with Jensen's 1983 paper,[26] the prescriptive side of agency theory has constituted the main theoretical framework adopted in studies of corporate governance (see Shleifer and Vishny, 1997). In addition, extending the empirical scope of agency theory to include the study of industrial organisations[27] was part of a conscious plan on the part of its originators. By the beginning of the 1990's, agency theory emerged as the hegemonic paradigm in studies of corporate conduct in economics and financial management research (Armstrong, 1991). Thus, in light of the scale of both its stated ambitions and its observable influence, agency theory's influence on research is formidable, even though it appears to refer to a firm that no longer exists.

However, as Berle (1955) observed many years before agency theory was first proposed:

> *No one, it seems, has seriously undertaken to restate the actual practice of American capitalism as it has developed since, let us say 1930, describing its operations and results, and readjusting theories to conform fact* (pp.2).

In order to overcome agency theory's hegemony, more is required than cataloguing the limitations of its main theoretical formulations. Theory rises from

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[26] Jensen (1983) asserted that the theory of the agency "resulted in two almost entirely separated and valuable literatures that nominally address the same problem." He labelled the first as the "positive theory of the agency" and the second as the "principal agent"; both literatures address the contracting problem between self interested maximizing parties. He identified the principal-agent literature as mathematical and non-empirically oriented; the positive theory of the agency is identified as non-mathematical and empirically oriented.

[27] In Europe, it is used most commonly in industrial economics (Scherer and Ross, 1990).

methodological foundations, whether explicit or un-stated. To propose an alternative theory of governance one must establish: firstly, how the criticised theory was built (e.g. its methodological foundations), secondly, why that approach to theory building is a problematic basis for constructing a theory of governance, and thirdly, what does the theorist regard as an alternative approach to building a theory of governance? These issues are the subject matter of the next chapter, where the methodological basis of the proposed theory of bank governance is analysed in detail.

CHAPTER 3

THEORETICAL PERSPECTIVE AND METHODOLOGY

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3.1: Introduction

According to Crotty (1998), the theoretical perspective is the philosophical stance that provides the foundation of research methodology; it is a way of looking at the world, as well as making sense of it and the phenomena that we observe. Because it embraces our understanding of how we know, the theoretical perspective reflects the epistemology in which the research subject is embedded. In addition, the theoretical perspective implies an ontology, a view regarding what is meant by reality and how one envisions its structure.

The theoretical perspective of this dissertation is grounded in the views of Kuhn (1970) and Blaug (1992) who have argued that scientific knowledge should be regarded as paradigmatic rather than absolute. It is also informed by the work of Popper (1997) who distinguished between studies of the natural world and studies of the social world. In his, often over-looked, writings on the subject he emphasised that social phenomena should be studied in their social context (Popper, 1997; Popper, 1997a; Popper, 1997b).

The objective of this chapter is to elucidate the theoretical perspective that shaped the research undertaken, including discussion of the methodology adopted. Firstly, this elucidation involves a methodological critique of positivist research that details the reasons why the theories associated with it are unsuitable for studying bank governance. The focus of the discussion is agency theory because it suffers from the general failings of positivism, in addition to specific failings as a basis for a theory of bank governance: this critique is presented in the second section of this chapter. In the third section of this chapter, I present the theoretical perspective on how a theory of governance should be built. I propose a variant of post-positivism (interpretive structuralism) and discuss why it offers important advantages for building a more realistic theory of bank governance. Concluding remarks are made in the final section.

3.2: Critique of Positivist Research

Positivism refers to empirical studies of phenomena, especially human and social phenomena (Vogt, 1999): it assumes a view of scientific knowledge as accurate and certain (Crotty, 1998). Positivism claims that knowledge of events can be objective and neutral (free of values). From an ontological standpoint, positivism claims that it is possible to provide an objective view of reality because reality is independent of our interpretation of it. Positivists perceive society and human phenomena through a scientific grid that assumes the world is well organised and has regularities, uniformities and absolute principles (Crotty, 1998). As a methodology, it can be said that positivism restricts researchers to a view of the world that is rigid and absolutist. These characteristics of positivism arise from three main limitations: The failure to distinguish between methodology and method, the failure to attend to the issue of realism in assumptions and the bias towards an idealist ontological stance.

The main argument in this section is that positivist research reflects a rigid view of the world that claims to be objective and neutral. In financial economics and accounting, this methodology has led researchers to view the social world and social phenomena as certain and immutable. Moreover, positivist research has ignored arguments from leading researchers in their respective fields that have long demonstrated the need for realism in the underlying assumptions of any theoretical model (Coase, 1994; Coase, 1994a; Blaug, 1996).

The discussion in this section is conducted in two parts. The first part documents the general failure of positivist research in financial economics and accounting to distinguish between methodology and methods. The second part focuses on the specific methodological limitations of agency theory, as *qua* theory.

3.2.1 The Distinction between Methodology and Methods

In the mainstream of financial economics and accounting research, the terms method and methodology are frequently used as if they were interchangeable. Most authors use "methods of analysis" when they actually want to explain their assumed methodology (Frankfurter, 2000). Although methodology and methods are strongly

related terms, they have clearly distinct meanings. According to Frankfurter, one can distinguish between methodology and methods in the same way as one distinguishes between principles and tools. Blaug (1992) argued that methodology refers to the relationship between researchers' theoretical concepts and his/her conclusions about the real world not merely an elegant term for methods of investigation (Blaug, 1992).[1] He stressed that methodology is the way in which economists justify their theories, including the reasons why they prefer one theory to another. In contrast, the term 'method' refers to the *procedures* or *techniques* used to collect, gather and analyse data in light of research questions or hypotheses (Crotty, 1998).

The confusion of methods with methodology and the importance given to tools used to gather and analyse information have created a biased understanding of the nature of models. Blaug (1996) argued that it is often not recognised that most economic models are *qualitative* rather than *quantitative*. Attempts to establish numerical magnitudes, for what are qualitative concepts, often lead to results that blur the scope and competence of concepts. For example, the classical theory of supply and demand predicts the direction of changes rather than precise measures of the scale of changes. However, this lack of precise measures does not give scientific grounds to reject that kind of theory. Thus, to assume that a qualitative model leads automatically to a measurement model is a mistake.

Popper (1992) argued that quantitative methods are used in social sciences in fundamentally the same way as the natural sciences. Influences from natural science on financial economics and accounting may have contributed to the positivist tendency to over-emphasise method at the expense of methodology (Frankfurter, 2000). The possible influence from natural science on social science points out two

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[1] Coase (1993) in his Theory of the Firm (1937) also contributed ideas that emphasise the importance of the distinction between methodology and methods, this time with respect to the issue of theoretical assumptions. He pointed out that some theorists do not present their assumptions in an open way. Blaug (1996) added that losing sight of one's theoretical assumption encourages tautological reasoning or overstatement of the robustness of one's predictions. It is interesting that Putterman's reprinted edition of the Theory of the Firm (1991) omitted Coase's argument on the importance of presenting assumptions in a clear way.

issues that are relevant to this dissertation: the first relates to what methodology is from a philosophical perspective, the second concerns the claim that theory can be value-free.

The first influence from natural science is that in trying to use quantitative methods, positivist researchers do not view methodology as simply the philosophy of science applied to social fields (Blaug, 1992). They assume the notion of the "unity of science", taking for granted that natural and social sciences have a common logical and even methodological foundation (Giddens, 1995). Thus, positivist researchers do not evidence awareness that there are different stances in the philosophy of science and therefore diverse methodologies are possible. Economists, for example, have used the Lakatosian terminology more often than that of Popper and Kuhn. This is because Lakatos's discussion certified the methodology of mainstream work as associated with the scientific method (Marchi and Blaug, 1991). Moreover, these economists only claim Popper's view in the sphere of falsification, neglecting the Popperian notion of conjecture that is linked to it.[2]

The second effect of the influence of natural sciences is the claim that positivist theories are objective and value-free (Frankfurter, 2000). This claim is not only archaic, in light of the works of Blaug, Kuhn and others, it is also potentially damaging to the creation of new knowledge. This claim may conceal from the researchers themselves the actual value commitments implied in their prescriptions. As Frankfurter (2000) points out, Friedman's rigid views about what constitutes a theory and how theories are judged by their capacity to predict are not merely assertions but claims whose basis is entirely subjective.[3]

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[2] There is an unfortunate tendency to misrepresent Popper (1997a) as a positivist. While it is true that the criteria of falsification is at the heart of his arguments regarding the scientific method (Crotty, 1998), these criteria are only one part of his argument. In addition, Popper emphasised that discovery and conjecture are essential processes in knowledge production (Marchi and Blaug, 1991; Popper, 1997b).

[3] Friedman's argument that theory selection should be based on the accuracy of its predictions implies that economists have the mission to choose among competing theories rather than to create them. However, if economists only choose from existing theory, knowledge creation would be paralysed (Coase, R. 1994a).

Friedman relies on the apparent duality of fact and value such that this "knowledge is logically discrepant from the pursuit of moral aims or implementation of ethical standards" (Giddens, 1995). Thus, Friedman reflects an extremely naïve understanding of scientific knowledge, confusing the difference between descriptions and prescriptions, objective and subjective stances.[4] Prescriptions do not necessarily lead to a less scientific theory. As Blaug (1992) says:

> *Methodology is both a descriptive discipline –'this is what most economist do'- and a prescriptive one –'this is what economists should do to advance economics'* (pp.xii).

In other words, a positivist methodology will have both descriptive and prescriptive sides, even though positivist research does not appear to be aware of this. As a result, they confuse the descriptive side (objective) of a theory with its prescriptive side (subjective). This leads to theoretical and practical misunderstandings when they claim that a prescriptive theory is merely a descriptive theory.

This failure to distinguish between methodology and methods makes it difficult to evaluate positivist research. Implicit and often unrealistic assumptions obscure any theoretical limitations under a welter of so-called evidence. Clarification of theoretical assumptions and the nature of the models they generate are essential in the development of alternative theoretical approaches (Crotty, 1998). In addition, awareness of the descriptive and prescriptive sides of a theory can help to identify its theoretical pertinence and power to explain social phenomena (Popper, 1997).

3.2.2 Realism in Assumptions: A Critique of Agency Theory

Positivist research assumes that theories and their models are the result of a sort of abstraction from reality (Blaug, 1992). However, because the path of abstraction can rely upon highly unrealistic assumptions, the overall result can be a vision of the economic world that bears no relation to the real world (Crotty, 1998).

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[4] Specifically with respect to value-free claims, Frankfurter documents Friedman's own admission that: "Science is science and ethics is ethics; it takes both to make a whole man"(Frankfurter, 2000). If true, it implies that researchers, as whole men and women, create knowledge that reflects both their science and their ethics. Methodologically speaking, Friedman is implying that he knows how to

This is explicit in Friedman's position (1966), which assumes that the realism of assumptions does not matter. Friedman and others, such as Lucas *et al*., (1988), argue that theories should be judged, not on their realism, but on the basis of their capacity to predict. However, neo-classical economists such as Coase (1994a) dispute this view, arguing that it is far too extreme. Coase stated that realism in assumptions is needed if theories are to help one to understand why and how the economic system works as it does. Moreover, the lack of realism in assumptions led Coase (1994) to write:

> *Economists have uncovered the conditions necessary if Adam Smith's results are to be achieved and where, in the real world, such conditions do not appear to be found, they have proposed changes which are designed to bring them about.* (pp.4)

Friedman's focus on prediction has encouraged the privileging of limited sets of formal methods rather than the plurality of substantive theoretical approaches. As a result, positivist research defines new knowledge as only those results produced by the application of a limited set of formal methods.

Positivism's insistence that there is only one path to knowledge obscures researchers' understanding of economic events. More importantly, it gives a false impression regarding the processes whereby social scientific knowledge can be created. Thus, positivist research, when emphasising methods over theoretical principles, has forgotten that "The road from theory or law to measurement can almost never be travelled backward" (Kuhn, 1977, pp.197).[5] Agency theory illustrates the difficulties that arise in positivist research. Given its importance in theorising governance, agency theory deserves methodological attention. In the paragraphs that follow, the assumptions of this theory are analysed and their implications are discussed.

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separate the ethical dimensions of the knowledge created from the scientific ones; exactly how this is to be accomplished is very unclear.

[5] Kuhn (1977) emphasised that "Numbers gathered without some knowledge of regularity to be expected almost never speak for themselves. Almost certainly they remain just numbers" (pp.197-198).

As is well known, agency theory is concerned with a specific type of firm - the managerial firm or corporation - and abstracts from the particulars of this type of firm to establish a model of the firm in which there are two parties; the agent and the principal. Each party is assumed to act in accordance with their distinct, individual interests. Each party has a different position with regard to information about the firm. The agent has day to day control of the firm and the so-called "competitive market" is the main external means of disciplining the agent in favour of the principal's interests. This characterisation radically abstracts from the social context in which both managers and owners exist, eliminating everything from consideration except the hypothesised conflict of interest. As Ogden (1993) has put it, one of the major limitations of agency theory its is reliance on "...highly simplified model of the organisational conflict and the contrasting complexity of the mathematics required to provide to solutions to the agency problem...." (pp.180). In other words, the disparity between complex methods and overly simplistic assumptions makes the agency theory a non-pertinent socio-economic theory.

If the social context in which owners and managers act is one that includes social regulation (Amstrong, 1991), then the question is whether regulation has the aim of assuring individual interests or to create harmony and balance among individuals with different interests. Because there are diverse and different interests, it does not seem plausible to assume that any unique interest could dominate without objections arising from other individuals. Thus, the context of social regulation implies that individuals' interests are bound with the interests of others (Hodgson, 1993; Simon, 1974). We can call these the general, collective or public interests. The assumption of social regulation also means that there are implicit or explicit rules to balance and harmonize individual interests (Williamson, 2002). Agency theory selectively abstracts from the possible external rules that regulate relationships between individuals and chooses only to discuss the so-called free market.[6] This exclusion of almost everything except the market is not justified and the theory's emphasis on the

[6] Normally, neoclassical economics does not conceive the market in institutional terms. "It is assumed that the market has a prior existence, as an institution-free 'state of nature'" (Hodgson, 1993: pp.10).

market as the key means of disciplining the owners and managers stands as an arbitrary and unrealistic assumption.

Even though unrealistic,[7] agency theory asserts that the market is basically the external means the principal has of ensuring his/her interests are achieved; however, the agent and the principal act in different markets. According to Fama (1984), the principal has recourse to the capital market to fulfil his/her interest. Therefore, from an economic perspective, the principal acts in two markets: the market in which the firm operates and the capital market. By contrast, the agent acts in only one market: the managerial market. Thus, the principal can allocate his/her capital to a broader range of alternatives. At the same time, the principal can change the allocation of his/her capital faster than the agent can reallocate his/her human capital.

These arguments suggest that the relationship between the agent and the principal can be modelled in a different way than is done in agency theory. One can argue that the agent and the principal not only have a different functional relationship, but also that they have a broader relationship with the firm and its environment. Thus, according to Fama's view (1984), the principal is less committed to the future of the firm than the agent because the principal can re-allocate her/his investment in the very short-term. Fama argues that the agent will be more committed to the firm's future, therefore, one can say that one can say that the agent will be more strongly committed to the public regulation than the principal.

In agency theory, the principal and agent's interests are opposed to each other and this opposition seems to be irreconcilable (Jensen, 2000). The question is: why do owners put their capital in the hands of others that they cannot expect to control? This is a very odd view of the modern corporation. If the relationship between agent and principal is dysfunctional for the firm, then the firm could be expected to be

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[7] There are diverse philosophical approaches to the concept of realism. In modern philosophy, "it is used for the view that that material objects exists externally to us and independently of our sense experience" (The Encyclopedia of Philosophy, 1967: pp.77). Thus, it is opposite to idealism. In this dissertation, the concept of realism is used in a limited way, referring only to the empirical pertinence of the assumptions of a theory.

dysfunctional for the economic and social environment. In other words, *ceteris paribus*, agency theory implies that the firm is dysfunctional or that given the irreconcilable relationship at the core of the firm, it would not be expected to come into existence at all. Indeed, the only way to imagine a firm coming into existence would be to assume that the social context includes regulation that stipulates rules to govern the firm, and the relationship between the owners and the managers.

Thus, due to its unrealistic assumptions, agency theory does not create theoretical space for social regulation. Indeed, the theory ignores regulation as the observed means of governing the firm and the relationship between owners and managers. Additionally, regulation is not thought to affect the firm and the market within which it operates. Implicitly, agency theory assumes that market forces are almost the only external means by which the firm is regulated. However, researchers, such as Jensen (2000), appeal to public regulation (explicitly the law) to guarantee the agent's conduct in favour of the principal's interests. This appeal is made in light of concerns about the governance of the firm. The appeal to regulation is a clear sign that Jensen and others make another assumption that they do not make explicit: they assume that, at the end of the day, public regulation does exist and can be more powerful than the market. But even more important, regulation, explicitly the law, is thought to assist the principal's interest. Otherwise, the appeal to public regulation does not make sense. Thus, when discussing public policy issues they have a specific, implicit vision of governance that differs from the one deduced from agency theory.

From an ontological point of view, the determining characteristic of any theory is whether it assumes that reality exists *per se*, external to the individual's knowledge of it. Nevertheless, that ontological view cannot signify that there is a unique and immutable human behaviour within the firm, as agency theory does. In addition, it does not mean that human behaviour and social institutions can be explained without comprehensive considerations of their socio-economic context.

Lacking an appreciation of the socio-economic context leads agency theory to assume that its firm, the assumed individual behaviour and the identified market are real rather than heuristic devices. As Masten (2002) asserts, agency theory implicitly assumes the pertinence of its assumptions. Thus, the ideal firm assumed by agency theory is a heuristic device to establish a model that can explain the potential relationship between the agent and the principal, in a situation where the agent has unrestricted control of the firm. However, such a firm does not exist and can exist only as a heuristic device. [8]

This feature of agency theory conforms to Blaug's observation (1996) about tautological theories. As a tautological theory, agency theory cannot provide a scientific basis for explaining the observed relationship between the agent and the principal, both in the realm of the firm and in the realm of their relationship to the socio-economic environment. It cannot be the basis for a general theory of governance.

In the next section I present my approach to constructing a theory of governance.

3.3: A Post-positivist Approach to Theory Construction

The objective of this section is to present the methodological approach to constructing a theory of governance. The point of departure is to situate banks in their social context (Popper, 1997). The social context of banks includes social institutions (e.g. regulations) and social arrangements that may be established between the firm and the regulator. From there, the analysis will make as few assumptions as necessary and endeavour to make them as realistic as possible. Thus, the methodological approach is characterized by attention to social context (Popper, 1997) and realistic assumptions (Coase, 1994a). The approach aims to be more theoretically comprehensive and empirically flexible than the mainstream approach

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[8] Agency theory prescriptions do not appear to have resolved the contradictions it identifies between the principal and the agent. In 1980, Jensen and Meckling predicted "[T]he corporate form of organisation is likely to disappear completely....the larger corporations....are destined to be destroyed" (Jensen and Meckling, 1980). After more than 20 years that audacious prediction has not been fulfilled.

to governance. My approach adopted in this dissertation follows Popper's view (1997) that the scientific method in social science can be summarized as the movement from problems, to theories, to criticisms, to the identification of new problems.

Thus, the research starts with the problem of the Mexican banking crisis. The banking crisis indicated that managers and owners had not properly controlled bank operations. Therefore, one aspect of the crisis was corporate governance. Then, I analysed the dominant theoretical framework of corporate governance research. This led to the criticism that agency theory excludes regulations as an essential feature of bank governance. Now, I propose a different theoretical approach to the governance of banks, which will bring to light new problems, new criticisms and so forth.

As an evolutionary step, from how we know what we know, post-positivists assume reality is never entirely apprehended. Thus, post-positivism relies on multiple methods to capture as much of that reality as possible (Crotty, 1998). In the post-positivist stance, probability, relative certitude and objectivism are considered both *feasible* as well as *reasonable* characteristics of our epistemological possibilities (Crotty, 1998). A sort of limited knowledge appears to be a reasonable assumption, when a researcher tries to explain social phenomena. Because social theories are not judged as absolute and immutable principles, they have only limited powers to explain socio-economic phenomena and predict future changes.

From a post-positivist view, social theories are grounded in scientific paradigms, which are the basis of so-called normal science (Kuhn, 1970). Because theories have a degree of certitude, scientists are in a permanent process of conjecture and falsification to create social-scientific knowledge (Popper, 1997b). Therefore, one can expect that the current paradigms will give way, making room for new social theories to explain current or new social phenomena.

In the first part of this section, the firm, in its social context, is discussed in light of a post-positivist methodology. In the second part an integration of the institutional environment to study governance is described. In the last part I explain my methodology perspective on theorising governance.

3.3.1 The Firm in Its Socio-Economic Context

It is readily observed that in each country there are types of business conduct and public regulations that vary according to the economic system and the legal tradition (Ogus, 1984). This evidence implies that policy-makers in the past (and present) thought that regulation would serve some general purpose or function to society as a whole. In addition, it is readily observed that the pattern of regulation in a country is contingent on its specific history and economic evolution (Tricker, 1984; McCraw, 1984; O'Sullivan, 2000; Stigler, 1986; Cheffins, 2001).

The banking sector reveals some important exceptions to this observed cross-cultural variability in regulation. Public regulation is a transcendental feature of banks and banking systems throughout the world (Visentini, 1997). The evidence of the ubiquity of bank regulations implies not only that regulation is deemed to serve specific national purposes, but that it also seems to serve purposes required in all contemporary societies. This leads to the conjecture that there are some functions served by banks that require protection by a regulator or alternatively, that banks pose some danger or threat to the general interest that a regulator is required to prevent (e.g. systemic risk, protection of depositors). It is possible to say that regulation devoted to protect the public interest is a transcendental feature of how banks are governed. Therefore, from a methodological perspective, realism in assumptions dictates that regulation has to be integrated in any theory of bank governance.

The proposed approach can be contrasted with that of positivist research on corporate governance. In the positivist paradigm, studies of corporate governance begin with a normative vision of how internal governance ought to be conducted (e.g. the agent must be disciplined to ensure the principal's interests are served).

This normative vision is derived from an abstract model of a type of firm in which the principal's interests cannot be guaranteed (e.g. if the owners are dispersed, managers have information that the owners do not). The model is constructed in a way that implies there is only *one* key external means of governance available to discipline the agent: free or competitive market in goods/services, capital and managerial labour. Given the approach to theory building, any further analysis requires that this *conjecture* be verified empirically.

The type of firm assumed by agency theory dominated the US economy from the beginning of the 20^{Th} century until the early 1960's (Berle and Means, 1932; Berle, 1960). Berle identified a new type of corporation in which institutional investors concentrated ownership, even though legally speaking they are not proprietors. Thus, Berle argued that from the point of view of control, in many cases ownership was no longer dispersed. Recently, O'Sullivan (2000) verified the continuing relevance of Berle's conclusion, as does the work of many others[9] (Pinto and Visentini, 1998). In the UK, the re-concentration of ownership has also been documented (Leader and Dine, 1998) and the role of institutional investors in governing corporations was an important issue addressed in the Cadbury Report (1992).

Therefore, the conjecture of agency theory that dispersed ownership creates the main modern corporate governance problem is not empirically supported. Given my approach to theory building, this lack of empirical support for the claim that the main corporate governance problem arises from dispersed ownership, leads me to analyse the governance of the firm, in this case banks, from other theoretical perspectives.

The evidence restricting the pertinence of agency theory illustrates the dynamic nature of modern societies; changes occur in economic and social arrangements and these changes create a new context for theory and for governance itself. Just as evidence of change led Berle (1960) to revise the views he put forward in his 1932

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[9] O'Sullivan (2000) said the relevance of institutional investors as controllers of corporations was the result of changes in regulation, specifically changes in the regulation of financial firms.

work with Means (Berle and Means, 1932), so too will further changes in the modes and patterns of ownership and regulation give rise to new perspectives on corporate governance. Because the creation of knowledge is a sort of destruction and creation of paradigms, to try to establish a more realistic view of governance contexts can contribute to a more pertinent theoretical approach to the subject.

3.3.2 Integrating the Institutional Environment

In integrating the details of the institutional environment, the approach to theory building requires that it be done in a realistic and functional way. It is possible to draw upon the work of North (1991, pp. 97), who describes institutions as "the humanly devised constraints that structure political, economic and social interactions". Thus, in theory building, institutions can be treated on two levels: (i) the informal level which consists of informal constraints such as customs, taboos, code of conduct, and so on, and (ii) the formal level, which includes formal rules such as constitutions, laws and property rights. The formal level includes not only specific rules and regulations, but also sets of procedures devised to detect deviation from them. It is judged in this dissertation that this second level is the most important in developing a theory of bank governance, not because the informal level is not important, but because the focus is to theorise changes at the formal level.

According to the above, realism requires that rules and regulations are integrated in the theory at two levels: (i) at the level of the institutional environment (e.g. legislation, regulatory enforcement) and (ii) at the level of institutional arrangements between units (e.g. corporation and individuals) (Davis and North, 1971). From the standpoint of theorising bank governance, it is especially important to identify how rules and regulations connect banks, as business units, to the banking system as a whole. If one assumes that banks operate within a specific national banking system, it is expected that the *institutional environment* will shape *institutional arrangements* at the level of the banks themselves.

According to the above, the institutional environment matters and is important in explaining how banks are governed. Thus, integrating regulation into a theory of

governance requires that changes in the institutional environment be identified and analysed. This can be done by incorporating a historical dimension to the study of systems of bank governance. This means that changes in regulation and institutional arrangements are highlighted and attention is paid to the sequence in which such changes occur.

It is readily observable that business corporations are at least subject to some public regulations such as laws, administrative rules and legal and statutory frameworks. Even in those markets that some researchers and practitioners regard as *free markets*, one usually finds a significant degree of regulation. For instance, in the financial markets, what is traded, when it is traded and by whom it is traded are all defined by regulation (Coase, 1994). It is also readily observable that from time-to-time the extension and coverage of public regulation will change. These changes can be the result of new, alternative products and services that make the existing product or service market less competitive (McCraw, 1984), or because social preferences toward regulations change (Stigler, 1986). These observations imply that when regulations change the system of governance may change. Thus, theory-building needs to consider regulation from a dynamic perspective, one that can accommodate changes in the institutional environment arising from changes in the underlying structure of the socio-economic environment (Williamson, 1993).

The view that different national systems of corporate governance seem to be converging to the Anglo-American system (Pinto and Visentini, 1998; O'Sullivan, 2000) ignores the relevance of these diverse institutional environments as structures. According to Williamson (1993), if one accepts that institutions matter, one can say there are two sorts of rigidities in the dominant approach to research on corporate governance. First of all, it cannot be assumed that firms and markets operate everywhere in the same way. Secondly, it cannot be assumed that public regulation everywhere can be ignored. Indeed, the perspective assumed in this dissertation emphasises that differences in national institutional environments (including regulations) generate differences between *national* systems of corporate governance.

3.3.3 Methodological Perspectives on Theorising Governance

The methodological perspective adopted in this dissertation is summarised by Denzin and Lincoln (1994) as follows:

> *Post-positivists argue that reality can never be fully apprehended. Post-positivism relies on multiple methods as way of capturing as much of reality as possible* (pp. 5).

A characteristic feature of post-positivism is its acceptance that systematic knowledge of the social world is paradigmatic rather than absolute (Kuhn, 1970; Marchi and Blaug, 1991). Theorists, therefore, have to be sensitive to the difference between the context in which theories originated (Popper, 1997) and the social world to which they are applied. Theorists have to be sufficiently alert to a theory's limitations in its capacity to explain observed social phenomena. In this sense, this research is evidence based and attempts to be as objective as possible, accepting that, as with any approach, there will be theoretical limitations.

With respect to modern financial economics, at a theoretical level, the dissertation is firstly concerned with syntactic issues (the internal logic of my theoretical perspective) and secondly, with semantic issues (the conditions for validation of my structural approach to governance in banks). Thus, according to Manning and Cullum-Swan (1994):

> *Structural explanation seeks to identify and array the units in a system to discover the deeper relationships or pattern(s) underlying an event or series of events* (pp.467).

Therefore, the paradigm of social theory that most closely characterises the dissertation is interpretative structuralism: this means that while any individual piece of research is an act of interpretation, the object researched exists *per se*. This stance is consistent with a realist-ontology.

According to Stake (1994), the research can be classified as an *instrumental* case study, because it aims to use insights gained from study of a particular case in order to construct a theory. In this dissertation, the case of Mexico is regarded as a typical case of governance in banks. It includes the main structural factors at work in banking crises occurring in many countries in the 1980's and 1990's. The case study

in this dissertation synthesises empirical evidence related to governance and the banking crisis in Mexico. Thus, as an instrumental case study, it is hoped that evidence from Mexico can shed light on the general features of the interaction between any system of governance and the occurrence of banking problems after reforms of the financial system.

According to the theoretical approach adopted, regulation is expected to be an active part of any system of corporate governance and to be a *formal* participant in it. This means regulation is, from structural standpoint (Vogt, 1999), a formal participant in a specific system of governance. Thus, from a social standpoint, governance structures exist as the organising centres of social action (Manning and Cullum-Swan, 1994). In this perspective, individuals (as owners and managers) and institutions (as firms and the "regulator") are deemed to be manifestations of the elements and rules created by social structures.

When applied to theorising governance, this structural approach treats the governance system as the organizing centre of the actions taken by owners, managers, other market actors and the regulator. Individuals and institutions are treated, in the methodological sense, as bearers of the rules underpinning the institutional environment, rather than as personalities. Obviously the personalities of the owner and manager of a specific bank and the personality of the bank's regulator are important, however, they are important for a different level of analysis proposed in this study. Here the level of analysis is the system of governance and how it works as a system. Thus, by treating the three main actors[10] (managers, owners and regulator) as bearers of the rules, each according to the interests they aim to serve (private or public), it is able to identify the features of any system of governance that transcends the personalities of the actors in it. This is because in any system of governance the structural role of the regulator is to protect the public interest, which includes the protection of the banking system as a whole and the wealth of depositors.

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[10] In this dissertation, "actors" and parties are used interchangeably.

Methodologically, the relation between the actors in the system is conceived as a dynamic one because the regulator observes the conduct of owners and managers. Also, the owners and managers make decisions in light of the regulator's power and conduct. Thus, the system of governance is conceived as operating in a dynamic way, reflecting the interaction of its mains actors. It is also dynamic because it is subject to change, depending on changes in the institutional environment. Thus, for example, if governments introduce changes in the regulatory framework, the conduct of owners, managers and the regulator will change accordingly.

3.4: Conclusions

Two main principles inform the approach adopted to building a theory of governance. The first is that social phenomena have to be contextualized in order to establish whether it is a typical event, rather than a particular or singular one (Popper, 1997). The second is that theoretical assumptions should be explicit and realistic (Coase, 1993; Coase, 1994). If these two principles are observed, there is a better chance that the theory developed will be able to explain social phenomena (Coase, 1993b). In the case of the concept of a structure of "system of governance", it is possible to find immediate empirical correlates in previous research - correlates that a great deal of agency theory research ignores.

For example, public policy debates have stressed the importance of applying codes of conduct, legislative enforcements, legal rules, and so forth. In other words, these debates concern regulation as a force of governance. It is also possible to point to research that has emphasized regulation related issues as key factors in establishing differences between diverse systems of governance (Charkham, 1995; O'Sullivan 2000; Cheffins, 2001; Pinto and Visentini, 1998; Prowse, 1994; OECD, 1998). Thus, realism in assumptions and attention to socio-economic context are seen to enable the construction of theory that explains the debates on governance.

The methodology adopted in this dissertation also enables insights into the seemingly contradictory positions taken by leading proponents of the agency theory approach to governance.

For example, Jensen (2000) asserted:

> *Laws and regulations enacted since the 1930's have effectively put most of the power in the hands of management, frequently at the expense of the interests of the owners of the corporations* (pp.9).

Thus, on one hand, agency theory ignores regulation, but on the other, regulation is invoked as one source of solutions of the so-called agency problem. This inconsistency reflects lack of attention to the full range of neo-classical economists' view of regulation. For example, Stigler (1975, 1975a) argued that regulations are promoted by corporations in order to obtain gains for themselves. Haid (2001) added that corporations join together to form interest groups and both argue managers and owners propose, advocate and lobby for regulations that are in their interests. Thus, it is possible the say that regulation is implicated in the governance of firms.

Because theories reflect the socio-economic context in which they are created and because knowledge of the social world is paradigmatic rather than absolute, I have argued that post-positivism is a more appropriate methodology to develop a theory of how the firm is governed, especially banks. I have stressed the ubiquity of bank regulation and proposed a way of integrating regulation in a theory of bank governance.

The essential aim of any science is not only to develop theories that offer meaningful insights into social reality, but also explain social phenomena (Popper, 1997). Nevertheless, researchers and theorists have often forgotten that the lack of realism in their theories can lead to more prescriptions about reality than explanations of it (Coase, 1988), as though the object of theory is to fit reality into an imagined utopia implied by a particular model. This is the reason they often propose reforms designed to bring about the necessary conditions of their imaginary world (Coase, 1994).

In the next chapter of the dissertation, I present my theory of governance of banks.

CHAPTER 4

A THEORY OF BANK GOVERNANCE

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4.1: Introduction

In previous chapters, it was argued that agency theory of corporate governance was prescriptive and idealistic. I argued that to build theories of how firms are governed, a different methodology is required; one that integrates the institutional contexts in which corporate control is exercised. In the case of banks, this meant integration of the institutions of regulation, since these are a condition of the existence of banks. This chapter presents the theory that resulted from using that methodology.

The proposed theoretical framework stipulates that the structure of bank governance consists of two main *forces* of governance: the internal forces, comprising the private interests of owners and managers, and the external forces, comprising the public interests served by markets and regulation. The dynamic interaction of these forces of governance can be sketched as follows. In commercial banks, regulation aims to prevent systemic risk, therefore, regulations can impose both preventive and protective measures to constrain the conduct of bank owners and managers, as well as the disciplinary power of market forces. The regulator's responsibility for protecting the banking system creates a risk-sharing relationship between the bank owners and the regulator, as "lender of last resort". This risk-sharing relationship is a crucial characteristic of governance in banks and follows from the fact that the regulator can always be relied upon to provide liquidity (e.g. underwrite the costs of imprudent risk taking by banks) to prevent the collapse of the banking system *per se*. Because governance, as a comprehensive concept of control, is constituted by the dynamic interaction of external and internal forces, changes in regulation have the capacity to change the system of governance and thereby provoke (or prevent) banking problems.

By integrating the institutional context in which bank owners and managers act, the theory links corporate governance (a microeconomic concept of control) to bank system maintenance (a more comprehensive concept of control). This concept of governance permits the integration of both theoretical and empirical research on

corporate conduct and on systemic risk[1] (OECD, 1995; De Juan, 1996; Davis, 1995; Lindgren, *et al.*, 1996; Polizatto, 1992).

This chapter, apart from this introduction and conclusions, has three main sections. In the next section, the essential elements of theory are outlined. The argument is made that a system of governance will reflect the importance assigned to external and internal interests by the particular society studied. Of particular importance is the balance between the disciplinary powers of market forces and those of the regulator. In the third section, the effects of regulation on bank governance are analysed, stressing its power with respect to market discipline and the nature of the public interest that justifies its presence. In the fourth section, the possible effects of changes in the system of governance as result of financial reform are analysed highlighting their potential to provoke banking crises. This fully elaborated theoretical framework establishes that any observed system of governance will be characterised by different levels and distributions of systemic risk (Zingales, 1998) and identifies the empirical materials relevant to studies of governance and banking crises. Conclusions are presented in the last section.

4.2: The Main Elements of the Theory

The governance of any bank reflects the influence of two types of governance forces: those that are external to the firm and those that are internal. Each force embodies both sets of interests that banks are expected to serve; the private interests of actors who direct the firm (managers and owners) and those of institutional actors with power to discipline the conduct of the firm (e.g. the market and the regulator). At an abstract level, one can view the effect of any system of governance as reflecting the joint outcome of the conduct of the actors as they pursue their associated interests. Thus, the internal force of governance is constituted by the pursuit of the private

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[1] The chief features of systemic risk are well known: runs (unexpected withdrawal of deposits), unexpected and rapid reversals by securities holders, excessive volatility in the foreign currency market and generalised symptoms of panic amongst financial asset holders (Sundarajan and Balino, 1991). The desire to prevent such episodes is the main rationale for national regulation, and the fear of

interests of the bank's owner on one hand, and the bank's managers (the principal's agent) on the other. This internal force will be evidenced in the procedures defining conduct, organisational processes for making decisions, contracting rules concerning salaries, bonuses, structures on financing investment and so forth.

External forces can be said to be pursuing the public interest in the conduct of the bank (e.g. depositors' interest, financial stability) where, apart from the market, the main external force of governance is public regulation. This includes, not only general regulations affecting the conduct of all corporations, but also the specific legal framework, administrative requirements, codes of "best practice", and so forth, directed at the conduct of bank corporations. In general, governments and public bodies define the most binding external forces of governance and I will use the term *public regulation* to refer to this set of super-ordinate powers. Because public regulation affects both the market (as a force of governance) and the firm, they are concerned with both public and private interests. This means that in a very abstract and general sense, public regulation constrains or shapes the owner-manager relationship, since it defines many of the parameters of the control problem that corporate governance system aims to address in any firm.

Additionally, even though relationships between owners, managers and employees are regulated in a general way (e.g. by the legal framework and the law), the specific scope and nature of these regulations depend on the nature of the firm, particularly the type of charter or license required for it to conduct business (Scott, 1993). In the case of banks, the specific character of a bank charter (Gorton, 1994) can affect the relationship between the agent, principal and bank employees as well as the relationship between the bank and its clients (e.g. depositors and borrowers).

Any observed system of governance reflects the relative importance assigned to external and internal interests of the firm. Thus, should the interests privileged by

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contagion through global systems of intermediation is the main rationale for international efforts to regulate.

society be private ones, we would expect the market to be relied upon as the main external force of governance. This is illustrated in the powers assigned to the market by agency theory where such an imagined society is idealised. On the other hand, if the public interest is privileged, it implies that the regulator is expected to act as the main external force of governance.

Ogus (1994) explains that regulation is fundamentally a *politico-economic concept*. He identified two regulatory systems: the de-centralised and the centralised system. Each of these systems is associated with two systems of economic organisation: the market system and the collectivist system. In the market system (e.g. the U.S. and the U.K.), individuals and groups are subject to certain constraints to pursue their goals. Here, the legal system underpins individual arrangements, predominantly through instruments of private law. In the collectivist system (e.g. Germany and France), the state seeks to encourage behaviour to meet collective goals and public laws have a directive function. Thus, I have identified two types of governance system: the centralised and the de-centralised system. In the centralised system the external (public) interests of the firm are privileged. In the de-centralised system, the internal (private) interests of the firm are privileged.

A *coherent* system of governance can be defined as one in which the means provided to the various parties (e.g. laws, rights, procedures) enable achievement of the desired ends. In systems that privilege private interests, the means to act accordingly will be "safeguarded" or assured by the regulator (e.g. laws, administrative requirements). An *incoherent* system of governance will be one in which the means provided to each of the relevant parties will be insufficient or contradictory, making it difficult or impossible for the actors to achieve their desired ends.

If we accept that actors internal to the firm have considerable scope to define means to achieve their ends (rules, procedures, etc), in light of the socio-economic context in which they act, an incoherent system is more likely to be the result of defects in the structure and powers of the regulation. In the case of banks, research identifies

characteristic problems arising from both over-regulation and under-regulation (Eatwell and Taylor, 2000; Stigler, 1986; MacCraw, 1984; McKinnon, 1993). Over-regulation may constrain market forces so that the short-term interests of owners and managers are adversely affected, as well as the public interest (e.g. by financial repression) (McKinnon, 1973; Fry 1995). Under-regulation enables the firm to maximise their private interests, but at the expense of the public's interest in a safe and sound banking system (e.g. rationing credit) (Stiglitz and Weiss, 1992). Both cases evidence a defect in the structure of governance because each reflects an incoherency between the stated aims of the respective parties and the means provided to achieve them.

The proposed theoretical framework establishes a comprehensive concept of control that is not restricted to a specific historical and national socio-economic context. For this reason, it is regarded as a more pertinent framework for empirical studies of bank governance. A greater realism arises from the framework's capacity to incorporate empirical evidence into the actual conduct of the main institutional actors in any system of governance.[2]

As a result of its history and economic-business culture, each country has a specific sort of corporate governance and diverse methods of corporate control (Prowse, 1994). It is acknowledged, however, that within these diverse modes, the government and regulatory bodies play an important role in shaping corporate conduct (Charkham, 1995; Cadbury 1998). In this context, laws and governmental regulations are considered to be a sort of guarantor of interests external to the firm (Cadbury Report, 1992; Shleifer and Vishny, 1997). For instance, the Cadbury Report (1992) stresses the super-ordinate powers of the regulator[3] writing:

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[2] For instance, O' Sullivan (2000) explains why in the U.S. during 1950-1960, as a consequence of legal restrictions, mutual funds had advantages over other institutional investors to hold corporations' equities.

[3] According to Ogus (2001), because the rights of regulators emerge from public law, it is reasonable to conclude that public regulation embraces not only the regulations but also the laws underpinning them. The importance of the law, from a regulatory standpoint, can be seen in the rights granted by the regulator to bring which into existence firms such, as banks, insurance companies, etc.

> *If companies do not back our recommendations, it is probable that legislation and external regulation will be sought to deal with some underlying problems which the report identifies* (pp.12).

Additionally, the Report recommended that legislation be introduced to establish the duty of the auditor of regulated firms to report fraud to the authorities.

Thus, previous policy research underscores the importance of the socio-economic context. In light of this, *governance is defined as a system composed of internal and external forces that control the conduct of firms, according to diverse and distinctive interests*. This is a simple but more comprehensive concept of control than proposed by mainstream theory and serves as a starting point for developing a general theory of governance that may be applicable to most countries and cases of banking crisis.

4.3: The Effects of Regulation on Governance in Banks

The analysis in this section proposes that regulation can be expected to have at least four effects on corporate governance in banks. Firstly, the existence of regulation implies the existence of an external force of governance, independent of the market; this will affect the conduct of both owners and managers. Secondly, because the market in which bank-firms act is regulated, regulations create an explicit force of governance on the firm itself. Thirdly, the existence of both the regulator and regulations mean that market forces will discipline both managers and owners in a different way than that in "unregulated firms". Finally, the regulator's responsibility for preventing threats to the safety and soundness of the banking system as a whole will place him in a risk-sharing relationship with the owners of banks. This is discussed below.

4.3.1 Regulation as an Independent External Force of Governance

In the conventional literature on corporate governance (see Keasey, *et al.*, 1999), the market is deemed to be the main external governance force with the power to discipline the agent and the firm as a whole. However, as argued, the existence of regulation is a condition of existence of banks, which means bank governance includes an additional, external force with powers to discipline the agent and firm.

The powers of the regulator have different origins (and parameters) to those of market forces and will therefore have different effects on the conduct of owners and managers. Moreover, banking regulations in particular are framed by law and have a precise, determinate institutional existence: specific powers are granted while others are not. Thus, there are two main issues to be discussed: the governance implications of formal regulation and the issue of regulation to overcome market failure.

Governance implications of regulation

Bank regulation has a formal and institutional character, normally associated with a legal nature. This character has three implications for how banks are governed. First, bank regulation reveals the existence of interests separate and distinct from the private interests of the firm (Dewatripont and Tirole, 1994). As a governing force, regulation intends to serve the public interest, particularly the interest of banking service consumers. Regulation itself is enforced by an "agent" of the public interest (the regulator)[4] who does not have any contractual relationship either with the principal or with the banking organisations. This "agent" has an interest distinct from the interests of the principal and its agent. For this reason, the relation between the regulator, the firm and its owners is usually modelled in economics as a policy relationship.[5]

Secondly, the effects of regulation are open to empirical verification; the means, instruments, actions and prescriptions can be subject to tests of any set of behavioural hypotheses (Stigler, 1986). Research can identify behaviours originating from regulation, rather than generalised processes of market competition.

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[4] The term, public agent, is defined in law as "An agent of the public, the state, or the government; a person appointed to act for the public in some matter pertaining to the administration of government or the public business" (Black's Law Dictionary, 1951).

[5] The hypothesis of regulatory capture in some industries is widely used in political science and certain strands of industrial relations theory (Stigler, 1975; Stigler, 1975a; Becker; 1985). It may very well be the case that bank regulators are captured (substantively subordinated) by actors in the banking

Thirdly, whether banks act in accordance with regulations is something that can be known by the agencies responsible for bank supervision. As a result of having information that markets do not have, the regulator can intervene more quickly than the market to "discipline" owners and managers (OECD, 1998a). If there is appropriate supervision, the regulator can be expected to act on technical information that is superior to any available to the market (Coase, 1993a). Indeed, the information held by the regulator concerns not only individual banks, but information on the soundness of the system they constitute; otherwise, the regulator could not act to prevent systemic risk. Since the structure of governance normally implies access to superior knowledge of the banking system, a central concern of bank governance will be the possibility of moral hazard arising from defects in supervision or defects in the ability or willingness of the regulator to act.

There is another implication of great importance to governance. The fact that regulation is the result of a super-ordinate legal mandate from government, regulation limits the power of the market *per se*. Regulation may have statutory powers to license or charter banks (e.g. define the conditions of existence of banks), meaning the very existence of a bank arises from a charter approved and provided by the regulator (Gorton, 1994). Thus, the character of the charter legally defines, not only the relationship between the regulator and the bank, but also the relationships internal to the firm (e.g. between agent and bank principal) (Coase, 1993a; Scott, 1993; Masten, 1993).[6] Greater realism in the analysis of corporate governance in banks is achieved only when the possible effects of regulation are acknowledged.

Regulation: The public interest in financial stability

At the most general level, regulation of banks is associated with the resolution of market failure in provision of financial stability: whether specific regulations fulfil this function or not, their existence necessarily alters, not only the parameters of

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industry. Research emphasising such arguments has a different focus to the one being made in this dissertation.

[6] Coase (1993a) said that "The relationships which constitute the firm...correspond closely to the legal concept of the relationship of employer and employee" (pg.56).

competition between banks, but also the nature of the market itself. However, the characteristic limitations (restrictions) imposed on banks are not concerned solely with market structure as such (e.g. the license or charter as a specific barrier to entry). Their aim, therefore, is not merely to promote competition (Visentini, 1997). Indeed, in light of the constraints imposed by bank regulators, in many countries the opposite effort is made to restrict competition in order to reduce systemic risk. Restrictions on competition for banks may also be justified in the domain of economic policies (e.g. to promote economic development with banking considered a strategic actor in an overall programme).

Of course, the disposition of regulatory power will rarely occur without reference to, and consideration of, policy issues such as market structures, business processes and concerns articulated by both the market actors and individual firms (Vittas 1992; Vittas, 1992a). Nevertheless, it is expected that the public interest will be the overriding governance consideration in the deliberations of the regulator (Visentini, 1997). Thus, restraint of competition can take the form of regulations that constrain price as well as those that seek to limit new entries. It may include regulations that prevent mergers, acquisitions, and takeovers (OECD, 1995). Equally, regulations on the labour market often establish minimum personnel qualifications, such as requirements for formal references and other evidence of the reliability of persons considered for management positions within a bank. In general, regulators only promote these expressions of market discipline when they are deemed to assist in reducing system risk.

The formal presence of a regulator, and the legal definition of its actions, implies an effect that completely undermines the conventional view of the market: i.e. that it will function as an external force of governance in the same way it does with non-financial firms. Indeed, following up on the argument of Visentini (1997), a central feature of structural governance of banks is that "the banking and financial markets take on the characteristics of administered markets" (pp. 175).

4.3.2 Regulation, the Public Interest and Banks

Agency theory focuses on the interests internal to the organisation that are fulfilled in the context of one external interest: the market. However, as it has been seen, in the banking firm, there is another institutional interest: the regulator. The regulator plays a particular role in safeguarding the system by intervening to impose controls which will prevent individual banks facing financial problems. They do this to prevent systemic risk. This fact profoundly alters the nature of the financial obligations bank owners assume as owners. Thus, there are two main issues respect of the owners of banks: the public interest in banks, and the risk-sharing relationship between owner and regulator. The implications of the fact that the regulator shares the owner's risk are discussed under the following two headings.

External interests in banks

Thus far, I have used the term "public interest" to refer to the interests served by the regulator; one could also use the term "general interest" although neither is entirely satisfactory. Conventionally, the literature on banking regulation refers to the public's interest in a safe, sound banking system in order to emphasise the regulator's responsibility to protect both bank clients, and the economic system as a whole (Polizatto, 1992; Talley and Mas, 1992; Lindgren, *et al.*, 1996). Ogus (1994) emphasises that the regulator is expected to act as an agent of the public interest. In the case of banks, the regulator's duties are to protect depositors' wealth as well as overall financial stability (OECD, 1995; Goodhart, *et al.*, 1998). Thus, even though there are interests associated directly with the specific bank services (e.g., deposits), there are wider interests not associated, in an immediate and direct way, to the maximisation of bank profits or owner's wealth. The regulator's mandate is to protect these wider interests, as well as bank service-related interests. This has a profound effect on how the interests internal to banks are constructed.

The regulator's mandate implies a wider range of potential conflicts of interest.[7] Thus, in bank corporations a manager (the agent) is required to attend not only to the owner's interest, but also the public interest. The regulator imposes external governance requirements on bank managers through administrative rules, ordinances, and in some cases direct limitations on conduct. This means that in banks, managers expect to be monitored by the regulator. If a manager does not act in conformance with regulations, he or she can be disciplined through extra-market actions, including the possibility of being excluded from employment in the sector altogether. However, regulatory actions may not only affect the specific manager disciplined, but also the overall system. This is because they create a need for other banks to consider the implications of the regulator's enforcement of regulations.

The above implies that bank managers must act with regard to both the private interest of the owners, and the public interest. Managers must ensure that behaviour beneficial to the bank's interest does not compromise the public interest. Given the super-ordinate powers of the regulator, this implies managers are monitored such that they follow rules subordinating owners' wealth maximisation to the public interest. Thus, there are two direct pressures on managers: one from the regulator, as an external force of governance, and the other from the owners, as an internal force of governance.

Regulation and asymmetric risk sharing

A centrepiece of shareholder corporate governance theory is the proposition that the owner's interest may be affected by the self-regarding actions of their agents. The owners are thought to bear the cost of risks taken by the agent. Thus, as contingent claimants, shareholders are said to bear all of the business risk that the firm faces in its everyday operations. Therefore, one of the main objectives of corporate

[7] One can say that firms related to "public services", like water supply and electricity, also have a potential conflict between private and external interests. In general terms it can be argued that the more the importance attached to the public's interest in the service or good, the more likely regulation will be invoked to control corporate conduct. Examples in the UK include water companies, gas, electricity companies and the railways - all of which face important regulatory controls.

governance studies has been to prescribe decision structures aligning the agent's interests with those of the owners.

In banks, the governance prescriptions are different. Firstly, it is different because banks, as financial intermediary firms, finance their activities with customer deposits. This means that bank risk not only involves owners' capital, but also other people's money: this increases the risk of moral hazard (Jensen, 2000).[8] Secondly, bank governance differs because regulation is concerned first and foremost with systemic risk. Regulation applies policy instruments deemed effective in limiting systemic risk; of these, acting as "lender of last resort" and insuring customer deposits are the most prominent.

Nevertheless, the presence of lender of last resort facilities and deposit insurance, places bank owners in a risk sharing relationship with the regulator. This is because, however risky the conduct of an individual bank, the regulator will intervene to protect the overall system. Thus, the business' risk, which would be totally borne by shareholders in ordinary firms, is only partially assumed by bank owners. Of course, in ordinary firms, creditors and other commercial entities take some risk with the firms they do business with (Stiglitz, 1985). However, because of the risk-sharing relationship, bank owners ought to be willing to assume much higher levels of risk than owners of unregulated firms. Indeed, and perversely, excessive risk taking in lending is the most rational course of action by bank firms precisely because it is, in a sense, a one-way bet. If the risk taken leads to a very high return, the profits go only to its owners. If, on the other hand, the risks taken result in a bankruptcy that is perceived to threaten the system, the regulator will bail out the bank's owners.

In some banking literature (Mishkin, 1992; Dowd, 1996), it is emphasised that some banks are "too big to fail". Regardless of their risky behaviour, they are bailed out

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[8] According to Jensen (2000, pp. 2), "Although the entities of the bearers of residual risk may differ, all business organizations vest organizational control rights in them. For control to rest in any other group would be the equivalent to allowing the group to play poker with someone else's money and would create inefficiencies that lead to the possibility of failure".

because not doing so would threaten the banking system as a whole (Mishkin, 1992; Vittas, 1992; Goodhart, *et al.*, 1998). Equally, since the degree and speed of contagion is higher in concentrated banking systems, they are bailed out because there are "too few to fail".[9] Worst of all, the speed of contagion in a highly concentrated system of universal banks[10] means the regulator has little choice but to intervene when any of the banks are in trouble (Mishkin, 1997; Mishkin 1994).

To prevent banking failures, regulations normally include some attention to risk taking by bank managers (Dowd, 1996; Fry, 1995; Polizatto, 1992). However, the previous analysis highlights that the structure of bank governance also points to the existence of threats from the owners' conduct (Dowd, 1996; OECD, 1995). From a governance point of view, bank owners may be more problematic than bank managers, not only because they share business risk with the regulator, but also because other regulations limiting market competition give them the opportunity to impose excessive charges (administered or oligopoly prices) for bank services. In contrast, bank managers may be more constrained than their counterparts in non-financial firms because their conduct is directly scrutinised by the regulator; misconduct on their part could threaten their future employment (managerial market) in the banking sector.

4.4: The Structure of Bank Governance and Systemic Risk

This section sets out the general adopted framework of bank regulation and discusses the implications of changes in regulation on the structure of bank governance. It is argued that extensive changes, such as those brought about by deregulation of the banking system, may create an incoherent structure of governance. This could have adverse implications for systemic risk and the regulator's ability to control the conduct of bank owners and managers.

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[9] It is reasonable to say that this kind of banking problem has not been studied. This kind of problem appeared to be the case in Mexico. In chapter 6 and 7, the case is discussed in details.

[10] In the US, universal banks are those banks providing banking, fiduciary, insurance, and security brokerage services "under one roof" (Rose, 1999). In other countries, such as Germany, universal

It will be argued that episodes of difficulty in the banking sector correlate strongly with changes in structures of governance (Mishkin, 1994); episodes of difficulty are evidence of an increase in systemic risk (Bordo, *et al.*, 2001; Lindgren, *et al.*, 1996). As indicated in the first chapter, systemic risk "refers to potential threats to stability of the financial system as a whole arising from risk taking by individual financial actors" (OECD, 1995, pp. 11).

The discussion of these points is made in three sections, each of which is devoted to the analysis of one of the three main policy instruments of regulation: prudential regulation, lender of last resort (LLR) and deposit insurance, and restriction of competition through licensing or bank charters.

4.4.1 Preventive Regulation

Preventive regulation is mainly associated with interventions aimed at preventing imprudent conduct by individual banks, i.e., conduct that could threaten the soundness of the banking system. At the international level, preventive regulation is embodied in the capital adequacy prescriptions in the Basle Accord (1988), and the later 1993 amendments incorporating market risk and interest risk assessment (Bhala; 1989; Dale, 1994; Rose, 1999). This Accord is a multilateral agreement between national banking supervisory authorities.

The near universal adoption of the Basle capital adequacy framework reflected an official consensus as to the *minimum* of owners' capital that ought to be at risk in lending. Losses from risky lending practices are thought to have been absorbed by *additional* owners' capital. In the event of crisis, however, the conduct of many banks in response to the Accord indicated that they chose to shift costs onto national regulators and that few banks actually increased their capital asset ratio in line with the riskiness of their lending decisions. This result was explained as arising from the agency relationships (strong information asymmetries between the regulator and the

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banks include commercial and industrial business. In some countries, given the regulations, there are not universal banks, but universal banking.

bank and the weaker commitment of investors) in banks (Enoch, *et al.*, 1999), and because the capital adequacy Accord did not encourage loan portfolio diversification or establish clear guidelines on provisions for non-performing loans (Dale, 1994).

A key issue is that the rules on capital adequacy take effect after lending (e.g. affect ex-post the level of capitalisation). The Accord does not prevent managers from engaging in risky lending and thus does not prevent increases in systemic risk. The proposed new Basle II Accord seeks to correct this problem. Supporters argue that it will enable banks, markets and national supervisory entities to better evaluate the risk currently taken by banks.

Others argue that it is likely the freedom for banks to define their own risk management models will increase (not decrease) the difficulties facing regulators. This is partly because it is too complicated and costly for smaller banks to adopt and these will have to be supervised separately (The Banker, 2001). Another reason concerning the new Accord is that the new regime will require expert personnel and it would take time to produce such experts.

Indeed, one can expect that in the interim, the lack of skilled personnel will hamper the effective operation of the new prudential regulation. However, there is also a structural issue: Does the new Basle Accord alter the fact that owners are in a risk-sharing relationship with the regulator, and all the moral hazard that this relationship implies? This issue is discussed in the next section.

4.4.2 Protective Regulation

In the first instance the lender of last resort (LLR) and deposit insurance are intended to protect depositors after severe banking problems. The LLR and the deposit insurance can be seen as a means of protective regulation and are utilised when banks face problems (Dale, 1994). However, preventive regulation has failed. LLR is perhaps the most important regulatory power and in most national systems it is assigned to the Central Bank. Deposit insurance is often compulsory and is under

the control of either the Central Bank or a semi-autonomous regulatory institution (Dowd, 1996). Both the lender of last resort and deposit insurance are intended to function together (Dale, 1994). Nevertheless, it is widely recognised that however effective these instruments may be in fulfilling their stated purpose, their very existence creates certain characteristic problems. Because these problems are intimately connected to the structure of governance in banks, it is important to analyse them in some detail.

In the case of the LLR function, a danger arises that regulators may confuse generalised liquidity problems with an insolvency problem provoked by weak financial controls and deficient corporate governance (Lindgren *et al.*, 1996). This seems to have been the case in Finland (1991-1992), Norway (1988-1992), Sweden (1991-1993) and Mexico (1995-1996), (OECD, 1995). Thus, the failure to prevent and then carefully identify the origins of banking crises has meant that their costs have been shifted arbitrarily to the public purse. In the case of Sweden, for example, the fiscal cost of protecting the system was over 3 percent of the GDP (OECD, 1995). In Venezuela (1994) the fiscal cost of restructuring the banking system was 13 percent of the GDP (Hausman and Rojas-Suarez, 1996), until 1998 the cost in Japan was 12 percent and in Mexico it is expected to be around 20 percent of the GDP (Lopez, 1999).

In spite of the costs incurred by governments to protect the banking systems, the preoccupation is with the details of implementation, rather than the factors requiring their use (Enoch, *et al.*, 1999). Some important issues are ignored in most discussions of LLR operations, such as defining the conditions that must be met before support is extended, the institutions eligible for support, and the responsibilities to the national authorities for such intervention (Dale, 1994), (these points are re-raised in chapter seven in the discussion of the Mexican case). Thus, there is a need for research that considers how to operate LLR in a coherent and

efficient way, including work that links supervision and auditing to the overall operation of the LLR function.[11]

Another protective regulation policy to deal with systemic risk is deposit insurance. Such a scheme is meant to protect the savings of bank depositors (as in the UK) but it does so by increasing systemic risk if it proves inadequate.[12] It is well understood that there are governance hazards associated with deposit insurance (Dale, 1994; Eatwell and Taylor, 2000); its existence reduces the incentive for both bank management and depositors to attend to the overall risk exposure created by lending decisions. The insurance scheme reduces the depositors' perception that there are risks involved in placing his/her wealth under the control of others. The more a banking system is perceived as safe, the more depositors will be willing to keep idle transactions, balances and savings in the system. However, if the system of deposit insurance is (or is perceived to be) inadequate, depositors may seek to reduce their risk by limiting the amount of wealth they keep in the banking system.[13]

To reassure depositors, insurance programmes are backed by LLR and are associated with rules and decisions that determine the level of insurance coverage provided. However, this changes the nature of insurance from a limited guarantee to depositors to a general guarantee associated with LLR operations (Dale, 1994). An example of this is found in response to a run on the Continental Illinois bank in the US by

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[11] Maintaining reliability of LLR rules is a keystone of any banking system. Nevertheless, financial or economic emergency may cause governments to break rules that are in place (Dale, 1994). As a result of this, in some ways LLR is in the banks' hands. Outbreak of crisis conditions such as runs or contagion create the worst conditions for LLR interventions because the potential consequences forces the hand of the regulator. LLR support must be given immediately and unconditionally, resulting in the socialization of losses without due regard to the rules in place. Examples of this are actions taken in Sweden and other countries.

[12] Deposit insurance creates its own hazards. The first is that insurance gives depositors incentives to ignore uncompetitive bank practices. The second, is that insurance gives banks an incentive to take risks over certain levels of the deposit insurance.

[13] Hoarding cash is associated with banking systems that are perceived to be untrustworthy (Mckinnon (1973). Thus, one difficulty faced by banking authorities is convincing the population that it is safe to keep their money in new banks (Ortiz, 1994). In any system where the general population perceive their savings are at risk in the banking system, this will provoke disintermediation. This can take the form of hoarding cash or converting the local currency into a foreign currency that is deemed a better store of value (McKinnon, 1973; Ricciardi, 1985).

international depositors. Even though these accounts exceeded the insurance limit, they were guaranteed by the deposit insurance authority, coordinating these actions with supervisory actions to restructure the bank. The main lesson from crises is that the LLR is the key power in assuring the soundness and integrity of the banking system, because it is the last line of defence against any threats that emerge (Dow; 1996; Caprio *et al.*, 1996)

It is possible to identify two general problems with deposit insurance systems. The first is that depositors assume the regulator owes them a fiduciary obligation because the right to develop banking services is normally granted by the regulator. This means, banking acquires the features of a public service, controlled by the regulator, and whose soundness is guaranteed by the regulatory authority itself. The second is that deposit insurance systems, whether explicit or implicit, can create hazards at the level of the banks and at the level of the regulator. In the case of implicit systems, the lack of rules create uncertainty as to: the amounts protected, the provision of liquidity to banks facing problems, the basis on which to assess the risk premium, and the overall design of programmes to resolve banking failures (Talley and Mas, 1992). In the case of explicit deposit protection programmes, these can discriminate against some depositors and limit the extent to which banking problems are resolved through intervention (Dale, 1994).

Eatwell and Taylor (2000) argue that the existence of deposit insurance limits can reduce depositors' confidence, and thereby increase systemic risk. In addition, bank misconduct can be encouraged by deposit insurance. If banks are required to pay, as a form of insurance, some proportion of the overall deposits, they know the limit of their obligation to cover the risk taken by lending. Therefore, deposit insurance can actually increase risk-taking by banks and thereby increase the level of systemic risk.

4.4.3 Restrictions on Market Competition

Policy instruments aimed at limiting systemic risk constrain the disciplinary powers of market forces. This is because a central element of effective regulation is the

creation of barriers to entry to the banking sector, and limitations on how banks can compete with each other for customers (Gorton, 1994; Visentini, 1997). This has far-reaching consequences for governance in banks.

Restrictions on competition are those regulations directed at new entrants to the sector (barriers to entry) and limitations on the conduct of existing members of the sector, including constraints on ownership and consolidations (e.g. mergers, acquisitions and takeovers) (OECD, 1995; Dowd, 1996; Fry, 1995). From a governance perspective, barriers to entry are regarded as essential for effective regulation (Gorton, 1994). Thus, banking systems in most countries are characterised by restrictions on competition.

Regulation of ownership aims to prevent the creation of structural sources of hazard, such as lenders and borrowers being controlled by a common owner or corporate group (OECD, 1995; Rose, 1999). It also aims to prevent excessive market concentration and other structural sources of conflict of interest between the financial sector and the rest of the economy (this type of conflict of interest has preoccupied US perspectives on bank regulation). Restriction on the ownership of banks may or may not be associated with economy wide antitrust regulations. Whatever its form or source, it is obvious that limitations on ownership constrain the operations of market forces.

From a governance standpoint, constraints on competition have complex effects. For example, barriers to entry endow existing banks with a valuable charter –ownership of a charter granting them the right to do business (Gorton, 1994). This allows access to economic rents arising from barriers to entry. Some argue that ownership of a charter, as an exclusive right, increases owners' commitment to their banks and thus prevents excessive risk-taking in lending. However, in light of financial reforms, others emphasise that regulatory power to reduce barriers to entry, puts the capital value of the charter at risk. Such a possibility may diminish owners' commitment, thereby triggering misconduct and increasing risk taking (Caprio,

1996; Gertler and Rose, 1996). This identifies one possible element of incoherence in a governance structure described by Gorton (1994) as follows:

> *When charter values (of banks) are declining due to entry, there is a difference between the privately optimal and socially optimal levels of risk in the banking system* (pp. 114).

In addition, in the event of lifting barriers to entry, if the regulator applies other regulatory policy instruments aimed at limiting risk taking by owners (e.g. capital requirements and capital adequacy) the public's interests can be affected. This is because owners will react to new restrictions, evaluating whether to meet the new requirements, or to reduce the size of their banks or to exit the sector entirely (Gorton, 1994). Their decision is sensitive to the cost of capital that is determined in the financial markets, over which the regulator has little control. Thus, if barriers to entry are abolished, it is feasible that systemic risk may be increased because of increased incoherence in the operations of the governance structure.

4.5: Conclusions

Bank regulation creates a unique type of firm whose specific characteristics have only recently begun to attract the attention of financial management scholars (Freixas and Rochet, 1997). Because regulation aims to protect the public interest in the safety and soundness of the banking system, it creates a risk-sharing relationship with owners and imposes constraints on market forces. This means that governance in banks is characterised by more complex governance issues than those in non-financial firms, and by a unique structure of moral hazard.

At the level of regulation itself, policies need to ensure that owners bear as much of the risk as possible. Table 4.1 provides an overview of the logical and coherent ordering of the elements of a regulatory framework, identifying how they are linked to each other. As the Table 4.1 indicates, a regulatory framework needs to integrate legal regulation, preventive and protective regulations, as well as banking supervision.

Table 4.1

External Force of Governance: The Bank Regulatory Framework

Legal Regulations	Preventive Regulations	Protective Regulations	Supervision/ Auditing
Related to general and bank specific laws directing commercial conduct. In some countries, they are related to the national constitution. In most jurisdictions, the regulator defines a charter or license. Thus, only firms granted a license by the regulator can provide bank services.	Concerned with prevention of threats to the safety and soundness of the banking system. The term prudential regulation refers to preventive constraints on commercial conduct such as requirements of minimum capital (Basle capital adequacy requirements) and controls on the extent of market risks undertaken.	Concerned with protecting the system and usually identified with deposit insurance (protecting consumers from insolvency arising from banks' lending decisions) and lender of last resort operations (providing liquidity to the system by underwriting bank firm's losses from imprudent lending practices).	Concerned with monitoring bank operations. Supervision of banks involves provision of "inside information" to the regulator on a more frequent basis than external auditing of financial statements aimed at providing information to investors on a regular basis. Both, supervision and auditing are more linked to preventive rather than protective regulations.

When an integrated perspective is absent, *ad hoc* crisis management may amplify weaknesses in preventive regulations and, in turn, leads to inappropriate LLR interventions. Thus, problems such as partial information disclosure, insufficient accountability and defects in supervision are not merely defects in administrative procedures, but logical consequences arising from the lack of an integrated perspective of banking regulation as a crucial force of governance.

Integrated treatment of regulation is rarely found in governance research. However, only an integrated treatment of regulation enables one to analyse adequately the market as the other external force of governance. Market structure is not merely a matter of the number of firms or measures such as the concentration ratio. It also is about the effects of regulation, as a key institutional socio-economic element (Coase, 1994). In addition, an integrated treatment of regulation enables one to know how and to what extent the internal forces of governance control the firm. Regulation not only shapes the contractual relationship between managers and owners, but can also be the reason a firm comes into existence.

The theoretical approach that I developed to study bank governance differs from the mainstream approach to governance in two significant ways. First, it emphasises that regulation is the socio-economic-structural context in which owners and manager act and the market operates. I argued that changes in that context can give rise to changes in conduct that increase (or decrease) the riskiness of the banking system. Thus, my theoretical approach places corporate governance in its socio-economic-structural context. This approach is signalled by the term *governance* adopted. This term denotes a more comprehensive concept of control than the one commonly used in corporate governance research.

The second main difference is methodological. The theoretical framework is constructed so as to draw upon as wide a range of evidence as possible. In line with the methodological arguments made in chapter three, both qualitative (e.g. historical and legal) and quantitative (statistical-archival) evidence is used in chapters six-eight to demonstrate causal links between changes in the system of governance and the Mexican banking crisis.

Financial reforms can create incoherent bank governance systems because they create contradictions between the aims and the instruments of regulations policy. According to Stiglitz (2002), liberalisation policies became ends in themselves, rather than means to achieve some public-policy goals. He pointed out:

> *The consequences - economic recession - of banking crises brought on by capital market deregulation, while painful for developed countries, were much more serious for developing countries* (pp. 65).

When financial deregulation aims to make the market the primary external force of governance, the governance system that emerges faces problems at the level of the market, and at the level of regulation itself. Researchers, such as Gorton (1994), emphasise that increases in bank market competition can trigger systemic risk, because devaluation of a bank's charter may lead to owners' efforts to recoup losses through actions that regulators are unable to prevent.

Gorton (1994) writes:

> *While it is true that there may be sizeable costs to bank failure, the policy (of reducing barriers to entry) is fundamentally confused. In the current situation of reduced charter values, such policies can only increase the likelihood of every event, risk-taking and failure, that they are supposed to reduce* (pp.116).

The hegemonic view of financial reforms invokes the market as a solution to the problem of inefficiencies arising from regulation, without full consideration of the effects that changes in one element of the structure of governance may have on the other elements. Any prescription on how banks are, can be or should be governed implies a set of risks and costs that require analysis. This analysis has to do with the interest that will be privileged, who will be the risk bearer, and what will be the means to coherently govern banks and the banking system as a whole.

PART II: THE CASE OF MEXICO

CHAPTER 5

SOURCES CONSULTED AND METHODS OF DATA COLLECTION

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Annex

5.1: Introduction

The objective of this chapter is to discuss the sources consulted and the method of data collection. Because the empirical work is from a foreign banking system, it is particularly important to provide details on the evidence related to it. I use three sources of information.[1] The first is primary sources; these are governmental and semi-autonomous governmental archives. Primary sources provided historical and data-technical information. The second type is books and technical financial articles. From a theoretical standpoint, this second source provided information open to interpretation in the light of my research case study. The third, tertiary, source was the financial press; this provided recent information from actors and institutions about the Mexican banking crisis.

The three kinds of information sources used for my research are consistent with the Popper's view[2] (1997, pp. 159), that the scientific method can be summed up in four steps: "problems-theories-criticisms-new problems." Even though it is difficult to establish a clear separation of these steps, it is analytically possible to link them to my information sources. Thus, primary sources provided me information to analyse the Mexican banking problems. Secondary sources provided two scientific paths for researching governance and banking crisis. The first was the theoretical framework of governance. The second was the explanation of banking problems.

This chapter has four sections, apart from this introduction. In the second section, primary sources are explained. The third section deals with the secondary and tertiary sources of information. The fourth section is related to sources of data used for testing a model to explain one governance event: the fiscal cost of the Mexican banking crisis. Conclusions are made in the fifth section. The reliability and pertinence of the sources of information used for the dissertation provided

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[1] All translations of Spanish into English are by the author of this dissertation.

[2] In Science: Problems, Aims and Responsibilities (1997, pp.101), Popper explained the scientific method as having three legs: problems-theories-criticism. In Models, Instruments, and Truth, The status of rationality principle in social sciences (1997b) he added the leg of "new problems" that can emerge from a new theory. Enunciating the four Popperian legs will illustrate the approach to data collection discussed in this chapter.

consistency for the research and relative scientific certainty for my theoretical approach and its test.

5.2: Primary Sources

In Mexico, public-governmental bodies collect economic data. Thus, primary sources of information for this dissertation were from the government archives of diverse public organisations. This information was used chiefly to provide economic statistics and legal-institutional details required in chapters six, seven and eight. Below, I explain firstly economic statistics and secondly the sources of legal and administrative information.

5.2.1 Economic Statistics

In Mexico, economic data are collected by census, surveys, samples and administrative registers. General housing and population censuses have been taken every 10 years since 1895. An economic census has been conducted every five years since 1930. An agro-livestock census has been carried out every five years since 1940 (INEGI, 2001). Surveys, sampling data and administrative registers for economic and financial data are made by diverse governmental or semi-autonomous organisations, on monthly, quarterly and annual basis (Coesme, 2002). An overview of the sources of economic data is provided in the Annex of this chapter

The economic statistics collected for the dissertation were related mainly to macroeconomic data and to banking data. Data were collected on annual, quarterly and monthly bases from governmental or official organisation reports. Data that were not collected from governmental or semi-autonomous organisations are indicated in each dissertation table. In other cases, as is indicated in some tables, it was necessary to do estimations to fill time-data gaps.

The macroeconomic data were collected from the following institutions:

- Instituto Nacional de Estadística, Geografía e Informática (INEGI-National Institute of Statistics, Geography and Informatics). This is the national organisation responsible for collecting economic statistics,

including public finance, and geographical information.[3] Even though INEGI provides comprehensive economic data; it does not provide the most recent data. In addition, it does not provide details on public finance and banking information.

- Banco de México (Banxico-Central Bank). The central bank's annual report (Informe Anual) was used to obtain information related to banking and finance, including interest rates, rate of inflation and financing.
- Secretaría de Hacienda y Crédito Publico[4] (SHCP-Secretariat of Finance and Public Credit) provides monthly, quarterly and annual reports (www.shcp.gob.mx). The information on public finance was collected from this source.[5]

Data related to banking was obtained from the sources listed below. Each of the listed organizations is the official authorised reference for its particular specialised subject.

- Comisión Nacional Bancaria y de Valores (CNBV-National Banking and Securities Commission); previously it was called Comisión Nacional Bancaria (CNB-National Banking Commission). As part of the Mexican regulatory framework, this organisation is in charge of collecting banking information. The Comisión provides annual and quarterly reports (www.cnbv.gob.mx).
- Banco de México (Banxico-Central Bank). The central bank source was used to obtain aggregate banking information about credit allocation and the fiscal cost (FOBAPROA) of the banking crisis. It provides annual and quarterly reports on a monthly basis.
- Nacional Financiera (NAFIN-National Development Bank) is the main financial agent of the Mexican government. It reports the sectoral allocation of credit (e.g. Industry, housing) by all banks (public and

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[3] It is possible to collect INEGI information on line (www.inegi.gob.mx).

[4] In Mexico, ministers are officially called secretariats. SHCP is the minister of finance.

[5] Public finance is translated in Spanish as "presupuesto público" -public budget. In this dissertation, the term public budget is used as public finance.

private). It provides an Annual report (La Economía Mexicana en Cifras), on a monthly basis.

5.2.2 Legal and Administrative Sources

The general legal information was collected from official publications such as the Federal Constitution and Presidential Decrees. The banking legislation was consulted directly making use of the specialised compendium on banking and financial laws (legislation) Leyes y Códigos de México (2001, Vol. 1 and Vol. 2) [*Laws and Codes of Mexico*]. This source provides a transcription of the law itself, including those laws related to the current legal framework that governs financial institutions and the public institutions related to them (for instance, the National Banking and Securities Commission and the Central Bank). It also includes the original laws, regulations and federal administrative rules related to the governance of financial institutions. Thus, special attention was devoted to compiling changes in banking legislation in order to analyse changes in the nature of the bank charter (license), as well as how those legal changes affected bank governance.

Particular attention was paid to La Reforma Financiera y la Desincorporacion Bancaria [*The Financial Reform and Banking Privatisation*] (Ortiz, 1994), because it describes in detail financial reforms and banking privatisation. In addition, it is relevant because it was part of a Presidential collection documenting the public policies for 1988-1994. Signalling its importance is the fact that its author was deputy finance minister in charge of the banking privatisation, and later finance minister in charge of dealing with the banking crisis.

According to the nature of the primary sources, the information used for the dissertation is open to public scrutiny and can be judged scientifically reliable.

5.3: Secondary and Tertiary Sources

The secondary and tertiary information for the dissertation were books and journal articles from Mexican, Anglo-American and Italian sources. Tertiary sources were magazines and newspapers in Spanish and English. The secondary sources provided

theoretical and analytical grounds for the dissertation, as well as established my theoretical approach to governance in banks. Magazines and newspapers provided recent public information on banks, both banking problems and their actors.

It is possible to classify the books and articles into three subject categories, as follows:

- The first category is related to corporate governance, agency theory, regulation, as well as methodology and methods. These were used extensively to develop chapters one, two, three and four. In this regard, special efforts were devoted to finding the original version of Berle and Means' work,[6] the articles of Coase, and the works of Popper and Blaug. These were only available in the National Library of Scotland (Edinburgh).
- The second category included analytical and research books and articles about banking crises and banking regulation. Special attention was paid to obtaining information about the banking crisis in Mexico. This category of sources was used mainly to develop chapters six, seven and eight. In addition, works from the International Monetary Fund (IMF), World Bank (WB), Intern-American Development Bank (IDB), and the Bank for International Settlements (BIS) were consulted. This was because those international institutions had many concerns about the Mexican banking crisis and provided many prescriptions on the regulation for financial institutions. Particular attention was paid to "Informe de Michael W. Mackey" (1999) on FOBAPROA (Fondo Bancario de Protección al Ahorro-Banking - Fund to Protect Saving)[7]. This was an assessment of FOBAPROA fund commissioned by the Lower Chamber of the Mexican Congress. Because of the legislation related to banking information (Leyes y Códigos De México, 2001), the government has not provided details of FOBAPROA data. The fiscal cost of the banking crisis used was assembled from information

[6] It is worth noting that these authors are declassified in the library of Strathclyde University. Other work of Berle's, such as Power Without Property (1960) are out of print and unavailable from bookshops.

published in the book La crisis Bancaria en Mexico: 1994-1997 (Solis, 1998). Solis is an acknowledged expert on the subject and is well known for the quality of the sources of information he publishes.

- The third category included technical books on banking, accounting, econometrics and specialized dictionaries. These permitted me to clarify concepts and definitions used in the dissertation.

Tertiary information from newspapers included La Jornada, El Financiero, and The Financial Times. More specialised tertiary sources used for the dissertation were The Bankers, The Economist and El Mercado de Valores.

The three categories of the secondary information sources combine theoretical, analytical and prescriptive grounds. That combination follows Blaug's (1992) view about how theories are developed: from its descriptive side to its prescriptive province. Thus, even though the dissertation's concerns are on the descriptive side of bank governance, it can provide grounds and justifications about how banks can and should be governed. Hence, the dissertation could be considered in the future as a secondary source of information for those researching bank governance.

5.4: Source of Data Used in an Econometric Model

This section describes data sources used to test an econometric model, as defined in chapter eight. The model assumes that the fiscal cost can be explained in the light of the main parties involved in the Mexican system of bank governance: the regulator, the managers and the owners. The model includes the market as a dummy variable. Data for empirical proxies of cost and the governance system actors were collected from diverse sources.

The data collected were of three kinds: data related to the fiscal cost of the crisis (FOBAPROA), to the main features of banking privatisation, and to key banking

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[7] Even though the name of Fobaproa points out the protection of saving, it included all types of bank deposits.

financial information. Each kind of data was derived from a particular source, as indicated below.

Table 5.1
Data and Sources Used to Test a Model to Explain the Fiscal Cost of the Mexican Banking Crisis

Data	*Source*
Total amount of FOBAPROA per bank in 1996 in billions of Mexican Pesos (December).	La Crisis Bancaria en México: 1994-1997 (Solís, 1998) in De Boyer *et al.*, in Bancos y Crisis Bancarias: las experiencias de México, Francia y Japón.
Total amount of FOBAPROA per bank in 1997 in billions of Mexican Pesos (September).	La Crisis Bancaria en México: 1994-1997 (Solís, 1998) in De Boyer *et al.*, in Bancos y Crisis Bancarias: las experiencias de México, Francia y Japón.
Market structure. Dummy: 1= Bank taken-over by the regulator. 0= No taken-over.	La Crisis Bancaria en México: 1994-1997 (Solís, 1998) in De Boyer *et al.*, in Bancos y Crisis Bancarias: las experiencias de México, Francia y Japón.
Type of bid-winner Group for the privatisation.	La Reforma Financiera y la Desincorporación Bancaria (Ortiz, G., 1994).
Number of shareholders controlling each bank.	La Reforma Financiera y la Desincorporación Bancaria, (Ortiz, G., 1994).
Price paid per bank: Mexican pesos (1991-1992).	La Reforma Financiera y la Desincorporación Bancaria, (Ortiz, G., 1994).
Price paid per bank as times its book value.	La Reforma Financiera y la Desincorporación Bancaria, (Ortiz, G., 1994).
Provisions of loan losses as proportion of total loan portfolio in March 1994.	Comisión Nacional Bancaria y de Valores. Boletín Estadístico, Septiembre 1996, Marzo 1994, México.
Provisions of loan losses as proportion of total loan portfolio in December 1993.	Comisión Nacional Bancaria y de Valores. Boletín Estadístico, Septiembre 1996, Marzo 1994, México.
Non-performing loans as proportion of the total loan portfolio per bank in 1993 (December).	Comisión Nacional Bancaria y de Valores. Boletín Estadístico, Septiembre 1996, Marzo 1994, México.
Non-performing loans as proportion of the total loan portfolio per bank in 1994 (March).	Comisión Nacional Bancaria y de Valores. Boletín Estadístico. Septiembre 1996, Marzo 1994, México.

The first kind of data was the FOBAPROA cost at the level of banks. It was obtained from La Crisis Bancaria en México: 1994-1997 [The Banking Crisis in Mexico: 1994-1997] (Solis, 1998). The second kind of data was related to features of banking privatisation. Data was obtained from La Reforma Financiera y la Desincorporacion Bancaria [The Financial Reform and Banking Privatisation] (Ortiz, 1994). The third kind of data used was about the level of non-performing loans and PLLs per bank. Data was collected from Comisión Nacional Bancaria y de Valores [National Banking and Securities Commission] (CNBV).

Data used for 1996 FOBAPROA cost, according to Solis (1998), was assembled from various statistics bulletins of the CNBV. The FOBAPROA financial support was provided to all the 18 privatised banks. Data collected in millions of Mexican pesos was the total financial support provided by FOBAPROA to banks up to December 1996 and September 1997. The reported value of financial support for 1996 was the sum of the value of non-performing loans that banks sold to FOBAPROA and the value of the capital fund provided by FOBAPROA to banks. Because the FOBAPROA programmes changed in 1997, data for that year did not provide the same details as in 1996. Thus, in order to have consistent information for the variable FOBAPROA, I used the total value.

The data concerning features of banking privatisation were assembled from La Reforma Financiera y la Desincorporación Bancaria, México, FCE (Ortiz, G., 1994). To assemble this data, it was necessary to analyse the bid-winner information per privatised bank. The data assembled capture some characteristics of the "groups" that bought the privatised banks (18), and the price that they paid for them. There were two kinds of data on the groups. The first was the type of groups: financial and non-financial. The second kind was the number of shareholders-controllers per each privatised bank. Data of price paid per privatised bank was expressed in nominal pesos and as price-times book value paid for each bank.

Data about the level of non-performing loans, and provisions for loan losses (PLLs) per privatised bank were collected from the Boletín Estadístico de Banca Multiple de la Comisión Nacional Bancaria y de Valores (March 1994 and September 1996). Data years were defined bearing in mind that by December 1993 the privatisation process was over and that after March 1994 the Mexican economic situation began to deteriorate. Thus, data for non-performing loans and PLLs were for December 1993 and March 1994. Data for non-performing loans were the share of the total amount of loans per bank. The dissertation's author made this calculation. Data for PLLs were the share of the total amount of loan portfolio. Additionally, data was used detailing changes in non-performing loans from December 1993 to March 1994.

Data sources are in the public domain. The Data was consistent about concept and meaning (e.g., the accounting standards did not change from 1993-1994). In addition, data up to March 1994 was used to avoid bias, and to separate the governance causes of the banking crisis from the unstable economic situation (after March 1994)[8] and the crisis itself (1995-1996).

5.5: Conclusions

In this chapter, sources and the method of data collection were discussed. Because the empirical work is related to the Mexican banking system, it was deemed particularly important to provide a detailed description of information sources.

The formal-official character of the primary sources was the best source of knowledge of the banking crisis in Mexico. Popper emphasized (1997) the importance of building theories on the basis of the best source of knowledge. This provided reliable, qualitative and quantitative source information of the banking crisis as a governance event within its social context. The contextual sources of information also enabled a critical perspective on theoretical approaches to governance.

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[8] In March 1994, the presidential candidate of the ruling party was assassinated. Some explanation of the economic crisis included this assassination as a factor, among others, of it. (Solis, 1996)

Annex
Table 5.1
Economic Data by Public-Governmental Organizations

1. **Secretariat of Finance and Public Credit (SHCP)**

Item	*Frequency*
Public Finances and Public Debt Statistics	Monthly, quarterly and Annual

2. **National institute of Statistics, Geography and Informatics (INEGI)**

Item	*Frequency*
Trade Balance	Monthly, Quarterly and Annual
Trade Balance (Annual change)	Monthly, Quarterly and Annual
Manufacturing Sector, Employment & Compensations	Monthly, Quarterly and Annual
Industrial Activity 1993=100	Monthly, Quarterly and Annual
Industrial Activity annual % change	Monthly, Quarterly and Annual
Retail & Wholesale	Monthly, Quarterly and Annual
Unemployment Rate (43 urban areas)	Monthly, Quarterly and Annual
Real Gross Domestic Product by Division	46 days after end of quarter and Annual
Global Demand & Supply	78 days after end of quarter and Annual
Overall Index of Economic Activity	Monthly, Quarterly and Annual
Gross Fixed Capital Formation Production Index	Monthly, Quarterly and Annual

3. **Central Bank of Mexico (BANXICO)**

Item	*Frequency*
Investments Units (UDIS) *	Every two weeks
Growth Rates of Price Indexes	10th day of each month and Annual
Current Account	60 days after end of quarter and Annual
Balance of Payments	60 days after end of quarter and Annual
Summarized Balance Sheet of Banco de Mexico	Each Wednesday Quarterly and Annual
Government Securities in Circulation	25th.day of each month and Annual
Monetary Base, International Assets and Net Domestic Credit	Each Wednesday and Annual
Intervention of the Banco de Mexico in the Money Market	Each Wednesday
Interest and Exchange Rates (%)	Each Wednesday, Monthly and Annual
Monetary Aggregates	25th.day of each month

* Monetary Unit of value adopted by FOBAPROA for valuation of debts owed to banks (see chapter eight, for details).

CHAPTER 6

HOW CHANGES IN REGULATION CHANGED THE MEXICAN SYSTEM OF BANK GOVERNANCE

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"The fundamental problem of both the theoretical and historical social science is *to explain and understand events in terms of human actions and social situations*" *(Popper, 1997, pp.166).*

6.1. Introduction

This chapter traces the historical path of changes in the Mexican commercial banking system. The focus of the chapter is on changes arising from legal reforms of the financial system between 1980-1990, documenting the specific regulatory changes affecting the system of bank governance. It will be argued that the governance system changed in three fundamental areas: (i) in the realm of the control and ownership of banks; (ii) in the realm of the bank services offered and market structure and (iii) in the realm of the interests privileged by the system itself. The chapter seeks to demonstrate that these changes had the effect of changing the system of bank governance from a system that was conditionally coherent to one that was incoherent, in as much as the powers and instruments available to the forces of governance in the new system were incompatible with its stated aims and objectives.

Ogus (1994) explains that regulation is fundamentally a *politico-economic concept.* He identified two systems of economic organisation in industrialised countries: the market system and the collectivist system. In the market system (e.g. the USA and the UK) individuals and groups are subject to certain constraints to pursue their goals. In the market system, the legal system underpins the individual's arrangements, predominantly through instruments of private law. In the collectivist system (e.g. Germany and France) the state seeks to encourage behaviour to meet collective goals and public laws have a directive function.

In Ogus' (1994) terms,[1] one can classify the Mexican system of economic organisation as a collectivist system. When public laws are interpreted as having a directive function, this means that regulation establishes the means for a super-

[1] As regulation is referred " to different systems of economic organization and the legal forms which maintain them" (Ogus, 1994, pp. 1), the changes of banking regulation in Mexico are effectuated via specific public laws.

ordinate and centralised control that is enforced by the national constitution and federal laws (Rendón and Estrada, 1996). Therefore, in the Mexican context, when one refers to regulation, one is mainly referring to the specific laws. This means that legal changes related to banking services are the fundamental basis for changes in how banks are to be governed.

Given the centralised nature of the regulatory framework in Mexico, the financial reforms were taken from a macroeconomic perspective but directed toward the operations of the banking system, which can be identified as the meso-economic level. Obviously, meso-level changes impact on micro-economic level operations. Thus, the discussion of governance changes in this chapter is concerned with two levels of analysis –the banking system level and the bank operations level. Based on the regulatory changes instituted by the legal changes, it is argued that there emerged a banking system characterised by deregulation and market concentration. Additionally, the new system of bank governance was characterised by a type of owner (e.g. financial groups) and bank management that were not constrained by external governance constraints.

Apart from this introduction and the conclusions, the chapter is divided into three sections. The second section deals with the key changes in the legal framework affecting banks. In the third section, in light of regulatory changes, developments in the market force of governance are discussed. In the fourth section, the financial reforms, including banking privatisation, and changes in the internal forces of bank governance are discussed. Conclusions are provided in the last section.

6.2. Changes in the Legal Framework

Between 1982 and 1990, the legal framework was profoundly changed. In 1982, the commercial banks were nationalised; in 1989, the financial system was restructured encompassing both deregulation and elimination of government credit controls. From 1990 to 1991, the commercial banks were privatised in a manner that created

an oligopoly bank market controlled by financial groups.[2] By 1995, as a sort of succession of causes and effects, all of the privatised banks were in crisis.

The objective of this section is to trace changes in the legal framework that underpinned the Mexican system of bank governance up to 1989-1990. The analysis is developed in four parts. The first part considers an overview of the historical legal changes related to the evolution of banks. The second part discusses the legal changes related to the regulatory structure. The third part discusses the legal changes related to the banking-concentrated system dominated by financial groups. In the fourth part, the legal changes of the balance struck and the bank governance system between public (bank nationalisation) and private interests (financial reforms) are discussed.

6.2.1 Legal Changes Related to the Evolution of Banks

An important feature of the regulatory changes was that not only were they far reaching, but also they were made over a relatively short period of time, thereby changing dramatically the system of governance. From Table 6.1, it is possible to identify three key phases in the evolution of the legal framework affecting banks.

The first occurs before the nationalisation of the banks; the second is the nationalization in 1982 (Tello, 1984); and the third is the 1989-1990 financial system reforms, including the privatisation of banks (Ortiz, 1994). In general terms (Table 6.1), the right to offer banking services changed from being (in 1917) a governmental concession to private sector providers based in public law, to a right (from 1982) that was exclusively held by the government. It was then changed to a right available to private sector investors based in private law (from 1990) and having the same legal status as any other business service (Borja, 1991).

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[2] Prior to the nationalisation of banks, there were groups controlling banks (Basave, 1996). These groups were originally identified as *industrial-financial groups*, because their main businesses were related to industrial activities (e.g. steel, brewery, textile industry, and so on). During the nationalisation period (1982-1989), the regulator accepted the operation of *non-banking financial groups*. After the banking privatisation, the *non-banking financial groups* evolved into *financial groups* that can be regarded as holding companies. Their holdings include universal banks and other financial services companies (Zuleta, 1997; Held and Jiménez 1999; Palomino, 1997).

Table 6.1

Key Changes in the Legal Banking Framework

Year	*Law: Main subject*
1887	Rules on banking services provision by private sector.
1917	Federal Constitution: banking and credit services were defined as part of the public interest and provided by the private sector as a governmental concession.
1924	Set up a high degree of specialization of bank services. Restrictions for foreign banks.
1932	Rules on financial institutions to operate as banks (e.g. investment banks).
1941	Set up credit controls (interest rates, credit allocation and reserve requirements) Defined specialised institutions to attend the market in a segmented way.
1970	Made legal the operation of *industrial-financial groups.* To legitimise bank provision of integrated specialised services.
1974	Authorized new entries into the banking system in order to increase competition for the provision of integrated specialised services.
1978	Made legal the multiple service banks (multibanco).
1982	***Nationalization of commercial banks*** ***Constitutional reform: banking services must be offered by public organisations.***
1989	Beginning of the financial reforms: suppression of credit controls (credit allocation, interest rates, reserve requirements).
1990	Amendment of the Constitution to privatise commercial banks. Banking and credit services were no longer a governmental concession in the light of the public interest. The provision of bank services began to be authorised selectively by the minister of finance under the current commercial laws (private law) treating them as any other kind of business. New federal law to permit the operation of *financial groups.*

Sources: Leyes y Códigos de México: Legislación Bancaria (2001), Volumen 1 and 2.

As result of these changes, the banking system changed from one that was composed of specialised institutions[3] providing specialised services (1910-1941) to one composed of multiple service banks (1978-1990), and then to one composed of universal banks[4] (from 1990 forward) (Chavez-Presa, 1988). The regulatory changes were accompanied by a long-term trend toward an oligopoly market structure. So, even though, in 1974, the regulator sought to prevent market concentration in banking services, legal changes introduced a few years later (1978) to permit

[3] The law of 1941 focused on the allocation of financial resources to specific activities, mainly by three types of specialised banks: commercial, investment (financieras) and mortgage banks (hipotecarias). Commercial banks could accept demand deposits, savings deposits and offer short-term loans. The investment banks focused on long-term deposits and long- term loans to the industrial sector. The mortgage banks issued long-term savings certificates and gave long-term loans to the construction sector and some restricted loans for housing construction.

[4] It is possible to identify two main uses of the term "universal banking". One definition refers to banks engaged in a wide range of financial activities (e.g. Canada and Mexico). The other definition refers to banks engaged in a wide range of financial activities that, in addition, own and control non-financial entities (e.g. Germany). In the latter case, there are two financial-commercial linkages: i) upstream linkage –ownership of financial institutions by commercial entities and ii) downstream linkages –ownership of commercial entities by financial institutions (Freedman, 1992).

multiple service banks ended up promoting further concentration (Quijano, 1981). Finally, in 1982, in a clear reversal of previous policies, the nationalisation of banks was accompanied by even further increases in market concentration.

Alongside the regulatory changes, changes were made in the controls imposed on bank operations. The banking system changed from one characterised by tight controls on credit extension or lending (from 1941), to one characterised by no controls (from 1989-1990) (Ortiz, 1994). At the end of the nationalization period, controls on credit allocation and interest rates were abolished, and further monetary controls were removed when these banks were privatised. While the legal changes produced a deregulated oligopoly banking structure, the regulator retained responsibility for protecting the integrity of the overall banking system.

6.2.2 Legal Changes Related to the Regulatory Structure

In Mexico, a set of public institutions constitutes the banking "regulator". Each institution has been in charge of specific aspects of banking regulation. There is a regulatory structure associated with different types of regulatory functions, and each institution has a different regulatory scope (see Table 6.2).

Table 6.2

The Regulatory Structure in the Mexican System of Bank Governance*

Public Organisation	Functions up to 1993	The regulatory scope
Secretaría de Hacienda y Crédito Público *(Secretariat of Finance and Public Credit)*	Regulate the financial system Regulate some operations of non-banking financial institutions	Comprehensive Macroeconomic level
Banco de México *(Central Bank of Mexico)*	Regulate the banking operation Regulate credit operation of other financial institutions	Operational at the level of the banking system Macro and meso-economic levels
Comisión Nacional Bancaria y de Valores *(National Banking and Securities Commission)*	Supervision of the banking system	Operational at the level of each bank Microeconomic level

*The English denomination of each institution is according to their official translation.
Sources: Comisión Nacional Bancaria (1993a). El Nuevo Sistema Financiero Mexicano, F. Borja, 1991.

In line with the trend in legal changes, two aspects characterized the regulatory structure. The first was that is was constituted by the same institutions. The second was that it was "stable" in regard to functions and the organisation's regulatory scope.

The Mexican regulatory structure has included essentially three organisations: (i) the Secretariat of Finance and Public Credit (Secretaría de Hacienda y Crédito Público-SHCP), (ii) the Central Bank of Mexico (Banco de México) and (iii) the National Banking and Securities Commission (Comisión Nacional Bancaria y de Valores-CNBV). Up to 1993, the regulatory structure was the same as it had been from 1924, when the former National Banking Commission had been established (Comisión Nacional Bancaria, 1993). In this structure, the central bank and the Commission had a direct administrative dependence on the Secretariat.[5] Although the legal changes changed the extent of the powers of each of these organizations, their functions remained the same. For example, previous to the financial reforms, the Commission was in charge of supervising the insurance companies and, as part of the reforms, its regulatory powers were extended to the Stock Exchange (Comisión Nacional Bancaria, 1993). Even during the nationalization period, each of the above organisations maintained the same regulatory functions (Borja, 1991). Therefore, one can say that the assignment of regulatory functions was basically stable, at the level of each organisation.

The regulatory scope of each of the organizations was also unaffected by the legal changes (Borja, 1991). According to Table 6.2, the regulatory scope of the SHCP, the Central Bank and the Commission appear to be related to the regulatory powers and to the different economic levels with which they were concerned. Up to 1993, the SHCP was in charge of regulating the financial system as a whole, and had comprehensive regulatory powers over banks. Thus, its scope was mainly related to the macroeconomic level. The central bank's regulatory powers were related to the operation of the banking system. This meant that the central banks' regulatory scope

[5] In 1993, the Central bank began to be autonomous (Ortiz, 1994). This decision required amending the Constitution. In 1998, the National Banking and Securities Commission became part of the Central Bank (SHCP, 1998).

was at both the macro and meso-economic levels. The Commission had regulatory powers related to the operation of each bank. The Commission's powers were mainly in the realm of bank supervision (Comisión Nacional Bancaria, 1993). Thus, the Commission was concerned with the micro-economic level of banking operations.

Because the legal changes did not alter the regulatory functions and scope of the SHCP, the Commission and the Central Bank, one can say that the regulatory banking structure was stable. Nevertheless, certain governance issues arose from the regulatory structure itself. The first issue concerns responsibility for the safety and soundness of the banking system as a whole. The second concerns the operational pertinence of the regulatory structure for dealing with banking problems. The central government was, and remains, responsible for the banking system, at the level of its regulation, operations and supervision. This resulted from the unchanged "pyramidal" dependence of the central bank, the Commission and the SHCP on the central government.[6] Thus, any regulatory fault and its potential cost were necessarily the ultimate responsibility of the central government.

About the operational pertinence of the structure, it was clear that assigning the operational regulation of the banking system (meso-level) to the central bank, and assigning the banks' supervision (micro-level) to the Commission, created the risk of coordination failure between these agencies. This was because the Commission was under the control of SHCP, as well as the Central bank, but SHCP was itself only concerned with macroeconomic issues. Thus, in the event of banking problems, no single organisation had complete responsibility for the operational control of both the banking system and the banks that comprised it.

Even though legal changes did not formally alter either the institutions of regulation or the functional division of operational responsibility, these changes did affect the market structure.

6.2.3 Legal Changes Related to Market Concentration and Financial Groups

The long-term trend in market concentration was from a segmented bank services market into a concentrated services market. Before the 1970's, bank services were supplied by a large number of small and medium-sized, specialist banks. After legal changes (1970 and 1974), the market was highly concentrated; each bank organisation provided all services in an integrated manner, comprising a system dominated by a very few banks owned by powerful Mexican financial groups (Basave, 1996; Basave 2000).

Bank services market

Until the 1960's, regulations required that banks operate as specialised banks (Chavez-Presa, 1988). The market was segmented by function, but given the large number of specialist banks in each segment, one could say that each segment was more or less competitive. However, by the end of the 1960's, while the formal segmentation continued its substance was changed, because the specialised banks had begun to act together, creating *de facto* financial groups. In this way, the formerly segmented market began to give way to a more integrated one (Quijano, 1981). These actions occurred even though they were illegal. Banks were able to ignore the legal barriers to integrated services provision, because the monetary cost (fines) for evading the regulations was low (Chavez-Presa, 1988). By 1970, the emergent, *de facto* integration of specialised banking services organised under the control of industrial-financial groups had been legally sanctioned.

As a result, the system of bank governance in Mexico was characterised, historically, by a gap between the legal regulatory framework and the actual operations of the banks. More often than not, changes in legal regulations were introduced to legitimate *de facto* operations that were, from a formal point of view, in breach of the law and its aims (Chavez-Presa, 1988; Quijano, 1981). From a governance perspective, one can conclude that the financial authorities had, historically, exhibited a surprising tolerance toward the banks, allowing them to act in ways that were formally outside the law. This tradition of tolerance toward conduct that was

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[6] This pyramidal dependence is an example of Ogus' (1994) discussion of a centralised legal system,

ultra vires is an important historical feature of the Mexican system of bank governance (Basave, 1996; Basave, 2000), and can be attributed to the government's traditional reliance on the banks for implementing its development programmes.

The banking system and its ownership

Historically, regulations prohibited foreigners from investing in the banking sector. From 1924, the legal framework of the financial system provided a high degree of protection against foreign ownership; it also included restrictions barring market entry by foreign banks (Bennet, 1965). The exception was Citibank, a US bank that had entered the market in 1917; it was the only foreign bank operating in Mexico after 1924. Because the system was characterised by barriers to entry for foreign investors, the long-term trend towards market concentration, and the legal acceptance of the financial groups resulted in a banking system in which ownership and control was highly concentrated in the hands of Mexican investors.

Concentration is illustrated by the time-path of changes in market structure. Whereas in 1950, 14 banks accounted for about 60% of the market, in 1970, only five banks did so (González, 1980). This caused the financial authorities to become concerned enough to introduce a series of legal changes, from 1974 to 1978, aimed at making it easier for new national investors to enter the bank services market. However, the actual result of the legal changes was the opposite, as evidenced by further increases in market concentration from 1974 forward. Thus, whereas in 1970 18 banking institutions accounted for about 75% of the market, in 1979 only six banks did so (González, 1980). Moreover, these six banks were controlled mainly by newly merged industrial-financial groups, arising out of the unprecedented merger movement occurring during that period (Quijano, 1981).

With banking nationalisation (1982), the level of concentration increased (De la Vega, 2000). The number of banks was reduced from 60 to only 20 controlled directly by the government, and managed as a public monopoly. Almost a decade after nationalization, in 1990, the privatisation of the eighteen commercial banks

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in which the state, according to the public law, has a key role in shaping the economic system.

maintained the level of market concentration but they were now under the control of national financial groups.[7]

6.2.4 Legal Changes Related to Bank Nationalisation and the Financial Reforms

Legal changes in regulation changed the balance between public interest and private interest involved in the overall bank governance system.[8] Even though, historically, the constitution privileged the public interest, the nationalization of banks as a means to deal with the debt crisis of 1982 further emphasised the public interest as the government's overriding concern in bank governance. The proximate cause of a decisive shift in the balance of interests was the structural changes arising from the financial reforms (1989). These changes legally subordinated the public interest to the private interest. These ideas of balancing the public and the private interests are discussed below, with regard to the nationalisation of banks and the financial reforms.

Banking nationalisation and the public interest

The decision to nationalise the commercial banks has been analysed with reference to the nation's political framework, and to changes in political forces (Tello, 1984; Basave, 1996). Others have analysed the decision as evidencing the contradiction between efforts to sustain the role of the government in economic development, and the pressures of globalisation on the financial system (Maxfield, 1990; Cypher, 1990; Correa, 1998). Both views emphasise the importance of different interests as the key motive for the decision to nationalise the banks.

However, from a governance standpoint, nationalisation is better understood as reflecting the traditional importance given to the public interest in the legal framework concerned with banks. The act of nationalisation was possible because

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[7] The other two banks were the CitiBank and the Worker's Bank. The first belonged to a foreign bank and the other to the main national trade union.

[8] A parallel can be drawn to research on privatisation of public services, such as water, electricity and transportation. Ogden (1997) emphasises that the importance of post-privatised regulations affected management conduct. Thus, in the water industry "...the scrutiny exercised by the Regulator and extent to which the publication of performance indicators required by the Regulator assists scrutiny by investors and City analysts, constitute in many ways a more active monitoring of managerial behaviour of senior executives than perhaps most private sector companies experience (pp.275)."

the National Constitution[9] stipulated that the provision of banking services was a duty in the public interest (Borja, 1991). The Constitution further stipulated that private sector agents could operate banking services *only* by governmental concession.

This feature of the legal framework meant that it was relatively straightforward to nationalise the banks. The government merely had to withdraw its concession to private owners, thus automatically debarring them from acting as financial intermediaries. Further emphasising the super-ordinate powers of the government over the banks, nationalisation was effectuated by a constitutional reform stipulating that banking and credit activities were to be offered, henceforth, exclusively by the state (Tello, 1984).

With nationalization, the government acquired all the banks' assets.[10] These included industrial and commercial assets as well as their associated companies, including other financial intermediaries that were part of the financial holding companies, such as insurance companies, brokerage houses, bonded warehouse societies, leasing companies, and factoring companies (SHCP, 1982; Sales 1992). Lists of the assets that nationalisation brought under government control revealed that the financial holding companies had used depositors' funds, as much for making commercial loans as for financing acquisition of oligopoly market powers at national level. It also exposed the extent to which the industrial-financial groups had ignored both the law and the regulations related to banks (Tello, 1984). More importantly, from a governance standpoint, it revealed a widening gap between the aims of banking regulation and the actual results.

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[9] Mexico has a federal system in which there is both a national constitution and a constitution for each state. The national constitution has predominance over the states' constitutions.

[10] The price that the government paid for the banks' shares was set according to the *adjusted capital value* of banks, instead of to their market value. The *adjusted capital value* was 2.41 time of the market value of the banks (Sales, 1992). This price was paid to the shareholders (as a group) controlling the banks rather than as payments to each shareholder. The government's stated reason for this was to prevent the dispersion of the original group's capital (Sales, 1992). Its effect was to permit

Financial reforms and the private interest

Historically, bank operations had been tightly regulated, in line with the national economic development plans set out by the government of the day. These plans were enunciated as interpretations of the public interest in economic growth and social modernisation. The Law of 1941 established reserve requirements and credit controls (e.g. controls on the rate of interest charged and the sectoral allocation of credit and loans) to promote both specific economic sectors (e.g. agriculture, industry, housing) and provide support for specific types of debtors (e.g. cooperatives, small and medium industrial producer) (Borja, 1991). Changes in regulation prior to 1980 resulted in the simplification of the types of controls over banking credit. The result, by the middle of the 80's, was that only a minority of loans were subject to interest rate controls; the majority of credits extended by banks evidenced pricing strategies associated with oligopoly control. Thus, an enduring feature of the system from the mid-80's was administered, or mark-up pricing (Ciancanelli and Reyes 1999).[11]

The financial reforms initiated in 1989 took deregulation of the banking credit even further. The reforms eliminated control on the interest rates and credit allocation, as well as all controls on reserve requirements. A central goal of the reforms was the privatisation of the banking system (Ortiz, 1994). Thus, it required amending the Constitution so that banks came under private rather than public law (Borja, 1991). This meant that banking service provision was no longer framed by the explicit public interest considerations articulated in the Constitution.

The full deregulation of the bank businesses and the privatisation of banks meant that the provision of banking services were formally able to privilege the private interest decisions of those controlling the banks. Once the banks were privatised, the freedom of the bank controllers passed from those nominally in the service of the state to those entirely in the service of the new private owners. The striking feature

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the industrial-financial holding companies to maintain their financial strength, permitting, in the 1980's, some former bankers to set up brokerage houses and other financial business (Solis, 2000).

[11] From 1990 to 1993, the difference between the weighted average costs of deposits and the lowest lending rate (commercial paper) increased by more than 100%. Thus, the financial margin measured as financial income – financial cost/financial income increased from 20.23% in 1990 to 30% in 1993.

of the legal changes was that the public interest was invoked as the main justification for most of the changes in regulation. The nationalisation of banks (1982), the deregulation of the financial system and bank operations (1989), and the privatisation of the banks (1990) were legally justified in terms of the public interest (Tello, 1984; Ortiz, 1994).

The nationalisation of the banks and the financial reforms were taken under opposite circumstances and aims. Nationalisation was undertaken in response to the debt crisis that emerged in 1982, and the associated macroeconomic and budgetary crises confronting the government. This action was taken as one way to discipline those banking intermediaries (especially the industrial groups controlling the banks) who had encouraged monetary speculation, thereby aggravating the national economic and budgetary crisis[12] (Diario Oficial de la Federación, 1982). In contrast, the financial reforms (including the privatisation of banks) were enacted within a healthier macroeconomic context, and a governmental budget circumstance in which public finances were regarded as sound enough to encourage private investments. (see Table 6.1a in the Annex of this chapter)

According to my theoretical approach to governance, it is clear from the changes occurring in bank regulation that the market, one of the key external forces of governance, was an oligopoly market, controlled by financial groups. It was not a market in which price competition could discipline owners or managers and guarantee consumer welfare. The specific developments of the market, as the other external force of governance, is analysed in the next section.

6.3: Changes in the Market Force of Governance

It is argued that the changes in bank regulation limited the power of market forces to discipline banks. Even though changes in legal regulation, since the middle of the 1970's, were formally concerned with increasing both the number of banks and

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[12] Financial authorities promoted the "dollarisation" of deposits in an attempt to prevent capital outflows. By 1982, these constituted 37% of all banking deposits (Banco de Mexico, 1982). This decision was a partial abandonment of the monetary law requiring deposits to be denominated in the national currency.

encouraging the growth of the financial system overall, the result was the emergence of a banking market that was comprised of fewer and fewer banks, most of which were integrated financial services firms selling a full range of financial services (Quijano, 1981). Thus, from a governance point of view, the market's power to discipline banks was weakened, becoming more and more limited in at least two aspects. First, each bank faced a smaller and smaller number of competitors. Second, given the integration of financial services provided by the financial groups or holding companies, other financial services providers were not in a position to compete with them. The sheer market power of the financial groups mitigated against it. The regulatory changes actually resulted in a market with limited power to discipline not only the banks, but also almost all the service providers in the financial system as well.

In the first part of this section, regulation and its effects on competition in banking is discussed. In the second part, market concentration and its development into an oligopoly are discussed. It is argued that with privatisation (1990-1991) a structural oligopoly was privatised; the new owners of the Mexican banks acquired control of both an oligopoly banking market, and an oligopoly financial services market. They acquired dominance over the financial system as a whole. In the third part, the limits placed on the market, as a force of governance, is discussed.

6.3.1 Regulation and Effects on Competition

The long-term trend toward concentration was a key feature of the evolution of the banking market structure. The evidence of reduced competition and, therefore, banking concentration, was found in the trend toward a reduction in the number of banks and in the increased number of branches per bank-firm. In addition, limited competition resulted from regulatory acceptance of the multiple-services banks and the government decision, during the nationalisation period, to reduce the number of banks overall.

According to Table 6.3, in 1976 there were 218 separate banks composed of three main types of specialist banks – deposit and savings banks, investment banks, and

mortgage banks. Most of these were deposit and savings banks (109) and investment banks (84); the smallest number was mortgage banks (25) (Chavez-Presa, 1988). The predominance of savings and investment banks was consistent with the priority given to economic development, since it encouraged savings, on the one hand, and investment on the other.

Table 6.3

Organisational Structure before and after Governance changes

Total Commercial Banks and Branches

Year	Dep&Sav. Banks	Invest. Bank	Mortg. Bank	Mult.Serv. Banks	Total Banks	Total Branches	Branches per bank
1976	109	84	25	0	218	2487	11.40
1982	12	12	1	35	60	4413	73.55
1983	0	0	0	31	31	4456	143.7
1985	0	0	0	27	27	4460	165.2
1989	0	0	0	20	20	4511	225.5
1990	0	0	0	20	20	4477	223.8

Dep&Sav. : *Deposit and Saving Banks*. Invest. : *Investment Banks*. Mortg. : *Mortgages Banks*. Mult.Serv. : *Multiple Service Banks*. Total Bks:
Sources: Comisión Nacional Bancaria. México, various years (1976-1990).

Over the period 1976-1982, a dramatic restructuring took place as evidenced in the reduction in the number of banks from 218 to 60 and the shift in market composition from specialist banks toward a new type of dominant bank: multi-service banks (35). Deposit and saving banks were reduced in number from 109 to 12; investment banks were reduced in number from 84 to 12 and mortgage banks reduced from 25 to 1. By the end of the period (1982), the new type of multi-service banks numbered 35.

In the eight-year period, from 1982 to 1990, the number of banks in the system had been further reduced from 60 to 20, all of which were multi-service banks. The specialist banks had disappeared entirely. What is striking is the acute reduction in the number of bank-organisations (from 60 to 20) during the period of nationalisation (1982-1989). Additionally, the number of branches per bank-organisation increased.

The increase in the number of branches per bank over the period is evidence of the extent to which the emergent multi-services banks (latterly universal banks) were gaining market power that was national in scope. In 1976, the number of branches

per bank was about 11, whereas in 1982 banks had, on average, 73 branches. In the period of government ownership (1982-1990), this number was further increased to 223 branch offices per bank.[13] Thus, the long-term trend of the reduction in the number of banks was accompanied by a parallel restructuring of the types of banks characterising the market as a whole. The main feature was a change from a system comprised of specialised financial service providers to one composed of multi-service banks, and then universal banks.

After nationalisation (1983), multiple banks emerged as the dominant corporate form; they integrated all the specialist banks in their operations. The retail banking market had been transformed into one dominated by a small number of large suppliers who faced little market discipline. With privatisation, these banks also were largely free from traditional regulatory constraints. The concentration of ownership by a handful of multiple banks would have important implications for the market structure that later emerged with privatisation (1990-1992).

The market was concentrated in two ways: the number of bank organisations, and the market share controlled by a few banks. This latter issue is dealt with below.

6.3.2 Market Concentration and Oligopoly

The organisational restructuring deepened market concentration. After nationalisation, two to three banks accounted for the main share of the banking market. Data provided in Tables 6.4 and 6.5 document the long-term trend in the size distribution of banks as measured by the percent of assets, liabilities, book value of capital, deposits and loans accounted for by only two of the largest banks.

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[13] The most dramatic change in the number of banks and number of branches per bank occurred in the period when the banks were nationalised. Nationalisation was part of the government's stated aim to increase the efficiency of the sector. The change in branches per bank appeared to have been justified as a way to encourage economies of scale to improve productivity and lower costs of services. Economies of scale, however, proved to be elusive. According to Chavez-Presa (1988), this increase in the number of branches per banks did not result in higher productivity and lower costs. The conventional view in retail banking is that more branches often add more costs rather than the incremental efficiencies they are supposed to produce.

According to the data provided in Table 6.4, during the nationalisation period (1982 to 1989) the two largest banks increased their market share year by year. In 1988, the percentages were almost 10 points over those of 1982. In 1989, the year before privatisation was initiated, the two largest banks concentrated nearly 50% of the market share on deposit and loans. The variable evidencing the greatest degree of concentration was the book value of the banks; thus, two banks accounted for over 60% of the book value of capital in the sector for the entire period under review. Obviously, concentration was more acute at the level of the three largest banks than at the two largest.

Table 6.4

Percentage of Various Indicators Accounted for the Two Largest Banks

% Two Largest banks/Total

Year	Assets	Liabilities	Book Capital	Deposits	Loans
1982	43.72	43.36	53.44	45.94	38.25
1983	46.32	45.98	57.67	47.92	40.14
1984	48.51	48.25	57.38	48.85	44.01
1985	48.71	48.42	58.01	48.42	44.29
1986	50.92	50.46	64.04	51.12	45.07
1987	54.99	54.35	68.63	52.86	51.09
1988	58.07	57.67	63.29	55.63	51.19
1989	55.96	55.96	58.92	51.58	47.55

Source: Comisión Nacional Bancaria. México, Mayo 1993.

Table 6.5

Percentage of Various Indicators Accounted for the Three Largest Banks

Year	Assets	Liabilities	Book Capital	Deposits	Loans
1982	55.78	55.44	64.99	59.87	49.52
1983	57.79	56.99	70.79	60.51	50.56
1984	59.64	59.35	69.55	61.43	55.31
1995	60.20	59.90	69.94	61.53	56.24
1986	62.88	62.48	74.15	65.45	57.83
1987	68.85	68.45	77.44	67.81	67.24
1988	72.06	72.06	71.91	70.6	67.59
1989	70.20	70.27	69.16	67.96	67.90
1990	62.67	62.37	67.32	65.48	64.13

Source: Comisión Nacional Bancaria. México, Mayo 1993.

As indicated in Table 6.5 above, by 1989, the three largest banks accounted for nearly 70% of all the variables. Again, the variable indicating the greatest market

share was book value of capital. The three banks accounted for 65% of the book value of capital in the overall system in 1982, increasing to nearly 70% in 1990.

A striking feature of the evidence on concentration is its stability. Thus, it is evident that a stable feature of the market structure was that of an oligopoly, dominated by a few powerful banks. The market was, for all intents and purposes, an administered market (Visentini, 1997). So long as it remained in government hands, such a structure had at least the potential of being guided in the direction of the public's interest, whatever the government deemed that interest to be. It is also quite clear that changing ownership, by itself, could do nothing to alter the dominance of the top three banks, or the oligopoly structure of the market. Indeed, the main problem arising from privatisation would be the emergence of a private oligopoly. Although the government, as we will see in the next parts, explicitly sought to increase banking efficiency through privatisation, it nonetheless permitted a private oligopoly to operate in an unregulated framework.

6.3.3 The Market as a Limited Force of Governance

Prior to the banking nationalisation (1982), most banks were controlled by industrial groups (Basave, 1996; Basave, 2000). These created a unique hybrid of industrial and finance capital with more than a superficial resemblance to the main bank and house bank systems found in Japan and Germany respectively (Ciancanelli and Scher, 1999). With privatisation (1990-1991), the government made the decision to allow emerging financial groups to be included among the (few) investors defined as eligible to bid for the banks that could operate now as universal banks.[14] The takeover of some of the privatised banks by these new financial conglomerates further concentrated the ownership of financial service units. However, unlike the situation in Germany, Mexican banks were allowed to operate within a significantly less regulated financial system, and within a monetary framework in which credit

[14] It is possible to identify three ways in which banks participate in universal banking activities. First, banks can directly conduct universal banking activities. Second, banks can conduct those activities in subsidiaries of the banks. Third, banks can conduct universal activities in bank holding companies (Talley, 1992). From a legal point of view, this latter type of universal banking organisation was set up in Mexico.

extension was remarkably free of such standard central bank controls as reserve requirements.

Though nationalisation revealed that the industrial groups controlling banks had often acted *ultra vires* (Tello, 1984), the regulator appeared not to be aware that a concentrated market controlled by a small number of financial groups might imply at least two important governance problems. First, it was evident that there was a need to apply strict controls to prevent fraud and self-dealing. The corporate form of financial groups and universal banks provide increased potential for accounting practices that can disguise not only poor performance, but also unsound management. This means that the regulator will face problems in supervising different firms and financial businesses interrelated by a controlling group (Vittas, 1992; Draghi, 1992; Talley, 1992). Second, moral hazard problems could arise because the banking sector was highly concentrated. Oligopoly banks can be tempted to take excessive risks, confident that the government will bail them out if it is required. In the United States, this phenomenon was known by the term TBTF (Too Big to Fail) and was the most common rationale for that government's rescue of failing banks. (Mishkin, 1992)

In the case of Mexico, the potential accounting problems and moral hazards arising from financial businesses interrelated by a controlling group (Palomino, 1997) were increased at the bank management level, as a result of the financial reforms. The reforms, together with the privatisation, meant that the private financial groups could operate in an oligopoly market that lacked external discipline. The oligopoly itself amplified systemic risk and, therefore, signalled to the regulator that the small number of banks (eighteen) in the system was Too Few to Fail (TFTF). Reform and privatisation implied, additionally, governance effects on bank management, which further increased the level of systemic risk in the new system. The effects of financial reform and banking privatisation on bank management are discussed below.

6.4: The Financial Reforms and Changes in the Internal Forces of Governance

In 1989, the government initiated a set of financial reforms to deregulate, as a first stage, the banking system. In the second stage of the reforms, commercial banks were privatised (1990-1992) (Ortiz, 1994). Thus, the financial reforms were undertaken over several years. Table 6.6 provides a summary overview of the financial reforms introduced in the period 1989-1990. It highlights that deregulation occurred *prior* to the privatisation. Thus, when privatisation occurred most management decisions had been deregulated, and the new managers and owners faced little constraint on their commercial freedom.[15]

Table 6.6

Stages of the Financial Reforms

Year	Stages	Aims	Condition of banks
1989	Stage I Financial Reforms	To modernise and deregulate the Financial system	Nationalised
1989-90	Banking Deregulation	• Elimination of credit controls (interest rates, credit allocation) • Suppression of reserve requirements	• Nationalised • Privatised
1990	Stage II Privatisation of Commercial banks	To set up an efficient, competitive and sound banking system	The process to privatise banks lasted 2 years

Source: Ortiz (1994), La Reforma Financiera y la Desincorporación Bancaria.

The reforms altered the previous parameters of control over the management of the commercial banks. Bank managers and new owners were now free to allocate and price credit without reference to regulatory restrictions. Because of the reforms, the regulator lost not only regulatory powers but also monetary instruments, such as reserve requirements. In the first part of this section, the first stage of the financial reforms is analysed. In the second part, privatisation, as the second stage of the financial reforms, is discussed.

[15] This sequencing of reforms is interesting in its own right. On the one hand, sale of the banks might have been more difficult if the previous regime of regulation had been in place; if nothing else, the proceeds from the sale would have been lower. On the other hand, sale before deregulation would have enabled the regulator to assess the potential governance problems arising from an administered market without the additional systemic risks arising from full deregulation.

6.4.1 The Financial Reforms: Stage I-Deregulation

The first stage of the financial reforms was initiated in 1989. It was aimed at the complete liberalisation of the traditional bank-centred financial system, and its rapid conversion to a market based system. Thus, the government believed it was necessary to dismantle the previous system of regulation over bank lending. The rationale of the government's reforms was to create an efficient banking sector disciplined by market competition (Ortiz, 1994).

The financial reforms initially rested on three developments: consolidation of the nationalised multiple banks, development of the stock market, and the maintenance of a sound public budget. The focus of deregulation was the financial system as a whole, with particular emphasis on eliminating direct control of the bank operations (Ortiz; 1994). The latter deregulation had two goals. The first was to give greater autonomy to the managers of the banks. It was argued by the government that existing controls were overly centralized (chiefly in the Ministry of Finance). The second goal was to increase the capitalisation of each bank organisation so as to bring them in line with the Basle Accord, such that each bank would achieve the minimum 8% of capital by 1993 (Ortiz, 1994). Additionally, the financial reform deregulated investment societies to promote savings, and to channel financial resources to medium and small enterprises. More importantly, in hindsight, was the decision to allow financial groups to control financial institutions.[16] These financial groups were denominated formally as non- banking financial groups (Borja, 1991).

In the specific domain of bank management, the financial reform established specific changes. Until the middle of the 1980's, the Mexican government subordinated the allocation of banking credit to its national development programmes, relying on administrative control over interest rates and targeted investments. Credit itself was administered according to macroeconomic objectives.[17] Thus, the series of decisions related to the deregulation of credit controls (1989-1990) was aimed at greatly

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[16] The law specified that any financial group could be comprised of at least three non- banking financial intermediaries. It could be held together through a holding company. In addition, the participation of foreign citizens and foreign capital was prohibited. With privatisation, the financial groups could integrate five financial institutions, including commercial banks.

[17] This pattern exemplifies what McKinnon (1973) refers to as "financial repression."

increasing a bank organisation's scope for decision-making. Deregulation had three main components: elimination of interest rate controls, elimination of credit controls, and restructuring (and subsequently eliminating) reserve requirements (Ortiz, 1994). Given their governance importance, each is analysed below.

The elimination of interest rate controls

Traditionally interest rates on deposits and loans were rigidly controlled. For most types of loans, there were maximum (ceiling) rates of interest, as part of a comprehensive system of credit controls (Asociación Mexicana de Bancos, 1990). From a market standpoint, the cost of funds had little influence on the level of interest rates for loans, and the government actively guided the allocation of credit. From 1979, the government linked the deposit rates of banks more closely to their costs, according to a measure known as the Weighted Average Cost of Deposits (WACD). In effect, the government began to lift restrictions on the level of interest rates that could be charged on loans. By 1980, only a minority of loans (i.e. to agriculture and social housing) remained subject to interest rate controls (Gonzalez; 1980).

In 1989, the government took the decision to deregulate interest rates entirely (Ortiz, 1994). Banks were authorised to seek funds from the market (e.g. issue bankers acceptances) and managers were given the freedom to set both the level of interest rates and the term structure of debt issues. The rationale for extensive deregulation was that by allowing market forces to set prices and allocate credit, the result would be a reduction in both the lending and deposit rates of interest, increased competitiveness, and reduced financial margins. However, from a governance perspective, policies to deregulate credit markets without a competitive market structure would be unlikely to lead to greater efficiency. This is because in the absence of competitive markets, bank managers would be unrestricted in their power to raise prices.

The elimination of credit allocation controls

Historically, controls on ordinary lending had been a very important instrument to constrain the bank manager's freedom to allocate credits (Gonzalez, 1980). The reform established that credit allocation would be the bank management's decision. In this way, credit allocation controls were eliminated and the government reinforced the traditional system of preferential lending by public development banks (Ortiz, 1994). This decision was taken in line with the governmental fiscal situation, such that at the end of the 80's the public budget was regarded as sound (see Annex table 6.1.a). With nationalisation in 1982, banks became the main source of funds for the public budget (e. g. in 1986, almost 40% of the credit from the banking system was allocated to the governmental sector) (INEGI, 1986).

The elimination of credit controls, together with the freeing of interest rates, produced a new pattern in credit distribution. This new pattern was qualitatively as well as quantitatively different to that of the past (Ciancanelli and Reyes, 1999). As a result, overall lending rates were higher, and credit allocation was riskier. This pattern has been argued to be one of the causes of the banking crisis (Huerta, 1998).

The elimination of bank reserve requirements

Historically, reserve requirements were an essential means of government control of the banking system[18] (Quepon, 1973). By varying the percentages of deposit liabilities that banks and other depository institutions were required to hold at the central bank (on which no interest was paid), the government was able to control the money multiplier, in line with money supply targets.

[18] Quepons (1973) emphasises that from 1924-1936, reserve requirements were mainly used to protect bank deposits. Legal reforms were introduced in 1941 establishing a formal basis for the level of required reserves. These became a proportion of the liabilities of the banks, varying according to the structure of the deposit base of the banks. The 1941 reform signalled a shift in the function that the reserve was meant to serve. From thence forward, the reserve requirement was meant to give the government greater control over the money supply by controlling the volume of loans that the bank could grant (Ley Orgánica del Banco de México, 1941). In 1947, another change was introduced: it required that a portion of banking liabilities be channelled toward obligatory investment in public bonds. In addition, the central bank was given the power to deploy any excess in the deposits of the commercial banks. In 1970, the central bank began to pay interest on those reserve balances that exceeded the minimum requirement.

With the financial reforms, the standard view of reserve requirement as a means of monetary control had given way to a new view on the need for bank reserves. Thus, in 1988, the government stipulated that the issuance of banker's acceptances would not attract a reserve requirement, because these securities were backed 100%. One year later, the government replaced the system of reserve requirements with a new regulatory standard, called Coefficient of Liquidity (CL), which reached a minimum of 30% of the overall banking liabilities. The CL had to be held in the form of public bonds, in cash or as a deposit in the central bank. By 1991, the regulatory obligation of CL was eliminated altogether. Banks would be able to maintain a discretionary CL in the central banks (Ortiz, 1994). This formal elimination of any sort of reserve requirements appears to have no precedent anywhere else in the world (Huerta, 1998; Mishkin, 1992; Mishkin, 1997).

The elimination of the CL rested on an assumption of efficiency in market operation, and a strong national fiscal situation. According to the government, from 1988 forward, the growth of the money market had given individual banks greater flexibility in funding their loans. It was argued that individual bank managers would have a keen interest in maintaining the proper level of liquidity for their organisations. Hence, market discipline would provide banks with incentives to act prudently, and to maintain control over the liquidity required by their organisations. The second reason to eliminate the CL was that the state sector was no longer reliant on the banking system to finance the public deficit (Ortiz, 1994).

The deregulation of reserve requirements released an enormous amount of new loan resources. In one year, 1989, the replacement of the reserve requirement with the CL resulted in a net release of $17 billions of Mexican pesos (around $8 billions of USA Dollars) from the central bank to the banking system as a whole. This amount was equivalent to 18.5% of the aggregate value of the banks' loan portfolios (CNVB, 1993). When the CL was abandoned, additional funds were released by the central bank to the banking system as a whole.

The release of financial resources, within a framework that lacked controls on both credit allocation and interest rates, placed bank managers in the position of having to

make a large number of new lending decisions quickly, within an environment that lacked market discipline and managers lacked expertise in commercial lending (Concheiro, 1996; Correa, 1998).[19]

In the context of deregulation of the banking system, and the increased funds being allocated, the second stage of the financial reforms was undertaken. Privatisation is discussed in the next section.

6.4.2 The Financial Reforms: Stage II-Privatisation

Banking privatisation was the second stage of the financial reform (Ortiz, 1994). Privatisation added additional governance problems to the ones arising from the first stage of the financial reforms. Given the importance of privatisation, it is analysed below with regard to its objectives and the process by which it was achieved.

The contradictory objectives of privatisation

As was argued in the analysis of the legal changes, privatisation required constitutional reforms that aimed to secure the long-term property rights of the new owners of the bank organisations (Huerta, 1997; Huerta, 1998).[20] The rationale for privatisation was to allow the government to concentrate on its basic functions, and become more selective about what it owned. Because there existed different economic, social and political circumstances to those that had required the nationalisation of the banks in 1982, the privatisation was also viewed as means to increase consumer access to banking services and to improve their quality (Ortiz, 1994).

This overall rationale for legal changes reflected three specific objectives (Burnes, J. 1992).

- To create a more efficient and competitive financial system
- To ensure competence of bank management

[19] In addition, banks were increasing credit allocation within a macroeconomic environment that was not very strong (Huerta, 1997; Concheiro, 1996; Correa, 1998).

- To promote both fair and healthy financial and banking practices.

In light of the bank governance system created by the first stage of the reforms, it is possible to say that privatisation was a contradictory project.[21] It was contradictory because the objectives of bank privatisation were not consistent with either the market structure, or the actual regulatory framework that had been set up by the first stage of the financial reforms. The objectives of efficiency, competence and fair banking practices require effective external forces of governance. However, as noted earlier, the reforms had reduced the power of the external force of governance. Thus, the absence of a suitable regulatory framework and effective market forces meant that the actual results of privatisation were likely to be very different from the objectives set for it.

The contradictory process of privatisation

Privatisation was not a unique event but a process; it lasted two years (1990-1992) and included legal reforms and the sale of the banks. The sale lasted 13 months, starting in June 1991 and ending in July 1992. Banks were privatised according to the criteria and policies defined by a government committee set up to control the process of privatisation. Each sale was by closed bid, with bids restricted to those groups (44 groups) selected by the government. The rationale for this procedure was to ensure that the ultimate owners were experienced, had high moral standing and were able to make a positive contribution to the future growth of the banks (Ortiz, 1994).

There were four classes of bank shares: A, B, C and L. The "A" shares, comprising at least 51% of the ordinary capital, enabled investors to take control of a bank. Each bidding group was allowed to purchase class "A" shares, on the basis of an accounting valuation. A winning bid was one that offered the price that exceeded the

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[20] In 1990, the government took the decision to privatise eighteen of twenty multiple service banks. The two that were not nationalised were Citibank and Banco Obrero, the latter being the bank of the main national worker's union).

[21] The term "contradictory" is used throughout the analysis that follows. The meaning intended is straightforward. A contradiction arises when the means chosen or provided cannot lead to the attainment of the stated objectives of social or individual action.

accounting valuation by the largest amount. If there were a tie, the capitalisation plan, business plan, and regional presence of the bidders would be used as determining factors. As it turned out, all the banks were sold to the highest bidder. Only Mexican citizens were allowed to purchase "A" shares (Ortiz, 1994).[22] The restrictions on bidders assured that banks would be controlled by a small number of national investors, mainly represented by financial groups. The total number of investors involved in the winning groups was around 130,000. The average number of investors controlling each group was fifteen. Therefore, one can estimate that the number of individual investors controlling the banks (and thereby the fate of the banking system) was roughly 270 (i.e., 15 times 18). When one considers that, of the eighteen privatised banks, only three accounted for over 65 % of assets, loans and deposits, one can conclude that roughly 45 individuals (i.e., 3 times 15) were now in control of the banking system.

The total sale price of all of the eighteen banks amounted to US$13.5 Bn. This meant a weighted average price-earnings ratio of 14.56. The weighted average price-book value ratio was 3.08. These valuations were different to those in the U. S. and Europe where comparative bank acquisitions, in those years, reached a weighted price-book value ratio of 2.2 (Burnes, 1992). There is the view that the valuations were high because the estimated profitability of the banks was high given that the bank market was not competitive (Huerta, 1997).

Privatisation resulted in control over the banks being assumed by the majority owners of the financial groups. It gave to the new, legally sanctioned, financial groups a tremendous opening.[23] According to the law, these groups were now permitted to sell all kinds of financial services and could be reorganised to include a

[22] "B" shares could comprise up to 49% of the ordinary capital. They could be held by Mexican citizens, Mexican corporations, and/or Mexican mutual funds. The "C" shares could comprise up to 30% of ordinary capital. These shares could be held by Mexicans citizens or Mexican corporations, as well as foreign investors. The "L" shares, representing additional capital added later could be issued up to a maximum of 30% of the value of ordinary capital. The holders of these shares could be the same type of investors for "C" shares, but were given more limited voting rights.

[23] Initially, these financial groups were non-banking financial groups. The law specified that any financial group should be integrated by at least three non-banking financial intermediaries and the participation of either foreign citizens or foreign capital was prohibited. With privatisation, the financial groups could combine five financial institutions, including commercial banks.

bank into their common structure, alongside companies performing different financial services such as insurance, brokerage, and so forth.[24] It signalled the end of the formal separation of banking services from other kinds of financial services. It made legally for banks and brokerage houses to be under the control of a single holding company, and thereby opened up the possibility of creating a banking system comprised entirely of closely held universal banks.

It is possible to see that this level of financial integration and consolidation signalled the emergence of a new governance problem: increased scope for contagion. Bank problems could be spread to other financial organisations that were members of a group controlling a bank. Thus, the scope of systemic risk was extended from banks to the financial system as a whole. Given the new regulatory framework, the financial groups were in control not only of the banking services, but also of the financial system as a whole. This degree of centralization of control of the financial system was unprecedented in Mexico's history.

It is possible to argue that privatisation was a contradictory project that aggravated the governance problems arising from the first stage of the financial reforms. The objectives set for privatisation were not achieved, because the first stage of the financial reforms had sanctioned an oligopoly market structure, a weak regulator, unconstrained lending by inexperienced bank managers, and a lack of preventive regulations, including appropriate accounting practices. The process of privatisation itself reinforced the oligopoly structure of the market. At the same time, it failed to put in place adequate safeguards in light of the possible hazards arising from ownership of banks by financial groups. In one of the few studies of corporate governance and privatisation explicitly addressing the issue of regulation, Ogden (1997) suggests that regulatory safeguards after privatisation have positive effects. He argues that the importance of the regulator, in the UK context, led to a greater scrutiny of the conduct of senior executives of privatised water companies. This did not occur in Mexico because banking privatisation was not followed by appropriate regulation. It appears that weak regulation was an intended consequence of the

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[24] The original legal basis for creating a financial group was ownership of a bank. With privatisation,

reforms. Thus, centralization of control of Mexican banks without appropriate regulation had enormous governance implications. The discussion of the governance consequences of the financial reforms, both stage I and II, are discussed in the next chapter.

6.5: Conclusions

Given the centralised nature of the Mexican legal system, financial regulatory changes are tightly linked to legal changes. Thus, the changes in Mexican law led to changes in the system of bank governance. The governance system changed in the domain of control and ownership of banks, as well as in the provision of bank services and the market structure. The most profound change was that the system of bank governance changed from one in which the National Constitution privileged banking as a service in the public interest, into one that established banking as a commodity service, in which the private interests of bank controllers were privileged.

For these reasons, the process and the objectives of privatisation were contradictory[25] (OECD, 1998). These contradictions should have signalled that the actual results were likely to diverge from the ones expected. The objectives of creating a more efficient, a competitive financial system, as well as promoting fair and healthy banking practices could not be met.

The controllers of banks were assured, by the barriers to entry, a rapid recovery of the high price they paid for the banks. On the one hand, managers had to manage a rapid increase in the amount of loan capital to be allocated as loans. On the other hand, these managers did not have the expertise to assess the new loans being made, because their careers had been made in government-owned, highly controlled banks (Gutierrez, 1998). This resulted in loan portfolios that were riskier. The Central Bank (1993) argues that this was inevitable, if only because the government was no longer the banks' main borrower. However, the increased risk was probably even

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brokerage houses acquired the same rights as banks, to create a financial group.

[25] Privatisation can also trigger other contradictions related to corporate performance, mainly in the domain of consumer prices, and management salaries and bonuses (Ogden, 1997).

greater than realized. Not only was there a shift from public to private sector borrowers, there was also the contribution made by inexperienced bank managers. Financial authorities failed to establish a framework of preventive regulation that would be suitable for the newly deregulated banking system. Bank accounting standards and practices remained unchanged, even though some preventive regulatory actions were taken with regard to systemic risk, for example: a new method for determining credit quality, and introduction of a system of prudential supervision (Banco de Mexico, 1993). Thus, to deal with the higher level of systemic risk, the regulator only had the tool of *protective regulation* (e.g., actions as the lender of last resort).

This overall assessment poses the question: Were the new owners of banks prepared to increase the degree of prudence about bank operations? One would think that in light of the greater risks in the new system, rational regulators would seek to act in a manner that would safeguard their reputation, and that rational owners would act in ways that would conserve the capital invested. However, as will be demonstrated in the next chapter, neither of these expectations for rational conduct were fulfilled.

Annex 6.1

The tables below provide evidence of the healthier macroeconomic situation within which the financial reforms (1989) and the banking privatisation (1990-1991) were conducted.

Table 6.1a

Trends of Real Gross Domestic Product (RGDP), Inflation and the Public Deficit

	------------Annual Rate of Growth-----------		%
Year	RGDP	Inflation	Public Deficit /GDP*
1984	3.60	59.20	(8.5)
1985	2.60	63.70	(9.6)
1986	- 3.80	105.70	(15.9)
1987	1.90	159.20	(16.0)
1988	1.20	51.70	(12.5)
1989	**3.30**	**19.70**	**(5.6)**
1990	**4.40**	**29.90**	**(3.9)**
1991	**3.60**	**18.80**	**1.8**
1992	**2.60**	**11.90**	**3.4**
1993	0.40	8.00	0.2

** Public Deficit/Gross Domestic Product.*
Sources: Servicio Macroeconomico de Ciemex-Wefa.Julio 1993.
Servicio Macroeconomico de Ciemex-Wefa. Marzo 1994.

Table 6.1b

Real Gross Domestic Product, Inflation, Real Interest Rate, International Investment in Portfolio

	-------------Annual Rate of Growth-----			
Year	RGDP*	Inflation	Real interest rate**	PEI***
1983/1984		70.40	59.20	1.050.00
1984/1985	2.60	63.70	9.89	0.00
1985/1986	- 3.80	105.70	13.55	0.00
1986/1987	1.90	159.20	- 6.63	0.00
1987/1988	1.20	51.70	47.10	0.00
1988/1989	3.30	19.70	29.60	0.49
1989/1990	**4.40**	**29.90**	**11.52**	**1.99**
1990/1991	**3.60**	**18.80**	**2.93**	**9.87**
1991/1992	**2.60**	**11.90**	**4.46**	**13.55**
1992/1993	0.40	8.00	7.43	12.52

**RGDP: Real Gross Domestic Product*
**/ *Real Interest Rate on public bonds*(Certificados de Depósito) for the last year of each period.
**/*External Investment in Portfolio* for the last year of each period, in US Billions of Dollars.
Source: Servicio Macroéconomico de Ciemex-Wefa, March 1994.

CHAPTER 7

THE CONSEQUENCES OF THE NEW SYSTEM OF GOVERNANCE

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Annex

7.1: Introduction

The objective of this chapter is to analyse the consequences of the new system of governance that emerged as a result of the Mexican financial reforms initiated in 1989. The analysis focuses on the main features of the new system of governance and their consequences for systemic risk. The main argument made in this chapter is that the new system of governance seriously compromised the soundness and safety of the overall Mexican banking system, subordinating the public interest to the private one of the new owners and managers of the banks. This made the banking crisis almost inevitable.

This overall argument is presented in the four sections. The next section provides an analysis of the relationship between governance forces in the new system of bank governance. The third section discusses moral hazard and bank practices arising from the system of governance, and it is argued that the new system encouraged management practices that increased the problems of adverse selection and moral hazard. The fourth section discusses the system's consequences for the regulator's conduct, and thereby for systemic risk. The final section provides conclusions drawn from the chapter.

7.2: Relationship Between the External and Internal Forces of Governance

This section is devoted to a description and analysis of the main features of the external and internal forces of governance, created by the financial reforms. This description is synthesised in two tables in Annex 7, at the end of the chapter.

As previously indicated, the internal forces of governance refer to the structures defining the interaction between owners and top bank managers. The external forces of governance are related to public regulation (broadly understood) and the market (e.g. oligopoly, monopoly, full competition and so forth. The proposed theory of bank governance argues that the governance structure establishes the parameters of the conduct of the system's main actors. These are: the market, the set of public regulations, the nature of ownership and control of banks, and the management

practices to which the latter give rise. All four interact and the structuring effect of each significantly depends on that of the others. For example, public regulation can affect the market structure; protective regulation, together with the market structure, can constrain or increase the freedom of the banks' management, and so forth.

The discussion in this section has two mains parts. The first part considers the nature and scope of the external forces of governance in the new system, and the second part considers the character of the internal forces of governance. It is argued that in the new system of governance, the external forces were not capable of ensuring that the conduct of owners and managers was aligned with the public's interest in a safe, sound banking system. Thus, on one hand, the structure of external forces created incentives for both owners and managers to take excessive risk (e.g. a deregulated oligopoly) while, on the other hand, from a governance perspective, there was little to prevent excessive risk-taking. This increased the systemic risk for the banking system as a whole.

7.2.1 Weakened Powers of the External Forces of Governance

In the new system of governance, important contradictions are evidenced in the structure of external forces. On one hand, the new owners had paid a high price for the privatised banks; while on the other, the new legal regulations diminished the charter value (economic value of banking license) of the banks. Regulations aimed at preventing banking problems, allowed owners to operate significantly under-capitalised banks, at the same time, protection of the banking system (such as the obligation to act as the lender of last resort) continued to be the responsibility of the regulator.

These contradictions are analysed under the following three sub-headings. The first heading focuses on the weakened legal powers of the regulator. The second heading looks at the unsuitable preventive and protective regulations. The last heading focuses on the weakening market forces of governance.

Weaker legal powers

Legal regulation defines the lawful nature and scope of financial institutions (Coase, 1988). Thus, as noted in chapter four, the banking business is normally a legal right granted by the regulator.[1] In the literature on banking, this legal right is often referred to as a "charter"; banks are described as "chartered" and part of the value of the business is the ownership of this charter. It provides the legal right to act as intermediary and fiduciary for the wealth deposited by the banks' clients.[2] Legal regulations also establish the nature and scope of the services that a bank is entitled to sell.[3] Finally, legal regulation establishes the rules defining how banks are to be regulated and indicates the overall importance assigned to the public interest.

As indicated in chapter 6, the Mexican tradition of privileging public over private interests in bank services (Constitución Política de los Estados Unidos Mexicanos, 1982)[4] was abrogated with privatisation (Borja, 1991). Legally, banks were now subject only to general business laws (private law) governing the private sector, and the specific licensing requirements defined by the government.

These legal changes had three important implications. The first one was at the level of the regulatory framework itself. The new system of governance was based on legal guarantees similar to those of countries with a decentralised legal system (such as the U.S.) in which private law normally frames bank businesses. However, the

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[1] The change in the legal framework of the Mexican banking system was discussed in Chapters 6.

[2] According to Black's law dictionary (1951), charter is "An instrument emanating from the sovereign power, in the nature of a grant, ...assuring ...certain rights, liberties or powers" (pp. 298). The term charter is used in this dissertation in line with the more general definition of "[P]ermission, licence, authority, franchise, right, privilege, concession" (The Oxford Thesaurus, 1977, pp.55).

[3] In light of the legal framework, regulation defines a bank's obligations to manage intermediation processes that affect systemic risk. For example, the Basle II Accord seeks to define procedures which banks must follow with regard to derivatives contracts. These procedures involve the valuation of contracts and their disclosure to supervisory authorities as defined in public law (The Banker, 2001).

[4] In the 1982 debt crisis, the government decided that the banks were not acting in the public interest. The controllers of the privately owned commercial banks were judged to have provided credits to their own industrial groups, often at concessionary rates of interests. Secondly, the banks were implicated in the massive flight of capital out of the country (Tello, 1984). Thus, the government expropriated banks, relying on the constitutional power to withdraw their concessions to operate. This right of executive action, with respect to banks, may be unique to Mexico. It reflects the view of the early revolutionary government that the public interest was involved in bank services provision and that banks had an obligation to act in accordance with it.

legal system continued to be a centralised framework. Thus, the change in the legal system guarantees limited regulator's power to prevent bank problems but did not remove the regulator's obligation to resolve them.

The second implication of the new legal framework was a radical increase in the potential cost that the regulator would face, when dealing with a full-scale threat to the banking system. Expropriation was no longer an option; should banking problems materialise, the regulator would have to intervene, either as lender of last resort or as a provider of capital.

The legal change categorising banks as simply equivalent to other businesses, had a third implication. On one hand, it diminished the political risk to bank owners; they no longer faced the risk of expropriation for conduct not aligned to the public interest. This implied the value of a bank licence or charter would be higher in the new system of governance than in the old one. On the other hand, bank owners could face increasing competition depending on how easy, and with what frequency, new licences were granted. This implies that competition risk increased. Therefore, one could say that the charter value in the new system could be lower than in the old one. However, the risk from competition was not an immediate problem. Owners knew that in the short run the oligopoly market structure would remain in place because regulatory barriers to foreign competition were not scheduled to be removed until 2000, according to the North American Free Trade Agreement (NAFTA) (Ortiz, 1994). Thus, in the new system of bank governance, the economic value of a bank charter could be said to be equal to, or higher than in the old system, since the new owners had the freedom in to the medium term, to exploit their oligopoly market power. Nevertheless, in the long term, it seems more reasonable to conclude that competition could pose a real risk; as the time neared for other competitors to enter the market the charter value would decline.

Uncertainties about the future value of a bank charter created incentives for the new owners to fully exploit the freedom of action provided by the new system of governance. It would be rational for the new owners to assume that a good return on

their investment required increasing profits, for as long as they had the oligopoly power to do so; increasing prices to customers (mainly interest rate charges) was easiest because the regulator had no powers in this regard.

Unsuitable preventive and protective regulations

Preventive regulations aim to preclude conduct by individual banks, which the regulator judges will increase risk for the bank, and thereby, for the overall banking system. Protective regulations are those available to the regulator when preventive regulations fail and the system itself is at risk. In general, preventive regulations are judged as effective by the extent to which they make protective interventions unnecessary. For example, accounting rules are one type of preventive regulation; effective accounting rules are intended to facilitate accurate reporting of non-performing loans. Accurate reporting provides the regulator with the governance information required to monitor the level of non-performing loans in the overall system and to take early action if required.[5]

Preventive and protective regulations have a particular relationship to one another. Firstly, preventive regulations logically precede protective regulations because they constitute the first line of defence against systemic risk (Dale; 1994). Secondly, from a governance perspective, preventive regulations are the most adequate means of looking after the public interest. They are estimated to be socially less costly than protective regulations. On the other hand, by their very nature, protective regulations are costly; they normally require the use of significant amounts of public money to manage problems (Enoch *et al.*, 1999).

Preventive and protective regulations can be analysed at two levels. The first is the interrelation of prevention and protection, the second is the nature and aims of protective regulation itself.

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[5] Some corporate research reports that after privatisation, accounting can affect organisational behaviour by affecting how managers frame corporate governance issues (Ogden, 1999). In the case of the privatisation of Mexican banks, there is no evidence of any generalised effects of accounting on management or regulators discussions of new governance conduct.

Interrelation

As argued in the theory chapter (chapter four), the banking literature implies a lack of vision about the interdependence of preventive and protective regulations.[6] Firstly, the banking literature makes a strong distinction between preventive and protective regulation (Goodhart, *et al.* 1998; Dale; 1994). While useful as a heuristic device, such a distinction is, however, difficult to sustain, either at the level of specific regulatory rules or at the level of bank governance theory. At the level of specific rules, regulation is embedded in a continuous political-economic process. That means that each social-institutional context will determine the specific set of regulations required. At the level of governance theory, what may be regarded as preventive regulation in one system may be properly regarded as protective in another.

From a structural governance point of view, one can expect that changes in one force of governance (e.g. internal forces) will necessitate changes in the other force (e.g. preventive regulations). However, in the new system of governance in Mexico, preventive regulations did not change, even though the actors in the internal forces of governance had changed, as had their power. To illustrate this point, we can consider two preventive regulations: capital adequacy rules and accounting rules on non-performing loans.

Prior to the financial reforms, as a legacy from the period of government ownership, the required level of capital in banks was low (Ortiz, 1994). When banks were privatised the regulator permitted banks to continue to operate with the same (low) levels of capital. It was established that banks had until 1993, three years after the beginning of the privatisation process, to meet international recommendations on minimum capital requirement.[7] However, this recommendation was not enforced until 1995 (Banco de México, 1996), the year of the banking crisis. In the realm of

[6] Since the worldwide financial reforms, there is some confusion on what is meant by and what is expected to be meant by regulation (Goodhart, *et al.*, 1998).

[7] In the international arena, the current regulation originally had a framework of prescriptions (Basle Agreement, 1988), chiefly in the domain of capital adequacy (Rose, 1999). Later (1993), it incorporated market risk and interest risk assessment (Dale, 1994). At the present time, a further development called Basle II is under discussion.

capital adequacy, rules stipulate a minimum amount of every loan must be backed by owners' equity. Obviously, when a loan is made, if the amount of owners' capital at risk is very low or almost zero, owners do not have an incentive to be careful about the risk and conditions of the loans underwritten by their managers. Thus, from 1991 until the banking crisis in 1995, privatised banks operated with levels of capital totally inappropriate for the new system of governance. Under the old system, the government, as "owner" of the banks did not have to be concerned about the level of bank capitalization, since it bore both the business and systemic risk. However, in the new system of governance, requiring adequate capital was essential to prevent privately owned banks from taking excessive risks.

The new system of governance also maintained the previous system's accounting practices. The old system was characterised by a very liberal set of rules regarding non-performing loans, and therefore in defining loss loan provisions (Banco de México, 1996; Banco de México, 1997). Non-performing loans were treated as accounts receivable or debtors and measured as the amount of unpaid interest and capital repayment due the previous month.[8] In the previous governance system the government, as the banks' owner, bore the cost of managerial decisions on loans. One could argue that these accounting conventions provided governance information suitable to the low level of systemic risk in the system; however, after deregulation and privatisation, the old system's information was unsuitable.

Failure to change the accounting treatment of non-performing loans had two governance consequences. The first was that bank's financial statements did not have the capacity to accurately signal their true performance. Yet, in the new system of governance, good information regarding conduct of managers and owners was essential in preventing moral hazard. How could the regulator prevent banking problems if he did not have proper governance information? Secondly, because the accounting treatment meant the systemic consequences of non-performing loans were underestimated, provisions for loan losses were too low. Provisions for loan

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[8] In contrast, standard practice in the US defines non-performing loans as a liability. The book value is the loan for which unpaid interest and due capital repayment has not been received, within 90 days (Rose, 1999).

losses (PLL) were shown as a liability account. From a systemic-risk perspective, increase in the asset account, non-performing loans, would need to be offset by increase in the liability account (PLL). Otherwise, increases in non-performing loans would increase the book value of bank capital. Since PLL was too low, this meant the reported level of bank capital was too high. Had the regulator been informed of the true level of capitalisation, the actual level of systemic risk might have become apparent earlier. This would have allowed the regulator to take other preventive actions, perhaps forestalling banking problems or limiting their scope. The regulator's failure to make changes in accounting standards adversely affected possible early warning on increases in systemic risk.

Nature and aims of protective regulations

The new system of governance revealed a crucial contradiction in the nature and aims of protective regulations. A central aim of protective regulation is to protect deposits and savings. The nature of protective regulation varies according to social contexts. Protective regulations can take the form of deposit insurance, or of defining a small number of banks permitted to accept deposits. In Mexico, regulations protected deposits and savings via a private fund held by the Central Bank; however, this fund was also available for capitalising any bank if it should face problems (Ley de Instituciones de Crédito, 1990). This meant the aims of Fondo Bancario de Protección al Ahorro (Banking Fund to Protect Savings) (FOBAPROA) were to protect, not only the interests of stakeholders (depositors), but also those of the shareholders (Priego, 1997; Graf, 1999; Hawkings and Turner, 1999). This is highly unusual because it is contradictory. Normally, protective regulations aim to protect depositors, whereas bank shareholders are supposed to accept losses (including the possibility of bankruptcy) arising from business risk. Thus, in the new system of governance, protective regulations protected both stakeholders and shareholders.

In the new system of governance, the relationship between preventive and protective regulations was incoherent; this was because the regulator did not set up preventive regulations reflecting the new internal forces of governance. Also, the nature and

aims of the protective regulation were unconventional and ultimately indiscriminate.[9] In this way, the new system of governance created a specific space for opportunism by bank owners that ultimately increased systemic risk to an unsustainable level.

Weakening of market forces

According to Coase (1988), the market structure is not only about the number of firms; it also reflects the influence of regulation. Market structure can reflect whether business units are regulated, and how extensive the regulations are. In the case of the bank market, if one considers market structure as merely the number of banks, then some important causes and consequences of regulation will be missed. For example, new entries, mergers and takeovers can be controlled by regulation (Visentini, 1997; OECD, 1995), and at the managerial level, the regulator has powers to prevent any practices deemed to damage consumer interests.

Thus, from a governance perspective, one would expect that if the market force of governance was weak, other types of market regulation would be extensive. A highly unusual situation would be one in which, market forces were weak and other types of regulations were limited or non-existent. This means that the internal forces of governance in individual banks were only weakly constrained by external forces of governance. In such an unusual system of bank governance, one would expect opportunism and moral hazard to be very high.

In the case of Mexico, the new system of governance was one in which the market was weak and regulation was limited. Thus, given the market structure and limited regulation, banks were able to act as a cartel (Huerta, 1997). Moreover, because the new owners operated universal banks, integrating diverse financial businesses, bank auditing and supervision were more complex (Vittas, 1992; Draghi, 1992, Talley, 1992). Because the banking system was now composed of universal banks, this

[9] A clear set of rules is the key to maintaining the reliability of lender of last resort (LLR) programmes. Nevertheless, there is always the risk that these rules will be broken in order to manage a financial or economic emergency. Normally, the cost of LLR is socialised. Thus, in order to place a ceiling on the cost of LLR, supervision and auditing aim to fulfil the three parameters "governing" the function of LLR: i) conditions that must be satisfied before obtaining support from the LLR, ii) the institutions eligible for that support, and iii) the responsibility for LLR's by the national authorities (Dale, 1994).

alone could have been expected to have increased systemic risk; however, this was exacerbated by the fact that control in the new system was concentrated in a small number of financial groups (Basave, 2000). Since these financial groups were the main controllers of the financial markets, this implied the higher level of systemic risk in the banking system now extended to the financial system as a whole. This meant, in the new system of governance the regulator's obligation to monitor and protect against increased systemic risk was unwittingly extended to the financial system as a whole.[10]

7.2.2 Strengthened Powers of the Internal Forces of Governance

Given the absence of effective external forces of governance, the privatised banks were directed and controlled by their owners and managers without important influence from external forces. In the next part ownership and control of bank is analysed, and in the following part, management practices are discussed.

Ownership and control of the oligopoly banking system

The new system of governance allowed financial groups and a small number of investors to control the oligopoly banking system. Even though financial reforms and privatisation were intended to promote wider public interests, the weakness of the external forces of governance enabled bank controllers to act in their own private interest.

Kay and Thompson (1986) argue that privatisation ought to have structural objectives; for example, one structural objective of privatisation is to increase competition (Kay and Silberston, 1984; Beesly and Littlechild, 1983; Samuel, 1985). In the case of Mexico, privatisation did not include actions needed to increase

[10] Because most research on contemporary economic problems in Mexico blames the banking crisis on the economic crisis, the direction of effect is assumed to be from the real economy, to the financial economy. This dissertation suggests that the direction of effect is the opposite, or at least, some part of the propagation of the economic crisis has its origins in banking problems. These banking problems are argued to have their roots in the unusual system of governance created by financial reforms. In that sense, the direction of effect was from the financial reforms to the real economy rather than the reverse. Obviously, the severity of the effects varied among countries. In emerging economies, such as Mexico, the effects have been judged to be profound (Stiglitz, 2002).

competition (e.g., entry of foreign firms, assured benefit to consumers); thus, in Mexico, privatisation merely transferred ownership of a public asset (Burton, 1987).

The failure to achieve the structural objective of competition was a key feature of Mexico's bank privatisation; from a governance perspective, there were three main consequences. The first consequence of the failure of competition was the potential for moral hazard from the new owners. The new owners had paid 40% more for banks that the international average (Ciancanelli and Reyes, 1999) and the conditions of privatisation meant high profitability was guaranteed for nine years (1991-2000).[11] Recovery of the 40% premium in only a few years implied the new owners needed to increase profits significantly; their ability to do so can be explained by the high profitability that membership of a cartel guarantees. Normally, however, investors face a trade-off between risk and reward. If this is so, the trade off for the new owners was very high risk, for very high reward. This should have signalled to the regulator the potential for increased moral hazard from new owners.

The second governance consequence was that the new owners lacked the prudential expertise required to control banks. This is a consequence of the origin and nature of the new owners, mostly legally instituted as financial groups. The controllers of the groups were mostly non-bank financial groups (55%) emerging from brokerage houses. This meant they had the knowledge and expertise required for managing non-bank financial institutions, but not the specialised knowledge and expertise required to manage banks. For example, the management of brokerage functions in the stock market is associated with short-term liquidity management, whereas bank management is associated with investment management in the medium term. Thus, the new controllers had neither the experience nor skill to control and monitor the level of risk-taking by managers making lending decisions. The characteristics of these new controllers could have been expected to signal to the regulator, the need to assist them by providing close supervision and technical assistance. The regulator however, did not engage in such activities.

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[11] This was because the market structure created strong barriers to entry until the year 2000, when the market would be opened to foreign competition.

The third governance consequence of the failure of privatisation to create a competitive market was that financial groups controlling the banks were themselves controlled by a small number of investors.[12] Only 264 investors controlled the privatised banks, even though the total number of investors was 130,000 (Ortiz, 1994). This meant the median number of controllers per bank was 14. Thus, in the new system of governance, a very small number of investors controlled the entire banking system. The question for the regulator was whether this pyramidal structure of control would increase the potential of moral hazard, for the consumer and the public interest.

The pyramidal structure also implies that relative to the bank assets they held, the controllers had an extremely small amount of capital at risk; this would suggest incentives increasing moral hazard. On the other hand, the small number of controllers implies it would be easier for the regulator to monitor their conduct than would be the case in a more conventional banking system. The regulator could regulate the entire banking system by monitoring the conduct of a few controllers, implying that moral hazard did not have to increase. All of this depended on the actions of the regulator. If the regulator were to take advantage of the fact that, in principle, it is easier to supervise such a system, then moral hazard would not necessarily increase. However, if the regulator fails to monitor the controllers of the system, and the controllers choose to act on the incentives provided by the pyramidal structure, then moral hazard will increase. Indeed, without pro-active intervention by the regulator, the level of moral hazard in such a system can be expected to be extreme enough to threaten the banking system as a whole.

Management practices and non-performing loans

Management practices prior to the financial reforms meant that banks' loan portfolios included a low level of non-performing loans. This was because credit allocation and interest rate were highly regulated. However, after the financial

[12] This type of pyramidal structure of control was discussed by Berle and Means (1999). They emphasized that this structure allows the capital invested to be reduced, while control is maintained. This means that the owners' capital at risk is only a very small proportion of the capital deployed in producing the goods or services. Since banks are already highly leveraged business, a pyramidal structure of control implies that the amount of controllers' capital at risk is small.

reforms, increase in the volume of lending was associated with a greatly increased level of non-performing loans (this is detailed in Table 7.4). The sharp increase in non-performing loans should have been treated as an important observable and measurable 'early warning'. It indicated that the new system of governance was allowing an increased level of systemic risk. However, the absence of precautionary action by bank owners, and the lack of preventive regulations available to the regulator, combined to exacerbate the private interest focus of management conduct.

In the previous system of governance, the main hazards from managers arose from neglect or carelessness in the enforcement of administrative regulations and in the potential opportunism of creditors. In the new system of governance, the two main hazards from managers could be expected to be: i) managers' lack of experience in making loans in the new deregulated commercial environment and ii) problems arising from asymmetric information. As to the first hazard, managers were now free to take decisions on credit allocation and the prices that they charged. However, they lacked the expertise required to assess the lending risk (e.g. collateral, the borrowers' reputation, the entrepreneurs' business prospects, and so forth) (Gutierrez, 1998; Banco de México, 1993).

The second hazard is that managers have better and more up-to-date information than other parties.[13] Managers have responsibility for making new loans, monitoring re-payment of past loans, reporting how bank capital is allocated and reporting the financial results. This means the regulator and owners have less complete information than the managers. In the case of Mexico, adverse consequences of asymmetric information could be aggravated, since the accounting standards were not appropriate to the new system of governance. Furthermore, while the regulator knew that the level of non-performing loans was increasing (Banco de México,

[13] Asymmetric information in the relationship between agent and the principal is the conventional basis of the agency problem as applied to banks (Mishkin, 1992; Mishkin, 1994; Mishkin, 1997). However, in the work of Stiglitz and Weiss (1992), this issue of information was reformulated, and in the case of banks, extended to the relationship between lender and borrower. These theorists refer to "imperfect information"; it is assumed the neither the lender nor the borrower has full information; complete or perfect information is not possible. The concept of imperfect information is considered to be a more realistic approach to analysing markets (Stiglitz, 2002; Stiglitz, 2002a) and represents "the application of a new orientation in which models are constructed with careful attention to realistic microeconomic detail" (Akerlof, 2002, pp. 414).

1993), the full extent of the risk arising from credit allocation was not known. Thus, owners and regulators did not have information on bank performance with the same level of detail as the managers. For instance, the information that owners received indicated that bank operations were profitable (see next section, part four for details). However, in the event, it is clear that provisions for possible loan losses were far too low with respect to the riskiness of the credit allocation decisions made by managers. In the absence of appropriate governance information, the regulator could not have assessed the quality of reported earnings, or the viability of the dividend decisions being made (Ortiz, 1994).

From a governance standpoint, management conduct in the realm of credit allocation could be characterised as 'uncontrolled'. The regulator did not, and perhaps could not, assess credit allocation in the light of good and pertinent information. In this respect, the Mexican case reflects a wider pattern. In a worldwide survey of bank and financial reforms, Lindgren, *et al.* (1996) documented that, while the level of non-performing loans was a key factor in almost 80 per cent of problem banks, only one of four models used to predict bank insolvency (USA Federal Reserve's Financial Institutions Monitoring System-FIMS) included non-performing loans as a key variable.[14] This implies that while all regulators can be said to require good information on the level and trend in non-performing loans, evidence from survey research suggests that few have given it the importance it deserves.[15]

In the case of Mexico, good information on non-performing loans was crucial to good governance, because in the new system the internal forces determined the direction taken by the banking system. In other words, the internal forces of governance could be said to be the sole determinant of the level of systemic risk. Minimally in such a system, the regulator requires good information on non-performing loans, because they provide early warning about the soundness of the

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[14] The pertinence of non-performing loan information in assessing bank insolvency and systemic risk, is argued by Lindgren, (Lindgren, et al, 1996). Banking failure usually depends on the same variable that determines insolvency. However, in most cases, failure (liquidity) hinges on a supervisory decision of whether a bank is insolvent or not. That is why sometimes the lender of last resort ultimately becomes a provider of capital.

[15] The other models emphasized the state of the economy (asset pricing models) and only macroeconomic variables (macroeconomic studies).

banking system (Rose, 1999). However, the absence of precautionary actions by the bank owners, and the availability of preventive regulations for use by the regulator, appear to have exacerbated moral hazard and therefore increased the banks' risk profile.

7.3: Moral Hazard and Bank Practices

The objective of this section is to discuss the aggregate evidence about bank practices and the moral hazard associated with the new system of governance. Aggregate evidence is used because the theoretical approach emphasises the structural factors to which all Mexican banks were subject.[16] As was argued in the previous section, risky management practices were signalled by increases in non-performing loans, since they provide *ex post* evidence on the quality of the credit allocation decisions being taken by bank managers.

The new system of governance generated increases in the proportion of non-performing loans in four interrelated ways. These were: i) increase in the volume of lending over a very short period of time, ii) increase in the risk profile of the banks' loan portfolios, iii) increase in the financial margin earned (the difference between price paid for deposits and price charged for loans) and iv), increase in bank profits (and dividend payouts) without appropriate offset by provisions for possible loan losses.[17]

Firstly, an increase in the volume of lending over a short period of time will increase the proportion of non-performing loans when management lack the expertise and internal control structures to ensure the quality of credit allocation does not deteriorate. In the case of Mexico, as previously discussed, management lacked the expertise required in the new commercial environment. Therefore, it was highly likely that an increase in the volume of lending would result in an increase in non-performing loans. Secondly, if managers decide to change the risk profile of credit

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[16] The state's development banks are not included. These banks were not privatised and their main regulatory rules did not change as a result of the financial reform.

[17] This risk interrelation was evidenced in the case of the banking crisis in Chile (Held and Jiménez, 1999).

allocations in the direction of greater risk, it is highly likely that non-performing loans will increase. Additionally, non-performing loans may increase when charging higher prices: the higher the price charged for loans, the more funds the debtor needs to service the debt and the riskier the debt's timely repayment. Thirdly, an increase in interest rates will increase non-performing loans because it increases the risk of even low-risk loans. In the case of Mexico, acting as a cartel, banks imposed significant increases in interest rates charged, in order to increase the financial margin.[18] This decision implies an increase in the risk profile of the bank's entire loan portfolio since it erodes the "margin of safety" of the debtor. Indeed, one can say that for every increase in the financial margin, there is an associated increase in non-performing loans.

Fourthly, if the increase in measured profits is mainly due to increases in the financial margin, then prudence dictates provisions be taken against the possibility that accrued interest revenue will not be realised. In addition, provisions must be increased to reflect the increased probability that the rise in the interest rate charge will adversely affect the debtor's capacity to service debt. If, however, measured profits increase without being offset by provisions, this can be interpreted as a signal that managers are inflating the quality of their performance, and/or that owners are being paid unwarranted dividends.

The discussion of the above points is made in four parts. Credit growth and the risky pattern of credit allocation are described in the first part. The pattern of increasing interest rate charged (financial margin) is presented in the second part. The generation of non-performing loans is documented in the third part, and in the fourth part, the increase in banks' profitability is discussed.

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[18] According to the Commission National Banc aria y de Val ores (CHB) the financial margin is: [financial income – financial cost] divided by financial income. Net interest margin is a prime factor in the determination of the financial margin. Net interest margin is: financial margin/ security portfolio + loan portfolio + debtors In the course of the research for this dissertation, an econometric model was developed (See Annex 7.2 of this chapter). Its results indicated a strong correlation *(R Square* was .79831) between monthly net interest margin with working capital loans, non-performing loans (lag 2), the average cost of money for banks (lag 1), and re-discounted credit. Mortgages, direct credit, and the end of the privatisation process were not significant variables. The data analysed was for all the privatised banks and covered a period of 38 months, from June 1990 to August 1993.

7.3.1 Increase in Aggregate Credit

As discussed in chapter six, the elimination of both credit controls and reserve requirements vastly increased the amount of loanable funds available to banks. Such was the increase that the growth rate of lending was much higher than the growth rate of the GDP (Banco de México, 1996). This implied an increase in the overall indebtedness of the economy's main actors. The problem of indebtedness, signalled by credit growth, was the allocation of a great deal of this new lending to consumption items. This means that some debtors, after a period of time, would have become over indebted and, therefore, would not have been able to service their debts, thereby increasing the volume of non-performing loans.

Table 7.1 below indicates that, between 1990 and 1994, the total annual growth rate of financing from banks increased by more than 35%. In three years of that period, the annual growth rate was over 40%. However, average growth rate of personal loans increased even more, with the financing of mortgages achieving the highest rate of growth. Thus, the growth of credit allocation was not only high, but the pattern signalled increased risk in bank loan portfolios (Hawkins and Turner 1999).

Table 7.1

Financing by the commercial banks to enterprises and persons

Annual nominal rate (%) of growth

Concept	1991/1990	1992/1991	1993/1992	1994/1993	Average
1. Total	59.9	48.7	37.0	41.0	46.6
2. Enterprises and businessmen	54.7%	42.3	27.0	48.0	43.0
3. Personal	77.8	67.8	37.0	25.0	51.9
3.1 Consumption	86.3	61.8	12.0	7.0	41.7
3.2 Housing	71.4	72.8	57.0	35.0	59.0

Source: Banco de México, Informe Anual, 1992, 1995, 1996.

As attested, between 1990 and 1994, the average annual growth rate of financing by banks was 46.6 %. In the first two years of that period, the annual growth rate was 59.9% and 48.7% respectively. However, the volume of personal loans increased even more. From 1990 to 1994, the average annual rate of growth was 51.9 %. The financing of mortgages achieved the highest rate of growth at 59%.

What is striking is that the average growth rate is higher in the first period than in the second. Thus, the average growth rate for personal finance in 1990 to 1992 was 72.8%, whereas in 1992 to 1994, it was 31%. In the sub-categories of personal finance, there was an important contrast. Where average consumption loans dropped from 74% to 10%, average housing loans declined from 72% to 46%. Thus, one can say that personal finance grew faster than lending to enterprises, or to entrepreneurial finance.[19] The importance of mortgage finance remained high throughout the period, even though average growth fell. Thus, even in the period 1993-94, mortgage lending increased by 35%.

The pattern of financing by commercial banks implied an increase in systemic risk because it was in a context of lower GDP growth (see Annex of chapter 6). Thus, indebtedness was increasing faster than the capacity to service debts (Minsky, 1986). Secondly, growing indebtedness supported personal consumption rather than business investment. Since personal borrowing relies on employment and since employment is a function of business investment, this implied that future employment income would grow more slowly than personal indebtedness. Thus, the likelihood that personal loans would not be repaid was high, as was the possibility that non-performing loans would increase at a growing rate.

Reinforcing this point are more details on the use made of personal loans. For instance, credit card indebtedness grew 70% and 40% in 1991/1990 and 1992/1991 respectively; the annual rates of credit growth for consumer durables were 199.3% and 141.7% respectively (Banco de Mexico 1993). Additionally, for example, purchases of cars were financed through credit card loans (Banco de Mexico, 1993). More importantly, because of the high rate of interest charged on mortgages and the low income of many of the borrowers, it became common practice to refinance the interest portion of mortgages, thereby increasing the capital sum borrowed.[20] Thus,

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[19] Entrepreneurs received non-collateralised finance in the form of short-term loans. These are called direct credits in Mexico.

[20] Mexican commercial law prohibited the practice of refinancing interest rates due. This practice was expected to be suppressed as a result of the privatisation, because it was considered unsound (Ortiz, 1994), however, it was not suppressed. During the banking crisis, the bank's debtors

the creation of "Ponzi" loans appears to have been common management practice, and would have resulted in increases in non-performing, and subsequently defaulting, loans (Minsky, 1986).[21]

Because the regulator no longer had administrative controls on the aggregate amount of lending via such preventive regulatory controls as reserve requirements, aggregate lending was determined solely by the decisions of the banks' new owners and managers. Their incentives were such that they quickly allocated the new loan capital released by financial reforms to mainly personal consumption, including mortgages, as this offered the highest short-term profits. As a result, the growth rate of indebtedness exceeded the growth rate of income, which ought to have signalled to the regulator that systemic risk would increase.[22]

7.3.2 Oligopoly Power and the Pricing of Credit

Given their oligopoly power, banks were able to impose high interest rate charges on borrowers. This was done even though, since 1989, the leading nominal interest rates on public bonds were decreasing. This meant that banks' cost of funds was falling but the prices they charged were increasing (Solis, 1998). Some indication of the increased profitability of consumer lending is given by changes in the spread between the interest rate of public bonds, and the interest rate on commercial paper. This spread is an appropriate proxy for the increasing interest rates charged by banks to their clients, because the interest rate of public bonds is the leading market interest rate, and the commercial paper is the lowest interest rate charged to borrowers. Thus, an increasing spread indicates that higher interest rates are being charged to the banks' most credit-worthy borrowers (see Table 7.2, below).[23]

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complained that the banks acted outside of the law in refinancing interest due on mortgage debt (Rendón and Estrada, 1996).

[21] The refinancing of interest due has been called Ponzi finance; Ponzi loans are loans made because debtors cannot afford to service the loans they already have, due to the increase in interest rates charged (Minsky, 1986). This type of refinancing implies, in the limit, an exponential growth in the actual percent interest rate charged (APR).

[22] In a survey of 23 emerging countries facing banking problems, Mexico was ranked second with respect to annual average growth of banking credit (21% between 1990-1995) (Hawking and Turners, 1999).

[23] The public bond interest rate and commercial paper interest rate are indicators of interest rates for depositors and borrowers respectively. Both rates are the best interest rates in the market. Thus, a

Table 7.2

Rates of Interest on Public Bonds and Commercial Paper

Annual Rate (Nominal)

Year	Public Bonds	Commercial Paper	Spread
1989	40.55	43.64	3.09
1990	25.99	38.23	12.94
1991	16.65	24.67	8.02
1992	16.88	22.62	5.74
1993	11.78	22.04	10.26

Sources: Resumen de Indicadores Agregados de la Economía, Banco de México, Dic. 1993.
Banca Múltiple, Comisión Nacional Bancaria, Mayo1993.
Servicio Macroeconómico de Ciemex-Wefa, Julio 1993 y Marzo 1994.

As indicated in Table 7.2, after 1989 the spread between public bonds (higher free risk interest rate paid) and commercial paper rates (lower interest rate charged) increased. It appears clear that the new system of governance enabled an increased use of oligopoly market power in the pricing of credit. At the same time, it would also have indicated that borrowers in those years faced a continual increase in the cost of servicing their debts thereby increasing the riskiness of the banks' loan portfolio.

The potentially adverse consequences, of the increase in the interest rates charged on loan capital, can be traced back to the beginning of the process of banking privatisation (1990). Table 7.3 below provides information on the annual growth rate of the real gross domestic product (RGDP), and the real rate of interest of public bonds (RIR). It indicates that the annual RGDP was lower than the inflation adjusted (real) rate of interest charged on risk-free government bonds. Furthermore, the gap between them increased, signalling that the growth rate of debts was increasing.

"normal" bank depositor and an "average" borrower would actually get a lower and higher interest rate, respectively.

Table 7.3

Annual growth of Real Gross Domestic Product and Real Interest Rate

Year	RGDP*	RIR**
1988/1989	3.30	29.60
1989/1990	4.40	11.52
1990/1991	3.60	2.93
1991/1992	2.60	4.46
1992/1993	0.40	7.43

* RGDP: Real gross domestic product.
** RIR: Real Interest Rate on public bonds
(Certificados de Depósito) for the last year of each period.
Source: Servicio Macroeconómico de Ciemex-Wefa,
March 1994.

According to Minsky (1986), if the rate of growth of GDP is lower than the rate of growth of debts, at some point the economy will not be able to pay its debts. This is because the repayment of debt rests on the cash flows generated by real economic activity. Thus, the lower increase in the level of economic activity, the lower the cash flows, and therefore, the lower the capacity to service and repay debts. This increased financial fragility is the emerging economic context in which the riskiness of the bank's portfolio must be analysed, including the effects of higher interest charged by banks. In addition to the riskiness that higher interest rates trigger in the quality of a bank's portfolio, *higher real interest* rates increase national financial fragility (Minsky, 1986).

Minsky's analytic framework indicates the crucial effects of increases in the level of risk in the banking system as whole. Thus, according to Stiglitz and Weiss (1992), over a certain level of interest rate, the riskiness of loans increase, therefore, the riskiness of the banks' loan portfolio as a whole increases. The trend of the real interest rates should have signalled to the regulator and banks' owners, that in the medium-term the Mexican economy would not have sufficient capacity to service and repay its domestic debts.

The new system of governance created incentives for risky banking practices that increased the moral hazard facing consumers and the economy as a whole.[24] Because the growth rate of indebtedness (a function of the real interest rates charged on borrowings) exceeded the growth rate of real GDP, it implied that, in the medium term, the aggregate income of debtors would be insufficient to service and repay its borrowings. Since it was obvious that an important share of banks' debtors could not repay their loans, in the short term, the results would be a diminishment in the quality of banks' loan portfolio (Stiglitz and Weiss, 1992). This is discussed in the following part.

7.3.3 Increase in Non-performing Loans

As argued in the two previous parts of this section, the new system of governance created incentives for a new pattern of lending much riskier than the previous pattern. This new pattern of credit allocation implies an increase in non-performing loans. Evidence that this occurred is provided by the data on non-performing loans, covering the entire period from June 1990 to July 1993 (See Table 7.4 below).

A functional relationship between the trend of non-performing loans and the portfolio loan distribution is evidenced. The data in Table 7.4 below indicates that from 1990 to 1993, there were no important changes in the *rank order* of types of loans in the overall portfolio of the banking system.[25] The most important type of loan was still direct credits (a form of overdraft), and the least important was working capital. However, mortgages and non-performing loans increased their shares.

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[24] Moral hazards produced by the firm or the principal (owner) have not been as extensively studied by researchers, as those arising from managers' behaviour. In banks, researchers have assumed the bank firm is the agent of the regulator who functions as the principal (Goodhart, *et al.*, 1998). In the view of imperfect information, the hazards emerge from the borrowers (Stiglitz and Weiss, 1992). However in my approach, banks are not the agents, even though owners, managers and banks can be seen to be in agency relationships with consumers. Therefore, I have concluded that moral hazard in the banking system can arise, not only from borrowers, but also from bank managers and owners.

[25] The table includes direct credit, working capital, mortgages, rediscounted credit, and non-performing loans as credit categories, accounting for more than 90% of total lending. The remaining (<10%) percentage includes discount credit, capital credit and loans backed by industrial units. The discount credit is related to the traditional operations of discounting. Capital credit is focused on the financing of physical assets, such as machinery and equipment, and comprises long-term loans. Loans backed by industrial units are related to special loans provided to industrial enterprises facing short-term cash flow difficulties.

Table 7.4

Main shares of banks' loan portfolio [26]

Loan/Total credit (%)

DATE	Direct. Cret	Work. Cret	Mortgages	Redes. Cret	Non-PrfLn
June-90	68.76	3.57	10.99	9.49	1.89
Sept-90	69.29	3.00	11.16	9.61	2.09
Dec-90	70.32	2.85	10.86	9.99	2.03
Mar-91	68.49	2.63	11.63	10.24	2.60
June-91	67.92	2.58	11.88	10.54	2.75
Sept-91	65.46	2.48	12.79	11.80	3.22
Dec-91	65.63	2.37	12.79	11.43	3.15
Mar-92	64.39	2.26	13.55	11.90	3.75
June-92	63.65	2.34	13.98	11.80	4.07
Sept-92	62.18	2.21	14.94	11.89	4.69
Dec-92	61.35	2.09	15.52	11.73	5.50
Mar-93	59.21	1.88	17.02	11.52	6.56
June-93	58.25	1.78	17.64	11.52	7.18

Source: Comisión Nacional Bancaria, México, Junio 1991, 1992, and 1993.
Direct. Cret: Direct credit. *Work. Cret*: Working capital credit. *Redes. Cret*: Re-discounted credit.
Non-PrfLn: Non-performing loans.

The most notable issue in the new pattern of banks' loan portfolio was that non-performing loans increased very quickly over a short period of time. Whereas in June 1990, the share of non-performing loans was 1.89% of the aggregate banks' loan portfolio, in June 1993 it was 7.18%. Thus, the share of non-performing loans increased in the aggregate banks' loan portfolio around four-fold in three years. The other important issue was that mortgages increased their share from 10.99% (June 1990) to 17.64%, (June 1993).

The analysis of the main components of the aggregate loan portfolio can explain the process that generates non-performing loans. Because direct and working capital credits are short term (e.g., 30-90 days) and charged at high rates of interest (from 10 to 15 points over the weighted average cost of money for banks), they would have

[26] Direct credit is used as a line of credit (a type of revolving credit, similar to U.K. overdrafts). Once it is used, it needs to be re-authorised continuously. Working credit is allocated to provide working capital to enterprises. Re-discounted credits are funded by the Mexican developed banks or by special funds set up in the Central Bank, directed to some activities and producers. In the Mexican case, the overdue period of non-performing loans is 6 months for mortgages and 3 months for other types of loans.

been the first to default when interest rates increase. Thus, any decrease in the share of both types of credit can explain increases in non-performing loans. Alternatively, in the short run, the practice of refinancing prevents recognition of the adverse effects of increasing interest rates on the payment of mortgages. Thus, interest charges due on mortgages were refinanced, applying a system of debt consolidation. This implied an acceleration in the growth of mortgage debt, with each increase in interest rates and associated programme of debt consolidation.[27] It also meant that, in many cases, the value of mortgages soon came to exceed the market price of houses bought with the loans (Graf, 1999). In spite of the adverse economic climate for mortgage lending (high real interest rates and a non-prosperous economic environment), bank managers continued to allocate credit to mortgages. Thus, banks were increasing "Ponzi" loans, which worsened the quality of the aggregate loan portfolio, and further undermined the soundness of the banking system.

The new system of governance enabled banks to pursue risky lending practices. Even though the quality of the banks' loan portfolios was deteriorating, managers and owners displayed no concern about the possible medium term consequences. The internal forces of governance appeared unconcerned with possible adverse effects of 'short term' excessive profits, gained from their lending decisions. Stiglitz and Weiss (1992) argue that increases in the average riskiness of a bank's loan portfolio ought to result in lower profits. This is because higher risk should lead to higher provisions for possible loan losses, and therefore, lower profits. Given the share and trend of non-performing loans documented in table 7.4, the prediction from a Stiglitz and Weiss perspective, would have been that bank profits would decline. However, a striking feature of the Mexican case is that aggregate profitability did not decline. The reason profitability did not decline in the short run is explained in the next part.

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[27] According to Mexico's banking practices, mortgages are used to finance the purchase of residential properties, but are not meant to finance the acquisition of land. Prior to the banking crisis, mortgages had a maximum term structure of 10 years.

7.3.4 Increase in Banks' Profitability

Apart from the reported financial statements, there were other indicators of efficiency that the regulator could have used to assess performance. These indicators, given in Table 7.5 below, enable us to consider the reported increase in profits in a wider context, and to evaluate banking efficiency and profitability between 1986 and 1993.

Table 7.5

Indicators of Efficiency and Profitability as Proportion of Financial Income*

%

Year	Financial Margin (1)	Operating Cost (2)	Operating Profit (3)	Net Profit (4)
1986	9.12	11.06	3.88	2.67
1987	8.12	10.44	4.47	3.28
1988	13.47	16.48	5.85	4.92
1989	20.29	21.39	10.86	5.81
1990	20.23	20.44	9.35	4.83
1991	25.62	26.34	10.38	5.60
1992	31.35	27.87	15.93	2.33
1993	29.94	23.05	15.68	7.42

*(1) Financial margin = (financial income – financial cost)/ financial income.
(2) Operating cost/financial income. (3) Operating profit/financial income.
(4) Net profit/ financial income. Each indicator is times 100.
Source: Comisión Nacional Bancaria, 1993, Banca Múltiple.

As evidenced in Table 7.5, even though bank practices diminished the quality of loan portfolios, banks as a whole earned higher profits; this was because they were in a position to impose higher interest rates, which in turn provided them with higher financial margins. In the short run, these higher financial margins offset the negative effects of increases in non-performing loans, thereby, permitting banks to report a high level of profit. In normal circumstances, sufficient provisions for loan losses on non-performing loans would have offset the higher reported profits.

However, in Mexico's new system of governance, the accounting rules allowed them to avoid making sufficient provisions (this is discussed in detail in part 7.4.3). Higher financial margins also enabled banks to cover up increases in operating costs.

Thus, Mexican banks gave the appearance of improved efficiency, because of their reported increase in profits: this disguised the actual trend.[28]

As indicated in Table 7.5, operating profits, as a proportion of financial income, after 1989 (until 1993) were twice that of the previous five years. In 1993, operating profits were slightly more than four times higher than those reported in 1986, and nearly double those reported in 1989 (aggregate net profits were $46.61, $50.95, $56.15, and $79.62 billion Mexican pesos for the years 1989 to 1992 respectively).

However, in parallel with this, operating costs (relative to financial income) also increased. Net profits however, were higher on average after 1989. The question we could asked is: How long would banks be able to maintain this spread between their rising operating costs and rising operating profit?

Since the spread depended on the banks' ability to impose continual increases in the financial margin, one could say, that maintaining this pattern depended on the debtors' ability to repay their accelerating debts. Since debts were growing faster than the economy, there could have been at least the concern that net profit growth was not likely to be sustained in the medium term.

Another factor affecting the sustainability of bank earnings growth is the management of non-performing loans. It is clear that the increases in non-performing loans (see Table 7.4) were being offset by the higher financial margins being charged, rather than being underpinned by provisions for possible loan losses. From the point of view of the system as a whole, there is a relationship between increases in the financial margin and, after a lag, increases in non-performing loans. As more and more debtors found the new levels of debt service required beyond their means, the ability of banks to sustain profits in the medium term was, at least, arguable. Moreover, the pattern revealed not only the possibility of increased systemic risk in the medium term, but also increased macroeconomic risk as

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[28] Held and Jiménez (1999) emphasise that Chile had the same result. Banks were reporting high profits until the outbreak of the banking crisis.

marginal debtors began to default. Since the above data was available to the regulator, the question arises as to what the regulator did with it. The next section deals with this issue.

7.4: Regulator's Conduct and Systemic Risk

In banking, information is the crucial element if preventive regulation is to lead to action (Polizatto, 1992; Fry, 1995; Goodhart, *et al.*, 1998). In almost all of the worldwide banking crises of the 1980's, it was emphasised that regulators lacked accurate information about the financial conditions of the banks (Lindgren, *et al.*, 1996; Hawkins and Turner 1999). However, the situation in Mexico was quite different because data analysed in the previous sections was available to the regulator. There is also ample evidence that the Central Bank, an important institution in the Mexican regulatory structure, was aware of possible problems. It identified the poor management of credit allocation, and the opportunism evidenced by the increase in interest rates, as relevant features of the deregulated banking system (Banco de México 1993). However, from a governance point of view, it did not advise intervention and the other institutions did not intervene.

In the discussion that follows, Central bank annual reports are used to analyse the conduct of the regulator. These provide evidence of one of the main regulator's public statements regarding the operation of the new system of bank governance. The reports indicate the regulator was well aware of the risky banking practices undertaken by the newly privatised banks, including the governance consequences of retaining the "old" accounting rules related to non-performing loans and provisions.

The section has four parts. In the first part, the regulator's failure to control the oligopoly pricing of credit is discussed. In the second part, its failure to enforce credit policies is analysed. In the third part, the regulator's failure to control provision for non-performing loans is discussed. In the last part the regulator's duties and systemic risk are discussed.

7.4.1 Failure to Control the Oligopoly Pricing of Credit

In the new system of governance, the regulator was aware of some of the problems discussed earlier. Thus, according to the Central Bank:

> *[B]anks have chosen to charge to some segments of their client's comparatively elevated lending interest rates. Thus, in this way, in 1992 the existing margin between the lending rates and the cost of funding was kept wide (Banco de Mexico, 1993, pp. 52 [translated from the original in Spanish by the dissertation's author]).*

The above statement can be interpreted as signalling the regulator's acceptance of at least three important features of the new system of governance: Firstly, it signalled that the regulator had no intention of disciplining the banks' specific conduct with regard to the financial margin. Secondly, it signalled that the regulator was not concerned with the possible adverse effects of the banks' conduct on interest rates[29] on the real economy via its effects on bank clients. Thirdly, it signalled that the regulator was aware that these practices were the likely source of the bank's profitability, and whose ultimate beneficiary were bank owners. Taken together, signalling acceptance of these practices implied sanctioning the subordination of the public interest in order to ensure that private interests were met.

7.4.2 Failure to Enforce Credit Policies

Apart from deregulation on credit allocation and higher interest rates, the regulator established some changes in credit policies aimed at eliminating what were regarded as unsound bank practices. However, the regulator failed to enforce the new credit policies. According to the Central Bank, the new policies aimed:

> *[T]o eliminate the undesirable practice of considering as average banks' portfolio risk, all those loans whose deterioration were covered by the refinancing of default interest and by a renewal loan (Banco de Mexico, 1993, pp.51 [translated from the original in Spanish by the dissertation's author]).*

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[29] Sometimes there is a lack of precision in discussions of interest rates: the impression is given that there is "one price" for money in an economic system. This neglects the fact that there are a range of interest rates applied in any economy at any point in time; the actual market rate charged varies according to type of customer and size and type of credit. These differences also reflect the extent of market power held by banks and other financial intermediaries. Thus, it is often the case that banks impose higher rates and excessive costs for services without any regulatory restriction. The degree of freedom to administer prices will often explain patterns of higher profits. The Cruickshank Report (2000) made an analysis of the UK banking market and brought these problems to the public's attention in the UK.

The new credit policy affected the time allowed for the repayment of loans, and how banks were supposed to manage impaired credits. In the short run, the application of the new credit policies would have accelerated the trend of increases in non-performing loans. Nevertheless, it would have signalled, at an earlier point, how quickly the banks loan portfolios were deteriorating. However, the new credit policy was not applied to mortgages, even though they constituted an important share of banks' loan portfolios (see Table, 7.4). Thus, banks' practice of the capitalisation of interest due (i.e., the refinancing of mortgages) was accepted by the regulator, even though mortgages accounted for the second main share of banks' loan portfolios.

The new policy should have affected mainly those loans with a short repayment period (e.g., direct credit). This would mean these types of credits would be subject to a very rapid increase in the volume of non-performing loans. However, from a credit policy point of view, the real problem was not with short-term credits, but with mortgages. The governance contradiction that emerges is that the locus of the problem of refinancing practices was ignored even though it was obvious that poor management of mortgage arrears could do the most damage to the soundness of individual banks (see Table 7.4), and to the banking system as a whole. Supporting this conclusion is the fact that, in April 1994, almost one year *before* the banking crisis, Bancomer, the second largest Mexican bank, announced a programme to restructure its mortgage portfolio (Excelsior, 20 de Marzo, 1994). The most striking feature of the programme was that its implementation meant refinancing and consolidating the non-performing proportion of mortgages, rather than addressing the problem of debtors' limited payment capacities and the need for more profound restructuring. In the event, it seems clearly that the actual purpose of the programme was to obscure the mortgages in arrears, rather than to restructure banking practices for the longer term.

The regulator's failure to enforce its own credit policies can be interpreted as *de facto* acceptance of the banks' authority to apply their own, self-evidently failing, "discretionary" credit policies. This can be interpreted as the regulator offering a

signal to owners and managers that it would not intervene, and they would continue to be free of external governance constraints.

7.4.3 Failure to Control Provisions for Non-performing Loans

In spite of the fact that accounting rules permitted a systematic underestimation of non-performing loans, banks made provisions for loan losses (PLLs) at an even lower rate than required.[30] Thus, the regulator failed to control bank conduct with respect to PLLs, even though PLLs provide the regulator with one of the main early means to prevent systemic risk.

Prior to banking privatisation, banks were public sector organisations; the government was both owner and bearer of all the risk of the banking system. In that context, PLLs were not relevant, either at the level of individual banks, or at the level of the system as a whole. This was because in the event of severe banking problems, the government, as owner, would have to bear the cost of supporting the banks. The relevance of rules on PLLs gained importance when the banks were privatised.

Table 7.6

Provisions (P) as Proportion of Total Banks' Aggregated Loan Portfolio and Non-performing loans

%

Year	1989	1990	1991	1992	1993	1994	1995		1996		
Month	Dec.	Dec.	Dec.	Dec.	Dec.	Dec.	Sept.	Dec.	March	June	Sept.
P/TLO	0	0.2%	1.3%	3.0%	3.5%	4.1%	6.4%	5.6%	6.1%	6.8%	6.8%
P/NPL	0	9.3%	35.2%	48.3%	42.8%	48.6%	56.2%	72.6%	76.3%	87.4%	91.3%

Dec. = *December* Sept.= *September*
P/TLO= Provision/Total Loans. P/NPL= Provisions/ Non-Performing Loans.
Source: Comisión Nacional Bancaria, Mayo 1993 and CNBV Septiembre 1996.

Table 7.6 above, reports the aggregate value of provisions for possible loan losses, as a percentage of the aggregate value of banks' loan portfolios from 1989-1996. It indicates that over time, increases in the level of provisions occurred, but that these were less than might have been expected, given the transference of banks from

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[30] According to Mexican accounting rules established after privatisation, PLLs have to be set up in accordance with the loan risk. Thus, a percentage of a loan's original value is applied: 1% for a performing (low risk) loan, 20% for a substandard (medium risk) loan, 60% for a doubtful (high risk) loan, and 100% for an irrecoverable loan (Hawkins and Turner, 1999).

public to private ownership. The trend of changes in the level of PLLs can be analysed in a further detail.

After privatisation, the non-performing loans increased steadily (see Table 7.4). Thus, it is not surprising that the central bank established specific rules about banking provisions for loan losses.[31] Rules were established in March of 1991 (Banco de México, 1993); however, data in Table 7.6 indicate that the new rule was initially applied in a partial way.

Thus, from 1991, aggregate provisions as a proportion of the aggregate total value of a bank's loan portfolio was 1.3%, and by 1994 it was only 4.1%. Moreover, the aggregate provision as a proportion of the total value of non-performing loans was 35.2% and 48.6%, for 1991 and 1994 respectively. This indicated that, in the event of banking problems, there was risk mainly in the realm of banks' capital.[32] In addition, it signalled the possibility that the quality of reported earnings was suspect or poor.

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[31] In the U.S. "[B]anks are allowed to build up a reserve for future loan losses, called *allowance for possible loan losses* (ALL), from their flow of income based on their recent loan-losses experience PLL" (Rose, 1999, pp.122). The ALL is built up gradually over time on an annual basis from current income. "These deductions appear on the bank's income statement as a noncash expense item called the *provision for loan losses* (PLL). If writing off a large loan reduces the balance in the ALL account too much, management will be called upon to increase the annual PLL deduction (which will lower its current net income) in order to restore the ALL to a safer level" (Rose, 1999, pp.123). Additions to ALL are made when: a bank's portfolio grows, any loan increases in risk, a loan is deemed to be uncollectible, or when an unexpected loan default occurs that has not been reserved. Thus, it is normally expected that loans that go 'bad' in the current period, do not affect bank's current income. This is not the case when loan defaults exceed expected levels and insufficient reserves were set aside.

[32] The Basle Capital Accord (1991) established a two-tier bank capital structure: core and supplementary capital. "Core capital includes 'permanent shareholders' equity' (issued and fully paid ordinary shares and perpetual non-cumulative preference shares) and 'disclosure reserves' (e.g. share premium, retained profit, general and legal reserves). Disclosure reserves also include general funds (such as a fund for general banking risks in certain EU countries), which meet some qualifications. Supplementary capital includes specified categories of reserves not eligible for inclusion in core capital, and hybrid financial instruments with characteristics of equity and debt. [The Accord established] that general provisions, or general loan-losses reserves, are included in the supplementary capital if they are freely available to meet losses not currently identified" (Erpileva, 1997, pp.74). Those provisions are accepted in the capital base, up to a limit of 1.25% of the value of risk-weighted assets. The final target capital-ratio should not fall below 8%. In the case of Mexico, it was established that the capital requirement in 1991 would be 6%, in 1992 7% and 8% in 1993 (Martinez-Rincon, 1993). The analyses of the CNB-CNBV's bulletins about banks' minimum capital evidenced that in 1996 and 1997 there was no official-communication of the rule to banks by the regulator (www.cnbv.org.mx).

From a governance standpoint, the use of PLLs, as a means to control bank conduct, is an essential tool for prevention policies. From a regulatory point of view, PLLs should be set up according to the assessment of the quality of loans. In the Mexican case, the definition of the required level of PLLs faced two different problems. The first was the inappropriate accounting method used to classify and measure non-performing loans. The second was the lack, in regulatory organisations, of personnel skilled in the job of assessing banks' loan portfolios. Table 7.6 above documents that provisions as a proportion of total loans were fairly constant over the period under review.

The official banking data available indicate that the regulator had early warnings of the consequences of bank practices regarding non-performing loans and PLLs, and the resulting poor quality of the banks' reported capital. The central bank warned that:

> *"[W]hile the deregulation of interest rates, credit allocation and reserve requirements occurred, the commercial banks were left (after privatisation) with an insufficiently developed apparatus of authorisation and credit evaluation (Banco de Mexico, 1993, pp.51).*

These warnings made clear that banks profits were not the result of more efficient bank practices. Notably, the regulator knew that banks' management lacked the skills needed to operate successfully in the new unregulated environment (Gutierrez, 1998).

From a governance standpoint, the reported PLLs signalled to managers and owners that the soundness of banks might be at risk. However, if managers had had to act to increase PLLs, banks' profits would have had to be reduced, affecting both owners' dividends and managers' performance related pay (e.g. salaries, bonuses and so forth). In light of the changed circumstances in which the privatised banks were now operating, from an external governance perspective, the low level of PLLs ought to have signalled to the regulator that systemic risk might be increasing. However, the regulator weaknesses aggravated the structural contradictions of the new system of bank governance. Thus, the regulator did not have the skills to govern banks, nor the

attitude to ensure that banks followed its policies and rules. Therefore, it can be asserted that the regulator had reason to think that problems were not only possible, they were likely, and that these problems would be at the expense of the consumer, and to the benefit of the bank owners. Even though the new system of governance privileged private interests over the public interest, the regulator retained traditional responsibility for managing the risk of the banking system as a whole. Thus, should any bank fail, the cost of protecting the banking system would be borne by the government.

7.4.4 The Regulator's Duties and Systemic Risk

In the Mexican centralised legal system, the law defines the legal obligation of the state and the regulator's duties. One of the main obligations of the state and the regulator is the protection of the public interest (Leyes y Códigos De México, 2001). Since systemic risk was not controlled, it can be argued that the regulator did not fulfil its duties. Thus, what the regulator may be expected to do is to maintain a safe and sound banking system. Its failure to do this is a key governance issue. This issue can be analysed in light of three topics related to the regulator's specific responsibilities. The first two are the regulator's legal obligations and the specific duties derived from them. The third is related to the policies and commitments that the regulator made to fulfil its responsibilities. These topics are discussed below.

According to the legal system, the National Constitution assigns powers ("competences" in the Roman legal tradition, which is the basis of the Mexican law) and obligations. The constitution establishes the power of the state to direct national development. In order to direct the national development, the state is required to regulate the national economy (Leyes y Códigos De México, 2001). According to the 25th article of the Constitution, the state should regulate economic activities in order to ensure that economic growth promotes social justice (Rendón and Estrada, 1996). The Constitution defines economic development as economic growth linked to social justice.

The Constitution establishes the supreme mandate that the state directs economic development and establishes the means to execute the mandate. The explicit means by which the government promotes development is the regulation of economic activities. In light of this, any economic reform adopted by the government implies change in the regulatory framework that should be consistent with the supreme mandate of economic growth for social justice. However, the financial reforms (analysed in Chapters six and seven) were opposite to the constitutional mandate governing regulatory changes.

Banking deregulation and privatisation were implemented as ends in themselves, rather than as means to achieve the national goal of development. Thus, the emphasis of both banking deregulation and privatisation was basically to make the financial and banking system more efficient (see Chapter six). Furthermore, privatisation was merely the transfer of a public monopoly to a private oligopoly, without proper concern for how the system used to privatise banks would affect the public interest (OECD, 1998a).

According to the Mexican legal system, after the Constitution, the federal Law of Credit Institutions (Ley de Instituciones de Crédito) is the set of rules that regulate the banking system. In accordance with the 25th article of the Constitution, the law stipulates that the financial system must be directed by the state (Leyes y Códigos De México, 2001). Thus, the law assigns powers to the regulator to regulate banking services, bank organizations, and bank operations in order to protect the public's interest. Additionally, the law establishes the specific duties that are assigned to each of the three public organisations (see Chapter six, part 6.2.2.) that compose the Mexican "regulator". Each of the organisations has specific regulatory duties (see Table 7.7). These duties are precisely defined and are related to the regulatory scope of each organisation. How well each organisation fulfilled the assigned duties is difficult to determine precisely. This is because many of the duties are bureaucratic and records are not in the public domain. However, the analysis each of them, in the context of the regulator's legal obligations, can provide insights into what the regulator could be expected to do, in order to prevent systemic risk. This can be

compared to the regulator's conduct. This was discussed in sections 7.4.1 (failure to control the oligopoly pricing of credit), 7.4.2 (failure to enforce credit policies), and 7.4.3 failure to control provisions for non-performing loans).

Table 7.7

The Regulatory Duties in the Mexican System of Bank Governance*

Public Organisation	The scope	Duties
Secretaría de Hacienda y Crédito Público *(Secretariat of Finance and Public Credit)*	General	• Maintaining financial stability • Protection of the public's interest • Defining capital requirement • Accounting classification framework of banks' assets and liabilities • General Rules on loan liabilities (type and amount of loans, clients and risk concentration) • Rules on banks' investments • Principles to provide a bank loan (credit assessment) • Guarantee the banking system security
Banco de México *(Central Bank of México)*	At the level of the banking system	• National information system of banking loans o Loan portfolio, including non-performing loans and the client name o Lending Interest rates • Measure of the banks' capital level • Management of FOBAPROA
Comisión Nacional Bancaria y de Valores *(National Banking and Securities Commission)*	At the level of each bank	• The communication link between the "Regulator" and banks • Banking supervision o Analysis, assessment and acceptance of bank's financial statements o Historical analysis of bank's financial statements o Supervision of the regulations set up by Secretariat of Finance and Public Credit o Assessment of the bank's loan portfolio • Banking inspection (*in situ*) o Loan portfolio, investments, bank management and banking operation: at the level of bank's central offices or the level of branches o Ordinary, special and investigation: General (all the banking system) or selective (some banks) • Technical opinion on the soundness and safety of banks

*The English denomination of each institution is according to their official translation.
Sources: Comisión Nacional Bancaria (1993a). El Nuevo Sistema Financiero Mexicano, F. Borja, 1991.

According to the Table 7.7, the main public organisation that composes the "regulator" is the Secretariat of Finance and Public Credit. It has the duty to maintain national financial stability and protection of the public's interest. However, as detailed in sections 7.4.1, 7.4.2 and 7.4.3, it did not do so. This was mainly because it did not define and enforce the capital requirement needed to prevent banking problems. Additionally, the inadequate accounting standards on assets and liabilities, set up by the regulator, allowed banks to provide information that did not reveal their true financial situation. In particular, the Secretariat did not oblige the banks to apply strict credit assessment in order to prevent deterioration of the banks' loan portfolios (see Table 7.4). The risky banks' practices (see Table 7.1) in an adverse macroeconomic environment (see Table 7.3) evidence that the regulator did not fulfil this duty. If the Secretariat had obliged the banks to apply strict credit rules, financial stability and the protection of the public's interest would have been more likely. However, because the Secretariat, as the most important regulatory organisation, did not fulfil its regulatory obligations, systemic risk became unmanageably high.

The National Banking and Securities Commission, listed in Table 7.7, is the organisation whose function is to serve as the communication link between the "regulator" and banks. Thus, it is expected to fulfil three crucial duties: banking supervision, banking inspections and to provide technical opinions about the soundness and safety of banks. The fulfilment of these duties would have prevented an increase in systemic risk, at level of each bank and the banking system as a whole.

Proper bank supervision would have provided early information about the risky financial state of the banks. It would have provided information that the banks' loan portfolios implied high level of systemic risk. Additionally, proper analysis and assessment of the banks' financial statements, by the Commission (especially about banks' PLLs and capital) would have given early warning to the Secretariat and the Central Bank that the soundness and safety of banks was in danger. More importantly, the Commission accepted the banks' financial statements (except for two banks that were taken over by the regulator in 1994, as a result of fraud),

signalled that there were no bank problems. Thus, one can conclude that because the Commission did not act in accordance with its duty, crucial preventive regulations were not fulfilled.

The Commission's duty to conduct bank inspections (*in situ*) in order to assess the banks' loan portfolios, investments, management and banking operation (at the level of a bank's central offices or the level of branches) was difficult to accomplish. This is because, after many years of not inspecting the nationalised banks, the regulator did not have the expertise or the human resources to examine the banks *in situ* (Gutierrez, 1998).

Thus, after the banking crisis, it is easy to conclude that the Commission provided erroneous technical opinions about the soundness and safety of banks. However, the fact is that the Commission had information that banks were obtaining high profits with lower efficiency (see Table 7.5) and knew the broader financial consequences of the banking practices. Therefore, even though they lacked the resources to inspect the banks properly, they had other information available.

Risky banking practices were documented mainly by the Central bank early to the banking crisis (Banco de Mexico, 1993). Thus, one can conclude that the Central Bank fulfilled its duty to provide a national information system about banks (e.g., non-performing loans and interest rates). However, some of these risky practices were technically justified by the Central Bank itself. It asserted that these practices were temporarily arising from the banks' lack of expertise and lack of human resources to assess credits (Banco de México, 1993). What is striking is that the Central Bank's justification was made even though it acknowledged that these practices created moral hazard for the consumers (e.g., high interest rates).

The above analysis suggests what the regulator should have done and contrasts it with what it actually did. This leads me to conclude that the regulator failed to fulfil its legal responsibilities. Thus, the regulator did not establish a policy framework that enabled it to attend, adequately, to its legal obligations and duties. In addition,

the nature of its policies (mainly in the province of capital adequacy and credit) meant that if there were a banking crisis, the fiscal cost to resolve it would be very high. The failure of the regulator to fulfil its legal obligations and duties resulted in a lack of governance credibility. This became clear in the actions that the regulator took when dealing with the banking crisis.

According to the Constitution and the Law of Credit Institutions, the financial reforms stage I and II should have been directed by the objectives of development rather than the mere objectives of financial efficiency (Kay, J., Thompson, 1986) and the transfer of the public ownership of banks to the private sector (Burton, 1987; Beesley and Littlechild 1983). Equally, the financial reforms should have been implemented in light of the ability of the market (Kay and Silberstone 1984) to assure benefits to the consumers (Samuel 1985). The objective of economic development would have required that some type of regulation be in place in order to reassure the public that the new financial system would not be worse than the one it replaced. This is most necessary when a public monopoly is privatised (Beesley and Littlechild 1983). Some regulatory changes were made after the banking crisis (e.g. the National Banking and Securities Commission is now part of the Central Bank and the deposit insurance is now a public fund). However, it is evident that the Mexican government and the regulator did not fulfil their legal obligation to conduct national development in line with social justice and protection of the public's interest.

7.5: Conclusions

The analysis of the new system of bank governance has emphasised that the Mexican banking crisis was a likely governance event. Even though the crisis that occurred was triggered by the economic crisis of 1994, its inevitability preceded it. The real financial state of Mexican banks (mainly the quality of their loan portfolio and the actual level of bank capital) was finally revealed in 1997 (six years after privatisation), when the new accounting framework was applied (Comisión Nacional Bancaria y de Valores, 1996). The new accounting rules revealed that the banking problems preceded the economic crisis, and made clear the profound adverse

consequences of the new system of governance. The bank practices[33] and the regulator's conduct created a banking system with a high degree of systemic risk. The regulator's conduct was of paramount importance in making crisis a likely governance event. The failure to fulfil its legal obligations and regulatory duties signalled that the regulator lacked governance credibility.

The new system of governance set up a new pattern of risk distribution (Zingales, 1998), and a framework of openness and complete freedom of action for the commercial banks. As emphasised by Lindgren, *et al.* (1996), owners' and managers' primary responsibility is to prevent problems, by ensuring the maintenance of safe and sound banks; in the case of Mexico this responsibility was not fulfilled. Because the new system of governance created the same incentives for risky practices by all banks, it was possible that most of those banks were likely to fail for similar reasons. Thus, one could have predicted that the new system of governance would "produce" a costly banking crisis.

According to Popper (1997, pp.164), "models played an all-important role in the development of most theories". He argues (1997, pp.165) that models "incorporate theories, since they are attempts to solve problems - problems of explanation." He also said that a "model consists of certain elements placed in a typical relationship to each other" (1997, pp.165) that corresponds to a situation or condition envisioned by a theory. He stressed that models are "always and necessarily somewhat rough and schematic over-simplifications" of a theory (1997, pp.170).

According to the above, to advance theory development on the subject of bank governance, I will use my theoretical approach as the basis for an explanatory model, in which the fiscal cost is presented as a typical kind of governance event. This general prediction would take the form of a formal model that related the system of governance to its costly consequences. Accordingly, one could hypothesise that the fiscal cost associated with a banking crisis, is the outcome of the conduct of the main

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[33] Under the new accounting rules, it is estimated that the level of non-performing loans were between two, and two and a half times higher than that officially reported at the end of 1996 (Bustamante and Kershenobich, 1997). The new Mexican banking accounting system is the USGAAP.

parties in the system of governance (owners, managers, regulator and market). Empirical tests of the model will allow an assessment of the explanatory pertinence of my proposed theoretical approach to bank governance.

Annex 7

Table 7.1a

System of governance of Mexican Commercial Banks: External Forces Governance

Features	Traditional as to 1982*	1982-1989	1990-1995
Regulatory framework *Legal regulation*	Concession of the State Banking services as public interest	Nationalised bank (Concession revoked) Banking Services as a governmental responsibility (public monopoly) Banking services as public interest	Charter of banks as any other type of firm Banking as a private oligopoly system Banking services as a private interest
Preventive and protective regulations	• Administrative, including controls of: Credit allocation Rate of interest Reserve requirements Special accounting rules Low provisions for loan losses Lack of prescription on capital adequacy Government as lender of last resort	• Administrative, including control of: Credit allocation Rate of interest Reserve requirements Financing public budget Special accounting rules Lack of provisions for loan losses Lack of prescription on capital adequacy Government as lender of last resort	No administrative credit controls, including suppression of capital requirements Ineffectual control of preventive regulation: From special to general accounting rules Low provisions for loan losses Capital adequacy Credit policies Unskilled supervision Private fund to protect deposits-savings and bank's capital
Market Structure *Degree of concentration* *- Number of banks* *Type of banking services* *Market access*	Low - From 218 to 60 banks From specialised banks to multiple services banks Highly protected	High - From 60 to 20 banks Multiple services banks High protected	High - From 20 to 38 banks Universal banks Somewhat protected to foreign investors

* September 1982

Table 7.1b

System of governance of Mexican Commercial Banks: Internal Forces Governance

Features	Traditional as to 1982*	1982-1989	1990-1995
Ownership and control Ownership	90% private banks 99% Mexican-citizen owners	90% public-state banks 90% public-state ownership	100% private banks At least 51% Mexican ownership (foreigners investors had limited ownership rights) Originally banks had 130 000 investors
Control	Mostly financial-industrial groups	Public-state 18 of 20 banks	Predominantly Mexican financial groups 264 banks' owners-controllers
Management Practices	Opportunism in observing administrative rules and moral hazard Low level of non-performing loans Misallocation of credit and pricing interest rates No exposure to foreign exchange risk Absence of systemic risk	Opportunism in observing administrative rules and moral hazard Low level of non-performing loans Low level of credit allocation expenditure No exposure to foreign exchange risk Absence of systemic risk	High opportunism and moral hazard from managers and owners Increasing credit allocation High interest rates High level non-performing loans Increasing operating cost High operating profits Government as lender of last resort High exposure to foreign exchange risk High systemic risk

* September 1982

Annex 7.2

Modelling Monthly Net Rate Interest Margin (NetMrgIR) by OLS

The present sample is: 3 to 38

Variable	Coefficient	Std.Error	t-value	t-prob	PartR^2	Instab
Constant	-103.39	40.347	-2.562	0.0159	0.1846	0.05
NonPrfLn_2	4.3365	1.0876	3.987	0.0004	0.3541	0.05
DirectCret	0.62856	0.39998	1.571	0.1269	0.0785	0.05
WorkCret	9.8602	2.3649	4.169	0.0003	0.3748	0.05
AvCstMne_1	0.21989	0.080877	2.719	0.0109	0.2031	0.04
EndPrivModf	1.3256	0.82190	1.613	0.1176	0.0823	0.01
RedesCret	2.0195	0.82330	2.453	0.0204	0.1718	0.05

```
R^2 = 0.79831   F(6,29) = 19.131 [0.0000]   \sigma = 1.03609   DW =
1.93
RSS = 31.13126675 for 7 variables and 36 observations

Instability tests, variance: 0.295469    joint: 1.74769
Information Criteria:
SC = 0.551489  HQ = 0.35105  FPE=1.28223  AIC = 0.243583

AR 1- 2 F( 2, 27) =     0.25158 [0.7794]
ARCH 1  F( 1, 27) =     0.96938 [0.3336]
Normality Chi^2(2)=     3.6863  [0.1583]
Xi^2    F(11, 17) =     0.76805 [0.6661]
RESET   F( 1, 28) =     0.38619 [0.5393]
```

CHAPTER 8

THE MEXICAN BANKING CRISIS AS A GOVERNANCE EVENT: A MODEL OF THE FISCAL COST

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8.1: Introduction

In 1995, only three years after banking privatisation, nearly all the commercial banks in Mexico were in serious trouble (Solis, 1998; Solis, 1996; Huerta, 1997 and 1998). From January of that year, the regulator began to develop programmes aimed at resolving the crisis (See Annex 8.5, Tables 8.5.a. and 8.5.b).[1] The regulator's programmes were diverse (Graf, 1999);[2] some were in the domain of preventive regulations, some offered support to debtors, and other programmes focused on capitalising banks using public resources (Banco de Mexico, 1996, SHCP, 1998).[3] In the event, it took until 1999 for the lower chamber of Congress to agree to define (and thereby authorise the funding of) all FOBAPROA programmes as "contingent public debt" (Ebrard, 2000; Auping, 2000).[4]

The aim of this chapter is to present the results of a formal test of the theoretical approach to bank governance developed in chapter four, and applied to the Mexican case in chapters six and seven. In the latter, I described how the financial system reforms in Mexico changed both the structure of relations between the main parties in the system of bank governance, and the implications of this for the behaviour of each of them. It is argued that incentives arising in the post-reform system were the proximate cause of the Mexican banking crisis, and the associated fiscal cost of restoring order to the banking system.

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[1] The regulator (described briefly in chapter six, Table 6.2) used the terms "actions," and "programmes." It seems that "actions" lasted less time than "programmes." In the annex of this chapter, Tables 8.5a and 8.5b provide details of the actions and programmes with regard to their objectives and governance features. These tables include all the actions and programmes publicly announced by the federal government.

[2] The extent and range of programmes raised concerns in the lower chamber of the legislature; concerns focussed especially on the legal power of the regulator to initiate the programmes, and the associated question of how they would be funded. (Padierna, 2000; Huerta, 1998; López, 1999; Solís, 2000).

[3] Given the Mexican legal system, the government made the decision to fund the programmes required to face the banking crisis (Leyes y Códigos De México, 2001). Thus, in accordance with the law, the "regulator" acted at the direction of the federal government (Rendón and Estrada, 1996).

[4] The fiscal cost of the programmes is reported every year, and treated as a flow rather than a stock value. Thus, in the national accounting report of the public debt, the expected fiscal cost, and the accumulated total fiscal cost of the banking crisis, is not reported.

Any formal test of the theory entails stipulating a conjecture that arises from the theory, then developing a model to represent it. One conjecture implied in the theory of bank governance, presented in this dissertation, is that the observed effects of a system of governance can be interpreted as the joint outcome of the conduct of each of the main parties in the system.[5]

This conjecture is assessed using an econometric model. Modelling any conjecture requires defining conceptual proxies for each of the main actors associated with the internal and external forces that constitute the system of governance, and defining a point-in-time event that represents an observable outcome of the system's operation. The outcome, or "governance event," identified in the model is the banking crisis. The main measure of the crisis is the specific fiscal cost incurred in resolving it.

The Mexican banking crisis is represented by the fiscal cost of capitalising failing banks (Programa de Capitalisación Permanente - Permanent Capitalisation Programme). It is known as FOBAPROA (Fondo Bancario de Protección al Ahorro).[6] The programme of capitalisation involved purchasing the bank's reported non-performing loans, and constituted the main share of the total fiscal cost incurred in resolving the banking crisis (SHCP, 1998; Banco de México, 1997).

The fiscal cost was chosen because it directly reflects the actions taken by the regulator, the most powerful external actor when a banking crisis is diagnosed (Auping, 2000; Solis, 2000).[7] Moreover, since an essential feature of the post-reform system of governance in Mexico was its tolerance of a high likelihood of systemic

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[5] In this dissertation, the *terms" behaviour, " and "conduct" are used interchangeably.* Conceptually, they are both part of the theoretical framework of behavioural economics (Akerlof, 2002). This framework extends Keynesian views "on the role of psychological and sociological factors" to explain macroeconomic phenomena (Akerlof, 2002, pp. 411), thus providing the microfoundations of a new paradigm in economics, called New Keynesianism. Asymmetric information, and imperfect information (Stiglitz, 2002) are elements of this paradigm.

[6] The abbreviation FOBAPROA is widely used in discussing recapitalization of Mexican banks. It was the means by which the capitalisation programme was funded. It also funded other programmes related to the banking crisis. However, strictly speaking, FOBAPROA was a general fund set up by the government using the proceeds from the banking privatisation programme, and intended for a range of purposes *other* than rescue of failing banks.

risk (OECD, 1995), the fiscal cost can also be taken to represent the public cost of the system of governance created by the financial reforms.

While any model is inevitably schematic (Gujarati, 1993, Popper, 1997), the model used aims to capture the core elements of the proposed theory of bank governance. It is constructed in a manner that highlights the actors and factors at the heart of the theory, elaborated in chapter four, and applied in chapters six and seven. The econometric results verify the usefulness of my theoretical approach to bank governance. The results suggest that explanatory models of this type can be applied to governance events in other national contexts.

The discussion in this chapter is developed in two main sections. In the next section, the proposed model, and the econometric technique used are explained. It included a detailed description of the model's econometric attributes, its empirical proxies and its related data sets. In the third section, the results of the regression analysis are discussed. Conclusions are presented at the end of the chapter.

8.2: The Proposed Model

According to the conjecture arising from application of the theory in chapters six and seven, the fiscal cost of the banking crisis can be explained by the conduct of the main parties (data proxies) in the system of governance. The proxy for owners' conduct is the price paid to purchase banks when they were privatised. The proxy for managers' conduct is the growth (trend) of non-performing loans prior to the declaration of the banking crisis. The proxy for the regulator's conduct is the reported value of non-performing loans as proportion of banks' loan portfolio prior to the declaration of the banking crisis. The proxy for market force of governance is a dummy variable reflecting change in the condition of the market at the beginning of the crisis. A dummy variable indicates the absence or presence of some qualities, in this case the change in the quality of the market as an external force of governance. The proxies are discussed in detail in part 8.2.3.

---

[7] Obviously, it is possible to identify other expressions of a banking crisis (e.g. unemployment, inflation, interest rates, and so forth). However, these are not closely linked to the governance relationship between managers, owners, the regulator and the market as stipulated in my theory.

How to characterise a market has long been a controversial issue. There is a difference in the definition of the market used by governments and firms (Massey, 2000). In industrial economics, markets are studied in relation to market structure, which is defined by the level of concentration. Limitations on competition are thought to affect the firm's behaviour (Hay and Morris, 1991). Coase (1988) argues that market structure involves more than concentration, it also reflects laws and regulations, as identified by Scherer and Ross (1990).

In the case of Mexico, the regulator's intervention in late 1994 and mainly 1995 changed the structure of the bank market from one in which banks were privately owned and controlled (from 1991-1994) to one in which some banks were publicly owned and managed. Thus, in 1996, the bank market was constituted by two different types of banking firms: those that had been taken over by the regulator and managed by its designated managers, and those banks that continued to be managed by the managers designated by their private owners. The choice of proxy reflects the judgement that the market, as an external force of governance, changed because the direction and control of the bank firms changed.

In the first part of this section the econometric technique used is explained. In the second part, the explanation of the proposed model, and its econometric attributes are discussed. In the last part, the assessment of data and proxy variables are discussed.

8.2.1 The Econometric Technique Used

The econometric technique of linear regression is used to model the theory. The model is formulated according to the method of ordinary least squares (OLS)[8] (Gujarati; 1999).

$$E(Y) = A + BX \qquad (1.1)$$

Where $E(Y)$ represents the expected value of Y given X, and A and B are unknown population parameters. $E(Y)$ can be interpreted as the average. This type of equation

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[8] The OLS method is used to obtain the sample regression function as a true value of the stochastic population regression (PRF).

is known as a population regression equation (Thomas, 1997), or population regression function (Gujarati, 1999).[9] In this treatment, X is assumed to be normally distributed. In other words, in the model, E(Y) represents the expected or average value of the fiscal cost (Y), given the measurement of the behaviour of each of the main parties acting in the system of governance of Mexican banks.

The actual value of Y will not always be equal to its expected value [E(Y)], because it may be disturbed by any one of innumerable factors. Therefore, the actual Y is written as:

$$Y = E(Y) + u \qquad (1.2)$$

This u is called the disturbance term. It can be positive or negative.

Given equation 1.1 in equation 1.2

$$Y = E(Y) = A + BX + u \qquad (1.3)$$

If it is assumed to be a sample of Y, from equations 1.1 and 1.3 it is obtained

$$E(Y_i) = A + BX_i \text{ for } i \quad = 1, 2, 3, \ldots, n \qquad (1.4)$$

And

$$Y_i = A + BX_i + u_i \text{ for } i = 1, 2, 3, \ldots, n \qquad (1.5)$$

$A + BX_i$ can be called the systematic or deterministic component of Yi, and the u_i non-systematic, or random component (Gujarati, 1999).

In other words, in the model, the average value of the fiscal cost is expected to be determined mainly by the conduct of the main parties in the system of governance. If the non-systematic, or random component has greater importance than the systematic component, it means that the specification of the model is not appropriate, and that there are important explanatory variables that are not captured in the model.

---

[9] Gujarati (1999; 1993) uses the term function and others, as Thomas (1997) and Stewart (1989), use the term equation. In this dissertation both terms are used interchangeably.

Because the population regression equation is unknown, it is estimated using sample data, such that:

$$\hat{Y} = a + bX \tag{1.6}$$

This equation is called the sample regression equation or function. It estimates the parameters of A and B of the population regression equation.[10] $\hat{Y}$ is known as the predicted value of Y.

Given the estimated values a and b

$$\hat{Y}_i = a + bX_i \quad \text{for } i = 1, 2, 3, \ldots, n \tag{1.7}$$

Because the predicted value ($\hat{Y}_i$) is unlikely to coincide with the actual value Y_i, the difference between them is a residual (e_i), such as:

$$Y_i = \hat{Y}_i + e_i \quad \text{for } i = 1, 2, 3, \ldots, n \tag{1.8}$$

Therefore:

$$Y_i = E(Y_i) + e_i \quad \text{for } i = 1, 2, 3, \ldots, n \tag{1.9}$$

One does not know how well a sample regression function estimates the true value of the population regression function, unless one is willing to assume how e is generated.[11] When some specific assumptions are made about how e_i is generated, the econometric function is referred to as the classical linear regression model (CLRM). According to Gujarati (1999), the classical linear regression model (CLRM) makes the following assumptions:

- The explanatory variable(s) X is uncorrelated with the disturbance term. When the value of the X variable(s) is a fixed number (e.g. nonstochastic), this assumption is automatically fulfilled.

---

[10] The ordinary least squares estimators of the parameters A and B in the population regression equation or function (1.1) is said to be the best linear unbiased estimator (BLUE). That is, if (a) it's a linear estimator, (b) it is unbiased, and (c) no other linear unbiased estimator has a smaller variance (Thomas, 1997). In OLS, X values are treated as nonstochastic. The error term u is random, or stochastic. Given that X is nonstochastic whereas u is random u Y is stochastic.

[11] The residual term (e) is conceptually analogous to the disturbance term (u). It can be regarded as the estimator of the latter (Gujarati, 1999).

- $E(u_i) = 0$, the expected or mean value of u is zero. This means that it is assumed, on average, that the value of u has no effect on the dependent variable, Y. That is, it is assumed that positive and negative values of u cancel out each other.
- $Var(u_i) = \sigma^2$, the variance of each u_i is constant or homoscedatic. This means that it is assumed that error variances are the same whether the value of Y is low or high.
- There is no correlation between error terms, that is the $cov(\varepsilon_i, \varepsilon_j) = 0$, where $i \neq j$. This assumption of no autocorrelation means that the error terms are random and that there is no systematic relationship between them. Thus, if one error term is above or below the mean value, it does not mean that another will be above or below.[12]

The adopted CLRM model incorporates the above assumptions. There are two types of problems that arise in using CLRM models, and these affect the interpretation of results. The first is heteroscedasticity, the second is autocorrelation; these are discussed in turn.

The first, heteroscedasticity, is present when there are large variations in the size of an explanatory variable. This is most likely to occur when using cross-sectional data (Thomas, 1997; Gujarati, 1999). If heteroscedasticity is present in the model, this means that the error term increases or decreases according to whether the values of the independent variables are low or high. The higher the value of the variable proxying a governance party, the higher the variance of the disturbance term. The "true value" then of the fiscal cost per bank will be higher than the expected cost measured by the model.

The second type of problem, autocorrelation, occurs most frequently when using time series data (Thomas, 1997). It occurs if the data observations in one period are likely to be dependent on data observations in the previous period (e.g., inertial inflation process) (Thomas, 1997). This is not likely to be a problem in the proposed

model, since unique time data is associated with each proxy. The autocorrelation in a cross-sectional model is called spatial correlation. This problem is normally solved by re-ordering data in increasing or decreasing order (Gujarati, 1993).

To ensure that the model does not have the above types of problems, autocorrelation and heteroscedasticity were tested for in the regression analysis.

In the next part, the proposed model is explained, and its econometric attributes are described.

8.2 .2 Elucidation of the Proposed Model and Its Econometric Attributes

The model stipulates that the dependent variable, the fiscal cost (Y), is explained by the linear variation of the values of four explanatory variables. Thus, it is described as a multiple linear regression model. It is linear both in its variables and its parameters (Bowers, D, 1991;Gujarati, 1999).

The dependent variable, fiscal cost, is assumed to be the outcome of the behaviour of the main parties in the system of governance – the owners, the managers and the regulator. A dummy variable is used for the market proxy;[13] that indicates the absence (0) or the presence (1) of some feature or quality of the market (Gujarati, 1999).[14] The value 0 is assigned to banks not taken over by the regulator in 1994-1995 and the value 1 refers to those banks taken over.[15] It is expected that the market proxy evidences the interaction of these two types of banks on the fiscal cost of the crisis.

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[12] The most well known technique to test if there is autocorrelation is the Durbin-Watson statistic.

[13] When a model has a combination of dummy (qualitative) and quantitative variables, it is "called (an) analysis-of-covariance (ANCOVA) model" (Gujarati, 1999, pp.279). Models that have only dummy variables are called the ANOVA models. The dummy variable is also called binary variable, because it assumes values of 1 or 0 (Greene, 1993).

[14] This is the reason why a dummy variable is sometimes called a quality variable (Gujarati, 1999).

[15] Because dummy variables take on a value of 1 or 0, they are nonstochastic variables. This fact, "does not create any special problems insofar as estimation of model is concerned" (Gujarati, 1999, pp.276).

At a conceptual level (the specification of the proposed model is made in the last section), the model can be presented as follows:

$$E(Y) = A + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4$$

$$Y_i = A + B_1D_1 + B_2X_{2i} + B_3X_{3i} + B_4X_{4i} + e_i$$

$Y_i \approx$ is the outcome of the conduct of main parties of system of governance of an individual bank.

$A \approx$ is the intercept, assumed to be a constant

$X_1 = D_1 \approx$ is the dummy variable for the market.[16] The value 0 is for those banks not taken over by the regulator, and the value 1 for the banks taken over.

$X_{2i} \approx$ is the owner's behaviour in an individual (i^{th}) bank.

$X_{3i} \approx$ is the regulator's behaviour in an individual (i^{th}) bank.

$X_{4i} \approx$ is the manager's behaviour in an individual (i^{th}) bank.

$e_i \approx$ is the (i^{th}) residual term.

The method used to test the model is a cross-sectional regression analysis, which makes use of one of the "two types of data typically available to the econometrician" (Thomas, 1997; pp.92).[17] Cross-sectional data consists of data related to one or more variables that are collected at one point of time, such as census data, survey questionnaires and so forth (Gujarati, 1999; Gujarati, 1993). In this study, the model aims to capture the effect of a governance system at a fixed moment in time. It

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[16] According to Gujarati (1999) the dummy is identified as D.

[17] The other type of data identified by Thomas (1997) is the time series data.

hypothesises that there is a linear relationship between the fiscal cost associated with the capitalisation of each of the 18 privatised Mexican banks, and the proxy for the behaviour of each of their owners, each of their managers, for the regulator and for the market.

To construct the model, I tried to fulfil the attributes of a good econometric model that are proposed by Gujarati (1999). He identified five attributes of a good model: theoretical consistency, parsimony, identifiability, goodness of fit, and predictive power.

Theoretical consistency refers to the theoretical foundation of the model. Gujarati (1999, pp.406) stresses that "measurement without theory often can lead to very disappointing results." The principle of parsimony states that an econometric model has to be kept as simple as possible (Thomas, 1997). Identifiability means that for given population data, the estimated parameters must have unique values, otherwise there would be more than one value per parameter. A model has a goodness of fit if much of the variation in the true dependent variable is explained by the explanatory variables. Predictive power is related to the choice "...of the model whose theoretical predictions are borne out by actual experience" (Gujarati, 1999, pp.407).

The proposed model fulfils Gujarati's criteria (1999). It is grounded in the proposed theory of bank governance developed in this dissertation. The model's main explanatory variables are associated with each of the elements constituting a system of governance and the data for each of them are uniquely associated with one of the model's variables. The attribute of goodness of fit is an *ex-post* attribute, and is discussed in the last part of this chapter. The predictive power attribute is not relevant in the study because my objective is not to predict but to explain.

To test any econometric model requires accurate and coherent data (Thomas, 1997). The criteria adopted in the collection and quality assessment of the data used are discussed in the next part.

8.2.3 Assessment of Data and Proxy Variables

For success in econometric analysis, the quality and quantity of data are extremely important (Gujarati, 1999). One proceeds on the hopeful assumption that one can measure in a precise way all the variables in a model. However, one has to expect to encounter diverse data difficulties (Greene, 1993); at least two types of difficulty can be identified.

The first difficulty is related to the process by which data are gathered and processed, and mainly concerns the accuracy of the information used. The second difficulty concerns "...the extension of economic analyses from individual behaviour to group behaviour..." (Kamarck, 1983, pp.13). This concerns representation. In the model, the conduct of individual owners, top managers of each bank, and the various parties acting as a regulator (treated as one actor) are each represented by a related financial variable. This is justified because in the theory each of these governance parties has a *structural* position in the system of bank governance. Thus, while undoubtedly important in historical analysis, the personalities of the various individuals holding these positions are not germane.

In constructing the model, some might question whether financial indicators capture the behaviour of governance actors. The use of financial indicators to make inferences about behaviour characterizes research in Behavioural Economics. In this research, financial indicators are linked to behaviour in studies of, for example, prices and money illusion (Akerlof, 2002). In addition, if one assumes that behaviour includes decisions and that decisions have effects, it is plausible to argue that financial indicators offer one mode in which the behaviour of governance actors is expressed.

In the case of Mexico, the link between the behaviour of governance actors and the financial indicators is quite direct. This is because decision-making is highly centralized and highly concentrated. For example, because the groups buying the banks were controlled by a small number of shareholders, the financial indicator of the price paid for the privatised banks is tightly linked to the behaviour of a small

group of investors. Secondly, decisions on credit allocation are highly centralized. This means that financial indicators of the trend in non-performing loans are tightly linked to the behaviour of the top managers in the banks. In light of the level of analysis, which is highly aggregated, the inference from financial indicators is strongly supported. This is because the theory's interest lies in the aggregate effects of the decisions made, and these effects find one expression in the aggregate financial indicators. Moreover, the behaviour of the actors had boundaries set by the system of governance, which further supports inferences from the observed effects of the decisions of the actors in the system of governance.

Below, the general procedure followed to collect data is discussed, including a discussion of the proxies chosen and the data related to each. This discussion aims to elucidate their pertinence to the underlying theory.

Data coherence and procedures used to collect the data

Kamarck (1983, pp.13) advises that researchers should ask whether or not "...a number correctly represents the true value of a particular measurement or observation." Thus, even though data accuracy is often assumed in finance, economics and accounting, it is important to assess whether the data available reveal the "true" value of the actions they are meant to represent.[18] This assessment is necessary because the data are non-experimental and the researcher does not have control over the individuals who collected and processed the data (Gujarati, 1999).

Assessment of the coherency of the data concerns consistency and conceptual significance. Even though the researcher may not control the data, it is possible to judge their quality. Thus the researcher can determine whether the data used comes from the same source, what the relevance of the source itself is, and the time-basis of the data used. The conceptual significance of data is related to the original theoretical concepts and how well the data represents their meaning (Kamarck,

[18] The author's dissertation relies on the Popperian view that scientifically there is no truth *per se*, but that, as Popper asserts, it is "meaningful to say of a theory that it is a better approximation to the truth than another theory" (1997, pp. 175). This notion of truth is at the same level as statements one can

1983). Once the researcher has assessed the accuracy of the data, its sources and conceptual significance, he or she is better able to analyse the results of the tests conducted.

In collecting data for testing the proposed model, the same data source was used for each variable and the same data date.[19] Data on non-performing loans were obtained from the main regulatory agency in Mexico in charge of collecting the accounting and finance reports from the banks. This was the only source of information on non-performing loans and was produced by diverse individuals within the banks. The practice to measure non-performing loans according to the accounting standards was challenged in chapter six and seven. In the model however, this is relevant because data are used to measure behaviour, in this case of managers and the regulator.

When the researcher has reason to suspect that the "data may be badly measured, or may correspond only vaguely to the variables in the model" (Greene, 1993, pp.3), if there is an alternative data-source, the researcher may choose to rely on this source. Thus, for the fiscal cost data, this study relied on data published in the most reliable secondary source (Solis, 1998). The data for the owner's behaviour (the price paid for the privatised banks) were compiled from a secondary source also deemed reliable; a book written by the under minister of finance in charge of the banking privatisation (Ortiz, 1994).

To collect the data for the model, I used only those accounting data created by the same accounting standards. Because new bank accounting rules were established in 1997, I used accounting data for 1994, in order to ensure consistency in the measurement of key items related to non-performing loans. In terms of the conceptual extension of the model, a dummy variable was used to capture the interaction of two types of bank controllers operating in the market. The data

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make about the choice of data used when one is collecting data to test a model. Some data are a better approximation of the "true" value of the variable than other data.

[19] In chapter five I describe the sources of information used, including details on their time-basis and the nature, scope and frequency of reporting of accounting information.

collected are the best available from the same data source. Coherency is assured because the same dates were used.

In the following subpart, I explain the proxies used for testing the model and their data justification.

Justification of the selected proxies

The conceptual significance of data is related to their meaning as an extension of the original concepts in the theory. The researcher has to be aware of the meaning that diverse data sources give to the same concept, and assess whether the meaning of the concept has changed over time, and from one economic system to another (Kamarck, 1983); if such heterogeneous data were to be used, it would lead to spurious inferences.

To define the proxies and their data, I took into account two criteria. The first was how well a proxy represented the model's conceptual variables (Greene, 1993). Thus, each proxy was chosen for its strong association with one of the parties in the system of governance, and with the dependent variable, as a governance event. Secondly, data were selected so as to ensure a homogeneous time period for each proxy (Kamarck, 1983). Additionally, the cross-sectional data used for each variable was for the same list of banks.[20]

Below are explained each proxy and its data.

The proxy for the dependent variable and the data used

For hypothesis testing purposes, it was necessary to specify a singular and measurable manifestation of the banking crisis. In most cases of post-reform banking crises, a common singular and measurable manifestation was the fiscal cost borne by the government to capitalise failing banks (OECD, 1995, Enoch, *et al*, 1999). The empirical proxy specified for the Mexican banking crisis is the fiscal cost. Representing this fiscal cost is the cost of the programme set up to capitalise

[20] The collected data, their statistical analyses, and their value are provided respectively in the Annex 8.1, 8.2 and 8.4, of this chapter.

banks. Its use is a reasonable decision because the capitalisation programme accounted for 45.8 % of the total fiscal cost in 1995 (see Annex 8.6), 52.1 % in 1996, and 75.7 % in February 1998.

Data were collected for the privatised banks only, and data was available for each of these 18 privatised banks for the years 1995, 1996 and 1997. The decision to exclude those banks licensed *after* the privatisation had little effect, since they accounted for only 1.03 % of 1996 fiscal cost.

I decided to use data from 1996. In that year the fiscal cost was 232.6 Billions of Mexican pesos (30.6 Billions of USA Dollars). 1995 fiscal cost data was rejected because this was a temporary injection of funds that was totally recovered by 1996. The data reported for 1997 were also rejected, but for a different reason. The 1997 data reflect both costs arising from the operations of the system of governance, and additional costs triggered by the capitalisation programme itself [i.e., opportunism of bank managers and owners (Solis, 1998)]. Therefore, the best measure of the governance event was the fiscal cost incurred in 1996. This was a cost not contaminated by possible additional costs arising from opportunism elicited by the operation of the programme of capitalisation itself.

The conjecture can now be restated as a hypothesis: it is hypothesised that the fiscal cost will be explained by proxies for the behaviour of bank owners and managers, the behaviour of the regulator, and the changed market structure constituted by two types of banks.

The proxies for each of these variables are explained below. Their descriptive statistics are provided in Annex 8.2.

The proxies for the explanatory variables and the data used

According to the model, the explanatory variables in the model are: the behaviour of the bank owners, the behaviour of the bank managers, the behaviour of the regulator, and the new market structure. Selection of the proxies for each was made after a

statistical analysis of available proxies (Greene, 1993).[21] The available proxies and the analysis of each of them are provided in the Annex 8.2 of this chapter.

The proxy for owners' behaviour

The price paid for the privatised banks was selected as the proxy for the owners' behaviour because it reflects each owner's estimation of the risk and reward associated with bank ownership given the new system of governance (Ortiz, 1994). As argued in chapter six, I proposed that the high price paid for the privatised banks indicates the owners' assessment that the new system of governance assured them an oligopoly market structure (high reward), and limited public regulation (low regulatory risk).

The proxy for managers' behaviour

In regard to the bank managers' conduct, chapter seven demonstrated that the quality of the banks' loan portfolios deteriorated after privatisation. This was evidenced by a steady increase in reported non-performing loans as a share of the banks' loan portfolios (Banco de México, 1993). The proxy for bank managers' conduct is a measure of the trend that compares non-performing loans in December 1993 to those reported in March of 1994, taken as a share of the total loan portfolio on these respective dates.[22] The resulting index measures managers' behaviour in the year before the banking crisis.

The proxy for the regulator's behaviour

The proxy for the regulator's conduct is the level of non-performing loans in March 1994 measured as a percent of the bank's overall loan portfolio in that year. Research indicates that the level of non-performing loans provides the regulator with an important signal about the associated probability of banking problems (Lindgren, *et al.*, 1996). On the basis of the signal given, the regulator decides if some type of

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[21] Greene (1993) says that before attempting to fit a model to data, the data themselves should be examined.

[22] After the first quarter of 1994, Bancomer and Banamex, the two largest banks, set up programmes to restructure loans. Then, more banks followed the same policy. Thus, the selection of March 1994 loans avoids the possible effects on the relevant trend generated by the restructuring programmes.

intervention is warranted.[23] Therefore, the level of non-performing loans provides a proxy for the regulator's conduct[24] with respect to systemic risk and the probability of banking crisis.

In the case of Mexico, as documented in chapter seven, the regulator decided that the data from 1991-1994 did not signal a high probability of banking problems. Thus, the signal of the level of non-performing loans in 1994 proxies the regulator's conduct in respect of systemic risk and the probability of a banking crisis. Data for 1994 were chosen because: (i) they represent the accumulated value of non-performing loans from 1991-1994, (ii) they are closest to the crisis date, (iii) 1994 is the same date used for other variable and (iv) because the 1995 data were constructed according to different accounting standards as result of the banking crisis itself.

The reported value of non-performing loans in 1994 followed the accounting rules established when banks were privatised (Ortiz, 1994). These rules measured the value, as equal to the value of the unpaid interest and capital due. Banks were required to report this measure on a monthly basis.[25]

The proxy for the market

The proxy for the new market that emerged during the crisis is a dummy variable that distinguishes between the two types of banks operating in bank market in 1996.[26] One type is the one created by privatisation. Its controllers were the new owners and managers. The second is the one created by government take over of failed banks.

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[23] Intervention can take different forms, ranging from additional disclosure requirements to regulatory forbearance. The latter can permit banks to delay recognition of declining value of assets (Dowd, 1996; Rose, 1999).

[24] According to Giddens (1995), behaviourism bears close affinities with operationalism. In this regard, the regulator's decision on accounting standards is the operational manifestation of his conduct.

[25] As discussed in chapter six, this measure is unusual when compared to practices in the USA. In the USA, failure of payment due for three consecutive months implies that the reported value to the business of the unserviced debt be written down to zero (e.g. the entire value of the loan). In contrast, Mexican practice means that after three months, the value of non-performing loans would only be the value of accrued interest and capital payment due.

[26] In October 1994, Banpaís and BCH banks were taken-over by the regulator as result of criminal acts made by their main controller-owner. The same financial group controlled both banks. During 1995-1996 the government intervened in additional banks (Solís, 1998).

In this case the regulator appointed the managers. Thus, the bank market was qualitatively different from the market created by privatisation. The new market was expected to give rise to differences in conduct, particularly differences in the risk preferences of each type of bank (Gorton, 1994; Dowd, 1996). The banks taken over were expected to be more risk averse that the privately owned banks. To capture this qualitative difference in the market, a dummy variable is used to distinguish between the two types of bank. Those banks managed by the regulator are assigned the value 1, and those remaining in private control are assigned the value 0.[27] The use of the dummy variable enables a comparison of the fiscal cost arising from two different types of banks associated with two different types of controllers.

The proposed model fulfilled the technical attributes expected in a good model. The selected proxies met the purpose of the model's variables and they had data coherency. Thus, it was expected that the econometric results of the model would be "consistent about the area (theory) being modelled", and, "statistical measures of goodness of fit" (Granger, 1999, pp.55).

The results of the proposed model are discussed in the next section.

8. 3: The Econometric Results

The hypothesis was that the 1996 fiscal cost of the crisis was a linear function of four factors: the behaviour of owners, managers, the regulator, and the market structure. The selected proxies for the fiscal cost, and for the explanatory variables, were used in the econometric specification of the model. The first part of this section specifies the model. In the second part, the results of the econometric tests of the model are explained. In the last part, the *governance* interpretation of the econometric results is provided.

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[27] Even though the assignment of 1 and 0 values is arbitrary, the "value of 0 is often referred to as the **base, bench, control, comparison,** or omitted category" (Gujarati, 1999, pp. 282) [bold face in the original].

8.3.1 The Specification of the Model

Given the selected proxy for each variable, the model is specified as follows:

$$Y_i = B_1D_1 + B_2X_{2i} + B_3X_{3i} + B_4X_{4i}$$

$Y_i \approx$ TF6000 is the 1996 cost (in current billions of Mexican pesos) incurred to capitalize banks and it is called the fiscal cost.

$D_1 \approx$ Condit is a dummy for the market structure; it distinguishes between banks controlled by the regulator = 1 and banks controlled by private controllers = 0.

$X_{2i} \approx$ P000 is the nominal price paid for each (i^{th}) bank, in current billions of Mexican pesos, as a proxy for the owners' behaviour.

$X_{3i} \approx$ NPLM94 is the non-performing loans reported by each (i^{th}) bank, measured as a share of the total portfolio loans in March 1994. It is the proxy for the regulator's behaviour.

$X_{4i} \approx$ M94D93 is the variation (index) of non-performing between March 1994 (NpM94) and the baseline reported for December 1993 (Npl93= 1) in a (i^{th}) bank. It is the proxy for the managers' behaviour.

The sample[28] is all the privatised banks (18), therefore

$$\sum_{i=1}^{18} X_i$$

The constant term was omitted from the model because it lacked governance meaning (Studenmund, 2001; Maddala, 1988).[29] The use of a constant would imply

[28] The "sample" is the population of all privatised banks.

[29] Theil (1978) emphasises if a model does not have a constant, the coefficients are estimated more accurately than in a model with constant. According to Studenmund (2001, pp.201), "there are two reasons that suggest that the intercept should not be relied on for purposes of analysis or inference.

that banks would have received a lump sum as minimum fiscal cost for each bank, whether required or not; that is, it implies that each bank would receive some sort of support as a result of the banking crisis. Such an inference appears quite difficult to justify theoretically.

8.3.2 The Econometric Characteristics of the Results

The econometric results are summarised on Table 8.1 below.[30] These indicate that the model has good explanatory power. The level of the Mexican fiscal cost is strongly correlated with the pre-crisis behaviour of each of the internal (owners, and managers) and a external (the regulator) force of governance.

Each of the regression coefficients is statistically significant under the null hypothesis that the true population value of each coefficient (individually) is zero (Gujarati, 1999). Tests of the model indicate that (Table 8.1) the partial regression coefficients of the equation were significantly greater than zero.[31] The t-value is significant for all the coefficients. Therefore the null hypothesis, that the value of each coefficient is zero, is rejected at the significance level of 0.05 (t-prob) for each explanatory variable. The null hypothesis, which states that "all partial slopes are simultaneously equal to zero or alternatively $R^2 = 0$" (Gujarati, 1999, pp.226), is also rejected at the level of 0.05 [F (3,14) = 3.34, the value obtained was 13.16957]; therefore, all the coefficients are significant.

The null hypothesis that there are no problems of heteroscedasticity, normality, and functional form, is accepted (see Annex 8.3 of this chapter). The model does not

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First, the error term is generated, in part, by the omission of a number of marginal independent variables, the mean effect of which is placed in the constant term." "Second, the constant term is the value of the dependent variable when all the independent variables, and the error term are zero, but the values of variables used for economic analysis are usually positive."

[30] There are various ways of reporting econometric results (Gujarati, 1993); the adopted format enables us to see the most relevant econometric results at a glance.

[31] In the multiple regression models, the estimated coefficients are called partial regression coefficients. It is because there are effects from each explanatory variable on the mean of the dependent variable (Gujarati, 1999).

have problems of multicollinearity.[32] The test of the hypothesis that there are no problems of autocorrelation (DW = 2.080356) is conclusive.[33]

Table 8.1

Econometric Results of the Proposed Model

The estimated equation:

$\hat{Y}_i = 11.817D_1 + 2.902X_{2i} - 123.91X_{3i} + 10.561X_{4i}$

Variable	Coefficient	Std. Error	t-value	t-prob	PartR^2
Market's behaviour					
(D = Condit)	11.817	2.8063	4.211	0.0009	0.5588
Owners' Behaviour					
(X_2 = P000)	2.9012	0.52109	5.568	0.0001	0.6889
Regulator's Behaviour					
(X_3 = NplM94)	-123.91	53.741	-2.306	0.0370	0.2752
Managers' behaviour					
(X_4 = M94/D93)	10.561	3.3280	3.173	0.0068	0.4184

F (3,14) = 3.34

R^2 = 0.73836 R^2 (adjust)= 0.682295

DW = 2.080356

According to the adjusted R^2, 68% of the variation in the independent variable is explained by the variation in the dependent variables, at a confidence (t-prob) level of 95%. It is possible to interpret the partial R^2 on the variables for the owner's

[32] In the case of the multiple regression analysis, the assumptions that there is not a linear relationship between explanatory variables is added to the classical linear regression assumptions (Gujarati, 1999). This relationship is called multicollinearity. There are some rules of thumb that provide some clues about the presence of multicollinearity: High R^2 and few (low) significant t ratios or high R^2 accompanied by large standard errors (Gujarati, 1999; Thomas, 1997). These are not a feature of the results reported here.

behaviour, and the market structure, as indicating their greater importance relative to the variable for the managers' behaviour. But this interpretation is not strongly indicated. In general terms, the overall adjusted R^2 is the best guide to the explanatory power of the model.

The results, overall, indicate that the model is reasonably robust, and fulfils its intended purposes (Granger, 1999). It fulfils the criteria of adequacy - one of three criteria that Granger (1999) set up to evaluate a model. The results indicate "goodness of fit." Therefore, the results of the model are statistically significant; a central attribute expected of a good econometric model (Gujarati, 1999; Granger 1999). The model also fulfils the criteria of relevance (e.g., the model meets its required purpose) and consistency (e.g., it is consistent with what is assumed in the theory that is modelled (Granger, 1999). This is because the econometric model reflects the underlying general theory of bank governance (Maddala, 1988; Studenmund, 2001).

8.3.3 The Governance Interpretation of the Results

The results of the regression analysis obtained do "*...not necessarily imply causation...*If causality ...exists, it must be justified on the basis of some (economic) theory" (Gujarati, 1999, pp. 124).[34] Thus, the direction of causation implied in the results needs to be justified by the theory of bank governance proposed in this dissertation. This discussion proceeds firstly with respect to the internal forces of governance, and then with respect to the external forces of governance.

Internal forces of governance

With respect to the internal forces of governance, the results indicate a positive relationship between the fiscal cost and the behaviour of owners and managers.

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[33] The likelihood of autocorrelation in cross sectional analysis is low (Thomas, 1997, Gujarati, 1999). However, apart from testing the hypothesis of autocorrelation, the DW statistics can be used as indicator of misspecification problems in a model (Thomas, 1997).

[34] Popper says that no theory can be proven or justified; it can only be falsified. This is because the critical issue addressed is to "attack the theory itself, *qua* solution of the problem it tries to solve" (Popper, 1997, pp. 159).

The owners' behaviour: The price paid for the privatised banks

The results suggest that for every unit paid (expressed in billions of pesos) for the privatised banks, the fiscal cost was three units. If the owners had been obliged to provide the amount of additional capital provided by the regulator in 1996, they would have been obliged to inject three times the price paid for the banks. Thus, one can say that the government supplied three times the amount the owners had spent to purchase the banks.[35] Two statements made by the Central Bank support this inference. The first indicates that in 1996 the permanent capitalisation programme increased the 1994 capital of banks by 158% (Banco de México, 1997, pp. 131). The second statement indicates that, at the end of 1997, the programme provided capital equivalent to 176% of the total capital of banks in 1994 (Banco de México, 1998, pp. 146). Thus, it is plausible to argue that owners' lax behaviour toward the lending decisions made by their managers explains some part of the fiscal cost.

The fiscal cost associated with the owners' behaviour raises an important question. Why did owners not act as guardians of their own wealth and increase provisions for loan losses according to the increase of non-performing loans? One possibility is the effect on the balance sheet. If they had increased provisions, they would have needed to retain earnings (rather than pay them as dividends), in order to maintain a positive equity or book value.[36]

There is evidence that the banks' reported net profit (as a proportion of the financial income) increased from 1991- 1994 (Ciancanelli and Reyes, 1999). Some banks continued to pay dividends even as late as 1996 - a year after the banking crisis had emerged. For instance, in the period 1993-1995, Bancomer, the second largest bank, paid dividends of almost $2,500 million Mexican pesos. In 1996, this same bank had losses of $2,016 million (CNBV, 1996, pp. 47). Banco Mercantil del Norte (Banorte), one of the smallest banks, paid dividends, in the above-mentioned period, for $857 million Mexican pesos. In 1996, this

[35] On average owners paid 3.08 times the banks' book capital value, and the cost of recapitalisation was 9.24 of the original book value.

[36] Later, the pressure to retain earnings would come from new capital-adequacy rule (Banco de México, 1996).

bank paid dividends of $67 million (CNBV, 1996, pp. 105). Thus, one reason for indifference to non-performing loans was receipt of divided income throughout.

Apart from the dividends already obtained, it is also the case that owners were able to recover some of their initial investment through self-dealing within the financial groups. Since the privatised banks were *universal banks*,[37] there is the view that owners were in a position to obtain loans for businesses that were part of the financial group controlling those banks (Huerta, 1997; Huerta, 1998). In addition, some owners were Chairmen, CEOs and top managers of their banks (e.g., Bancomer and Banamex, the two largest banks, were notorious cases). Therefore, owners also obtained revenues from banks, via salaries, bonuses, perks, and so forth. Owners paid higher prices for the privatised banks that those in the USA and Europe. This meant that they expected to obtain high rewards for their investments.

The proposed theory of bank governance highlights that bank owners are in a risk-sharing relationship with the regulator. The Mexican case illustrates that when preventive means, at the level of the conduct of owner, are lacking, the costs of bank protection can be significantly increased. When preventive regulation is inadequate, this risk-sharing relationship can be highly asymmetric. The greater the asymmetry, the more owners have incentives to take significant lending risks, since the funds at risk are those of depositors rather than their own capital. Thus, when the tools and means of preventive regulation cannot minimize the structural asymmetry in risk sharing, the regulator will have only the tools of protective regulation (lender of last resort) to ensure the safety of the banking system. Regulations to prevent owner risk-taking appear to be an essential means to prevent costly intervention by the regulator.

The managers' behaviour: The increase of the non-performing loans

The proxy for managers' behaviour was the trend in non-performing loans, as a share of the banks' total loan portfolios. The econometrics results confirm a positive

[37] See chapter six.

relation between variations in the trend of reported non-performing loans and variations in fiscal cost. Since the proxy for non-performing loans is an index number, the coefficient measures the impact of the increase in fiscal cost. The coefficient (10.561) indicates that for each percent increase in non-performing loans, there is a correlated increase in fiscal cost of $0.10561 billion Mexican pesos.[38] Thus, managers' behaviour toward lending explains some part of the fiscal cost.

From a governance perspective, this result is not surprising. Theorists of systemic risk emphasise the importance of non-performing loans (Minsky, 1986; Harrington, 1987). What is somewhat surprising is that the index for such a short period trend should prove to be so significant. One explanation lies in acceleration of the increase in non-performing loans. When this occurs, bank failure is inevitable; the only way it can be forestalled is for managers to stop lending and for owners to inject additional capital. In the Mexican case, the data suggest that most managers did not stop lending.

Indeed, according to Table 8.4d in Annex 8.4, only one bank's managers (Banoro) reduced the level of non-performing loans between December 1993 and March 1994. This general behaviour is surprising in light of Fama's view that managers can be expected to be more concerned about the viability of a firm than its owners (Fama, 1984). If they had been, then more banks would have followed the example set by Banoro. Clearly, the behaviour of the managers of Mexican banks is not consistent with his view that managers would act to reduce threats to the viability of their employing organisation banks. On the other hand, Jensen and Meckling's (1991) theory could not explain the owners' seeming indifference to the behaviour of managers.

According to the theory advanced in this dissertation, the conduct of bank managers is guided both by specific regulations (and the regulator) and by the owner's preferences. Since neither evidenced concern about the accelerating increase in non-

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[38] The index number's base is 1. A one percent increase is indicated by the number 1.01. An increase of 1% means an increase in the fiscal cost of $ 0.10561. Thus, the fiscal cost will be $ 10,561 + $ 0.106561 = $ 10,66661. This is equivalent to 1.01 ($ 10.561) = $ 10.66661.

performing loans, managers were able to act on incentives and to carry on lending regardless of adverse financial consequences.

Some evidence of owners providing incentives to managers to ignore the acceleration of non-performing loans and to continue lending can be found in the aggregate data on personnel costs in the banks. This indicates that from 1991 to 1993 personnel costs, which include managers' salaries and bonus payments, increased by 40.6% (1991-1992), and then by 23.5% (1992-1993) (CNB, 1993, pp.6). From 1993 to 1994, personnel costs increased by 15% (CNBV, 1996, pp.26). When one looks at data for individual banks, there are large variations. While in the latter period, Banamex and Bancomer, the two largest banks, increased their personnel costs by 4.5% and 10.8 %, respectively (CNBV, 1996, pp. 37 and 47), Banorte, (a much smaller bank) increased its personnel costs by 22%. From 1993 and 1995, Banorte increased its personnel costs by 56% (CNBV, 1996, pp. 105). Much of this increase can be attributed to bonus payments because overall hiring was stagnant.

The overall pattern suggests owners provided incentives to managers to ignore the trend in non-performing loans. This means that, in the absence of preventive regulatory intervention, managers were both *able* to ignore the trend of non-performing loans and were *willing* to do so because owners offered incentives that aligned managers' interest with owners' interest. They wanted to maintain the level of reported profits in order to justify payment of dividends. Thus, incentives to managers can play a role in increasing systemic risk.

Preventive regulations are an important means to stop owners from offering incentives that encourage risky lending practices. The Mexican case suggests that failure to impose preventive regulations on managers' conduct creates the possibility that their interests can be aligned with those of risk-seeking owners, thereby amplifying the asymmetric risk-sharing relationship in a bank governance system.

What do the results for owners and managers imply about the internal forces of governance? Even though the measure of non-performing loans was poor, the

reported trend in non-performing loans can capture the contribution of managers' behaviour to a governance event. In the case of Mexico, it suggests that neither the banks' owners nor the regulator (Banco de Mexico, 1993) took issue with the managers' conduct. As a result, little was done to prevent the deterioration of the quality of the banks' loan portfolios. Indeed, the evidence suggests that in spite of the threat of bankruptcy, owners encouraged their manager's risky behaviour. Mexican banks were controlled and directed in a way that was beneficial to private interests even though these implied conducts that were contrary to the public interest.

External forces of governance

The results bearing on the external forces of governance include the results for the variables of the regulators' behaviour, and the market structure. The results indicate a negative relationship between the fiscal cost and the regulator's behaviour. With respect to the market structure, the results indicate that banks taken-over by the regulator were more costly (in 1996) than those that remained under private control. First the results for the regulator's behaviour are discussed; then the results for the market.

The regulator's behaviour: The accounting rules and measurement of non-performing loans

The proxy for the regulator's behaviour was the level of non-performing loans in March 1994, measured as the ratio of non-performing loans to the banks' loan portfolios. It proxies the regulator's conduct as comprising acceptance, on the one hand, of the quality of governance information provided by the banks' accounts, and, on the other hand, the regulator's decision that intervention was not warranted, even though there were reasons to be suspicious of the quality of banks' reported earning and capital.

The negative sign of the estimated coefficient indicates that the higher a bank's reported level of non-performing loans in 1994, the lower the associated fiscal cost in 1996. The coefficient (-123.91) itself indicates that for each percent (0.01) increase in the level reported, the fiscal cost decreases by $1.24 billion Mexican pesos. The

inverse relationship between the 1996 fiscal cost and the level of non-performing loans reported two years early (1994) is consistent with the effects arising from non-intervention by the regulator. Non-intervention, when it is necessary, means that bad loans can be disguised for a long period of time. However, bad loans cannot be disguised indefinitely (Dowd, 1996; Rose, 1999). This is because more and more the loan portfolio fails to generate cash, liquidity problems increase. Thus, what may have begun as a liquidity problem swiftly turns into a solvency problem.

Rose (1999) argues that prudence dictates that when non-performing loans increase, banks have to create provisions of a similar magnitude in order to provide a cushion of bank capital against the risk of failure.[39] In the case of Mexico, those banks reporting higher level of non-performing loans did make higher provision, but at different magnitude. (see Table 7.6, chapter seven).[40] Thus, the lower the banks' reported non-performing loans, the lower provisions, the higher the level of disguised bad loans. Since the fiscal cost represents the capitalisation cost, it follows that higher reported non-performing loans would be associated with lower fiscal cost. The other way to see this relationship is that the higher the provisions, the lower the need for capital from the regulator.[41]

It is documented that Mexican banks could choose to disguise problem loans by relying on the actual practice (not authorised practice by the regulator) of refinancing

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[39] Even though loan-loss reserves are counted as part of bank capital (up to 1.25 percent of a bank's risk-weighted assets), these reserves are not considered as part of a bank's permanent capital (Rose, 1999).

[40] According to the Table 7.6 in chapter seven, the aggregate provisions as proportion of the total value of non-performing loans was 35.2% and 48.6% for 1991 and 1994, respectively. Thus, the provisions were not sufficient to cover losses from non-performing loans.

[41] According to the bank accounting practices in Mexico, loans are shown on the balance sheet as an assets account in two parts: performing and non-performing loans shown at book value. The value of non-performing loans is measured as the accrued monthly payment of interest and capital due. Provisions for possible loan losses are shown as a liability account. It is created by deductions from the capital account, either retained earnings, or current profits. Thus, increases in reported non-performing loans *ceteris paribus* increases the bank's assets, but not its quality. If provisions are lower than the value of non-performing loans, the book value of bank capital increases. In the case of Mexico, because the value of provisions was lower than non-performing loans, this meant a misleading increase in capital. See Annex 8.7 for illustration of how account of performing and non-performing loans appear in the format used by the regulator (CNBV, 1996).

loans that were not being serviced.[42] One motive for doing so, alluded to earlier, could have been managerial incentives for either sustaining a high volume of lending or owners' efforts to maintain dividend payments or both.

The regulator's decision that intervention was not warranted also ignored other signals. Accounting information for the sector indicated a puzzling range in the ratios of non-performing loans being reported in 1994 by the different banks. For example, big banks were not systematically reporting higher ratios than were medium and small banks (e.g., Banamex and Bancomer, the two biggest banks, and Atlántico and Banoro, medium and small banks, respectively). Regional banks were not systematically reporting different ratios than national banks (e.g. Banco del Centro and Comermex, respectively). If the regulator had considered this pattern, it might have inferred that reported ratios of non-performing loans reflected decisions by some banks to suppress bad news. Thus, the explanation for an inverse relationship lies in the regulator's decision that the available governance information in 1994 did not warrant its intervention. The intervention was not made even though the regulator itself knew, from 1992, that the level of non-performing loans was increasing so fast (Banco de México, 1993) and that banks were using accounting standards that underestimated the actual value of non-performing loans.

In the analysis of this chapter, accounting rules emerge as a crucial means of preventive regulation because they provide an early warning of potential problems in the banking system. In the Mexican case, the regulator's failure to scrutinize all the governance information at its disposal, or to demand better information, was undoubtedly a major contributor to the inverse relationship between fiscal cost in 1996 and the reported levels of non-performing loans in 1994.

The market structure: The fiscal cost of banks taken over and not taken over by the regulator

The variable for the market structure is a dummy variable. The dummy aims to capture a feature of market quality (Gujarati, 1999) that emerged during the crisis.

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[42] The regulator officially abolished this practice after privatisation (see chapter seven).

The bank market was characterised by two types of banks, those banks that were taken-over by the regulator (D = 1) and the other banks privately controlled (D = 0). The regulator's take-over of banks began in the last term of 1994, when the regulator took over two banks, and into 1995 when it took over four more banks. By 1996, six of the eighteen privatised banks were under the regulator's control. According to the model, this qualitative change in the market force of governance explains variations in the fiscal cost of each type of bank. The results indicate a systematic difference between the two.

According to the econometric results, for banks taken over by the regulator, the mean value of the fiscal cost is:

$$\hat{Y}_i = 11.817D_1 + 2.902X_2 - 123.91X_3 + 10.561X_4$$

Since the other banks have 0 as D value, their mean fiscal cost is:

$$\hat{Y}_i = 2.902X_2 - 123.91X_3 + 10.561X_4$$

Thus, the coefficient D (11.817) for banks taken over by the regulator indicates that the estimated mean value of the fiscal cost is $11.8 billion Mexican pesos higher than that for those remained in private control. Tables 8.2 and 8.3 below indicate that the actual mean fiscal cost of the banks taken over was $16.86 billion Mexican pesos, whereas the mean fiscal cost of the banks not taken over was $10.95 billion Mexican pesos. Indeed, the actual fiscal cost of *4 of the 6* banks (see Table 3) taken over by the regulator was greater than $11.8 billion Mexican pesos (one was close to this amount), whereas 10 of the 12 banks operating in normal market situation have a fiscal cost below $11.8 billion Mexican pesos (see Tables 8.2). Thus, in 1996 the most costly banks were those taken over by the regulator. However, by 1997 the most costly banks were those operating in 1996 under private control.

The governance interpretation of the difference of the 1996 fiscal cost is that banks taken over by the regulator disclosed in 1996 a better estimate of the value of their non-performing loans. This would explain why their fiscal cost did not increase much in 1997. A related inference is that banks in private control continued

"lending" during 1996 relying on the practice of disguising non-performing loans through such devices as 'fresh loans' to refinance payment of interest and capital due on earlier loans.

Table 8.2*
Data for the non-taken-over banks

BANKS	(a) Fiscal cost 1996 (TF6000)**	(b) Fiscal Cost 1997 (TF7000)	(c) (b)/(a)
Multibanco Mercantil	10.382	23.539	2.27
Banamex	25.618	31.527	1.28
Bancomer	33.239	32.111	0.96
Serfin	3.446	49.942	14.49
Somex	7.984	24.553	3.07
Promex	4.409	6.040	1.37
Internacional	8.677	12.187	1.40
Banca Confía	8.247	8.247	1.00
Bancrecer	11.287	24.725	2.19
Atlántico	6.848	10.173	1.48
Banoro	7.488	7.488	1.00
Mercantil del Norte	3.768	5.316	1.41
Mean	***10.950***	***19.650***	***2.64***
Total	***131.393***	***235.848***	***1.79***

Table 8.3*
Data for the taken-over banks

BANKS	(a) Fiscal cost 1996 (TF6000)**	(b) Fiscal Cost 1997 (TF7000)	(c) (b)/(a)
Banpaís	30.634	30.634	1.00
Banco de Oriente	6.933	6.933	1.00
Comermex	22.99	22.99	1.00
Banco del Centro	13.657	13.657	1.00
Banca Cremi	10.032	10.032	1.00
BCH (Banco Unión)	16.935	16.935	1.00
Mean	***16.860***	***16.860***	***1.00***
Total	***101.181***	***101.181***	***1.00***

*Sources for Table 8.2 and Table 8.3 are Comision Nacional Bancaria y de Valores. Boletín Estadístico. Septiembre 1996, Marzo 1994, México. Ortiz, G. (1994), La Reforma Financiera y la Desincorporación bancaria. De Boyer, *et al.* (1998), Bancos y Crisis Bancarias: Las experiencias de México, Francia y Japón. **Billions of nominal Mexican pesos.

If this were the case, then the increased fiscal cost in 1997 for those banks under private control is predictable (Bustamante and Kershenobich, 1997). Data from

Tables 8.2 and 8.3 support this view. The ratios in column C indicate that the fiscal cost for banks in private control increased between 1996 and 1997, while the fiscal cost of the taken over banks did not increase. In absolute terms, for banks under private control the mean cost increased from $10.950 billion Mexican pesos, to $19.65 billion. The total fiscal cost of these banks increased 79% (the mean of the increases per bank was 164%). The fiscal cost of nine of the twelve banks not taken over increased, in one case it fell and in two cases it remained the same (see Table 8.2). The most striking fact is that, in 1997, the fiscal cost of the third largest bank (SERFIN) increased 14 times.

Because the amount provided to each bank by the programme to capitalise banks was the asset value of the loan book (the book value of non-performing loans), some argue that the increase in fiscal cost, between 1996-1997, reflects the hazard created by the programme itself, giving rise to opportunism by managers and owners (Solis, 2000, Solis *et a.l.*, 2000). This opportunism could be an extension of their behaviour prior to the establishment of the re-capitalization programme, but it is also possible that the programme itself offered additional incentives. Thus, it is thought that, in 1997, banks may have sold to Fobaproa not only their non-performing loans, but additionally other loans that were being serviced but regarded by managers as having a high probability of problems in the near future (Huerta, 1998).

Data indicate that banks operating under private control in 1996 were associated, *a posteriori*, with higher costs than those taken over by the regulator. Obviously, the role of the regulator was crucial in administering the taken over banks, but also in defining the condition of the market. The regulator could have taken over more of the banks in 1995, but did not do so because it was thought that this would have been costlier than re-capitalizing the banks (SHCP, 1998). The regulator thought that there would be two main costs. The first potential cost arose from legal limitation imposed by the new system of governance. The potential second cost was the adverse signal such action might give (SHCP, 1998).

In retrospect, it might have been cheaper to have taken over all the banks (or nearly all) in 1995 when the signal of a banking crisis emerged. However, the regulator and the government appear to have not associated the signals with the incoherence of the new system of governance. Nor did they consider the possibility that the programmes they adopted increased opportunism and moral hazard.

Between 1995 and 1996, the regulator implemented 11 types of actions and programmes. Most of these were implemented because previous ones did not produce the expected results. Each new action and programme eroded, more and more, the governance credibility of the regulator. This loss of governance credibility was evident prior to the banking crisis, in part because the regulator failed to fulfil its duties (see part 7.4.4 in Chapter seven). Nevertheless, the increasing number of actions and programmes demonstrated that the regulator accepted to bear an increasing fiscal cost to deal with the banking crisis. The Mexican case evidences, as Stiglitz (2002) asserts about the recent Asian financial crisis, that "when the day of reckoning comes, the government faces an even bigger bailout than if the banks had been shut down early" (pp.115).

8. 4. Conclusions

The governance interpretation of the econometric results highlights three main points. First, the regulator can shape the conduct of the other parties in a system of governance in ways that damage the public interest. For example, the regulator in Mexico allowed banks to provide poor governance information. Second, owners can be a source of systemic risk when the regulator lacks adequate tools of preventive regulation. Third, the regulator's management of a banking crisis can increase the fiscal cost, and, thereby, increase the asymmetry in its risk sharing relationship with bank owners.

The results also demonstrate that the proposed theory of bank governance can be modelled in order to develop explanations of governance events, such as a banking crisis. The results, in the case of Mexico, verify the pertinence of the proposed

theory of bank governance, especially the importance attached to the conduct of the main parties of a system of governance.

It is possible to generalise from the results obtained, arguing that in systems of bank governance there are more complex problems related to information, and potential moral hazard, than those that come to light from agency theory models of corporate governance.

Since most of the banking crises occurring in the past 25 years followed extensive and far-reaching deregulation of national financial systems (Lindgren, *et al.*, 1996; Mishkin, 1994; Enoch, *et. al.*, 1999; Bordo, *et al.*, 2001), creating substantial fiscal costs (OECD, 1995, Enoch, *et al.*, 1999), the proposed model may be applied to other national contexts. Obviously, proxies for the main parties of other systems of governance will reflect how the legal relationship between those parties is structured. In any case, it is clear that regulation plays a pivotal role in structuring the relationships between the main parties in a system of bank governance. Prescriptions that ignore the complex nature of bank governance are hazardous if they allow managers and owners to act without regard for the public interest (Gorton, 1994). The broader implications of my theoretical approach are discussed in the concluding chapter.

Annex 8.1

The Data Collected

The data collected was of three types.[43] The first kind of data was the fiscal cost (FOBAPROA). The second kind of data was related to features of banking privatisation. The last kind of data regarded the non-performing loans and provisions for loan losses (PLLs) per bank. They are listed in below.

Table 8.1a

Data collected

Variable	Meaning
Condit.	Market structure. Dummy: 1= Bank taken over by the regulator. 0= Not taken over.
Type	Type of bid-winner Group for the privatisation. Dummy: 1= Financial 0= Other
Holders	Number of holders controlling each bank
P000	Price paid per bank: Mexican pesos (1991-1992)
TimesK	Price paid per bank times its book value
TF6000	Total amount of FOBAPROA per bank in 1996, in billions of Mexican Pesos (December)
TF7000	Total amount of FOBAPROA per bank in 1997, in billions of Mexican Pesos (September)
PV/TLM94	Provisions of loan losses as proportion of total loan portfolio in March 1994
PV/TLM93	Provisions of loan losses as proportion of total loan portfolio in December 1993
Npl93	Non-performing loans as proportion of the total loan portfolio per bank in 1993 (December)
NpM94	Non-performing loans as proportion of the total loan portfolio per bank in 1994 (March)
M94/D93	Variation of non-performing loans in March 1994 (NpM94) with respect to December 1993 (Npl93)

Sources: Comisión Nacional Bancaria y de Valores. Boletín Estadístico. Septiembre 1996, Marzo 1994, México.
Ortiz, G. (1994), La Reforma Financiera y la Desincorporación Bancaria, México, FCE
De Boyer, J. A, Gutiérrez. T, Katoka. R, Solis. (1998), Bancos y Crisis Bancarias: Las experiencias de México, Francia y Japón. México UAM.

[43] Sources of data were explained in a detailed way in chapter five, section three.

Annex 8.2

Descriptive Statistics

The descriptive statistics are listed in Table 8.2a, according to the Minitab format, font and size. The meaning of each variable is provided in Table 8.1a (Data collected). The statistics for the proxies are in ***bold italics***. Conclusions from the analysis of the descriptive statistics are provided below Table 8.2a. Table 8.2b and 8.2c provides the main descriptive statistics for the proxy variables. Data of selected proxies for each bank are provided in Table 8.2d.

Table 8.2a

The Data Descriptive Statistics[44]

Variable	N	Mean	Median	TrMean	StDev	SE mean
P000	***18***	***2.104***	***1.106***	***1.744***	***2.676***	***.631***
Holders	18	15.22	14.50	14.81	6.61	1.56
TimesK	18	3.482	3.350	3.428	0.798	0.188
TF6000	***18***	***12.92***	***9.35***	***12.24***	***9.19***	***2.17***
TF7000	18	18.72	15.30	17.61	12.14	2.86
Np1M94	***18***	***0.07722***	***0.08000***	***0.07750***	***0.02137***	***.00504***
Pv/TLM94	18	0.03059	0.02990	0.03054	0.00921	.00217
Pv/TLM93	18	0.03074	0.02735	0.03028	0.01010	.00238
M94/D93	***18***	***1.1763***	***1.1339***	***1.1740***	***0.1753***	***0.0413***
Np193	18	0.06722	0.07000	0.06750	0.02109	.00497

Variable	Minimum	Maximum	Q1	Q3
P000	***0.223***	***9.745***	***0.714***	***2.084***
Holders	5.00	32.00	11.00	17.00
TimesK	2.530	5.300	2.685	4.058
TF6000	***3.45***	***33.24***	***6.91***	***18.45***
TF7000	5.32	49.94	8.06	26.20
Np1M94	***0.04000***	***0.11000***	***0.06000***	***0.09000***
Pv/TLM94	0.01490	0.04710	0.02350	0.03713
Pv/TLM93	0.01417	0.05460	0.02423	0.03663
M94/D93	***0.8889***	***1.5000***	***1.0000***	***1.2976***
Np193	0.03000	0.10000	0.04750	0.08250

- Data for the 1996 FOBAPROA cost (TF6000-billions of current Mexican pesos) had lower standard deviation, mean, median, minimum and maximum values than FOBAPROA (TF7000).
- Even though TimesK (price paid per bank as times its book value) had a lower standard deviation than P000 (price paid in current billions of pesos), this latter was selected as proxy for owners' conduct. The reason for this was that TimesK did not have high econometric significance. It is possible that

P000 had higher significance than Times K due to it was expressed in monetary units, similar to the fiscal cost. NplM94 (non-performing loans as proportion of the total loans per bank in March 1994) and M94/D93 (index of non-performing in March 1994 respect December 1993) had low standard deviations, as well as low minimum and maximum values. They were selected as a proxy for regulator and manager conduct, respectively.

- It is worth noticing that in the preliminary result of the model, provisions for loan losses (PLLs), as proportion of total loan portfolio per bank, were not significant as explanatory variable of the fiscal cost. This suggests that because the banks' provisions were set up without specific rules related to the banks' loan portfolios, they did not have significance as indicators of the bank's financial condition.

Table 8.2b

Descriptive Statistics for the Selected Proxies

Variable	N	Mean	Median	TrMean	StDev	SE mean
TF6000	18	12.92	9.35	12.24	9.19	2.17
P000	18	2.104	1.106	1.744	2.676	0.631
NplM94	18	0.07722	0.08000	0.07750	0.02137	.00504
M94/D93	18	1.1763	1.1339	1.1740	0.1753	0.0413

Table 8.2c

Descriptive Statistics for the Selected Proxies

Variable	Minimum	Maximum	Q1	Q3
TF6000	3.45	33.24	6.91	18.45
P000	0.223	9.745	0.714	2.084
NplM94	0.04000	0.11000	0.06000	0.09000
M94/D93	0.8889	1.5000	1.0000	1.2976

[44] The descriptive statistics were obtained using the Minitab packet11. It used the original font of this packet.

Table 8.2d

Data for the Proposed Model

BANKS	Fiscal cost 1996 (TF6000)*	Market Structure (Condit)	Owners (P000)*	The Regulator (NplM94)	Managers M94/D93
Multibanco Mercantil	10.382	0	0.6112	0.06	1.50
Banamex	25.618	0	9.74498	0.09	1.28
Bancomer	33.239	0	8.6	0.09	1.28
Serfin	3.446	0	2.8278	0.1	1.11
Somex	7.984	0	1.8765	0.06	1.00
Promex	4.409	0	1.0745	0.06	1.2
Internacional	8.677	0	1.4869	0.11	1.1
Banca Confía	8.247	0	0.89226	0.06	1.2
Bancrecer	11.287	0	0.42513	0.06	1.5
Atlántico	6.848	0	1.4692	0.09	1.12
Banoro	7.488	0	1.13781	0.08	0.88
Mercantil del Norte	3.768	0	1.75733	0.04	1.00
Banpaís	30.634	1	0.545	0.04	1.33
Banco de Oriente	6.933	1	0.22322	0.11	1.37
Comermex	22.99	1	2.706	0.09	1.00
Banco del Centro	13.657	1	0.8694	0.09	1.12
Banca Cremi	10.032	1	0.74829	0.08	1.14
BCH (Banco Unión)	16.935	1	0.87836	0.08	1
Total (Billions)	232.574 (30.6 USA Dollars)		37.873 (13.5 of USA Dollars)		

Sources: Comisión Nacional Bancaria y de Valores. Boletín Estadístico. Septiembre 1996, Marzo 1994, México.
Ortiz, G. (1994), La Reforma financiera y la desincorporación bancaria, México.
De Boyer, *et al.* (1998), Bancos y Crisis Bancarias: Las experiencias de México, Francia y Japón.
*Billions of nominal Mexican pesos.

Annex 8.3

Complete Results of Tests of the Proposed Model

The results are presented according to the Pc Give format, font and size.[45] R and R^2 (adjust) was obtained using Eviews 3 Packet.[46] Below it is explained the meaning of the acronyms of the econometric tests provided by Pc Give. The F test related to R^2 was estimated manually according to the respective formula explained below. Graphs of the model are included at the end of this Annex.

Results

EQ(1) Modeling TF6000 by OLS (using Antonio2AOK.xls)
The present sample is: 1 to 18

Variable	Coefficient	Std.Error	t-value	t-prob	PartR^2	Instab
Condit	11.817	2.8063	4.211	0.0009	0.5588	0.08
P000	2.9012	0.52109	5.568	0.0001	0.6889	0.03
NplM94	-123.91	53.741	-2.306	0.0370	0.2752	0.07
M94/D93	10.561	3.3280	3.173	0.0068	0.4184	0.03

-Condit = D: Bank-market structure
-P000 = X_2: Price paid for the privatised banks (The owners' behaviour)
-NPLM94 = X_3: Non-performing loans as share of the bank's loan portfolio (The regulator's behaviour)
-M94/D93 = X_4: Increase of non-performing loans (The manager's behaviour)

R^2 = 0.738360 \sigma = 5.18002 DW = 2.080356
R^2 (adjust)= 0.682295
F (3,14) = 3.34
RSS = 375.6571118 for 4 variables and 18 observations

Instability tests, variance: 0.206723 joint: 0.786588
Information Criteria:
SC = 3.68061 HQ = 3.51003 FPE=32.7955 AIC = 3.48275

AR 1- 2 F(2, 12) = 4.792 [0.0295] *
ARCH 1 F(1, 12) = 0.018898 [0.8929]
Normality Chi^2(2)= 0.93119 [0.6278]

---

45 The model results were imported from PC Give. This is the econometric packet used in the Department of Economics, University of Strathclyde. It is used with the original font from the packet.
46 The econometric results that were obtained using Eviews packet do not differ from those from PcGive.

```
Xi^2     F( 7,  6) =     2.2238 [0.1747]
RESET    F( 1, 13) =     2.4566 [0.1410]
```

Diagnostic Tests

1. Instability tests, Information Criteria: SC (Schwarz criterion), HQ (Hannan-Quinn), FPE (Final Prediction error)
2. AR 1- 2: Serial correlation test (First order Autoregressive Scheme). This test is for time series analysis, therefore it is not applied to cross sectional data.
3. ARCH 1: Heterocedasticity test (Autoregressive Conditional Heterocedasticity).
4. Normality Chi^2(2): Normality test.
5. Xi^2: Heterocedasticity test
6. RESET: Functional Form test (Regression Specification Test).

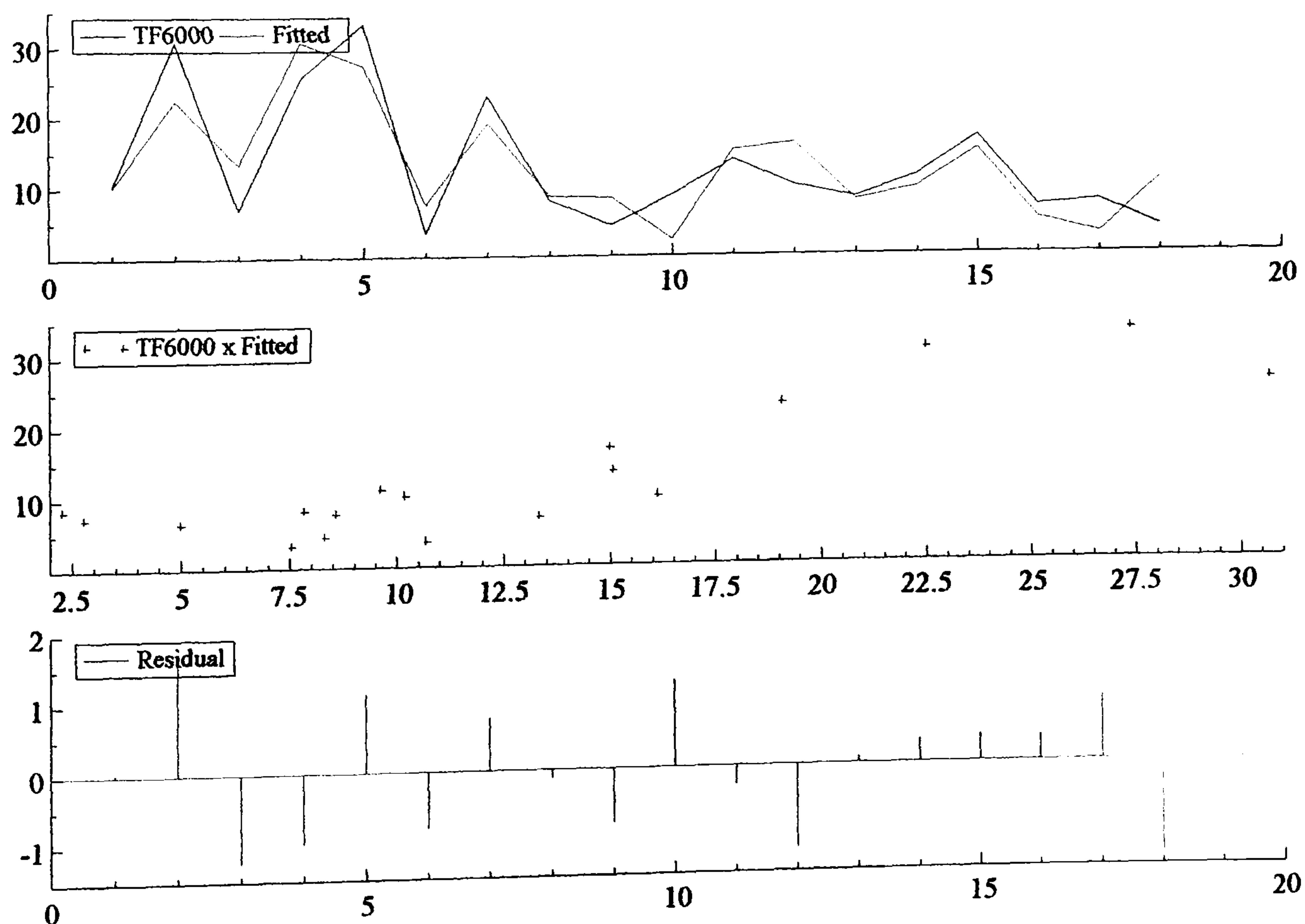
The F Test

The relationship between F and R^2 is as follows:

$F = [R^2/(k-1)] / [(1-R^2)/(n-k)]$

F = 13.16957

Graphs of Goodness of Fit of the Model



Annex 8.4

Table 8.4a

Available Proxies and the Data Used to Test the Proposed Model of the Fiscal Cost[1]

BANKS	Condit	Type	Holders	P000*	Times K	TF6000*	TF7000*	Pv/TLM94	Npl93	NplM94	Pv/TLM93	M94/D93
Multibanco Mercantil	0	1	14	0.6112	2.66	10.382	23.539	0.02	0.04	0.06	0.0231	1.5
Banpaís	1	1	5	0.545	3.02	30.634	30.634	0.01	0.03	0.04	0.01417	1.33333333
Banco de Oriente	1	0	12	0.22322	4	6.933	6.933	0.04	0.08	0.11	0.0403	1.375
Banamex	0	1	16	9.74498	2.62	25.618	31.527	0.03	0.07	0.09	0.0354	1.28571429
Bancomer	0	1	11	8.6	2.99	33.239	32.111	0.03	0.07	0.09	0.0266	1.28571429
Serfin	0	1	12	2.8278	2.69	3.446	49.942	0.03	0.09	0.1	0.0321	1.11111111
Comermex	1	1	32	2.706	3.73	22.99	22.99	0.04	0.09	0.09	0.0333	1
Somex	0	1	30	1.8765	3.3	7.984	24.553	0.03	0.06	0.06	0.0257	1
Promex	0	1	12	1.0745	4.23	4.409	6.04	0.02	0.05	0.06	0.0223	1.2
Internacional	0	1	17	1.4869	2.95	8.677	12.187	0.04	0.1	0.11	0.0483	1.1
Banco del Centro	1	1	16	0.8694	4.65	13.657	13.657	0.05	0.08	0.09	0.0546	1.125
Banca Cremi	1	0	11	0.74829	3.4	10.032	10.032	0.03	0.07	0.08	0.0281	1.14285714
Banca Confía	0	0	17	0.89226	3.73	8.247	8.247	0.03	0.05	0.06	0.0263	1.2
Bancrecer	0	0	16	0.42513	2.53	11.287	24.725	0.03	0.04	0.06	0.0246	1.5
BCH (Banco Unión)	1	0	15	0.87836	2.67	16.935	16.935	0.02	0.08	0.08	0.0249	1
Atlántico	0	0	10	1.4692	5.3	6.848	10.173	0.04	0.08	0.09	0.0411	1.125
Banoro	0	0	18	1.13781	3.95	7.488	7.488	0.03	0.09	0.08	0.0308	0.88888889
Mercantil del Norte	0	0	10	1.75733	4.25	3.768	5.316	0.02	0.04	0.04	0.0216	1

1) This is the data s used to test the model. Data of some proxies were rounded up in the Table 8.2 (e.g., that for the Regulator's). The meaning of each variable is explained in the Annex 8.1.

Sources: Comisión Nacional Bancaria y de Valores. Boletín Estadístico. Septiembre 1996, Marzo 1994.

Ortiz, G. (1994), La Reforma financiera y la desincorporación bancaria.

De Boyer, *et al.* (1998), Bancos y Crisis Bancarias: Las experiencias de México, Francia y Japón.

*Billions of nominal Mexican pesos

Annex 8.5
Table 8.5a
1995 Regulator's Actions and Programmes to Deal with the Banking Crisis

Problem	Action/Programmes	Objectives	Governance features
Lack of banks' provisions.	Reinforcement of prudential regulation (*February*)	• PLL equivalent to 60% of non-performing loans or • 4% of the total bank's loan portfolio	• The inadequate accounting system was maintained • The capital adequacy was increased, obliging to the regulator to support capitalisation of banks
Some banks were unofficially bankrupt and some banks were accused of criminal acts	Intervention of banks and financing facility (*during the year and after*)	• To maintain banking operation • To eliminate distortion in the market of money	• This action was later part of some specific programmes • The regulator admitted that before the crisis banks were facing solvency and liquidity problems, affecting the money market (interest rate) • Between 1994 and 1997 the regulator took over most of the banks
High foreign financial exposure	Program of liquidity facility in foreign currency (*February*)	• To provide credit in dollars to avoid runs	• Banks were acting out side of regulation for operations in foreign currencies • The programme finished in 1995; it supported 17 banks
Banks' low capitalisation	Temporary capitalisation of banks via **FOBAPROA** (*March*)	• To provide temporary financial support • To increase banks' capital backed by bank's shares	• This programme was implemented by the central Bank according to **FOBAPROA**'s rules. • It supported 6 banks and the support was recovered by 1997
Banks' lack of fresh capital	Program of permanent capitalisation (Buying bank's non-performing loans-NPLs) (*June*)	• To provide capital via 10 years non-tradable public bonds • To encourage owners to capitalise banks in proportion of \$1 (peso) per \$2 of NPLs bought • Banks agreed to bear 20-30% of NPLs losses	• The regulator did not act according to the **FOBAPROA**'s rules or to the federal laws (mainly both the Public and Public Debt laws) • The Regulator assumed banks' losses • The programme encouraged owners and managers to opportunism and moral hazards: a) Interest rate was 400 points base over risk free interest rate, b) Banks were in charge of recovering NPLs • All privatised and new banks were supported
There was a gap between inflation and interest rate that affected debtors' payment capacity	Program of restructuring loans in Investment Units (real or constant pesos)	• To support private and public debtors (States and municipals) • To swap restructured loan with medium and long term public bonds	• It reinforced the acceptance of the oligopoly market structure • It encouraged opportunism and moral hazards from banks • The regulator assumed the interest rate risk • It allows to refinancing the interest rate through Ponzi loans (capitalisation).
To support wide range of types of bank debtors (mortgages, credit card, consumption loan debtors, business and rural producers) who could not afford their bank payments	Agreement to support bank debtors (*September*)	• To reduce the nominal interest rate according to a different level of debts • One year of reduction, except to mortgages, which had more time • To complement the restructuring programme	• The regulator's actions were extended to support banks • It increased the fiscal cost of supporting banks • Banks and debtors were expecting more programmes; regulator lost governance credibility

Sources: Informe Anual Banco de México, 1996; Policy Responses to the Banking Crisis in Mexico (Graf, Pablo, 1999); Bancos y Crisis Bancarias (De Boyer, *et al.*, 1998)

Table 8.5b

1996 Regulator's Actions and Programmes to Deal with the Banking Crisis

Problem	Action/Programs	Objectives	Governance features
• Low financial capacity of bank debtors • Reduction of housing market value	Complementary programme to support mortgages debtors (*May*)	• To complement the loan restructuring programme • Reduction of debtors payments for 10 years (From 30% first year to 5% last year)	• Reinforced the regulator's loss of governance credibility • Reinforced opportunism and moral hazards
• Debtors/producers could not afford to pay their debts • Credit worthy producers did not get loans	Program to support agriculture and fishing producers (*End of May*)	• To write off debts' loan (principal) according to defined amount limits (between 40% and 16%) • To encourage banks to allocate new loans	• Increased the risks the regulator had to manage • Reinforced the regulator's loss of governance credibility • Reinforced opportunism and moral hazards
Small and medium firms could not afford their banking debts, as a result of the high interest rates	Program to support small and medium size enterprises	• To write off principal of debts (between 30% and 17%. 20% for some amount of higher loans) • To reduce interest rates (between 22% and 5%)	• Increased the risks the regulator had to manage • Reinforced the regulator's loss of governance credibility • Reinforced opportunism and moral hazards
Given the magnitude of loans that were bought, there was a need to administer FOBAPROA's assets that backed loans.	**Additional Actions** Setting up an enterprise to value and to sell FOBAPROA's assets	• To sell **FOBAPROA**'s assets (Loans bought) • To manage those assets • To encourage a secondary market of assets • To support viable enterprises • To reduce the fiscal cost of the regulator's programmes	• Created a new source of moral hazards from the regulator • Regulator's obligations were increased but lacked expertise to administer and sell assets. • Reinforced opportunism and moral hazards
There were corporate loans that required special restructuring, because some debtor-firms were deemed economically important.	Coordination Unit for Corporate loans (*April*).	• To set up a three- party team (banks, corporate debtors and the regulator) to restructure corporative loans • To support potentially sound enterprises	• Established a differentiated set of regulator's policies to deal with special debtors • Damaged the regulator's governance credibility • Created space for opportunism and moral hazards from top ranking banks' managers, debtors and administrative officials of the regulator • In 1996, 31 restructured loans amounted to $2. 6 billions of USA Dollars

Sources: Informe Anual, Banco de México, 1996; Policy Responses to the Banking Crisis in Mexico (Graf, Pablo, 1999); Bancos y Crisis Bancarias (De Boyer, *et al.*, 1998)

Annex 8.6

Total Fiscal Cost of the Banking Crisis

The Mexican government includes partially the total fiscal cost of the banking crisis into its official public debts. The public debt of FOBAPROA is only associated with its annual cost, but not according to its total cost. Because legally FOBAPROA was a private fund, the regulator has not clearly disclosed the total fiscal cost of the crisis, thus, there is only dispersed information available. However, using Central Bank information and information from a BIS paper, it is possible to establish the total fiscal cost of the Mexican banking crisis, as a proportion of the GDP, from 1996 (Banco de México, 1996) to February 1998 (Graf, 1999). In addition, it is possible to measure the relative importance of each of the regulator's programmes (see Table 8.6a below).

Table 8.6a

Total Fiscal Cost of the Banking Crisis as a Proportion of the GDP (%) and Total Cost (%) for Programme

Programmes	1995 %		1996* %		1998 (February)** %	
	GDP	Total cost	GDP	Total cost	GDP	Total cost
Restructuring of debts from toll roads Corporations	0.85	15.5	1.04	12.4	0.5	3.5
Debts restructuring UDIS	1.32	23.9	1.95	23.2	2.1	14.6
Debtor support programmes	0.81	14.8	1.03	12.3	0.9	6.2
FOBAPROA (including banks taken over by the regulator)	2.52	45.8	4.38	52.1	10.9	75.7
Total	5.5	100	8.4	100	14.4	100

Sources: *Informe Anual, 1996, Banco de México; 1997. **Policy Responses to the Banking Crisis in Mexico (Graf, Pablo, 1999). Data elaborated by the author's thesis.

According to the data, up to 1998 FOBAPROA was the most costly programme: in 1998 it was 10.9% of the GDP and 75.7% of the total fiscal cost.

Annex 8.7

Below, there are two samples (copy) of the format (CNBV, 1996) by which the Mexican banks present their balance sheets to the regulator. In 1996, Serfin and Bancomer were the third and the second largest banks, respectively.[47]

In the account of **ASSETS** (ACTIVO) is found the measure Performing Loan (**Performing L** : Cartera de Crédito Vigente) and Non-performing loans (**Non-performing L:** Cartera de Crédito Vencida). In the account of **LIABILITIES** (PASIVO) is found the measure of Provisions for Loan Losses (**PLL**: Prov. prev. para riesgos cred).

[47] These documents were scanned which explains why fonts and size differs.

BALANCE CONDENSADO

(Saldos corrientes en millones de pesos)

SERFIN

CONCEPTO	'1993 DIC	1994 DIC	SEP	1995 DIC'	1996 MAR'
A C T I V O: ASSETS	66,434.4	105,698.2	124,454.5	143, 343.0	143,023.5
Disponibilidades	1,156.7	2,454.7	2,586.0	4,971.3	3,515.1
Cartera de valores operativa	3,588.6	11,719.7	24,233.4	18,691.1	16,503.1
Cartera de valores institucional	1,235.2	2,079.5	3,927.1	4,112.4	4,248.6
Cartera de credito vigente: **Performing L**	46,140.8	63,092.5	68,285.2	87,051.1	92,774.6
Cartera de credito vencida: **Non-performing L**	5,255.4	7,137.4	6,721.9	7,010.8	5,299.1
Deudores por reporto	4,098.7	7,091.4	5,621.5	7,829.0	5,480.9
Deudores diversos	256.8	1,010.7	1,601.2	1,093.1	2,339.2
8ienes adjudicados (neto)	518.4	755.6	1,149.9	1,207.5	1,227.3
Activos fijos	900.3	1,260.6	1,501.8	1,601.8	1,591.1
Futuros a recibir	923.6	1,914.1	3,182.0	4,327.4	4,528.5
Coberturas cambiarias a recibir	0.0	**4,272.1**	**978.3**	**81.0**	**33.7**
Otros activos	1,474.4	1,516.3	1,682.6	1,739.9	1,793.9
Cargos diferidos	885.2	1,393.6	2,983.7	3,626.5	3,688.3
P A S I V O: LIABILITIES	62,413.9	101,195.4	117,620.8	136,474.2	137, 330.2
Captacion directa	43,524.5	52,999.3	70,997.6	73,610.1	82,822.6
Acreedores por reporto	5,161.8	8,860.9	10,405.6	9,301.2	9,097.1
Captacion Interbancaria	6,625.4	22,593.0	19,942.0	31,839.5	26,223.0
Prestamos de organismos oficiales	1,505.8	2,156.9	3,032.5	4,154.3	4,785.4
Otras obligaciones vista y plazo	2,590.0	3,977.0	4,564.1	7,193.4	5,400.9
Prov. prev. para riesgos cred: **PLL**	1,888.0	2,854.9	4,208.6	5,038.0	4,098.3
Futuros a entregar	927.0	1,947.9	3,133.3	4,197.8	4,484.7
Coberturas cambiarias a entregar	0.0	5,341.7	1,087.4	248.2	138.5
Valores a entregar por reporto	0.0	0.0	0.0	696.1	0.0
Otros pasivos	39.9	0.0	0.0	0.0	0.0
Creditos diferidos	151.4	463.8	2498	195.6	279.6
CAPITAL CONTABLE	4,020.5	4,502.8	6,833.7	6,868.9	5,693.3
Capital pagado	595	103 7	1,067 8	1,0608	1 060 8
Rvas.decapital	1,453.2	2,469.8	1,103.2	1,175,2	1,175.2
Utilidades de ej anteriores	0.0	0.0	0.0	0.0	207.1
Superavit por rev de activo	1,520.8	1,744.1	4,329.1	4,507.5	4,592.5
Resultadcs del ejercicio	884.9	78.0	330.6	207.1	(1,281.4)
Utilidades no distribuidas o pArdidas no aplicadas de subsidiarias (neto)	102.0	107.1	3.0	(81.8)	(61.0)
Utilidad o perdida no realizada por valuacidn de fuiuros	0.0	0.0	0.0	0.0	0.0
Utilidad o perdida no realizada por por valuacion de futuros sobre tasas de interes	0 0	0.0	0 0	0.0	0.0

BALANCE CONDENSADO
(Saldos corrientes en millones de pesos)

BANCOMER

CONCEPTO	1993 '	1994		1995	1996'°
	DIC	DIC	SEP	DIC*	MAR'
A CT I VO: ASSETS	112, 227.7	151,579.7	159,582.5	177,105.5	193, 509.9
Disponibiiidades	**2,662.1**	**3,530.9**	**4,960.8**	**6,502.1**	**4,997.8**
Cartera de valores operativa	12,340.9	27,478.4	28,415.5	24,730.0	25,195.8
Cartera de valores institucional	**2,773.2**	**2,605.7**	**3,464.0**	**4,366.3**	**4,667.4**
Cartera de credito vigente: **Performing L**	**73,137.9**	**93,628.6**	**92,8140**	**118,048.9**	**126,335.9**
Cartera de credito vencida: **Non-performing L**	6,606.7	8,162.0	15,127.3	9,411.1	11,452.9
Deudores por reporto	6,773.2	1,278.9	764.5	1,147.7	5,454.0
Deudores diversos	1.248.8	1,607.8	2,792.9	2,615.2	1,658.6
Eienes adjudicados (neto)	482.9	790.1	1,533.3	2,211.0	2,638.9
Activos fihts	2,321.2	2,767.1	3,133.5	3,635.4	3,797.9
Futuros a recibir	929.0	2,3830	2,390.8	976.8	3,738.0
¨cberturas cambiarias a recibir	0.0	3,724.4	502.7	8.7	4.2
Otros activos	1,963.1	2,042.8	2,303.1	2,375.5	2,549.6
Cargos diferidos	988.8	1,580.1	1.380.0	1,076.7	1,019.0
PA S I V O: **LIABILITIES**	103,172.0	142,845.3	148,456.8	164,780.9	180,415.0
Captacion directa	71,260.3	88,392.5	93,248.8	104,040.3	109,207.1
Acreedcres por reporto	11,941.7	17,262.8	10,326.9	11,334.8	12,989.6
Captacion Interbancaria	10.679.3	19,531.7	23,374.7	28,236.5	30,392.8
Prestamos de organismos oficiales	1,252.6	1,362.9	2,189.6	2,502.8	2,837.3
Otras cbligaciones vista y plazo	4,350.0	6,1793	7,517.6	9,426.8	9,713.6
Prov. prev. para riesgos cred: **PLLs**.	2,403.2	3,673.7	8,879.5	8,072.5	11,452.9
Futuros a ertregar	938.0	2,358.0	2,406.3	986.2	3,740.9
Coberturas cambianas a entregar	0.0	3,773.2	423.9	63,1	2.2
Valores a entregar por reporto	0.0	0 0	0,0	0 0	0.0
Otros pasivos	21.7	0.0	0.0	0 0	8.0
Cred'~tos diferidos	325.4	311.2	89.5	1178	70.6
CAPITAL CONTABLE	9,055.7	8,734.4	11,125.7	12,324.6	13,094.8
Capital pagado	1,000.0	1,000.0	2,000.0	2,000.0	5,095.1
Rvas de capital	1,807.2	2,845.1	3,511 2	3,511.2	2,9346
Utivdades de ej anteriores	104.9	0.0	0.0	0.0	340.1
Superavit por rev. de **activo**	**4,195.5**	**4,141.0**	**5,073 5**	**6,275.9**	**6,659.6**
Resultados del ejercicio	**1,815.5**	**866.1**	**623 2**	**512.9**	**(2,016.4)**
Utilidades no distribuidas e perdidas No aplicadas de **subsidiarias (neto)**	**132.6**	**(117.8)**	**(82.2)**	**24.7**	**81.9**
Utilidad o perdida no realizada por valuacion de futuros	**0.0**	0.0	0.0	0.0	0 0
Utilidad o perdida no realizada por cor valuacion de futuros sobre tasas de interes	0.0	0.0	0.0	0.0	O.C

CHAPTER 9

CONCLUSIONS

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9.6.1 Dissertation's Limitations 254
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9.1: Introduction

The aim of this chapter is to detail the conclusions that have been drawn from this study of bank governance in Mexico. The section below provides an overview of the main points developed in each chapter of the study, and identifies the main contributions to knowledge made in each. This is followed by sections providing a detailed analysis of the three types of conclusions that can be drawn from this research. The conclusions are presented according to the sequence of the dissertation chapters as follows: theoretical conclusions are followed by conclusions associated with the specific case of Mexico, then policy conclusions related to financial system reforms and bank governance. The last section details limitations of this dissertation and promising avenues for further research on the subject of bank governance.

9.2: Overview of Dissertation and Main Contributions to Knowledge

Part I, comprising chapters two-four, proposes a thorough critique of the methodology and associated theory underpinning mainstream corporate governance research. The contribution to knowledge in this field is a general one, establishing the limitations of the mainstream approach and the need for an alternate framework to analyse how any firm is governed.

Chapter two elucidated the social and theoretical contexts that gave rise to the concept of corporate governance. This enabled identification of three main limitations in previous research: (i) adoption of a socio-economic specific rather than a more general concept of control; (ii) reliance on agency theory which ignores regulation and; (iii) construction of the problem of corporate governance as entirely internal to the firm.

The main contributions to new knowledge in this chapter are (i) elucidation of a more general concept of control, one suitable for studies of a wide range of firms, including those outside the Anglo-American socio-economic context. The term *governance* was introduced (and used throughout) to denote this more comprehensive (and less prescriptive) concept of control, (ii) critical evaluation of

regulation and its role in explaining how a firm is governed. These contributions are general ones, going beyond the specific features of the Mexican case and challenging the mainstream approach to the subject of corporate governance. They establish that the governance of any firm is structured by forces and interests in addition to those associated with managers and owners.

Chapter three identifies post-positivism, especially its stipulation that knowledge construction is paradigmatic rather than absolute, as more suitable to studies of governance. Two main methodological principles informed the construction of theory: (i) social phenomena should be contextualised (Popper, 1997; Popper 1997a; Popper 1997b); (ii) theoretical assumptions should be explicit, limited and as realistic as possible (Coase, 1993; Coase, 1994; Coase, 1993b). These principles rely on the post-positivist view that reality is never entirely apprehended and enable reliance on the use of multiple empirical sources and methods of analysis (Crotty, 1998). Thus, the dissertation relied on a range of data sets, each of which contributed different empirical material to the construction of knowledge about bank governance in Mexico. The main contribution to knowledge is the identification of the limitation of a positivist methodology when analysing governance. Consequently, this contribution is a general one; it establishes that construction of realistic theories of governance requires non-positivist methodologies in which empirical materials on socio-economic context are used in constructing explanations of the conduct of governance actors.

In Chapter four, an alternative theoretical approach to the study of bank governance is proposed in which detailed analysis of regulation is of particular importance. The theory proposes that the structure of governance in banks is quite different from that in non-financial services firms. Specifically, the structure of bank governance is characterised by more complex agency relationships than those assumed in non-bank firms, and implies a unique structure of moral hazard. The theoretical approach highlights how bank regulation creates a risk-sharing relationship between the owners of banks and the regulator, backed financially by the public purse. Regulation also constrains market forces, either implicitly or explicitly, which means

that in systems of bank governance, the regulator is the more salient of the two external governance forces. The main contribution to knowledge made in chapter four is construction of a framework for empirical studies of bank governance. The theory identifies regulation as a key force of governance, having super-ordinate powers over the owners, the managers and the market. The theory is a general theory of bank governance and thus is pertinent to issues and conjectures arising in other national contexts.

Part II, comprising chapters five-eight, provides a detailed study of the case of bank governance in Mexico. Using both qualitative and quantitative methods, it provides a systematic explanation of the banking crisis. The analysis highlights the specific effects of reforms and deregulation of the Mexican financial system on the system of bank governance. The contribution to knowledge is specific to research on bank governance, highlighting the greater explanatory power of a theoretical approach that directs attention to the analysis of empirical materials on social context and regulation.

After a discussion of the data sources used (chapter five), the theoretical and methodological frameworks developed in the previous three chapters were then applied to the evidence from the Mexican case.

In chapter six, evidence related to changes in regulation and changes in the Mexican financial system were analysed in order to establish their effects on the system of bank governance. The analysis demonstrated that the sweeping reforms were contradictory; instead of creating a more efficient and competitive financial system, the reforms weakened the external forces of governance. The regulator lacked the tools to properly monitor the conduct of the new owners and managers, and the market was uncompetitive. The internal forces of governance, on the other hand, were made much stronger. Managers and owners of the banks were free to act on structural incentives for excessive risk-taking. The effect was the creation of a bank governance system with an inherently high level of systemic risk. The main contribution to knowledge of this chapter is greater depth of empirical knowledge of the path of cause and effect in Mexico. This is a contribution not only to the research

community interested in Mexico, but also to the wider research community studying non-Anglo-American corporate governance.

In chapter seven, the analysis demonstrated that the incoherent system of bank governance emerging from the financial reforms made a banking crisis almost inevitable. Three main characteristics of the new system were analysed in detail. Firstly, it was shown that the incentives in the new system created an extremely high level of systemic risk that could only be lowered by changing the system. Secondly, the new system privileged the rights of private interests while imposing on the regulator the traditional responsibility to protect the banking system as a whole (act as lender of last resort). Thirdly, the new system increased the sources of moral hazard and created incentives for risk-seeking lending practices, setting up a pattern of risk distribution entirely different from the one characterising the banking system prior to the reforms (Zingales, 1998).

The main contribution of this chapter to current knowledge is an increased empirical depth on the specific ways in which financial system reforms changed the Mexican system of governance, and amplified systemic risk. This empirical detail is of interest not only to those directly involved in events in Mexico, but to the wider research community concerned with banking problems in non-Anglo-American settings. For many of these countries, implementing financial reforms also led to costly banking crises (e.g., recently some south Asian countries) that suggest lessons for countries embarking on reforms to deregulate banking systems (e.g., China). The chapter provides an example of how governance research can make the link between reform, deregulation and banking crises.

In chapter eight, the proposed theory of bank governance was subjected to a formal test of its explanatory power. Following Popper's injunction that "models played an all-important role in the development of most theories" (1997, pp.164), the Mexican crisis was modelled as a governance event. An econometric test indicated that 68% of the 1996 fiscal cost of the Mexican banking crisis could be explained by proxies

for each of the governance parties. The tests of confidence levels indicate that the econometric results are robust.

The main contribution to knowledge of this chapter is the construction of a general model that enables testing of hypotheses related to bank governance in other national settings. This model provides a means to conduct empirical research into the relationship between banking crises, and the conduct of the actors in the system of bank governance. It assists analysis of the outcomes arising from the conduct of the main parties identified in the system of governance, explaining the contribution of each to banking problems.

9.3: Theoretical Conclusions

On the basis of a thorough critique of mainstream approaches to corporate governance, the dissertation demonstrated that the firm assumed in previous corporate governance research is an artefact of the theoretical-methodological framework dominating this research field. It was argued that this methodological framework does not enable construction of theories explaining corporate governance in any social and institutional contexts, since the typical firm bears no relationship to the artefactual firm assumed in agency theory.[1]

Thus, if one wishes to study firms that differ from the type of firm assumed in agency theory research, empirical materials on actual firms should serve as the starting point of investigation. Moreover, if the type of firms observed are diverse, then theories should be abstract enough to frame the key factors they have in common. If one accepts there are diverse types of firms in various cultures, societies and institutional contexts, this implies that only a comprehensive concept of control is suitable for framing research questions into the diverse systems of governance that are likely to characterise these firms (Cadbury, 1998; Charkhman, 1995).

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[1] Indeed, the originators of both the agency framework (Jensen, 1983), and its methodological underpinnings in positive economics (Friedman, 1966) indicate as much. Thus Friedman (1966, pp.7) states that from a positivist point of view, a "theory does not have substantive content; (because theory) is a set of tautologies."

Three main theoretical conclusions are drawn from the research: first, a link is established between regulation and the structure of bank governance (La Porta, *et al.* 2000; Jensen, 2000); second, a general link is established between types of legal systems and types bank governance systems (Coase, 1993b; Ogus, 1994); and third, a link is established between the system of bank governance and the risk profile of its member banks. All three conclusions highlight the improved explanatory power arising from the integration of regulation into the theoretical framework (Visentini, 1997; Cheffins, 2001; O'Sullivan, 2000).[2] It is argued that the theory of bank governance proposed in the dissertation enables a more empirically and theoretically robust understanding of the causes and consequences of bank failure and banking system crises.

9.3.1 The Link Between Public Regulation and the Structure of Governance

While some economists conceive regulation as an exceptional and undesirable act by public authorities (Stigler, 1975; Stigler, 1975a; Becker, 1983; Becker, 1985), legal scholars propose a different interpretation. According to their perspective, whether public regulation is interpreted as protective or damaging, it is foundational and thus "built-in" to the governance of the firm. Thus, Ogus (2001) emphasises that regulations are identified with the instruments of public law, enforced by government or semi-autonomous, but public, agencies.

In economic parlance, one could say that legal scholars regard regulation as inherent to the governance of the firm whilst economists regard it as artificial and external to the system of governance. In this dissertation it has been argued that the firm cannot exist without law and therefore, regulation needs to be treated as a condition of the existence of the firm. While obvious in the case of banks, it is feature of all firms that should not be ignored in theorising governance.[3]

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[2] The work of Shleifer and Vishny (1997) presents a good example of the standard framework.

[3] They are firms in which both general and specific regulations, including laws, are well documented. In addition, the economic systems and their regulations reflect community and social valuation of different economic activities (Ogus, 1994). Hence, it is expected that the instruments of regulation will be consistent with social preferences.

Public regulation affects how any firm is governed because it constitutes a politico-economic reality that is shaped by different systems of economic organisation and their corresponding specific legal forms. Those systems and their regulations reflect community and social valuation of different economic activities (Ogus, 1994). Thus, regulations reveal and reflect society's preferences (given an economic system and legal framework). In that broad sense, regulation represents the public interest. Hence, it is expected that the instruments of regulation will be consistent with a society's social preferences, as revealed in its political-economic system and legal framework.

The importance of regulation in explaining governance depends on the nature of the firm and the socio-economic context in which the firm operates. As an analytical device, one can propose a general model of governance structure, as theorised in this dissertation. Thus, public regulation aims to shape the contractual relationship between owners and managers in line with the objective of safeguarding the public interest. This is parallel to the rationale in welfare economics that markets are justified because they promote consumer welfare. When markets fail, regulations are proposed and the regulator functions as a "guarantor" of last resort (Ogus, 1994; Mishkin; 1994; Milgrom and Roberts 1992). In the case of banks, intervention is aimed at the restoration of consumer welfare and prevention of system breakdown. However, the regulator's interventions need not undermine the legitimate interests of managers and owners. Investors remain free to judge whether a specific market setting (e.g. regulated, competitive) is of interest to them.

Whether the market is more important than the regulator in a system of governance is an empirical matter because it depends on the specific system of economic organisation and the underlying legal framework that maintains it (O'Sullivan, 2000; Fanto, 1998; Ogus; 1994). In the case of bank governance I argued that, in general, markets were less salient because bank regulation usually limited market competition, by imposing some barriers to entry and to exit. Beyond this, which external force is more salient is an empirical question.

9.3.2 The Link Between Legal Systems and Bank Governance Systems

By emphasising that each country will have a unique system of governance (reflecting its legal framework), system of economic organisation and social preferences (O'Sullivan, 2000; Pinto and Visentini, 1998), the theoretical approach highlights that comparative studies are more robust when they consider the type of legal system underpinning the system of governance. In centralised governance systems, the regulatory framework emanates from public laws that have emerged as a result of "collective" social preferences (Ogus; 1994). Public laws themselves create the instruments of regulation and imply that the regulator is invested with the powers of the state itself. For example, in a centralised governance system, deregulated firms and markets operate on the basis of specific "regulatory" laws.

In decentralised governance systems, social preferences privilege assignment of responsibility to the individual, and the *leitmotiv* of public regulation can be said to be assurance of the individuals' rights (Ogus, 1994). Thus regulation is devolved and "self-regulation" is much more important than in centralised systems. While relying on private laws, this devolution is general and rarely specifies details of regulation. Which governance system is the best? There is no best system (Charkham, 1995; O'Sullivan, 2000); from the perspective of instrumental rationality, a governance system can be evaluated only by the coherence between its regulatory means and its stated aims.

9.3.3 The Link Between Systems of Governance and Banks' Risk Profile

A general theoretical conclusion drawn from this research is that financial system reforms give rise to banking problems because they create incoherent bank governance systems. On one hand, reforms may assume that deregulated markets can function as the main external force of governance, but on the other, a "regulator" of some type may be left in place. The regulator's main duty is to "prevent" banking system problems from spreading to the real economy and damaging the general

interest. If the regulator lacks powers to prevent problems, the only interventions available are costly "lender of last resort" operations.[4]

The arguments in this dissertation suggest that financial reforms and deregulation may lie at the heart of most of episodes of banking problems. The proximate cause of this appears to be naive assumptions regarding the efficacy of market forces. Moreover, even the main proponents of the reforms, such as McKinnon (1973), concluded twenty years later (McKinnon, 1993) that the 1980's conventional wisdom was outdated. The works of Spence (2002), Akerlof (2002), and Stiglitz (2002a) have been particularly influential in revising conventional conceptions of regulation. These Nobel laureates demonstrated that imperfect information is the crucial factor in behaviour at the microeconomic level. Their work implies that regulation *per se* does not introduce imperfections in a previously "free" perfect market; thus, in banks, the choice is not between regulation and "free markets" but between better or worse regulation for adequate market operations (Llewellyn, 1999; Vittas, 1992a).

9.4: Conclusions from the Case Study

Four main conclusions are drawn from the case study: (i) the financial system reforms created an incoherent system of bank governance; (ii) very high levels of systemic risk were built into the new system of bank governance; (iii) banking crises can be formally modelled as governance events; and (iv) the regulator's conduct can amplify the negative effects of an incoherent bank governance system. The conclusions are presented in the same sequence as the chapters' discussions.

9.4.1 An Incoherent System of Bank Governance Resulted from the Financial Reforms in Mexico

The system of governance created by financial reforms in Mexico was incoherent as to its aims and means. The financial reforms and privatisation aimed to try to create a decentralised system. This required a fundamental change in the nature of Mexican

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[4] If the regulator lacks sufficient financial resources for lender of last resort operations, the government supplies it from public funds. However, in most of the recent banking crises, when banks faced solvency problems, the regulator was forced to become a capital provider to these organisations, something quite different from a general lender of last resort (Enoch, *et al.*, 1999).

public law (Borja, 1991). Thus, the law related to banks changed, signalling (Spence, 2002) that the property rights of banks would be assured and private interest would be guaranteed.[5] However, this formal change was insufficient to change the overall legal norms and institutional arrangements in what was and is a centralised legal system. As a result, the reforms could not change the traditional scope of the regulator's protective obligations (Ortiz, 1994); this placed the regulator in the invidious position of underwriting private risk-taking with public money.

9.4.2 The Increased Systemic Risk in the Post-Reform System of Governance

In the new system of bank governance, the inherent level of systemic risk was very high. The evidence of this was the freedom of banks to keep increasing interest rate charges (Banco de Mexico, 1993), with the predictable (if overlooked) effect of increasing the risk profile of their loan portfolios and thereby of the overall system.

This and other practices, documented in chapters six and seven (e.g., refinancing), meant that the banking system came to be comprised of a large volume of *Ponzi* loans resulting in a real (but disguised) increase in non-performing loans (Banco de Mexico, 1993). Thus, the behaviour of managers, owners, and the regulator increased systemic risk even more and made a banking crisis almost unavoidable. Because owners and managers were able to evade responsibility for their actions (Lindgren, *et al.* 1996), funds to rescue the banks came entirely from the public purse (Graf, 1999; Enoch, *et al.*, 1999; OECD, 1995).

9.4.3 The Mexican Banking Crises as a Governance Event

The theory proposed in the dissertation enables construction of a general model of a banking crisis as a governance event. The results of the model highlight the importance of the regulator's failure to control the moral hazards in the new system of governance (Gorton, 1994; Anderson and Fraser, 2000). It also helps to explain why owners and managers did not act, for separate reasons, to protect the long-term business viability of the banks they owned and/or worked for.

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[5] The term "signal" and its action of signalling are used as in economics. Spence (2002) says that signals are used where there is understood to be a desire to communicate information from one part to other.

The model highlighted the pertinence of non-performing loans and their accounting representation in modelling a banking crisis as a governance event. The accounting rules on non-performing loans and their representation in the accounts can be used as a proxy for different dimensions of governance behaviour.

9.4.4 The Regulator's Behaviour Amplified the Negative Effects of the System of Governance

The Mexican case demonstrates that in dealing with a banking crisis, the regulator's conduct can amplify the adverse effects arising in an incoherent system of governance. As in many other crises (Enoch, *et al.*, 1999), rescue of the banking system by programmes of bank re-capitalisation exposed tensions and contradictions in the regulator's understanding of the associated moral hazards. Thus, the Central Bank (Banco de Mexico, 1996) proposed a set of principles that the regulator should have observed to implement its programmes.[6]

The principles were: (i) to protect both banks' depositors and debtors, (ii) to resist pressures to prevent losses by owners, (iii) to prevent credit expansion, (iv) to minimise and distribute, over a number of years, the fiscal cost of the crisis, (v) to interfere, as little as possible, in the operation of the market, and (vi) to design uncomplicated and clear programmes to gain public acceptance (Banco de Mexico, 1996).[7] However, analysis of the regulator's actions demonstrates that these principles were often ignored. For instance, Graft (1999) recounted the programme's objectives, stressing that even though they were to support banks, as organisations, they benefited their owners. He also stressed that the regulator should have ensured that owners shared the cost of the bank rescue.

Evidence that the regulator's behaviour amplified the adverse effects of the incoherent system of governance is evident in the time path of the fiscal costs. Thus, in 1995 the fiscal cost was 5.5% of the GDP; by February of 1998 it was 15%,

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[6] The ultimate aims of the regulator's actions were to reduce the risk to the financial system, maintain public confidence in the financial institutions, and assist debtors in facing their banking obligations (Banco de México, 1996).

almost three times higher. Emblematic of the power of the regulator to make things worse is that eight years after the "open" crisis, banking problems remain. One could say that it is now a "covert" crisis. There is extensive credit rationing; in effect banks are living off the proceeds of the bailout[8] and failing to fulfil the function expected of them (intermediating financial resources), which was the main economic rationale for the bailout in the first place (The Economist, October 12[Th] 2002).

The principles and aims of the regulator's actions demonstrated at least two important governance contradictions. While the main concern of the regulator was to protect the public interest, this dissertation documents that the regulator gave way to pressure from bank owners and allowed them to avoid losses. Secondly, even when it was clear that the regulator was the *de facto* risk bearer of system risk, the system of governance was not changed. Thus, the regulator's intervention did not produce the expected results.

One example of this was the regulator's inability to enforce the rules of the capitalisation programme. Thus, when the regulator bought the bank's non-performing loans, it was stipulated that the owners had to assume 20-30% of the loss from them. In addition, owners were expected to inject, as fresh capital, $1 (Mexican peso) for each $2 (Mexican peso) of non-performing loans bought by the regulator. When non-performing loans dramatically increased, the owners refused to fulfil the agreement (Huerta, 1998; Solis, 2000). Unsurprisingly, this increased the fiscal cost of the capitalisation programme in 1997 and forced the regulator to take over most of the banks. At the present time, as Diamond and Rajan (2002) have

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[7] In the analysis of the regulators actions during the Mexican banking crisis, these original principles seem to have been overlooked Graft (1999).

[8] As part of the financial reform in 1989, the Mexican government set up FOBAPROA in the Central Bank to protect the deposits allocated in commercial banks and to prevent banking financial problems (SHCP, 1998). Although the government created FOBAPROA in 1999, according to the law (Ley de Instituciones de Crédito -Law for the Credit Institutions) it was a private fund, not subject to public regulation and scrutiny. According to the permanent capitalisation programme, the regulator, via FOBAPROA took the banks' non-performing loans and their provisions. The banks received a ten year term bond that was guaranteed by the government. The interest rate for this special bond was originally 400 base points over the risk-free interest rate for a normal public bond. The banks were in charge of recovering from the debtors the loans bought by FOBAPROA. The recovered amounts would be deposited in a special fund, in favor of FOBAPROA (Banco de Mexico, 1995).

asserted about banking crises elsewhere, the ex-post crisis cost of the Mexican banking bailout has yet to be examined.

9.5: Lessons for Policy Analysis

The main general lesson for policy is that adverse consequences arise when aims and means, in any system of bank governance, are incoherent. Associated with this is the importance of governance information, as a tool of preventive regulation.

After the general link between financial reform and banking crises had become clear, Stiglitz (2002) observed that bank problems were related to the system of bank governance. Thus, in certain countries, such as Japan, efforts to resolve the banking crisis, through costly intervention but without changing the system of bank governance, resulted in long-term socio-economic problems. The case of Mexico is quite similar. It is evident that fiscal resolution of the banking crisis, without changes in the system of bank governance, has led to long-term problems.

These general lessons are relevant to many national contexts. Firstly, there is the possibility that financial reforms seek to change a centralised system of bank governance into a decentralised one. The main risk is creating an incoherent system of governance. Worse is the possibility that incoherence will be amplified by inadequate governance information. This is because in a decentralized system of governance, the market is the centre of the system's operations; this implies risk is borne by the private sector, whereas in a centralised system, the legal framework makes the public budget the ultimate guarantor of the deposits in banks and the banking system as a whole. Thus, legal traditions mean that the costs of the banking system risk will be borne by the public sector. Whatever may be assumed by the financial reforms, this dependence of bearing on the legal system has several implications for public policy.

Policy-makers need to keep in mind that the legal system is the main factor influencing the extent and the scope of the regulator's responsibilities. This means that radical reforms of the banking system may imply sweeping changes in the legal

framework underpinning the regulator's power and responsibilities. Past reforms had often assumed that owners would act as "guardians of their own wealth". However, given the responsibilities and powers assigned to the regulator, the behaviour of owners and managers can be the opposite of that presupposed by the reforms. They can be spenders of "other people's money", because they have only small amounts of their own capital at risk.

The need to re-define governance responsibilities following a banking crisis is discussed by Enoch, *et al.* (1999). They have argued that when a government decides to capitalise banks it "must...formulate a comprehensive strategy for systemic bank restructuring" (pp.5).[9] The necessary restructuring will vary according to macroeconomic conditions, legal frameworks, institutional capabilities, and the banks' financial condition. This means that a strategy for bank restructuring may require legal and institutional changes. Once it is determined that a given banking crisis is a consequence of the system of governance, it seems obvious that the system of governance should be changed. Without reform of the system itself, the government "investment" in rescuing banks has no guarantee of success and financial stability in the future years (Enoch, *et al.*, 1999).[10]

Central to governance system reform is attention to the quality of governance information. It has been documented that the Mexican system of governance lacked appropriate accounting standards regarding the measurement of the banking system risk (Banco de Mexico, 1996). It is argued that accounting information is a basic tool of preventive regulation in banking. Thus, lax accounting standards (e.g., the measurement of non-performing loans and provisions for loan losses) allowed owners and managers to disguise problems for a considerable period of time. Two issues emerged from the analysis of governance information in the Mexican banking system. Firstly, the regulator's reliance on poor measures may signal that the

[9] Enoch, *et al.*, (1999) conducted detailed studies of recent banking crises in Indonesia, Japan, Korea, Malaysia, Mexico and Thailand. They emphasise that "Countries typically purchase bad loans and support debtors when banks internal governance is weak and property rights are poorly defended by the legal system" (Enoch, *et al.*, 1999, pp.31).

regulator itself is a source of risk. Secondly, the regulator's reliance on poor information can impede its assessment of other signals that indicate the banking system is in trouble.[11]

If market information is essential to avoid undesirable economic results (Akerlof, 2002; Stiglitz, 2002), then governance information is a crucial factor in the prevention of banking problems. This is because a governance system involves diverse parties with different interests. The system's operation relies on the interaction of these diverse interests. Each party requires information on the conduct of the others with respect to the governance rules. Because banks finance operations with depositor's funds, depositors ought to have information about the behaviour of the main parties controlling the governance system. To assist depositors is one of the regulator's responsibilities (Goodhart, *et al.* 1998). When the market is expected to be the main force governing banks, mandatory disclosure of operations information, in addition to properly audited accounts, appears to be essential.

Disclosure of governance information to stakeholders may itself be a subject of debate because of the different interests of parties in the system of governance. Previous research suggests that owners or managers may be reluctant to allow certain disclosure because it may stimulate other stakeholders to seek greater influence in how the firm is managed (Ogden, 1993). What this highlights is that the regulator needs sufficient powers so that it can override conflicts of interest and impose mandatory disclosure of governance information.

9.6: Dissertation's Limitations and New Avenues for Research on Bank Governance

The dissertation has three types of limitation. The first relates to the research itself. The second relates to the applicability of the theory developed in the dissertation, and

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[10] One of the most adverse consequences of not reforming the system of governance after a banking crisis is to perpetuate the crisis itself. The current situation in Japan attests to how costly it can be when this occurs. (The Economist, October 26th – November 1st 2002).

[11] From a regulatory perspective, auditing is crucial. However, in a regulated firm, the selection of the auditing firm by the regulator and the disclosure of its judgment remain controversial (Cadbury

the third relates to the limited amount of prescriptions that the dissertation provides. In the light of these limitations, some new avenues of research on bank governance are proposed.

9.6.1 Dissertation's Limitations

My theoretical approach can be judged to be highly abstract. It can be considered a general theoretical approach to study the issue of banking crisis. Thus, my theory can be applied to other cases if attention is given to my theoretical perspective and methodology. Both underscore the importance of the specific socio-economic context in which banks are governed. Thus, its abstract quality should not imply that it could be applied directly to any situation.

According to the post-positivist methodology adopted in the research, reality is not totally apprehended and knowledge is always limited. Therefore, to study a specific case of bank governance necessitates mobilising as much specific socio-economic context information as possible. The information should provide elements to explain the conduct of the main parties in the system of governance. Because the conduct of the parties is assumed to be the result of the governance system itself, the analytical information collected needs to capture, in a dynamic way, changes in the system of governance and changes in the behaviour of the main parties. Furthermore, because each party is a structural component in the system of governance, the information collected needs to focus on the interaction between the governance parties. Thus, to generalise my theoretical approach to other cases means conducting research that focuses on the specific legal and other institutional contexts in which the banks studied operate.

The abstract level of my theoretical approach gives it the possibility of being applied to different banking regimes. For instance, in the case of countries with public (state) banking systems, the owners and the regulator can be identified as the same party. In cases in which banks are managed by owners (e.g. pyramidal control), the type of owners' control (Berle and Means, 1932) can be more important than the

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Committee, 1992). In the case of banks, control of auditing ought to be a central responsibility of the

"conduct" of the bank managers themselves. All of this means that my approach is sufficiently abstract to be applied to other cases but that it cannot be applied in mechanistic way. It can require the use of different governance information than that used for this dissertation.

Because my work focused on how banks are governed, it is limited to the analysis of the parties in the system of governance in light of the interaction between them, rather than to the specific institutional, organisational and cultural details associated with each party. This type of analysis could have provided greater empirical depth on each of the governance parties and possibly greater theoretical depth. For instance, given the effects of bank regulation, the analysis of the market raises important theoretical questions that are not addressed in the dissertation. These questions are mainly about market operations and the dichotomy view of markets and firms.

In the dissertation, the treatment of the market can be considered theoretically limited. It can seem limited in regard to market operations and in regard to the effects that bank regulation has on the firm called bank and the bank market itself. However, according to Hodgson (1999), in recent times, the identification of a clear boundary between the firm and the rest of the economy is becoming progressively more problematic. This is because in modern capitalism the existence of relational contracts, joint ventures, networks of firms, hybrid controls and new emerging forms of production organisation appear to eclipse "the firms-market dichotomy (pp.242)." If this is valid, one can say that, conceptually, the distinction between the firm and the market is a heuristic device. Since, in almost all the countries, bank markets are administered markets and banks are regulated firms, one can conclude that the governance distinction between banks and their markets is a true governance puzzle.

The claimed free market is based on restrictive and challengeable assumptions (Hodgson, 2001), while in my theoretical approach the market, as a force of governance, is assumed to be a regulated market. Thus, the bank market is

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regulator, since its job is monitoring them to prevent the damage of the public interests.

conceptually more realistic (even as a heuristic device) and my theory can be judged to be more pertinent than the theories that assume a so-called free market.

Another limitation of my work is that the case study uses highly aggregated (national) data. Therefore, there is a lack of empirical detail about the fiscal cost of the banking crisis and the size of banks, the size of banks' debtors and differences in these across the regions of Mexico. Thus, it would be useful to know whether the level of non-performing loans was higher in the most undeveloped regions (south) of the country or in the most industrial regions (north) (www.inegi.gob.mx). This is because in the dissertation I argue that credit allocation was increasing although the rate of growth of GDP was low (see Chapter six, Annex 6.1). Thus, one might predict that the increase in non-performing loans was more acute in the poorest states. Therefore, banks operating mainly in poorest regions would evidence problems earlier. Thus, the highly aggregated data for the national analysis make impossible to provide specific prescriptions about banking policies, according to size of banks, size of debtors and economic regions.

The research also has applicability limitations. The model that I used in the work is an explicative model. Therefore, it cannot predict possible governance events. It may be theoretically pertinent in explaining *ex-post* governance events (such as a banking crisis), rather than predicting the governance consequences of governance actors' conduct. Some researchers (Friedman, 1996; Lucas and Sargent, 1988) emphasise the theoretical importance of predicting events. However, my view is that to explain adverse social phenomena, in a coherent and realistic way, can provide insights that enable policy makers to prevent their recurrence.

If the model were applied to other socio-economic contexts, it would require not only different proxies, but also, perhaps, additional variables (e.g. lending interest rate, growth of GDP). This is because strong adverse macroeconomic circumstances, and the policy prescriptions to face them, can precipitate banking crises, as occurred in some South Asian countries at the end of the 1990's (Delhaise, 1998, Stiglitz, 2002).

To apply the model to explain a group of banking crises over a period of time would be a great research challenge. It would require not only identification of homogenous proxies for each crisis case, but use of panel data econometric techniques. If this were the case, I would follow the same principles of a "good" econometric model (e.g. parsimonious-few variables) that is detailed in Chapter 8. Equally, if the model were used to explain "post-crisis" banking problems, such as in Japan (Financial Times, May 20, 2003), I would consider using other important proxies, such as a bank's capital rather than non-performing loans. This is because in many banking crises the lender of last resort intervention meant cleaning up the non-performing loans by capitalising the banks (Enoch, *et al.*, 1999). Therefore, if bank problems persist, it is reasonable to think that information on bank capital may be relevant to study "post-crisis" problems (The Economist, May 24th – 30th 2003). Thus, applicability limitations of the model, to other contexts and cases, are greatly challenging but can also stimulate interesting research.

Given that bank problems appear to be an endemic calamity for policy makers, one might expect this thesis to supply an extensive inventory of prescriptions. This is not the case. In contrast to the dominant prescriptive bias of corporate governance research, the aim of my dissertation was to develop the descriptive side of my theoretical approach to explain a typical bank governance event (banking crisis). Because the research boundary is the descriptive-objective side of my theoretical approach, it meant that the development of the prescriptive side is limited. This limitation may discourage discussion of the theoretical approach. This is because it is from the prescriptive side of a theory that new theoretical discussions and new knowledge emerge; it is one path by which science progresses (Blaug, 1992).

Even though my work has limitations in the domain of prescriptions, the research itself provides general prescriptions for the Mexican case. These prescriptions were elaborated mainly in regard to what the regulator was legally required to do to control systemic risk and what in fact it did. Since, in the case of Mexico the regulator's conduct is prescribed by law (e.g., centralised legal system), the policy prescriptions need to be derived from the law itself. How effective in preventing

banking problems the regulator would have been if it had acted according to the law is a conjecture. Such conjecture is an interesting subject for further research.

Finally, in chapter four, the adverse effects of financial reforms and bank deregulation were discussed, especially the potential negative effects of market deregulation (Gorton, 1994). However, I did not discuss regulation for those non-bank organisations that provide "banking" services (Gorton and Rosen, 1995). This limitation of my work was due to the research being focused on bank organisations. Nevertheless, it is clear that now increasingly banking services are provided by non-bank organisations, and that for purposes of competition those services require further legal definition. This seems to be the case in the United Kingdom (Cruickshank, 2000).

The above limitations provide context for the new avenues for further research that I envision.

9.6.2 New Avenues for Research on Bank Governance

Five main avenues for further research can be identified. Firstly, further research in accounting and finance is required regarding the characterisation of Popper's methodology. Secondly, and connected to the first, further research is required on the socio-economic bias impounded in many of the core concepts of mainstream accounting and finance research on governance. Thirdly, the explanatory power of the model tested in the case of Mexico should be assessed with evidence from similar governance events in other countries. Fourthly, there is a need for more detailed research on the conduct of the Mexican bank managers and owners, in the post-reform system of governance. Finally, research is required on the implications of the theoretical framework of bank governance for the risk management framework proposed in the Basle II accord.

The discussion in chapter three demonstrates that Popper's views are not properly represented in "positive" economic, accounting and finance research. Firstly, Popper himself denied that he was a "positivist". His writings on this point make this clear,

he wrote "(it) is an old misunderstanding created and perpetuated by people who know of my work only at second hand" (Popper, 1997a, pp.67).

This misrepresentation takes several forms. For example, some positive accounting and finance researchers appear to believe that falsification means a theory is not true. This is not the case. According to Popper, there is no absolute truth in science; all theoretical conclusions are provisional. What he argued is that some theories can be regarded as having more explanatory power than others, some *tend* more to be true than others. Thus, he stressed that the falsification of a theory indicates *only* that the theory does not explain a certain kind or type of event (Popper, 1997), however, the same theory could explain another kind of event. Popper's work was mainly concerned with the natural sciences. When discussing the social sciences, Popper wrote: "(the) fundamental problem of both the theoretical and the historical social sciences is *to explain and understand events in terms of human actions and social situations* (original italics)" (Popper, 1997; pp.166). Therefore, he argued that fundamental to methodology in social science is consideration of the historical and social context of the problem that the researcher wants to explain. Thus, in the Popperian view, the aim of social sciences is the explanation of conduct "through the rational construction of the circumstances (goals and knowledge) under which individuals acted, and of the consequences of their behaviour" (Giddens, 1995, pp.197-198).

Popper's views are ignored when researchers apply theories derived from Anglo-American contexts to social phenomena occurring in other national socio-economic contexts. Thus, they fail to appreciate (and study) the differences in socio-economic contexts. If the methodology of positive economics, accounting and finance is not Popperian, it seems important for its methodological attributes to be identified (Reiter and Williams, 2002). Secondly, were Popperian methodology to be pursued in accounting and finance research, it might alter the prescriptive bias of a great deal of corporate governance research, especially research into governance in other national systems.

Another avenue of study is the motivation of conduct (past and present) of bank managers and owners in the Mexican banking system. This research would explore further the motive of managers who continued to make risky loans, even though the banking crisis was imminent. The argument advanced in the dissertation is that there were incentives for this behaviour. To study this issue in more depth, detailed research on salaries (including bonuses, and so forth) from 1988-1994 could be conducted. It can then be compared to the trend in non-performing loans, either as a time-series or as a longitudinal (panel-data) analysis.

At present, foreign investors own almost all of the privatised Mexican banks. Their holdings also include banks in other national settings. One research question is whether these new owners have imposed different rules in the treatment of non-performing loans to those in place before the crisis? How do the current standards differ from the past ones? Research of this type can contribute to a more detailed development of the concept of governance information.

Additionally, the above may shed light on the possibilities for success of the proposed Basle II Accord. It assumes that banks, especially the "big" banks, have the technical and moral capability to use their standard risk-weighting method as a means to set their own capital need (The Banker, 2001, March). It is assumed that this would reduce the scope of regulatory arbitrage, enabling the "market" to police the banks. In a certain light, Basle II can be seen to be another step in the direction of deregulation of banks at global level. If so, it implies the creation of a global system of bank governance, even though such a prospect has not been openly discussed.

The research in this dissertation challenges the wisdom of devolution of banks' risk measurement to the internal force of governance. It has shown that financial system reforms lead to banking crisis when the external forces of governance rely on system-risk information from the internal forces of governance. It demonstrated that bank owners couldn't be relied upon to be "stewards of their own wealth" because so little of their own wealth is at risk. Moreover, devolution of this responsibility to

owners and managers is particularly unwise since "there is no industry with longer history of being unable to control its own excesses" (Persaud, quoted in Euromoney, 2001, March, pp.48).

This dissertation opened with the puzzling nature of corporate governance research. It was noted that (i) the research was mainly prescriptive and framed by the agency theory and (ii) focused almost exclusively on non-financial firms. The proposed theory of bank governance provides an alternative perspective on bank governance and a different research agenda.

The new research avenues proposed reflect Coase's (1994) dictum that researchers should avoid analysing an ideal economic "system which lives in the minds of the economists but not on earth" (pp.5). Researchers on governance need to go beyond the agency theory perspective. This is especially important for those conducting research in non-Anglo-American settings. What is required is a research paradigm that encourages a range of theoretical frameworks and whose aim is to explain observed differences in the behaviour of owners and managers in different firms and diverse national settings.

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