AN ANALYSIS OF THE RELATIONSHIP BETWEEN THE STRUCTURE OF CAPITAL MARKETS AND THE POTENTIAL FOR DEVELOPMENT IN SELECTED DEVELOPING COUNTRIES

The Case Study of Iran

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ABSTRACT

This thesis explores the relationship between the structure of capital markets and potential for economic growth in selected developing countries with special focus on Iran. This study looks into the issue of how capital market structures might correlate with the development of the economy as a whole and what choices might be available which would enable capital markets to be able to contribute to the development process.

The thesis contains literature review as well as discussion about a theoretical and empirical overview, which presents the fact that over the last two decades, a substantial volume of research has been devoted to understanding and explaining the link between financial development and economic growth. It provides a broad overview of recent financial development theories and empirical studies that hypothesise the existence of positive correlations between financial systems and financial institutions as well as economic growth.

The thesis presents the theoretical models of capital market structure; preparing unique discussions on latter issue and its focus is on the evolution of financial development.

Part of this thesis is about the feature of Islamic finance. The research has special focus on Iran and renders a clear picture of the financial market in the country; arguing the financial system of the development countries, experiences and agreeable laws, well-established markets. This thesis presents a detailed description and structure of the Iranian financial markets – together with their peculiarities.

The thesis draws on argument that by analyzing indices of the financial structure and by ranking it, three categories of financial structures are recognized in selected developed and developing countries. In this study the required data and statistics are drawn from international sources. The thesis concludes with a set of recommendations of improving the capital structure in Iran.

The originality of this thesis lies in the argument of the role of the capital market in the process of economic growth. The thesis defends the latter issues.

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CONTENTS

CHAPTER 1

CAPITAL STRUCTURE AND ECONOMIC GROWTH: AN APPROACH AND OVERVIEW

1.1 INTRODUCTION

It is a generally held belief in much economic writing that the key to a country's economic progress lies in the organisation and development of its financial system in order to enable it to drive and enhance the development of its real –sector activities.

The crux of this relationship between economic development and financial systems is centred on the introduction of measures that seek to highlight the development of capital markets, measures, which are, in many cases, incompatible with, and insensitive to, the specificity and nuances of a particular country's financial system. In essence, these measures are primarily directed towards showing the effect and influence of the financial system on real-sector activities and assessing the extent to which these activities have become integrated into the economy at large. Such a developmental relationship is built upon discussions concerning the degree of financial deepening occurring within a country or the ratio of the size of its financial markets relatives to its annual GDP.

In this context, the question arises as to the relevance of market structures in the overall economic development of a particular country? Historically, the emergence of stock markets have been heralded as crucial institutions in the structuring of financial markets and as catalysts for economic development through their provision of diverse outlets for capital investment. However, in many instances the emergence of the stock market has been greeted with opposition and suspicion due to what is seen as its threat to existing and more traditionally based money markets. This is the case in many developing countries where banks and other financial institutions are fearful of stock market development because they fear that it will lead to a reduction in the volume of their business.

There are a number of research works that empirically analyse the effects of stock market development on firms financing choices by using a combination of the time–series and cross section data. These studies show initial improvements in economic performance resulting in the production of higher debt equity ratios for firms. This in turn leads to an increase in business for banks in stock markets that are already developed resulting in the substitution of equity for debt financing. In the case of developing stock markets, the effect on small firms appears to be negligible whilst large firms experience greater financial leverage. Indeed, what is noticeable is the effect that these developments have on the overall pattern of economic development. However, existing research fails to consider this issue satisfactorily due its concentration on conventional measures of analysis that fail to take into consideration the impact that arises from various forms of structural improvements. In this respect, simply measuring the cause and effects of financial deepening is insufficient to account for the ways in which capital markets impact on development. This research proposes to examine a number of alternative measures in developing a more comprehensive and holistic approach to the effects of capital markets on economic development in developing countries.

1.2. THE AIM OF THE RESEARCH PROGRAMME

This research attempts to build on currently available literature and studies that focus their analyses on (a) the role of money markets in general (b) the role of globalisation and deregulation (c) the climate for investment (d) external payments and/or indebtedness and (e) the size of capital markets in relation to GDP. Its claim to uniqueness and difference centres on its attempt to explore how capital market structures might correlate with the development of the economy as a whole by focusing on the somewhat neglected issue of the role that capital market structure plays in international development. Towards this end this research will focus on, and draw points of comparison between, the economic performances of a selected number of developed and developing countries. A quantitative approach will be undertaken in examining the development and performance of fourteen selected countries whilst a qualitative methodology will be employed in a detailed examination of Iran as a case study. In addition, points of comparison with other countries deemed relevant to the study will also be included in order to formulate as comprehensive a picture as possible.

In brief the main aims of this research can be summarised as follows:

1. to describe the role of the capital market in the development process as represented in existing literature,
2. to undertake an investigation of all existing studies in order to propose statistical indicators of capital market structure performance. This is done with a view to facilitating both a statistical and qualitative analyses of the relationship between capital market structure and performance in the selected countries under examination. These forms of analysis and their findings will be measured and presented according to the criteria and standards laid down by the World Bank and UNDP.
3. to analyse the results of this investigation in order to examine the various relationships between different kinds of capital market structures and economic

performance and development in the economy as a whole. From this it will be shown how these factors function in driving economic policy and how they might be used in benefiting developmental processes.

1.3. REVIEW OF LITERATURE

There are, within the wide range of available literature, a number of studies which have devoted themselves to examining certain aspects of the relationship between financial market structures and economic development. However, these works, for the most part, have primarily concerned themselves with the issue of central banking and the independence of the central banks themselves. In addition, they have mostly focused on explaining the functions and working of the markets themselves rather than their economic significance. Indeed, this finance literature as a whole reveals itself to be based on two main assumptions; (1) that the stock market is efficient and (2) that maximising shareholder value is the key to total wealth creation for a society. Such a perspective locates the financial market as the epicentre of economic development. However, despite this fact there remains a paucity of literature concerning capital market structure despite the availability of reliable information. This present thesis sets out to redress this shortfall in research.

1.4. METHODOLOGY OF THE RESEARCH

The methodology of research is clear from the nature of the subject of study. This is an empirical study, incorporating an interdisciplinary approach based on the analysis of historical, economic, and cultural factors. The main approach incorporates the use of a statistical methodology supplemented by a qualitative approach where research findings are analysed and placed within an historical and cultural framework that takes into consideration the differences between developed and developing countries. However, a number of points need to be clarified in relation to the employment of a primarily statistical approach. Such an approach requires the construction of indices relating to the market structure and a means of observing the possible dependence of these structures on economic development. For this test a set of non–parametric data, based and constructed on a systematic observation of the properties of various capital markets as measured against their economic development, is used. This data is then used as the basis for estimating the relationship between economic development and the particular choice of capital market structure.

1.5. LIMITATIONS

During the course of this research certain difficulties were encountered with regard to the acquisition of up to date and reliable data. For the various capital markets under investigation figures covering a twenty-year period were collected in order to give as full and comprehensive a picture as possible. However, in many circumstances figures covering such a time span were either unavailable or incomplete despite the fact that such internationally renowned institutions as the World Bank, IMF and IFC, were used as the main sources for much of this data. Similarly, much of the available data on many aspects of the Iranian economy has proved to be scarce, fragmented, and at times, doubtful in veracity. Foremost in this regard has been unreliability of those figures which Iran shares with other developing countries. However, in overcoming and compensating for these difficulties this study has attempted to a gather a wide range of facts and figures from as many different sources as possible so that they can be combined and contrasted in providing the most comprehensive framework of analysis.

1.6. ORIGINALITY OF THE RESEARCH

The main objective of the research is to find out how far one may use the analogy for analysing the money market, the money system, and central banking and apply it to the capital market. If one can specify certain characteristics of the various financial systems that have led to accelerated development in certain countries, it would then be possible to work out the relationship between the choice of capital market structure and the pace of economic development.

This study, which is based on analyses within the field of international economy, examines the theoretical orthodoxy and modern challenges faced by developing countries, with particular reference to the case of Iran, within the context of the contemporary global environment. Furthermore, this research provides original empirical analysis of the relationship between the structure of the capital market and the pattern of development that occurs in developing countries.

1.7. ORGANISATION OF THE STUDY

The research aims, literature review, methodology of research, as well as the limitations and originality of the study, are laid out in chapter one. This chapter also provides an overview of the relationship between capital structure and economic growth.

Chapter two is primarily concerned with a detailed discussion of the theoretical and empirical approaches being employed. It refers to the fact that over the last two decades, a substantial volume of research has been devoted to understanding and explaining the link between financial development and economic growth. Economists have generally employed two main models in examining and seeking to explain the correlation between these two entities. In the first instance, financial development is treated as an exogenous factor, focusing on its role in influencing growth by increasing the fraction of savings channelled to investment. Secondly, financial development is presented as an endogenous outcome of the growth process itself, emphasising the co-evolution of real and financial activity. Recent works have attempted to modify these standard models by including socio-political factors, legal and supervisory regulations governing stock markets and the banking sector, in order to provide a more fully rounded and comprehensive view of a national financial sector. It is within the context of these developments that this chapter attempts to provide a broad overview of recent financial development theories and empirical studies that postulate the existence of a positive correlation between financial systems, financial institutions and economic growth. Towards this end the chapter is divided into six sections. The first section gives a brief account of the transformation that has taken place in the field of directed economic development. The next section discusses the four possible roles that financial systems can play in the development process. This is then followed by an outline of the main issues relating to finance theory followed by a discussion of the main functions of a financial system. Section four presents various arguments advanced in support of two dominant legal traditions – common law and civil law – that may have ramifications for the efficacy of financial systems and economic growth. Section five compares bank-based and market-based financial systems, underlining the pros and cons each of position in the promotion of economic growth.

Chapter three presents the theoretical models used in examining the workings of the capital market. Through a detailed analysis of the existing literature this chapter looks at the structure of capital markets around the world and their operation within a number of selected countries. This is done in order to highlight the functioning of different market structures from a fully centralised system to a fully de-centralised system. Furthermore, the theoretical models and classification systems used in this chapter show not only the originality of the thesis and the research methods employed but also serves as the basis on which the indexes of the structure of the capital, to be discussed in chapter seven, can be used as a means of examining the way in which these structures effect economic development.

Chapter four focuses on the evolution of financial development and goes on to argue that whilst world stock markets are booming and stock market capitalisation grows every year, a disproportionate percentage of this growth has occurred in emerging markets. However, despite this fact, little empirical evidence exists examining the influence of stock markets on long-term economic growth. Economists have neither a common concept nor a common measure of stock market development, with the result that little is known regarding stock market development and how it affects the rest of financial system. It is this issue, the attempt to relate financial development to economic growth, which forms the analytic basis of this chapter. Issues such as the importance of a developed stock market for national economic growth, the contribution, correlation, and causality of stock markets for this growth, and the relationship between stock market development and financing pattern, form the central elements of the discussion.

Chapter five focuses on the unique features of Islamic finance and their operation within an Iranian context. Central in this regard is an examination of the Islamic approach to interest and profit, Islamic reform of financial inter-mediation, and an exploration of the workings of various Islamic financial facilities and institutions. The key issue in this regard relates to how Islamic financial practice can adopt itself to the strictures of the market economy and the workings of international capital so that Muslim economies can move from development towards modernisation. This chapter analyses the structure and practice of Islamic finance and economics and highlights its incompatibility with the capital market structure.

Chapter six argues that the financial systems, or what are known as formal financial systems, of developed countries, have arisen as a result of a combination of financial expertise gleaned from experience and laws agreeable to capital and market development. By contrast, developing countries, due to a lack of experience, archaic laws, contradictory policies and "repressed" financial systems, have seen the establishment of "informal" financial markets. Despite the fact that such "informal" markets have been shown to possess certain beneficial features, in general, they stand as obstacles to full economic development. Such is the case in Iran and this chapter sets out to provide a detailed description and examination of the Iranian financial market. This analysis covers both the Iranian money market as well as the capital market, particularly where it relates to the Tehran Stock Exchange, which is known in Iran by its French (or better, Belgian) name, the "Bourse". The Tehran Stock Exchange is the only existing market for long-term capital in Iran. In addition, due to the "repressed financial" system presently prevalent in Iran, due attention is also given to the "informal" financial markets that operate within the country.

Chapter seven examines 'economic growth' in a selected number of countries vis-à-vis their particular financial system. The primary aim of this chapter is to illustrate the nature of the relationship between the choice of capital market structure and the pace of economic growth by using data from fourteen selected countries, selected over a period of six years, in order to assess whether or not the stock market has an impact on economic growth. All tables used for this survey are presented in an appendix with comments and analysis contained in the main body of the text presented in the chapter.

CHAPTER 2

FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH: A THEORETICAL AND EMPIRICAL OVERVIEW

2.1 INTRODUCTION

Over the last two decades, a substantial volume of research has been devoted to understanding and explaining the link between financial development and economic growth. Such work has essentially centred on the employment of two main theoretical models. The first approach treats financial development as an exogenous factor focusing on its role in influencing growth by increasing the fraction of savings channelled to investment. Secondly, financial development is modelled as an endogenous outcome of the growth process itself, emphasising the co-evolution of real and financial activity. In conjunction with these approaches a number of other works have attempted to examine the theoretical modifications of standard models, including various aspects of a well-functioning financial system such as the socio-political, economic, legal, regulatory and supervisory condition of the banking and stock market[1] sectors, in order to provide a comprehensive view of the reality of the national financial sector.

This chapter provides a broad overview of recent financial development theories and empirical studies that examine the existence of a positive correlation between financial systems, financial institutions, and economic growth. For this purpose the chapter has been divided into six sections. The first section gives a brief account of the transformation that has

[1] Drawing upon the historical experience of newly industrialised countries, this literature implicitly advocates the privatisation of publicly-owned enterprises, the removal of trade barriers, the institution of legal codes that would protect both local and foreign investors, the minimising of state intervention and regulation of markets, and the pursuit of a fiscal and monetary policy conducive to greater integration within the global market.

taken place in the area of directed economic development. This is followed by an examination of the four possible roles that financial systems can undertake in the development process. Section three outlines the theoretical basis underpinning finance theory and discusses the main functions of a financial system. The fourth section presents the various arguments advanced in assessing the effect and influence of the two dominant legal traditions – common law and civil law – on the efficacy of financial systems and economic growth. Section five compares bank-based and market based financial systems, underlining the pros and cons of each in promoting economic growth. The final section of the chapter is devoted to a drawing of conclusions.

Since the late 1970s, development economics has gone through a profound series of changes. Its early emphasis on the importance of planning and allocation mechanisms has been replaced by a belief in the free reign of market forces as the primary precondition necessary for sustainable economic development. This new found belief in the virtues of free enterprise has seen development economists urging governments, of both developed and developing countries, to pursue a policy of economic liberalisation. In contrast to the unwieldy structures of the planned economy, such a policy advocates the selling off of public enterprises, the promotion of free trade and the recasting of national fiscal and monetary policies so that they are more in line with those of the global market economy. As part of this transformation, the term "development" (which connotes a directed process) has been largely replaced by the term "emerging markets", which is more in line with the liberalisation thesis emphasising as it does, the important role of the private sector and the market-oriented paradigm of contemporary development economics. However, despite these changes in policy and nomenclature, the most striking change to have emerged has occurred in the approach to, and analysis of, the role of the financial sector in the development process.

Traditionally, economic growth theory has focused on labour usage and capital accumulation as the main engines of long-term economic growth. However, this approach, has been unable to explain sustained growth without also assuming an ongoing level of productivity growth. This arises from the fact that the impact of capital accumulation is limited by diminishing returns for a given labour force which means that each unit of capital added to the economy effects a smaller marginal improvement on output. In this regard, the marginal return on any addition of new capital will be smaller than the marginal cost of adding new capital resulting in no increases in growth or productivity (Romer, 1994: 3-22).

"New" growth theory[2] has focused on ongoing technological advances, grounded in the production of new and better technologies through research and development in an imperfectly competitive market, which lead to an increase in productivity that in turn becomes the main engine of growth. In principle, technological development could lead to sustained long-term growth because the increases in productivity would be enough to offset the decreases in productivity arising from the diminishing returns accruing to capital accumulation. This enables it to generate growth as a result of the economic structure[3] and it is as a result of this ability that it is often referred to as "endogenous growth theory."[4]

In fact, development economists up until the late 1970s often advocated explicit manipulation of the financial sector in order to achieve development goals. Credit subsidies to favoured activities were the rule rather than the exception. Furthermore, inflation was deemed to be an attractive economic policy since a tax on financial assets provided those governments possessing a weak tax base with resources that could be devoted to development projects (Leys, 1996).

Nevertheless, a few influential economists began to draw attention to the contribution of the financial structure and the pursuit of a liberal economic policy in effecting increased growth rates. Goldsmith (1969) and McKinnon (1973) argued that credit allocation, interest

[2] For a more detailed analysis on the implications of knowledge-based growth for micro economic policies, see Peter Howitt (ed) (University of Calgary Press, 1996).
[3] The question then becomes whether financial sector development affects growth through the channel of capital accumulation, as in the old growth theory, or through the channel of productivity increases engendered by knowledge creation, as in the endogenous growth theory.

rate ceilings, and high reserve requirements were undesirable. It general it was believed that high inflation, negative real rates, and inflation taxes created distortions that led to extensive resource misallocation, discouraged savings and the use of intermediaries. The term "financial repression" was introduced to refer to such restrictive policies that inhibited the operation of the financial sector.

However, over the past three decades there has been a major shift from restrictive economic policies toward a more market-oriented approach. McKinnon, (1993: 12), exemplifies this point when he states that at present there is a generally held "widespread agreement that flows of savings and investment should be voluntary and significantly decentralised in an open capital market at close to equilibrium interest rates."

Such policies have been increasingly adopted by both developed and developing countries in recent years[5] and are now so pervasive that those countries that continue to maintain capital controls are seen as economic pariahs within the international community. However, despite the removal of directed credit policies, interest rate ceilings, and government ownership of financial institutions, the liberalisation of domestic financial markets has occurred at a somewhat slower pace. Despite this, the prevailing paradigm is generally seen as one that promotes and facilitates competitive private sector capital markets to gather savings at market rates of interest and allocate capital to the most efficient private sector projects.

2.2 FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH

[4] For the most part, economists generally ignored any possible role for the financial sector in the growth process, see, Meir and Seers (1984).

[5] The International Monetary Fund (IMF) reports large numbers of countries taking measures to liberalise capital flows while the number of those tightening controls has declined (IMF 1999, Chap. 3).

In general, there are four main ways in which the development of financial systems are linked to economic growth[6]:

1. Financial development and economic growth are not causally related. In this instance, neither of the two is seen to have any considerable effect on the other, and the observable (and empirically established) correlation between them is merely the result of a historical peculiarity. In other words, both the economy and its financial sectors witnessed increased growth according to their own logic and not as a result of mutually beneficial influence and interdependence. This independence is accounted for by the fact that modern economic growth was governed by real factors, whereas financial development was rooted in the particular history of financial institutions in individual countries. Robert Lucas (1988: 6) dismisses the existence of a finance–economic growth relationship asserting that economists tend to "badly over-stress" the role financial factors play in economic growth.
2. Financial development *follows* economic development. Here economic growth is seen to impact upon financial institutions causing them to change and develop resulting in the growth of financial as well as credit markets. Financial development is thus *demand following.* The major proponent of this view is Joan Robinson (1954: 86) who has suggested that "finance follows where enterprise leads." In other words, financial institutions will spontaneously develop and evolve where there is a demand for capital. Technological and industrial development in this view is constrained by the demand rather than the supply of finance. As the growing scale of economic activities requires more and more capital (liquid and fixed), the institutional raising and pooling of funds for investment and economic expansion purposes become supplanted by those of individual fortunes and retained profits.[7] The present diversity of financial systems

[6] This is broadly defined as an increase in the volume of financial services of banks, other financial intermediaries as well as the number of financial transactions on capital markets.

[7] John Hicks (1969) has also argued, on the basis of both economic history and theory, that Britain's industrial revolution was only made possible by the development of financial institutions. The basic argument is that

stems from the fact that various institutional arrangements can equally well fulfil the two basic functions of any financial system: bringing together savers and investors, and selecting the most appropriate uses for invertible funds.

3. Financial development is a *determinant* of economic growth. This line of thinking centres on the movement from financial development to real development, where financial development is seen as only one among many growth-inducing factors, some of which are deemed necessary, others merely sufficient. This distinction between necessary and sufficient conditions helps to clarify and differentiate between two distinct formulations to be found in much recent economic literature:

3.1. Financial development is a *precondition* for economic growth. This view is held by those economic historians and theorists who believe that inadequate financial systems are a major impediment to economic growth. Thus, the financial development of a country is seen to rest on well-established and fully functioning financial markets, which are in turn the main guarantors of economic growth. The best-known advocate of this view is the economist Walter Bagehot (1873).

3.2. Financial development *actively* promotes economic growth. This position is based on the assumption that provided that there are no real impediments to economic development, sophisticated financial systems can play a key role in generating high and sustained rates of economic growth. The main proponent of this view is Peter Schumpter (1911/1934) who stressed the importance of the banking system in its ability to create money and channel it into productive and innovative uses. Similarly, a number of other economists have argued that it is the information gathering and processing procedures employed by professional actors with regard to credit and

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technology existed long before the industrial revolution but could not by itself generate sustained economic growth. The large-scale capital requirement of the industrial revolution could only be met by the development of capital market institutions that permitted the pooling of small individual savings into large funds for industrial development.

capital markets, which are responsible for the improved efficiency of capital allocation.[8]

4. Financial development may, at least occasionally and in the short run, turn out to be an *impediment* to economic growth. This perspective also follows the line of advancement from financial to real development, but differs from its positive growth assessments by focusing on the potentially destabilising effects of financial crises and their detrimental impact on the smooth functioning of the financial system. This view conceives of the financial system as an inherently unstable entity. The main culprits responsible for causing such uncertainty are generally held to be the stock markets and international capital flows.[9] Economists supporting this view regularly refer to the dangers of financial crises arising from speculative bubbles (Bhatt, 1955) or increased capital market speculation. The basis of such argumentation is often motivated by the observation of bad economic performances accompanied by financial market growth in particular world regions, especially Latin America and South East Asia, over the past twenty-five years.

Furthermore, this latter view is also heavily preoccupied with a constant debate centring on the wisdom of government intervention in the credit and capital markets (financial repression vs. financial liberalisation). Adherents to the financial repression school claim that administered (i.e. artificially low) interest rates discourage financial savings and ration credit, thereby reducing investment and impeding allocative efficiency. On the other hand, proponents of a state interventionist approach argue that government action is necessary in order to offset serious market failures which may result in crises and crashes, or a shortage of (high-risk) venture capital.

[8] Fry (1995) elaborates these arguments in detail. For a widely respected survey see Levine (1997).
[9] This view is held by a wide range of economists ranging from Keynes (1936) to Diamond and Dybvig (1983), Singh (1977) and Krugman (1998).

However, theoretical and empirical evidence suggests that both supply–led and demand–following finance are not mutually exclusive, i.e. the causal link between finance and growth runs in both directions Indeed, it has been shown that this interdependence may be exerted at the same time, implying that financial depth (i.e. large financial markets) drives growth, whilst at the same time highlighting that an expanding economy's increased demand for finance capital is met by the advancing financial sector. The crucial factor to be taken into consideration when defining whether an economy is primarily supply-led or demand-following relates to the developmental stage of a particular economy.

The most prominent advocate of such an approach, Patrick (1966), argues that underdeveloped countries can gain significantly in real terms from developing their financial sectors (supply–leading finance), whereas in highly developed economies finance becomes increasingly demand-following. This is in contrast to Gerschenkron's (1962) assertion that developed economies tend to become increasingly supply-leading as production becomes more and more capital intensive.

However, it is important to note that financial institutions and systems are not the main providers of investment finance. Indeed, the dominant source of corporate finance is cash flow. Thiel (2001: 9) highlights this fact by stating that in Germany more than 50% of investment is financed through cash flow and depreciation. He goes on to argue that no matter how developed financial markets may be in a particular country, self-financing is always dominant and above the 50% margin. Thus, over-emphasising the importance of the financial system's contribution to economic development often results in the weak empirical performance of financial market variables largely as a result of the difficulty in quantifying internal funds (Thiel, 2001: 12).

2.3 THE DEVELOPMENT AND FUNCTION OF FINANCIAL SYSTEMS

Modern finance theories are based mainly on the work of those economic historians who argued that an efficient financial system was the key to economic development. One of the major proponents of this view, Walter Bagehot (1873: 52), argued that it was England's efficient capital markets that made the industrial revolution possible:

> "The 'loanable capital', the lending of which caused the rise of prices, was lent to enable it to argument. The loanable capital lay idle in the banks till some trade started into prosperity, and then was lent in order to develop that trade; that trade caused other secondary developments; those secondary developments enabled more loanable capital to be lent; and that lending caused a tertiary development of trade; and so on through society."

However, the earliest, most comprehensive, and influential examination of the relationship between financial development and economic development came with the release of Joseph Schumpter's *'The Theory of Economic Development'* in 1911. He contended that financial development caused economic development and that financial markets promote economic growth by funding entrepreneurs, particularly those with high return projects:

> "The banker...is not so much primarily a middleman in the commodity 'purchasing power' as a *producer* of this commodity...He stands between whose who wish to form new combinations and the possessors of productive means. He is essentially a phenomenon of development, though only when no central authority directs the social process. He makes possible the carrying out of new combinations, authorises people, in the name of society as it were, to form them. He is the ephour [overseer] of the exchange economy" (Schumpter, 1934: 74).

Towards this end, financial systems emerge to overcome market frictions and lower the cost to society of transferring information or wealth between households and firms (Levine, 1977). In other words banks/markets are the main factors responsible in giving individuals or firms access to economies of scale that they would not have otherwise. Thus, banks enhance economic efficiency, and ultimately growth, because they ensure that capital is put to its most productive use. How well such financial intermediaries/markets perform their functions in enhancing this efficiency helps explain the disparate economic performances occurring between different countries.

Certain finance theories posit that in a world of perfect competition, perfect information, and devoid of market frictions, there would be little or no role for financial institutions. Individuals could take their savings and invest them in projects and firms with optimum returns based on each given individual's own projected time horizons and preferences. Financial markets would be created to provide funds from firms at one point in time in return for repayment at another.[10] However, such a perfect world is built upon unrealistic assumptions. Financial institutions exist and function as a result of economic imperfections or market frictions. When conditions are less than perfect, economic exchange is costly, and if it is sufficiently costly it may not occur at all. Financial institutions intervene in making these exchanges affordable, thus offsetting the underlying market frictions.

These frictions can be divided into two main categories, technological frictions and incentive frictions. Technological frictions prevent individual investors from having access to economies of scale. In other words, individuals are prevented from activities that would be cheaper per person if more people participated in the activity. Incentive frictions occur as a result of information costs. Under such circumstances individuals are

[10] For example, there is no information or transaction costs in the Arrow-Debreu model. Hence there is no need for a financial system that expends resources searching for projects, structuring managers, or designing arrangements to ease risk management and facilitate transactions.

differentially informed and act in their self–interest. As a result contracts are incomplete, because not all contingencies can be spelled out, and an intermediary is needed to navigate the specificity of the legal environment.

2.3.1 REDUCING TECHNOLOGICAL FRICTIONS

Financial institutions help transform savings into investments by repackaging wealth and transferring capital and information. One way in which they help individual savers is by giving them access to large investment projects via the funds-pooling mechanism. Through this mechanism small individual investors are able to afford larger non-divisible securities issued by firms, thus allowing for financial economies of scale to arise. Furthermore, the risk accruing to the individual investor is lessened somewhat by the fact that it is less costly for financial intermediaries to transform securities, gather funds and pool them, and invest them on behalf of savers than it is for individuals to hold securities issued by firms directly. Thus, financial intermediaries improve the efficiency of the economy by letting savers invest in large-scale projects, whilst encouraging economic confidence by enabling increased numbers of such projects to be undertaken.

An intermediary can also help investors by providing access to long-term projects through liquidity management. Such projects, whilst often yielding higher returns, require a long-run commitment of capital and can take a long time before yielding results. However, such long-term planning is not conducive to most savers who operate according to shorter and more uncertain time horizons and who do not want to see there limited funds tied up and inaccessible for long periods.[11]

Intermediaries can provide liquidity for these investments by pooling the resources of savers with different liquidity needs and diversifying across liquidity risks. In other words, the pooling mechanism provides financial economies of scale by reducing the cost of illiquid

[11] Liquidity risk arises due to the uncertainties associated with converting assets into a medium of exchange (Levine 1997: 692).

investments. As a result, savers gain by the lower costs, and economic efficiency and development is enhanced as a result of increased investment in long-term projects.

A final way in which an intermediary can improve investors' access to investment opportunities is through the employment of screening mechanisms. Savers by themselves usually have too little time and income to inform themselves of the wide number of investment opportunities available to them. Due to economies of scale, financial intermediaries are in a better position to collect large amounts of information, provide expertise in evaluating and screening investment prospects, and monitor the performance of firms at a lower cost than individual investors by utilising the resources and knowledge of investment analysts, credit rating agencies, auditing firms, and other institutions. By economising on information acquisition costs, financial intermediaries help move capital to its highest value, thus improving allocative efficiency or the degree to which resources flow to the most productive investments (Boyd and Prescott 1986).

Without such intervention, individuals would be unaware of, and unable to, take advantage of the investment opportunities available to them or exploit the benefits of scale economies. Financial intermediaries provide the means by which individuals can pool their funds and create small denomination securities that allow households to hold diversified portfolios, invest in firms with economically efficient scales, and increase their asset liquidity. Concomitantly, many businesses would be constrained to economically inefficient scales and time horizons were it not for this pooling of capital from individual savers. Thus, financial intermediaries overcome market frictions, improve resource allocation, and bring markets closer to optimal economic efficiency.

2.3.2 REDUCING INCENTIVE FRICTIONS

In the field of investment opportunities there is often a conflict of interest between savers (investors) and the firms in which they wish to invest. This arises from the fact that it is not always in a firm's best interest to disclose all the available information relating to their financial affairs. For example, managers may not report whether they are pursuing risky or questionable strategies, or figures may be enhanced to reveal more favourable outcomes from projects than may have been the case (Levine, 1997). In addition, firms may hold back from borrowing because it would increase the likelihood of these being monitored by lenders. As a result investors typically have less-than-complete information about the institution to which they are willing to commit their capital.

Considerable resources are required to monitor firms in order to compile as comprehensive a picture of their practices as possible so that investors are provided with the fullest information as to pros and cons of their investment source. For many individual investors who rely only on the publicly available information transmitted through markets the amount of time needed to monitor the performance and behaviour of certain companies is too costly. This gives rise to a situation where information is incomplete and unavailable resulting in many investors deciding to refrain from investment due to the risks involved. Financial intermediaries can help reduce the problems associated with asymmetric information by offering detailed financial contracts that are not freely available in markets as well as providing economies of scale in monitoring and control investigations. Financial intermediaries perform an important role in mediating and reconciling the divergent incentives between lenders and borrowers that arise from imperfect information and incomplete contracts.

Information theories emphasise the monitoring and control role of banks. They also use this information in order to ensure desirable behaviour, compliance with covenants, and contract fulfilment by punishing undesirable behaviour and collecting from borrowers who do not repay in full on time. Diamond (1984) shows that households delegate financial intermediaries as the primary monitors in investigating and obtaining information on a particular firm's activities and financial dealings. He goes on to argue that economies of scale occur through such monitoring and control of firms. A single financial intermediary can perform these duties more effectively and at a cheaper cost than many individual lenders as a result of greater resources and access to information that enable them to offer financial contracts otherwise not available in competitive markets.

As has been noted, financial development occurs when financial institutions, banks/markets, lower the effects of information, enforcement, and transactions costs. In this regard the function of financial systems can be categorised according to five headings: (1) the production of ex ante information concerning possible investments, (2) the monitoring of investments and their implication for corporate governance, (3) trading, diversification, and the management of risk, (4) the mobilisation and pooling of savings, and (5) the exchange of goods and services. Each of these financial functions plays a part in influencing savings and investment decisions thus affecting the rate of economic growth. Furthermore, since many market frictions exist and since laws, regulations, and policies differ markedly across economies, improvements or changes along any of these dimensions will have different implications for resource allocation.

(1) Producing information and allocating capital

Many economic models assume that capital will automatically flow towards the most profitable firms and that investors have reliable information about firms, managers and market conditions. However, the large cost associated with collecting such information tends to deter individual investors from committing funds to those activities to which they have incomplete information. As mentioned, financial intermediaries play an important role in offsetting such costs and risk through the acquisition and processing of such information on behalf of investors (Boyd and Prescott, 1986). Thus, financial intermediaries, by economising on information acquisition costs, improve the ex ante assessment of investment opportunities creating a positive environment that encourages greater resource allocation.

Such a role positions financial intermediaries as highly influential and important accelerators of economic growth. Through their access to, and comprehensive processing of, information on a wide range of investment opportunities they encourage a greater and more efficient allocation of capital (Greenwood and Jovanovic, 1990). Financial intermediaries may also boost the rate of technological innovation by identifying those entrepreneurs with the best chances of successfully initiating new goods and production processes (King and Levine, 1993 b)

<u>(2) Monitoring firms and exerting corporate governance</u>

The absence of financial arrangements that enhance corporate governance may impede the mobilisation of household savings and prevent capital from flowing to profitable investments (Stiglitz and Weiss, 1983). Corporate governance structures are essential elements in stimulating production and innovation finance as they allow creditors and shareholders to exert a degree of control over management and the efficiency with which firms allocate resources. However, small, diffuse equity holders may not find it worthwhile to undertake the costly process of exerting corporate governance. By contrast, financial markets provide effective mechanisms for exerting corporate control (Easterbrook and Fischel, 1991). Shareholders exert corporate control by directly voting on crucial issues, and electing boards of directors to monitor managers and review managerial decisions.

However, it is widely recognised that small shareholders frequently lack the expertise and incentives to monitor managers. In many circumstances general voting rights do not work effectively because managers have enormous discretion over the flow of information. Furthermore, the elected representatives of shareholders, the boards of directors, do not represent the interest of minority shareholders, restricting their influence and failing to fully pursue their specific interests. Thus, the large costs associated with verifying managerial performance may impede diffuse equity holders from overseeing firm behaviour undertaken on their behalf, with adverse effects on resource allocation and potential economic growth (Ibid).

(3) Risk amelioration

Financial markets and intermediaries ease the trading, hedging, and pooling of risk with resultant implications for resource allocation and growth. These can take the form of:

(i) cross-sectional risk diversification. Financial systems may mitigate the risks associated with individual projects and industries by providing vehicles for trading, pooling and diversifying risk, such as the implementation of a portfolio basket with high–return (high risk) and low return projects (low risk) (Greenwood and Jovanovic, 1990). King and Levine (1993b) argue that cross-sectional risk diversification can stimulate innovative projects, reduce risk, and promote investment in growth-enhancing innovative activities.

(ii) Financial systems may improve inter-temporal risk, by smoothing out diversified projects across generations through the pursuit of a long-run perspective that offers returns that are relatively low in boom times and relatively high in slack times (Allen and Gale, 1997).

(iii) Financial systems may ease liquidity risk by converting financial instruments into purchasing power at agreed prices. Liquidity risk arises due to the uncertainties associated with converting assets into a medium of exchange and is exacerbated by informational asymmetries and transaction costs that inhibit liquidity in general. Liquidity is an important element in economic development but at times becomes inhibited due to the long-run commitment required by some high-return projects that tie up investor capital for long-periods. However, a liquid capital market can help to offset such problems by allowing savers to hold liquid assets, such as equity, bonds, or demand deposits, which they can quickly and easily sell if they seek access to their savings. Simultaneously, capital markets can transform these liquid financial instruments into long-term capital investments (Bencivenga, Smith, and Starr, 1995).

(4) Pooling of Savings

The mobilisation of capital from disparate savers for investment purposes involves (a) overcoming the transaction costs associated with collecting savings from different individuals and (b) overcoming the informational asymmetries associated with making savers feel comfortable in relinquishing control of their savings. The financial system can help to offset these frictions and uncertainties by facilitating the pooling of financial resources. Specifically, such a mobilisation involves the establishment of multiple bilateral contracts between productive units raising capital and agents with surplus resources. The joint stock company in which many individuals invest in a new legal entity represents an example of such multiple bilateral mobilisations.

Financial systems that are more effective at pooling the savings of individuals can profoundly affect economic development. Besides the direct effect of better savings mobilisation on capital accumulation, the pooling of resources also improves resource allocation and boosts technological innovation. Without access to multiple investors, many production processes would be constrained to economically inefficient scales (Sirri and Tufano, 1995). Acemoglu and Zilibotti (1997) show that with large, indivisible, financial arrangements that mobilise savings from many diverse individuals and invest in a diversified portfolio of risky projects, facilitate a reallocation of investment toward higher return activities with positive ramifications for economic growth.

(5) Easing exchange

The availability of information and funds allow eager entrepreneurs to expand and undertake new investment opportunities, thus setting in motion a chain of multiplier effects leading to greater specialisation, technological innovation and productivity growth. Markets that promote exchange encourage and facilitate greater specialisation, thus creating a dynamic linking the development of financial instruments and institutions to economic development (Greenwood and Smith, 1996).

However, it is important to note that creating organic links between the development of financial institutions and economic growth depends on a whole host of variables working towards providing a situation where agents in the financial markets are free to engage in unhindered economic activities. The most important of these variables is the legal protection given to savers/ investors in the financial markets.

2.4 FINANCIAL INSTITUTIONS & THE SOCIO-POLITICAL & LEGAL ENVIRONMENT

This section discusses the different legal traditions that influence and determine the performance of financial systems. The quality of various financial institutions, underpinned by political and cultural differences, tend to significantly affect the level of the financial development of intermediaries and financial markets. Cultural differences, with regard to the rights of investors, social norms, and behaviours, are important factors in shaping the nature of institutions as well as indirectly affecting government policy. Similarly, differences in legal codes may reflect, to varying degrees, the constraints imposed on the ability of both the state and the market to intervene in the functioning of financial systems.

It is commonly accepted that a judicial system that protects property rights and enforces contracts, and a legal system that is flexible enough to respond to the financial needs of a changing economy, are the prerequisites required for the operation of a fully functioning financial system. In addition, the protection and enforcement of creditors' rights are also seen as essential elements in securing long-run rates of economic growth and capital accumulation (Levine, 1998). La Porta, et al. (1997, 1998) have developed a model of comparative financial systems based on an origin-legal systems approach that focuses on two main issues. The first is the extent to which legal systems differ in the protection afforded to shareholders and creditors in different countries. The second is the impact that this has on corporation financing, governance, and other economic policies. In their highlighting of the importance of the legal system they identify two main legal traditions of commercial law, the common law and the civil law traditions, as central to the development and operation of financial systems. The former originated in Britain whilst the latter arose from the French, German, and Scandinavian legal traditions. However both systems, through conquest, imperialism, and imitation have spread throughout the world. Therefore, if a particular country's commercial/company law is based on either British, French, German, or Scandinavian legal traditions it allows for a universally applicable and understandable set of standards that help explain that country's laws on creditor rights, shareholder rights, and private property rights as well as its level of bank and stock market development. Furthermore, it has also been suggested that legal origin influences economic growth by shaping national financial systems (Levine, 1999).

The origin of legal systems helps to explain a wide range of issues that have influenced the evolution of national financial institutions and their efficacies in promoting economic growth. North (1988), for instance, argues that Britain has better financial institutions than France, with the result that British colonies are more likely to have inherited better institutions than their French counterparts leading to better instances of financial development. Similarly, Stulz and Williamson (2002) argue that legal origin proxies are derived from religious[12] and cultural differences that also have implications for financial development[13]. They, along with La Porta, et al. (1998), suggest that investors in those

[12] In their earlier research on the factors responsible for the differences in shareholder and creditor rights in a sample of 49 countries, Stulz and Williamson (2001) found that a country's principal religion helps to predict the cross-sectional variations in creditor rights, and enforcement of both shareholder and creditor rights, better than a country's openness to international trade, its language, its income per capita, or legal origin.

[13] It is said that the religious traditions, such as Jewish law, Hindu law, and Muslim law, appear to be less relevant in matters of investor protection. Zweigert and Kotz (1987: 66) argue that "the Arabian countries

countries operating under French civil law structure are afforded the least amount of protections and are the most lax in the enforcement of those laws. By comparison those countries whose legal rules originate in English common law are shown to place a greater emphasis on investor protection and law enforcement, factors which are even stronger in German and Scandinavian civil law countries.

Furthermore, civil law has often been used as an instrument in the expansion of state power and control. This point is illustrated by La Porta, et al (1999: 231) when they argue that "civil law is largely legislature created and is focused on discovering a just solution to a dispute - form the point of view of the State - rather than allowing judicial precedence in the protection of individual rights." The roots of English common law began in the 17th century and were shaped more by parliament and the aristocracy than by the state, reflecting to a greater extent the intent to limit the power of the sovereign (Merryman, 1985: 111-112). By contrast, German civil law, whilst primarily concerned with consolidating and strengthening the power of the state, sought to implement a less rigid and more responsive legal doctrine. In this respect it developed into a code of practice that was designed to evolve with changing conditions, allowing more room for flexibility, and less rigidity, in the application of the law.

According to Finer (1997: 46) the judges who make common law tend to "put their emphasis on the private rights of individuals and especially on their property rights". Therefore, one may use differences in the origin of legal traditions as crude proxies for the political orientation of governments, as it pertains to the legal and political propensity of the state to intervene in the protection of property rights. Therefore, French civil law countries can be assumed to have a more interventionist legal doctrine, in support of state power, relative to German civil code and English common law countries.

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unquestionably belong to Islamic law as far as family and inheritance law is concerned, just as India belongs to Hindu law, but the economic law of these countries (including commercial law and the law of contract and tort) is heavily impressed by the legal thinking of the colonial and mandatory powers - English common law in the case of India, French law in most of the Arab States."

Demirguc-Kunt and Levine (2003) discuss two interrelated theories in order to explain the channels through which legal origin influences the efficacy of financial institutions. Firstly, they examine the "political" view which contends that legal traditions differ in terms of the priority they attach to private property (contracting) rights versus the rights of the state. This is followed by an analysis of the "adaptability" view that focuses on the process of law making. Legal traditions that efficiently adapt to changing conditions, by eliminating inefficient laws and creating more efficient ones, are generally seen to support financial development to a greater degree than more rigid legal systems. In essence their work draws a comparison between the power of state intervention and the ability of legal systems to evolve in response to changing conditions.

2.5 BANKS VERSUS MARKET FINANCIAL SYSTEMS

In recent years, there has been a renewed interest in the relative merits of bank-based versus market-based financial systems. The debate[14] essentially concerns the relative virtues of the Anglo-Saxon financial system based on stock markets, and the German/Japanese bank-based financial model. Traditionally, and owing much to the success stories of the Japanese and German economies, the bank-based system, with its promotion of close and long-term relationships between corporations and adherence to a long-term investment perspective rather than the short-term profit expectations of market analysts, was seen as the most successful and desirable financial system. Larry Thurow (1992: 34) states that "Germany and Japan have organised a system (business groups) to minimise the influence of impatient shareholders, while the United States has organised a system (fund dominance) to maximise the influence of impatient shareholder."

[14] This debate was originally conducted in the context of German and UK growth rates in the late nineteenth and early twentieth centuries. For example, Gerschenkron (1962) argues that the bank-based system in Germany allowed for a closer relationship between bankers and industrial firms than was possible in the market-based system in the UK.

However, the dominance of this system has been challenged and called into question by the emergence of the "New Economy" in the United States where the fast growth of ICT industries has also been accompanied by the widespread and successful adoption of ICT technology in many areas of the economy. As Larry Summers, the U.S. Treasury Secretary, points out, "financial markets have played a central role, making available resources for guys who can raise a million dollars before they can buy their first suit."[15] It is thus suggested that a major reason for the U.S lead in this area can be attributed to the stimulating role of the stock market. However, critics of the stock market approach suggest that recent stock market developments far from stimulating and stabilising the market merely point to the market's periodic irrationality. Furthermore, those models based on short-term stock market developments also indicate that these irrationalities have harmful consequences for the rate of investment and technological development[16].

The arguments advanced by the proponents of both the bank-based and market-based financial systems highlight the pros and cons of different financial systems in the intermediation between savings and investment. The debate has been brought into sharp focus by the recent uncertain efforts of developing (emerging) economies in attempting to foster economic growth and technological development without possessing a clear consensus as to which system provides the best opportunity for the fostering of long-term economic development.

[15] "Winning ways: ready bucks and a flair for risk", *The Financial Times*, 14 December 1999.

[16] Under the leadership of Michael Porter, the Harvard Business School carried out a large empirical study of the U.S. financial system. On the basis of the findings of this research, Porter (1992), summed up the situation as follows: "the change in nature of competition and the increasing pressure of globalisation make investment the most critical determinant of competitive advantage...Yet the U.S. system of allocating investment capital both within and across companies is failing. This puts American companies at a serious disadvantage in global competition and ultimately threatens the long the term growth of the U.S. economy." See also Stein (1989) and Singh (2000).

2.5.1 BANK-BASED VERSUS THE MARKET-BASED FINANCIAL SYSTEM[17]

The question arises as to why countries with similar levels of development possess such different financial systems? Some countries rely extensively upon capital markets for mobilising new capital, while others rely heavily on bank lending. For example, the average ratio of bank assets to stock market capitalisation from 1976 to 1990 in France was 7.8, in Germany it was 7.2, in Japan it was 2.3, in the US it was 1.5, and in the UK it was 0.9 (Back, et al. 1999). La Porta, et al. (1996) argue that the basis of these differences can be found by examining the contrasting legal systems operating in each country. In countries, such as France, Germany and Japan, which operate according to a system of civil law, the banking sector is extensive and dominant. This is in contrast to those such as the US and UK who rely more heavily on capital markets due to their adherence to a common law legal tradition. Others factors such as the electoral system of a particular country have also been posited as explanations of these differences. For example, those countries using proportional representation, such as Germany, are shown to be more banking-oriented than those countries, the US and UK, who employ a plurality electoral system.

However, what is clear is the fact that the structure of the financial system has important implications for the ways that firms are managed within an economy. For example, the corporate governance of firms in banking-oriented countries is much more influenced by banks and labour unions than comparable firms in market-oriented countries (Allen and Gale 2000). These structural differences affect the outlook and priorities of firms with regard to certain issues such as negotiations between corporate governance and workers in the time of restructuring and mergers.

In general, capital markets are seen to be more effective in the promotion of innovation due to the fact that they allow individuals to make independent decisions. This is in direct contrast to the bank-based system where individuals delegate decision-making to an

[17] Financial structures - the mixture of financial instruments, markets, and intermediaries operating in an

intermediary requiring investors to make compromises. However, in certain situations where a diversity of opinion is important, such as the financing of new technologies, this approach is deemed to be more effective than the market-based structure. Finally, countries that rely heavily on banking are capable of shielding households from the volatility of the financial market, providing stability to the returns on investor savings and assets (Rajan and Zingales 2001).

2.5.2 ARGUMENTS FOR AND AGAINST BANK-BASED AND MARKET–BASED SYSTEMS[18]

There are four competing theoretical perspectives that are used in the analysis of the merits of bank-based and market-based financial systems with regard to the process of economic development:

The bank-based view posits the positive role of banks in providing external finance and funding to new firms. This occurs from the fact that banks reduce the large scale costs of acquiring, evaluating, and processing information about firms and managers which in turn improves resource allocation and corporate control (Boyd and Prescott, 1986). Without the availability of these services, each investor would face high costs and risks in attempting to assess the viability of potential investments. Moreover, small investors would be forced to free-ride off large investors, who have greater incentives in paying the large costs associated with evaluating firms and managers. By reducing free-riding and the duplication that would occur with a large number of individual investors trying to access and assess corporate investment information, banks improve the ex ante assessment of investment opportunities and the ex post exertion of corporate control.

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economy - tends to change as the economy grows.

[18] A country's financial system can be defined as consisting of the institutions, financial technology, and rules of the game that define how financial activity is organised at a point in time. The same function of a financial system can be performed by different institutions or according to different rules. There is no direct relationship between a country's economic development and its financial structure. For instance, Japan and the U.S. have

In addition, banks ease investment risk and lower transaction costs through the sharing and pooling of investment resources. They lower the costs of holding a standardised portfolio of assets (individuals holding a very small amount of large different assets) by guaranteeing fixed costs to each purchase. Moreover, banks may facilitate the inter-temporal smoothing of risk by diversifying across generation risks, such as macroeconomic shocks, that cannot be diversified at a particular point in time (Allen and Gale 1999). Banks can also facilitate intergenerational risk sharing by investing according to long-run perspectives that offer relatively low returns in boom times and relatively high ones during economic downturns (Bencivenga and Smith 1991). Furthermore, many profitable investments require a long-term engagement of capital, which many investors are often unable or reluctant to commit to. To ameliorate this problem, banks pool savings, investing just enough in short-term securities to satisfy those with short-run liquidity needs, before placing the rest in long-term projects. By facilitating longer-term, more profitable investments, well-functioning financial intermediaries improve the allocation of capital thereby helping to boost productivity growth rates.

The banking sector also facilitates savings mobilisation pooling by economising on the transaction costs associated with gathering savings from many disparate agents and by overcoming the informational asymmetries that make investors wary in relinquishing control of their savings (Sirri and Tufan, 1995). By effectively mobilising savings, banks not only ease capital accumulation, but also improve resource allocation by permitting the exploitation of economies of scale.

The market-based view stresses the advantages of markets in funding firms and promoting new and innovative enterprises. Like banks, stock markets also provide financial services by influencing information acquisition, corporate control, risk management, and savings mobilisation. The acquisition and dissemination of information is a key function of

quite different financial structures yet operate at the same level of economic development. Hence, there is little well-functioning stock markets. As markets become larger and more liquid, agents have greater incentives to expend resources in researching firms due to the increased opportunities and profit margins to be gained from the dissemination of such information in expanding and increasing liquid markets (Holmstrom and Tirole 1993). Moreover, this improved information about firms should enhance resource allocation substantially, leading to corresponding improvements in the levels of economic growth.

Stock markets may stimulate greater corporate control by facilitating take-overs and by making it easier to tie managerial compensation rates to performance. Thus, if well-functioning stock markets facilitate take-overs, then outsiders can purchase poorly operating firms, change their management, and set the stage for greater profitability (Stein 1988). Similarly, the fact that well-functioning stock markets make it easier to link managerial compensation with stock price performance, helps to align the interests of managers with those of firm owners (Jensen and Murphy 1990).

Furthermore, well-functioning stock markets possess the ability to ease risk diversification through cross-sectional risk sharing strategies. This enables investors to avoid the detrimental effects of liquidity risk through the pursuit of a policy where each individual investor can take an appropriate portfolio based on personal preferences. The alleviation of such uncertainties helps to induce a portfolio shift toward projects with higher expected returns and long-run growth rate with resulting benefits accruing to overall economic development (Obstfeld 1994).

The existence of large liquid markets results in improved aggregate views on new investment projects that are displayed in better public prices (Stiglitz, 1985). Thus, agents that avail of such information are better positioned to benefit from quick profits, which in turn stimulates other market participants to acquire information about firms[19]. In this regard, stock

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evidence to suggest that financial structure is completely endogenously determined.

[19] Grossman and Hart (1980) argue that atomistic shareholders also have incentives to capture the benefits from a take-over by holding on to their shares instead of tendering them, thus making take-over attempts less profitable

markets improve the allocation of longer-term profitable investments with a resultant increase in productivity growth[20].

The financial services view argues that the bank-based versus market-based debate is of secondary importance with regard to stimulating overall economic growth rates. According to this view, the function of both banks and markets is to ameliorate information and transactions costs through the provision of specialised financial services. In comparing different countries, the key issue is not whether such institutions exist but rather lies in assessing and examining the quality and availability of their financial services. In essence, the financial services view argues that it is not bank-based or market-based systems per se, but rather the overall level of financial development that stimulates the flow of external funds to worthy firms and promotes economic growth (Boyd and Smith 1998; Huybens and Smith 1999).

The legal–based view rejects the analytical relevance of the bank-based versus market-based debate altogether (La Porta, et al, 1999b). Proponents of this view argue that the most important element allowing for the functioning of financial systems and the facilitation of external investment rests with the establishment and enforcement of a set of legal codes that protect outside investors. This view states that overall financial development underpinned by a clearly defined and strictly enforced legal system greatly influences the expansion of existing firms and the formation of new ones.

2.5.3 CASE FOR A BANK-BASED SYSTEM

The case for a bank-based system comes from a critique of the role of markets in providing financial services. Stiglitz (1993) argues that individual investors are dissuaded

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and a less useful control device. Also, corporate control through outside take-over threats may face similar limitations because insiders have greater information than outsiders.

[20] Allen and Gale (1999) show that industries that display more risk and more diverse views about their perspectives can assure external resources more easily in a market-based financial system. They argue that market-based economies such as the U.S. have been better in developing new innovative industries than bank-based economies, such as Germany or Japan.

from expending resources on individual firms by virtue of the fact that the mechanisms of well-developed markets tend to quickly reveal information to all investors. Thus, greater stock market development may reduce individual incentives in acquiring information with negative repercussions on economic growth. This free-rider problem is less severe in bank-based systems since banks reveal less information in public markets and make generally long-run commitments to firms in a bid to foster long-term growth (Boot, Greenbaum, and Thakor, 1993).

The proponents of bank-based system also argue that markets are ineffective devices for exerting corporate. The prime example is in the advantage that market insiders have over outsiders with regard to investment opportunities due to the formers access to better information about the functioning of a particular corporation (Myers and Majluf 1984). This informational asymmetry militates against the potential effectiveness of take-overs since it is less likely that ill-informed outsiders will outbid relatively well-informed insiders for control of firms. Second, equity markets may facilitate take-overs, which while proving profitable to investors may in fact result in socially harmful effects (Shleifer and Summers, 1988). Thirdly, increased liquidity reduces the incentives to undertake careful corporate governance. Stock market liquidity encourages more diffuse ownership with the result that individual investors have fewer incentives to oversee the activities of managers (Shleifer and Vishny, 1986). This in turn distorts resource allocation resulting slow long-run economic growth. Finally, the relationship between management and the board of directors also have implications for economic growth. In theory shareholders should be able to control management activities through the board of directors, however, in many instances an incestuous relationship of mutual interest develops between the board of directors and management that can lessen the effectiveness of corporate control mechanisms (Allen and Gale, 1999). This relationship is evident in the lucrative fees enjoyed by board members which are decided by management.

Bank-based systems, by contrast, operate more effective corporate controls, which help to enhance resource allocation and promote economic growth.

2.5.4 CASE FOR A MARKET- BASED SYSTEM

The case for a market-based system centres on the perceived sets of problems created by powerful banks. These manifest themselves in the dominant influence that a bank-based system is seen to possess over the financial functioning of firms. One such example of this influence is the way in which banks use the information they acquire regarding the financial performance and activities of firms. In certain instances they can use this information to extract rent from firms resulting in them having to pay higher fees in return for greater access to capital (Hellwig, 1991). Therefore, banks are generally seen as ineffective corporate controllers due to their insider status, holding of equity, vetoing shareholders and thwarting effective competition (Hellwig, 1998). Also, in the absence of sound, market price signals, and effective controls, banks might continue financing established firms with low-return projects rather than funnel external finance to newer more profitable endeavours (Rajan and Zingales, 1999).

Furthermore, powerful banks possess the ability to extract returns from a firms future profits by proffering new investment terms or debt renegotiations. This ability to extract part of the expected payoff from potentially profitable investments may reduce the effort extended by firms to undertake innovative, profitable ventures (Rajan 1992). This is turn has developmental implications where a bank-based system may enjoy slower rates of economic growth, especially productivity growth, than more market-based systems[21].

[21] Morck and Nakamura (1999) have found evidence in Japan proving the evidence of collusion between bankers and firm managers to the detriment of competition, innovation, and growth. While firms with close ties to a "main bank" have greater access to capital and are less cash constrained than firms without a main bank, the main bank firms tend to (i) employ conservative, slow growth strategies and do not grow faster than firms without a "main bank", (ii) use more inventive capital processes than non-main bank firms holding other features constant, and (iii) produce lower profits, a factor consistent with the extraction of rents by powerful banks.

Another criticism levelled at the banking sector is the fact that while they may be effective at eliminating the duplication of information gathering and processing, such methods may be ineffective in non-standard environments (Allen and Gale, 1999). In such circumstances banks may not be effective gatherers and processors of information in new and uncertain situations involving innovative products and processes. From this perspective, bank-based systems once again tend to produce slower rates of productivity growth than more market-based financial systems.

By encouraging competition, market-based systems create greater incentives for entrepreneurship than bank-based systems. Stulz (2000) notes that stock markets offer an exit option for entrepreneurs whilst at the same time decreasing the market power of banks. Stock markets also give an entrepreneur who has obtained bank financing another option in realising further profits from a successful project. The existence of markets increases the return for the entrepreneurs and thus the incentives to undertake risky, innovative projects[22]. In this way banks and markets work together in promoting and encouraging growth.

2.5.5 COMPLEMENTARITIES BETWEEN BANKS AND MARKETS

The bank-based versus market-based argument has given way somewhat to the belief that financial systems should be judged in terms of financial services and the enforcement of legal codes[23]. Levine and Zervos (1998) show that greater stock market liquidity leads to increased levels of economic growth no matter what the level of banking development. Similarly, greater banking development has also shown an increase in growth rates regardless of the level of stock market liquidity. Moreover, even after allowing for adjustments, such as initial income, political stability, monetary, fiscal, trade, and exchange rate policies, occurring within different countries, the data still indicates that both banking development and stock

[22] Allen and Gale (1999) have shown that riskier, more innovative industries will tend to find it easier to attract external resources in market-based financial systems.

[23] See for example, Allen and Gale (1999); Boot and Thakor (1997, 2000); Boyd and Smith (1996, 1998); Huybens and Smith (1999); Stulz (2000).

market development exert a positive influence on economic growth. Using firm-level data, Demirguc-kunt and Maksimovic (1998) have shown that improvements in stock market development have tended to lead to increases in the use of bank finance in developing countries. This illustrates the point that far from separate entities, these two components of the financial system may act in tandem and as necessary complements to one another in effecting the development process.

LaPorta, et al (1999) advocate the view that creating and enforcing strong legal codes that support the rights of outside investors (both equity and debt investors) is crucial for providing growth and enhancing financial services. Indeed, they suggest that cross-country differentials, with regard to the quality of financial services, can be better explained by looking at the quality of the legal system rather than by focusing on the bank versus market system debate. This arises from the fact that "bank versus market market-centeredness is not an analytically useful way to distinguish financial systems" (La Porta et al, 1999: 25). Accordingly, the legal-based view is posited as a more comprehensive means of predicting the level of financial development than those of the financial structure methods. [24]

2.6 FINANCIAL MARKET REGULATION

Public intervention in economic matters is usually justified as a means of correcting market imperfections and addressing the unfair distribution of resources. There are generally three objectives that governments pursue when they seek to modify the workings of market forces: the pursuit of financial stability, equity in the distribution of resources, and the efficient use of those resources. The accumulation of capital and the allocation of financial resources constitute an essential aspect in the process of national economic development. Therefore, peculiarities of financial intermediaries and financial markets and of the operators

[24] Similarly, using a broad database covering 48 countries over the period 1980-1995, Levine (2000) finds that the distinction between bank-based and market-based systems is an impractical means of explaining the finance-growth nexus. Rather, elements of a country's legal environment and the quality of its financial services are the most important elements for fostering general economic growth.

who perform these functions require a broad system of regulation and supervision on their activities. [25]

THEORIES OF REGULATION

There are a number of theoretical models that set out to explain the underlying rationale behind the need to supervise and regulate the workings of banks and financial markets. These theories, for the most part, are based on the existence of particular forms of market failure to have occurred in the financial sectors. [26]

The traditional theory stresses the existence of information asymmetries and transaction costs which regulatory intervention actors can use as the means by which crises and failures in the financial market can be alleviated (Stiglitz, 1980). This theory suggests that private agents frequently lack the information, expertise, resources, focus, or enforcement capabilities to monitor powerful banks effectively[27]. It also perceives regulation as an outcome of sustained political effort to overcome market failures (Hantke-Domas, 2003:166). Furthermore, it assumes that governments have both the expertise and incentives to overcome information and transaction costs[28]. Such a powerful regulatory/supervisory agency will enhance the corporate governance of banks, improve bank managers incentives to act

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[25] Regulation deals with the formation of primary and secondary rules of regulation. Primary rules are part of legislation and are only approved by national parliaments, whilst secondary rules may be implemented by administrative bodies such as agencies. Supervision deals with the enforcement of these rules both ex ante (control) and ex post (sanctions).

[26] White (1996) identifies certain categories of financial "market failure": i) situations of market power brought about because of collusion, concentration, technological conditions or public regulatory conditions; ii) economies of scale, as in the case of capital markets where an inverse relation exists between the volume of transactions and the costs of transaction; iii) externality (spill-over effects), as in the case of a bank failure generally affecting the confidence of savers in the entire banking system; iv) public goods problems, as in the case of the property of prices formed on the exchanges; v) information asymmetries, typically found among the buyers and sellers of financial products; vi) individuals who are unable to know their own best interest, as in the case of certain forms of savings they are "unacquainted with" financial markets.

[27] Spiller and Ferejohn (1992) note that lawmakers do not have sufficient knowledge to anticipate all possible circumstances. Thus, there may be efficiency gains to be had in delegating power to a supervisory agency that has the expertise and resources to set and change the specific rules as events evolve. Holmstrom and Milgrom (1991) argue that supervision will work better if the supervisor is focused on banks only and not banks and securities markets.

[28] Recent research on the factors which enhance financial sector stability and growth has highlighted the key role of effective financial regulation and supervision policies. Case studies and cross-country analyses have both

responsibly, and consequently boost the efficiency with which banks intermediate society's savings.

The capture theory maintains that politicians are not selfless agents acting for the greater good of society but instead are more concerned with maximising their own interests (Becker, 1983). They are seen to intervene on behalf of companies or powerful banks in furthering the interests of financial intermediaries rather than those of society at large[29]. This political/regulatory capture theory suggests that direct official supervision of financial markets may actually reduce the efficiency with which markets allocate credit and reduce the availability of credit to firms in general.

Independent supervision theory attempts to create mechanisms by which supervisory agencies can strike a balance between market and political failures. The proponents of this theory hold the view[30] that if supervisors are independent from the government and are offered the proper incentives, then this reduces the likelihood that politicians will use the supervisory agency to induce banks to funnel credit to favoured ends. Similarly, if the supervisory agency is independent from the banks then this lowers the probability that banks will be able to exert undue influence on the supervisory agency. In other words, the independent supervision view looks for a compromise between creating a supervisory agency that has the expertise and resources to overcome information asymmetries and instilling it with the proper incentives and power so that it avoids political/regulatory capture and is able to exert sound corporate governance over the activities of banks (Shleifer and Vishny, 1998; Haber, 2003).

confirmed a strong and prudent regulation policy has had a significant impact on the stability and performance of the financial sector (Barth, Caprio and Levine, 2003)

[29] Stigler maintains that "as a rule, regulation is acquired by the industry and is designed and operated primarily for its benefit" (Stigler, 1971:3).

[30] There is a dearth of literature examining the legal and regulatory methods used to enhance and secure the functioning of financial markets. LaPorta, Lopez-de-Silanes, and Shleifer (2002) examine which types of laws and enforcement mechanisms work best to promote the security of market development across 49 countries. Glaeser, Johnson, and Shleifer (2001) provide examples from transition economies concerning the incentives given to judges and regulators in monitoring financial markets. More broadly, Glaeser and Shleifer (2001) analyse the reasons underlying the increased use of regulation in the United States. They have also (Glaeser and

Private empowerment theory suggests that the power of financial supervisory bodies should be limited and that their activities should focus primarily on enhancing the ability of private agents to overcome informational barriers and exerting corporate control over intermediaries. This limitation of power is suggested in order to prevent a government from using regulatory and supervisory measures for political ends. At the same time, the private empowerment theory provides the supervisory agency with sufficient power to ensure accurate information disclosure so that market participants can more easily monitor financial institutions (Hay and Shleifer, 1998). The proponents of this theory argue that it reduces the tendency towards corruption and reduces the influence of 'special connections'. This in turn empowers bank creditors who are less susceptible to influence or 'capture' by politicians and banks then they would be if they were operating under the auspices of a single government supervisory agency.

THE OBJECTIVES OF FINANCIAL MARKET REGULATION

The banking, financial, and insurance markets are traditionally seen as the main components of the financial system. In recent years, the boundaries dividing the various types of financial institutions operating within these markets have become increasingly blurred (Corrigan, 1987). Such changes and the evolving nature of the markets themselves have necessitated the redesign and introduction of new regulatory structures.

A primary objective of financial market regulation is to pursue a policy of macroeconomic and microeconomic stability. Safeguarding the stability of the system as a whole requires the imposition of macro-controls over the financial exchanges, clearing houses and securities settlement systems. Measures pertaining to the micro-stability of the intermediaries can be divided into two categories: general rules on the stability of all business enterprises and entrepreneurial activities, such as the legally required amount of capital,

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Shleifer, 2002) developed a theory, based on comparative evidence from England and France, examining the borrowing limits and integrity requirements, and more specific rules regarding the nature of financial intermediation, such as, risk based capital ratios, limits to portfolio investments, and the regulation of off-balance activities.

A second objective of financial regulation lies in ensuring transparency in the market and in the activities of intermediaries as well as guaranteeing investor protection. This is likened to the more general objective of securing equity in the distribution of available resources chief of which is equity in the distribution of information among operators[31]. Transparency rules, at the macro level (for example, rules regarding take-overs and public offers), impose equal treatment and the correct dissemination of information in order to guard against insider trading and manipulation and ensure correct procedure in microstructure exchanges and price-discovery mechanisms. At the micro level, such rules aim at non-discrimination in relationships among intermediaries and different customers i.e. rules governing the conduct of business.

A third objective of financial market regulation, linked with the general objective of efficiency, is the safeguarding and promotion of competition in the financial intermediary sector. This requires the imposition of rules to control the structure of competition in the market and, at the micro level, regulations in the matter of concentrations, cartels and abuse of dominant positions. Specific controls over financial intermediaries are justified by the multitude of forms that competition can assume in the market. These function both in the promotion of competition and the limiting of any possible destabilising excesses that may arise as a result of competitive practices.

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way in which different legal systems intervene in the regulation process.

[31] One of the main instances of market failure is in relation to the presence of information asymmetries. Allen and Santomero, (1997) argue that while transaction cots and asymmetric information have greatly decreased, the activity of intermediation has considerably increased. They argue that financial markets seem to be more and more markets for intermediaries than for investors or firms. The nature of all financial intermediaries seems to be to perform risk management activities on behalf of third parties and decrease the "costs of participation" in the financial market.

FINANCIAL MARKET REGULATORY MODELS

In general, there are two regulatory models: centralised and decentralised. The former is characterised by interconnected credit, insurance, and securities markets operating under a single regulatory authority. The latter is organised into a number of different sections each one regulated by a specific authority. In general, regulatory models are commonly classified into four types: "institutional supervision", "supervision by objectives", "functional supervision" and "single-regulator supervision".

1. INSTITUTIONAL SUPERVISION

In the "institutional approach" (also known as the subjects/market approach), supervision is performed over each single category of financial operation (or over each single segment of the financial market) with each one being assigned to a distinct agency in covering the entire complex of activities. In this regulatory model the financial system is divided into three markets (banks, financial intermediaries and mutual funds, and insurance companies), each with its own specific and designated watchdog. The authorities control intermediaries and markets through entry selection processes (e.g., authorisations and enrolling procedures for special registers), constant monitoring of the business activities (controls, inspections and sanctions) and eventual exits from the market (suspensions or removal).

Institutional regulation facilitates the effective realisation of controls through the strict monitoring and control of all the financial activities being performed by the subject institutions. Each intermediary and market has only supervisory authority. The latter, in turn, is highly specialised. As a result, duplication of controls is avoided and costs of regulation can be considerably reduced.

The institutional approach is seen to be particularly effective in the case of those intermediaries who operate in just one of the three traditional segments of financial intermediation. However, the institutional model can also give rise, in the presence of a number of subjects entitled to perform the same financial intermediation activities, to distortions in the supervisory activity due to the enforcement of different dispositions for operations of the same nature executed by different entities. Further disadvantages of this approach are evidenced in the previously mentioned trend toward multiple-sector activities and by the progressive de-specialisation of certain intermediaries. In turn, these phenomena are connected to the growing integration of both markets and instruments that frequently lead to the building of large financial conglomerates. In such a context, where the boundaries separating the various institutions are being progressively erased, it is no longer possible to establish whether a particular subject is a bank, a non-banking intermediary or an insurance company, or indeed whether a group is involved in more than one such activity[32].

Therefore, there is the risk that "parallel" systems of intermediaries may be created. In this case, the way that the various controls are set up may become a destabilising rather than stabilising factor. Moreover, the intermediaries might be induced to choose their juridical status in a way which is contingent on the different rules that discipline different subjects[33]. A further possible element of weakness in the model lies in the fact that when a single authority supervises a category of subjects and pursues more than one objective, the result of the control activity might not be effective in the event where different objectives are in conflict.

2. SUPERVISION BY OBJECTIVES

The supervisory model by objectives (or by finalities) postulates that all intermediaries and markets be subjected to the control of more than one authority. In this respect each single authority is responsible for a specific regulation objective regardless of either the legal form of the intermediaries or the functions and activities they perform. Under such an approach

[32] Consider the negotiating activities performed by both banks and financial intermediaries in the stock exchange, or else the similar gathering of savings realised by life insurance companies and mutual funds.
[33] The classic example is the trade-off between the objectives of stability and that of competition.

authorities are given a number of tasks and supervisory activities to perform within a particular sector. For example, an authority is established in order to watch over both the market stability and the solvency of each intermediary, whether they operate within the banking, finance or insurance markets. Similarly, another authority will be responsible for the transparency of financial markets and will control the behaviour of banks, financial intermediaries and insurance companies toward customers, with another authority guaranteeing and safeguarding competition over the entire financial market and among all intermediaries.

The basic advantage of this regulatory model lies in the fact that it is particularly effective in operating within a highly-integrated market context and in the presence of poly-functional operators. At the same time, it does not require an excessive proliferation of control units. However, its most attractive feature is that it provides uniform regulation for different subjects engaged in the same activities.

Compared to the "institutional" model, a regulatory framework organised by objectives has the tendency to produce a certain degree of control mechanism multiplication which in turn leads to a lack of controls in certain areas. Indeed, the assignment of specific regulatory objectives to particular agencies is not necessarily univocal and all-inclusive in practice. This arises from the fact that each intermediary is subject to the control of more than one authority, and this may be more costly as in the duplication of information and findings contained in the production of similar reports on regulatory practices. At the same time, the intermediaries may have to justify the same actions, but for different reasons, to a whole other set of authorities. Further duplications may also become prevalent where a deficit of controls occurs as result of the unclear demarcation of the exact areas of supervisory responsibility.

FUNCTIONAL SUPERVISION

The third regulatory model is the so-called "functional supervision" approach, which considers as "given", the economic functions performed in the financial system. The "functions" undertaken are considered to be more stable than the institutions that perform them and competition among financial systems is thought to drive existing institutions to evolve dynamically in the direction of more efficient forms.

Merton and Bodie (1995) view the financial system as performing six basic functions:

i) to provide ways of clearing and steering payments in order facilitate trade,

ii) to provide a mechanism for the pooling of resources and portfolio diversification,

iii) to provide ways of transferring economic resources through time, across borders, and among industries,

iv) to provide ways of managing risks,

v) to provide price information to help co-ordinate decentralised decision making in various sectors of the economy,

vi) to provide ways of dealing with the incentive problems created when one party in a transaction has information that the other party does not have or when one party acts as agent for another.

Under such a model, each type of financial services is to be regulated by a given authority independently of the operator who offers it. Hence, this approach has the important advantage over others in that it calls for the same rules to be applied to intermediaries performing the same financial intermediary function even though such operators may fall into different categories from a legal standpoint. For example, activities such as investment management, lending, and savings invested in insurance funds, are each subject to homogeneous rules established by individual authorities, which independently supervise such activities regardless of the institutions engaged. This approach helps to foster economies of specialisation within the supervisory authorities. However, the model may give rise to an overlapping of bodies controlling the same subject, thereby running the risk of an excessive division of competencies among the various regulatory agencies[34].

SINGLE-REGULATOR SUPERVISION

The single- regulator supervisory model is based on the principle of one authority, separated from the central bank, charged with the regulative responsibility (stability transparency, investor protection, and competition) for all markets and intermediaries regardless of whether they are in the banking, securities or insurance sector.

The advantages of this approach lie in the economies of scale that it produces resulting in the reduction of fixed costs and logistical expenses, the costs of administrative personnel and the compensation paid to top level management. Moreover, this scheme encapsulates a unified approach that is particularly useful and effective with respect to the political-functional aspects of groups and corporations. However, its validity depends to a high degree on its internal organisation. If the numerous areas of competence and specialisation are not well structured and co-ordinated, it runs the risk of slowing the entire decision-making process. Also, the presence of a sole regulator might render collusive relations more immediate and direct (what is known as "regulatory capture"). Finally, the structure and workings of such a model can lead to the exacerbation of problems of self-contradiction in the event that the authority should find itself forced to pursue conflicting supervisory objectives. The fact that there is only one authority can also lead to a situation where a single objective is given prevalence over all others within the rigid decision-making process.

The above presentation of the main financial regulatory models clearly shows that it is extremely difficult for an authority to establish one single and efficient regulatory arrangement. In reality, most governments pursue "mixed" approaches, borrowing specific

[34] Oldfield and Santomero (1997) view financial institutions as a set that includes banks, insurance companies, investment companies (open and closed funds, other forms of collective investment, pension funds), and origination firms.

elements from each of the various models in an attempt to establish as comprehensive a regulatory system as possible. This arises from the fact that, as shown, each model contains within it certain aspects that are not always conducive to the successful pursuit and achievement of stated objectives. For example, the institutional model is viewed as the best approach for operating within a rigidly separated financial sector, and where major national financial institutions have limited global activities. However, this model is of little use for economically advanced countries whose economies are characterised by a high level of integration in international financial markets. In other words governments have to exercise a high degree of flexibility in approaching the complexity of the financial system and assigning an appropriate regulatory system for its control.

CONCLUSION

This chapter presented an overview of the main theoretical and empirical work examining the relationship between financial institutions and economic growth. Finance theory identifies various channels through which the emergence of financial instruments, markets and institutions affect economic development. A growing body of empirical analyses shows a strong positive link between the functioning of the financial system and long-run economic growth. Such economic growth is enhanced by the way in which a well-developed financial system eases the external financing constraints facing firms. However, the relationship between finance and economic growth may be described as one of mutual dependency. For example, a financial crisis may act as corrective shock in restructuring the financial system or, the financial system may provide different services at different stages of economic development, highlighting the fact that it needs to evolve if growth to continue.

Theory suggests that financial systems influence growth by easing information and transactions costs and thereby improving the allocation of capital, corporate governance, resource mobilisation, and financial exchanges. These functions need to be qualified and examined further, taking into account the dictates of commercial law, regulatory measures, and macroeconomic policies that shape financial sector operations in a particular country.

CHAPTER 3

STRUCTURES OF CAPITAL MARKETS: THEORETICAL MODELS AND SOME EXAMPLES OF REGULATORY STRUCTURE

3.1 INTRODUCTION

This chapter presents a detailed analysis of the theoretical models of the capital market, which will serve as the foundational basis in shaping the originality of this thesis. It sets out to examine the structure and organisation of capital market structures, from a fully centralised to a fully de-centralised system, in a selected number of countries. Furthermore, it attempts, by introducing the structural indexes underlying the capital market (to be discussed in more detail in chapter seven), to show the relationship of these structures to economic growth rates.

The starting point for this undertaking requires an understanding of the four main theoretical approaches used in analysing and understanding the structures of financial market regulation. The first two models, centralised and decentralised, are referred to as "pure" models representing comprehensive but diametrically opposed approaches to the regulation of financial markets. The other two regulatory structures represent a compromise on the "pure" models approach in that they describe the basic characteristics of the different models of financial regulation and briefly analyse the regulatory structures of securities markets operating in certain developed and less developed countries.

3.2 THE CENTRALISED MODEL

The centralised model is characterised by interconnected credit, insurance, and securities markets operating under a single regulatory authority ((Figure A.1). In this model financial intermediaries provide all types of financial products and are generally organised as large conglomerates with a holding company operating, through subsidiaries, on the different market segments. Alternatively, intermediaries can be organised into a centralised body where all financial activities are rigidly separated. In both cases the most important aspect of regulation is to design and enforce the separation of activities controlled by each intermediary. However, such a centralised structure has the tendency to increase the possibility of a conflict of interests occurring between customers and intermediaries. To avoid such a situation it is necessary to ensure that banking, investment banking, securities trading in single or double capacity, and advisory and investment company services are all kept separate. An important pre-requisite for this structure is the existence of a highly efficient banking system that will be responsible for the clearing and settlement of transactions. In this respect the centralised model bears much similarity to the universal banking model where banks operate in all financial market sectors under the supervision and regulation of the central bank.

3.3 THE DECENTRALISED MODEL

The "decentralised" model is the antithesis of the centralised market in that it establishes a system where each market sector adheres to separate structures regulated by specific authorities (Figure B.1).

Under this model it is possible to have two different forms of regulation:

a) regulation by functions, where each authority supervises specific functions on all markets. In this case it is generally the central bank that supervises all intermediaries, whether they sell loans, insurance contracts, securities, or other financial services, under the premise of maintaining and ensuring financial stability (prudential regulation). The standards of fairness and market transparency are maintained under the supervision of the regulatory agency of the securities markets.

b) regulation by subject (or by market), where each authority has regulatory power only over a specifically identified subject or activity. Once again the central bank plays a key role but in this instance it is only responsible for regulating banks whether they act as lenders or trade in securities. It is the securities regulatory authority that performs the role of supervising all non-banking financial intermediaries.

In a purely decentralised model the presence of different regulatory authorities operating within markets that are not rigidly separate runs the risk of introducing a lack of co-ordination among regulators. Such a situation can result in the reduction of the optimum amount of accurate financial information available and could, particularly where markets are under stress, lead to instances of market instability. The co-ordination of regulatory authorities reduces this problem and is easily achieved by either imposing a statutory obligation on agencies to transmit information, or by creating a specific agency to ensure Cooperation between regulatory authorities. In most countries the co-ordination of regulators falls under the auspices of a government ministry, but more often it is the result of the voluntary action of a single authority.

3.4 CENTRALISED FINANCIAL MARKETS AND DECENTRALISED REGULATION

A "mixed" regulatory structure is obtained when multifunctional financial intermediaries provide all types of financial products and specific authorities regulate and oversee each individual activity separately (Figure C.1).

In this model the necessity of co-ordination among authorities remains the major target in the design of the regulatory structure.

3.5 DECENTRALISED FINANCIAL MARKETS AND CENTRALISED REGULATION

In this model financial intermediaries perform specialised functions and act separately in the different financial market sectors under the centralised supervision of a single authority, usually the central bank (Figure D.1). In this type of setting, the evolution of specialised activities and financial products make centralised control very costly. The question then becomes whether it is more beneficial to create an independent and specialised department within a centralised regulatory structure or a specific authority?

However, what is clear is the fact that whatever regulatory structures a country does adopt, the basic targets of securities regulation remain the same. Primary and secondary markets need to be carefully regulated in order to ensure the efficient pricing of new issues of securities. Primary markets need to be regulated for two main reasons: to ensure the appropriate, full, and proper disclosure of information to investors in evaluating issued securities, and to monitor and supervise the conduct and stability of underwriters. The establishment of rules of conduct and fiduciary duties is necessary in order to minimise the conflict of interests that can occur between issuers and underwriters. The financial regulation of underwriters is necessary so as to reduce the risk of default by securities intermediaries due to credit, position and underwriting risks.

Secondary markets regulation involves three main areas: efficiency, fairness and transparency. Under the first profile, regulation is needed to assure a desirable level of competition and a lowering of transaction costs. Measures to promote market integrity as well as outlining the fiduciary duties of financial intermediaries are essential in ensuring a fair and equitable market for investors. The basic regulatory provisions to foster market fairness and investor protection centre on anti-fraud rules, the prohibition of insider trading and market manipulation, and the establishment of fiduciary duties for intermediaries when dealing with customers. Such regulations attempt to introduce a set of business standards by providing rules of conduct based on suitability, best execution requirements, and front running prohibition, as well as apportioning liability for the breach of fiduciary duties.

In this respect, disclosure regulation, by virtue of the fact that it applies to both intermediaries and issuers, is an extremely important element in ensuring that markets operate fairly. The listing of ongoing requirements, the periodic reporting on the activities of market participants, and the disclosure of contractual agreements to customers, are among the most important mandatory disclosure provisions and as such constitute the cornerstone of securities regulation in most countries. A further guarantor of fairness and order in the market arises from the implementation and functioning of transparency regulations. Transparency can be defined as the degree to which market-trading information is made publicly available on a real-time basis.

3.6. SOME EXAMPLES OF REGULATORY STRUCTURES

FRANCE

The French regulatory structure is an example of a market characterised by multi-functional intermediaries and a decentralised regulatory structure operating with regulation by subject. The reform of the French securities markets started in 1988 and transformed a broker-based, call auction market, into a continuous electronic auction system that functioned with double capacity financial intermediaries. Securities intermediaries, which act in double capacity on all financial segments, are supervised by two separate regulatory authorities and a set of self-regulating structures. The legal framework defining this regulatory structure is based on, the Company Law of 1966, which regulates commercial companies, the ordinance of 1967, which established the *Conceal des Bourses de Valeurs* (SBF), the *Societe des Bourses Francaises* (SBF) and the *Conseil des Marches a Terme* (CMV), the Mutual Fund Law of 1988, the Security and Transparency Law of 1989, and finally the reglement *General des Bourse de Valeurs of the Conseil des Bourses de Valeurs* of 1992.

The *Commission des Operations de Bourses* (COB), is an autonomous government agency originally modelled on the U.S. security and exchange commission. It is responsible for the regulation of the securities market based on a set of rules governing investor protection and the orderly and transparent operation of the stock exchanges. The COB has regulatory powers governing the disclosure requirements for public offerings, insider trading and market manipulation, and take-over bids, as well as ensuring that listed companies' comply with their continuous disclosure obligations. It is also responsible for the investigation of, and enforcement of any penalties arising from, any violation of securities laws.

The *Consiel des Bourses de Valeurs* (CBV), one of whose members is a direct appointee of the government, is the supervisory, self-regulating authority of the French securities market. It exercises its regulatory powers by issuing and enforcing a number of general regulations that must be adhered to by those operating in the securities market. These include, the authorisation of stock broker firms to carry on investment business and to trade in securities, the supervision of stock-brokers compliance with statutory and CBV regulations in relation to disclosure and financial requirements, the operational regulation of exchange, and the supervision, investigation, and enforcement of disciplinary regulation pertaining to the violation of established business rules by broker-dealer firms. In addition, other institutions such as financial intermediaries, investment companies and advisory activities are also supervised by the CBV.

The *Societe des Bourses Francaises* (SBF) operates under the auspices of the CBV and is delegated with the responsibility of supervising the listing of securities on the stock exchange. The SBF implements CBV regulation policies and is responsible for the day-to-day monitoring of the trading system and ensuring the full disclosure of all market information. The SBF also acts as a cleaning house for transactions between various stock exchange members.

The CBV is also responsible for the regulation of broker-dealers. In order to be able to engage in securities trading, funds management, and advisory services, all dealers have to be authorised by the CBV. The CBV establishes disclosure rules and rules of conduct aimed at removing potential conflicts of interests. Furthermore, the day to day activities of broker-dealers, depending on the type of financial area in which they are engaged, are supervised by the COB, the CBV and SBF.

In France large size transactions (block or wholesale markets) are regulated separately from those occurring in the retail market. Take-overs and public sell offs, whilst regulated and supervised by the COB, are subject to the European Community (EC) regulation directives adopted and ratified by every member state. The EC-Directives set forth general disclosure requirements and rules for the fair treatment of minority shareholders.

The other main bodies functioning in the French regulatory system are the *Consiel des Marche's a Terme* (CMT), which supervises futures and options markets, and the French Treasury Department (*Direction du Tresor*) of the Ministry of Finance, which supervises the Euro French Franc market. The French Central Bank and the *Counseil National des Assurances* (CNA), presided over by the Minister of Economy and Finance, are responsible for the regulation of banks and insurance respectively.

GERMANY

The German system is regulated by the Banking Act of 1932 and functions very much according to a centralised model approach. As a result securities and credit markets are highly integrated and regulatory functions are divided into the regulation of the stability of intermediaries, (performed by the Federal Banking Supervisory authority) and the regulation of the disclosure of information (performed by the German Central Bank, known as the Bundesbank). In Germany, the regulation of conflicts of interest is particularly important since it operates a universal banking system where intermediaries engage in deposit taking, lending, safe custody, and securities trading. However, such regulatory and supervisory functions are undertaken on a voluntary basis by banks operating within the market as there is no legislation compelling the various financial actors to adhere to set directives. All investment activity in securities is defined as banking activity and regulated under the Banking Law. The only exceptions to this rule are investment advisory activities, which are unregulated, and trading activities which are performed by specialised intermediaries and controlled by the stock exchange.

The main financial regulator in Germany is the Federal Banking Supervisory Authority (FBSA), which is responsible for issuing banking licenses according to two basic criteria: adequate capitalisation, and the presence of at least two general managers possessing the necessary financial qualifications, expertise, and experience. The FBSA also imposes capital adequacy rules limiting the aggregate level of a banks credit exposure and restrictions on the aggregate amount of open positions in foreign currency, futures, options, forwards, and other interest bearings, or what might be deemed, risky transactions. However, there are no specific financial requirements laid down for banks engaged in the securities business.

In addition, the FBSA and the Central Bank impose a wide range of reporting and auditing requirements to which all German banks must adhere. The most important of these is the annual audit report. This is performed by auditors appointed by the FBSA and covers the entire range of a bank's activities, including the proper accounting and book keeping of securities held for customers. It has also established reporting and disclosure directives for the technical procedures related to securities operations. The requirement to disclose such a large amount of information is in part a means of compensating for the lack of statutory disclosure required in the area of account segregation.

The relationship between banks and their customers is regulated by standard business conditions and as such their obligations, with respect to the client, change according to the type of service provided. However, all German banks are liable for prosecution should they fail to perform the specified duties required of them in pursing a specific financial activity.

One such example can be seen in the functioning of the execution rule established for banks acting as commissioners. Under this rule the bank executes orders for the purchase or sale of listed securities by acquiring (sale) the securities in its own name, and then reselling (repurchase) them to the client. As commissioner the bank has the statutory obligation to act in the interest of the customer, i.e., to ensure the best possible price. However, if the bank wishes to trade these listed securities, (all transactions in unlisted securities are executed in-house by the bank), then orders must be executed on the stock exchange through a specialised broker. Such a system allows for a certain degree of control on the pricing of securities.

However, despite the existence of such regulations and controls market integrity in Germany is, in general, not strictly regulated. There exists only a general anti-fraud rule contained in the stock exchange law and at present front running, market manipulation, and insider trading, are not illegal. Furthermore, rules taken up by the German stock exchanges, primarily aimed at traders and financial advisors, and designed for the purpose of limiting the emergence of a conflict of interests, do not have the force of law and are merely adopted on a voluntary basis.

German banks and many public companies have agreed to the adoption of insider trading guidelines in order to limit the extent to which it is possible to make profits by exploiting private information acquired in connection with a particular business activity. The voluntary nature of these guidelines, once again, limits their effectiveness, as does the fact they do not provide for the implementation of penal or disciplinary sanctions in the event of digressions and wrongdoing. However, external pressures, such as the 1988 EC directives on insider dealing, has seen Germany start to address such problems and introduce, in this instance, formal legislation preventing insider trading. Similarly, the unregulated nature of take-overs in the German market is another issue that will also soon be subject to EC directive. This directive aims to establish parameters for disclosure requirements and rules that a take-over must be extended to include all shareholders of the target company who hold shares above a minimum percentage stake of the company. Under this regulation, the European Commission will directly handle mergers and acquisitions that involve companies from different EC countries.

In addition, the rights of minority shareholders are protected by the Law of Groups of Companies which requires notification of any direct or indirect holding of 25% to be made to the corporation. The regulation also requires that notice of any acquisition be given to the government anti-trust authority, the Federal Cartel Office. The stock exchanges Expert Commission of the Ministry of Finance has also adopted these guidelines and offers recommendations on information disclosure and the principle of equal treatment of shareholders.

The banking system is Germany is also responsible for processing securities issues and distributions. However, the information and financial requirements of new secondary issues are regulated directly by the stock exchange acting as an executive arm of the FBSA. The system of listing and admission requirements differ according to which of the three exchange sectors, official trading, regulated market, or free market, the securities are to be traded on.

The Admissions Office of each individual stock exchange is responsible for the listing of companies and supervises their compliance with the admission requirements established by the office. Applications for admission must be filed by the issuer in conjunction with a reputable and respected banking institution. The application must consist of a prospectus plus a number of other prescribed documents. The information to be contained in the prospectus is laid down by stock exchange regulation and must consist of a detailed list of the issuers financial statements as well as a description of the characteristics of the specific securities. In the case of new shares, the price paid by the issuer must also be disclosed to an underwriting banking syndicate. A series of ongoing requirements (disclosure, reporting requirements, and the maintenance of sound financial practice) are also set and supervised by the admissions office. The stock exchange boards are responsible for providing market information and have the authority to suspend the official quotation or to revoke it in the interests of investor protection.

The regulating structure of the German securities market exhibits many features of the centralised model. However, no system is absolute and it has to be noted, as in the example of the day-to-day control of market operations and information, which are delegated to the stock exchange boards and their executive offices, that certain differences and anomalies do exist. The nature of the German system means that an efficient and independent banking sector, operating in conjunction with an efficient distribution of tasks within the multifunctional banks (the so-called "Chinese Walls"), is essential to its functioning. However, under such a system there is the danger of adopting and applying banking-oriented criteria to the allocation of resources, with runs the risk of concentrating most investment in big industrial groups. The means of averting such a process would be to adopt and implement a series of anti-trust laws. Certain steps, such as the growth of financial instruments and the evolution of securities markets, along with pressure and legislation from the European Community, have gone some way towards addressing this problem. However, the cornerstone of the project lies in the introduction of a federal regulatory authority for securities markets.

JAPAN

Japanese securities markets are characterised by the presence of a few large powerful securities houses acting independently of the banking system. While credit and securities markets are strictly separated, supervision is centralised. The sole regulatory authority for the various sectors of the financial market is the Ministry of Finance, (MOF), which is organised into a number of bureaus, such as the securities bureau, which controls foreign exchange markets, and the budget bureau, which is responsible for government budget management. The legal framework governing Japanese securities regulation was established by the Securities and Exchange Law of 1948 (SEL), which is modelled on the U.S. Securities Acts of 1933 and 1934.

In addition, there are also a number of subordinated regulations (cabinet orders), such as the Securities and Exchange Law Enforcement order, as well as various ministerial ordinances, such as those concerning the standards and sound financial practice to be pursued by securities companies, which are employed in conjunction with the SEL. However, the SEL remains the main regulatory document and it mandates that investment in securities can only be carried out by joint stock corporations licensed by the MOF.

The MOF is the key institution charged with interpreting and implementing the legal statutes in the form of directives (status). This administration of the law is undertaken through a series of formal and informal recommendations made to issuers and intermediaries. However, should its recommendations be ignored the MOF does have the power and authority to undertake disciplinary action against those institutions that contravene its directives. It is also responsible for monitoring the day-to-day functioning of the securities market (administrative guidance or *gyoseishido*), and has supervisory authority over the business practices and financial stability of securities firms. In this area it gives the securities bureau regulatory powers over disclosure requirements, stability control, and the rules governing the conduct of intermediaries. The issue of stability control is also extended to the financing operations of specialised intermediaries known as securities finance companies.

Part of this regulation process is delegated to self-regulatory organisations (SROs), the stock exchanges, and the Japan Securities Dealers Association (JSDA). The SROs are responsible for the establishment and monitoring of disclosure and conduct regulations in order to ensure that investors are protected and that securities transactions are conducted fairly. All securities firms are members of JSDA, which itself has to be registered with the MOF, under the SEL. The JSDA is empowered by the MOF to promulgate and promote self-regulatory practices like the "Rule of Fair Practice" and the "Uniform Practice Codes".

Another important SRO operating under the administrative supervision of the MOF is the Securities Investment Trust Association of Japan (SITAJ). Securities firms must be licensed by the MOF to engage in investment activity. There are four types of licenses, dealing, brokering, underwriting, and distributing, and a securities company may apply for more than one such license. The Securities Bureau is charged with ensuring market integrity and the imposition of penalties on those engaging in unfair trading practices such as insider trading and market manipulation. Initially, only administrative sanctions were considered, but with the amendments adopted in 1991, the violation of SEL provisions became a criminal offence. In 1990 new laws were introduced regulating the conduct of mergers and take-overs. Determined by the MOF, these laws established the practice of mandatory reporting in any case where a 5% stake in a particular company was reached.

The Japanese credit market is divided into short, medium and long-term sectors and is dominated by the commercial banks that control the big industrial-financial conglomerates. These banking institutions are regulated by the central bank and by the Banking Bureau both of which operate under the control of the MOF. The Banking Bureau is also responsible for the regulation of insurance companies according to the directives established by the Insurance Business Law of 1939.

The Japanese regulatory system is essentially a mixed model combining separate markets with centralised control. However, the high degree of independence of the different bureaus makes it somewhat closer to a decentralised model. Indeed, its regulatory structure began to take on something of an American appearance when it established a securities and exchange surveillance commission (SEC) in 1992. This commission, operating under the

Ministry of Finance, is responsible for the investigation of unlawful conduct, as decreed by the securities and exchange law, and for the inspection of securities firms in assessing whether they are in compliance with the SEL and the MOF regulations.

UNITED KINGDOM

British financial markets operate according to a decentralised regulatory structure with each sector being supervised and monitored by a separate regulatory body. The most important of these are the Securities Investment Board (SIB), which regulates the securities markets, the Bank of England, which controls the banking system, and the Department of Trade and Industry (DTI), which is responsible for the insurance market.

The British securities markets were reformed in 1986 by the Financial Services Act (FSA). A series of reforms, instigated in October 1987 (Big Bang), sought to liberalise and open up the market by introducing a comprehensive reform of the stock exchange, including a relaxation on membership criteria, abolishing fixed brokerage commissions, and allowing for the introduction of double capacity securities firms. The trading system was modelled along the lines of the U.S. over the counter market (NASDAQ) combined with competing market-maker financial structures. The FSA established the Securities Investment Board (SIB) along with a set of self-regulating organisations to ensure the adherence to and maintenance of proper financial ethics.

The Act also enables the secretary of state to transfer the majority of his regulatory powers to the SIC, to further ensure the efficiency, competitiveness, and fairness of the financial system. In addition, the SIC is charged with regulating the self-regulating institutions, the most important of which are the Self-Regulatory Organisations (SROs) and the Recognised Professional Bodies (RPBs). These organisations, along with all other institutions involved in investment activities, must be registered with the SIC and are subject to its regulatory and supervisory directives. The SIC's other responsibilities include the regulation of financial disclosure and financial stability, the upholding and promotion of proper business conduct, and the prevention of insider trading, and market manipulation through monitoring and inspections.

The International Stock Exchange of Great Britain and the Republic of Ireland Limited, commonly known as the Stock Exchange (SE), is the main self-regulating agency responsible for the disclosure of market information and the day-by-day monitoring of the market. The transfer of powers from the secretary of state to the SIC and from the SIC to self-regulating bodies aims to transform the SIC into an independent authority primarily focused on the enforcement of the FSA.

SROs regulate their members, in relation to issues such as business rules, information disclosure, the monitoring of market transactions and maintenance of financial stability, according to the directives of the FSA and the supervision of the SIC. In the instances where they are involved in trading facilities, for example SE, they are responsible for ensuring fair and orderly operations, trading surveillance, and the full disclosure of all market information. The SE is also responsible for the conduct of the UK securities markets in addition to regulating the conduct of member firms and ensuring that the disclosure requirements for listed companies are properly followed. British SROs, similar to those in the U.S., must operate in compliance with statutory and self-mandated rules, and have a general obligation to protect investors in a way at least equivalent to that provided by the SIC.

Financial intermediaries must be authorised either by the SIC or by a SRO in order to engage in business activities. However, to act in a double capacity, such as becoming market makers for given securities, they require authorisation from the SE. Brokerage firms are usually authorised by the Securities and Future Self-Regulatory Organisation. In addition to being subject to regulation by their SRO, brokers are also required to be formal members of the SE.

The amount of capital required by a firm depends on several factors such as the type, size, and volume of its activity. These factors are decided on and periodically controlled by a relevant SRO. However, the risk factors for credit and the position risk of securities intermediaries are determined by the SIC. For member firms operating as market makers on international securities market (ISE), general rules of conduct are set by the SIC, the SROs, and the SE working in conjunction with one another.

The SIC's rules of conduct divide the clients of brokerage firms into three classes, ordinary, private and small business investors, according to their institutional experience and the existence of common investors. The disclosure of contractual agreements and other information to the investor vary according to which class the investor belongs. The most protected category is that of small business investors. Finally, regulations pertaining to the conduct of business and investor protection are regulated by the tort law, under which clients can sue intermediaries for negligence liability.

Market integrity is guaranteed by the FSA's provision of anti-fraud rules which are enforced by the SIC. The act also prohibits the making of false statements or the concealment of material that effect or influence an individual's investment decisions. It also contains a series of anti-manipulation provisions. Insider trading is punished under the Company securities Insider Dealing Act (IDA).

Take-over and mergers are governed by the city code and administered by a take-overs and mergers panel, established as a SRO in 1968. All SRO and TSE members are required to comply with the dictates of the city code. This code is designed to provide equal treatment for all shareholders of a target company by ensuring that improper defensive tactics are not adopted and that sufficient information is made available enabling investors to make a fully informed decision regarding a potential investment opportunity.

The offers of securities, listed, or to be listed on the stock exchange, are regulated by the FSA and EC listing directives. The directive provisions are laid out in the listing rules of the SE (the "Yellow Book") and provide for uniform standard disclosure throughout the European Community. In the case of public offers of unlisted securities the publication and filing of a prospectus is required and regulatory control is covered by the Company Act of 1985. However, it should be noted that this prospectus is more comprehensive and differs considerably in its details from the one required for public offers of listed securities.

The Bank of England is the lead regulator of the banking system and the operations of banking conglomerates in Britain. Banks are exempted from regulation by the SIC and SROs as long as they operate in the wholesale market as market makers (for example on the gill-edged markets), and on futures markets in monitory policy instruments. It is only when banks operate in retail investor markets that they become subject to authorisation and regulation by a relevant SRO. Whilst the Bank of England remains the lead regulatory body of the banking system there are certain instances when a bank's activities fall under the remit of the SIC. In such cases the bank in question will be subject to the control of both institutions whose regulatory regimes will run in parallel. For example, the Central Bank will regulate financial stability and will be responsible for the suitability of the bank's directors according to SIC rules (the lead regulator principle).

The British system represents an attempt to separate the regulatory functions of self-regulating agencies in approaching a "super decentralised model." This is particularly evident in the way in which the regulatory functions are divided between the RIES, which is responsible for controlling the market place, and the SROS, which is responsible for monitoring firms. Under such a model the SIC functions like a super SRO for the DTI. This approach has been criticised since the beginning of the Big Bang for its excessive complexity and the overlap of regulatory functions that occurs between the different institutions. Moreover, the synergy created by the simultaneous overlap of a market place and of broker-dealers is lost when the two functions are separated.

UNITED STATES OF AMERICA

Financial regulation in the United States is very close to being a "pure" decentralised model. The credit market is regulated by the Federal Reserve, which is responsible for implementing monetary policy, and the Federal Deposit-Insurance Corporation (FDIC), which controls currency and ensures the solvency of banks. The securities markets are regulated by the Securities and Exchange Commission (SEC). This institution regulates the market both directly, through legal directives, and indirectly, through its control and monitoring of the self-regulatory organisations that supervise the activities of all members of the securities industry. The markets for derivative products, futures and options, are controlled by the Commission for Future's Trade and Commodities (CFTC). The insurance market is not monitored by a particular federal authority but is instead under the control of the Ministry of Commerce.

The U.S. regulatory structure is characterised by a reasonably simple and clear set of rules that are primarily aimed at protecting investors and gaining their confidence. The core of the regulatory system lies in its enforcement structure which ensures compliance with all legal directives. This structure is essential in maintaining investor trust in the securities markets and making sure that their savings do not move towards alternative and more safer forms of investment. This system is based on a three-tier approach where federal and state laws establish the legal framework, the Security and Exchange Commission (SEC) implement and enforce these rules, and the self-regulatory organisations monitor the various institutions operating within the securities markets.

The legal framework for American securities regulation is provided by the Securities Act of 1933 (SA33), the Securities Exchange Act of 1934 (SEA34), the Securities Investor Protection Act of 1970 (SIPA70), and the Market Reform Act of 1990. This framework is designed to regulate securities, intermediaries, and issuers operating on primary and secondary markets. The general aim of the legislation is to protect investors from the illegal behaviour of market participants and to ensure the orderly and fair functioning of the securities markets. The establishment of federal laws act in conjunction with the general rules but differ in that they do not interfere with the jurisdiction of securities commissions operating within a single state. In these regard, federal laws serve to enhance the general provisions as in the case of anti-fraud regulation where state laws, the so-called "blue sky laws"[1], are found to be very effective. The most important provision of the SE33 is its compulsory requirement that all securities be registered with the securities and exchange commission (SEC) before they are traded on or off exchanges. This registration procedure aims to ensure a full and open disclosure of information by issuers, in order to give investors as much material as possible before making their investment decisions. The main elements of information contained in the disclosure requirements are a registration statement and a prospectus containing financial information on the issuer and characteristics of the security to be registered. Under the Act, the SEC supervises the process of registration and is empowered to issue and/or amend the rules and regulations governing the disclosure requirements. For example, the commission may ask for additional information from issuers with regard to the registration or distribution of its securities. In addition, all periodic information required by the SEC must be made available in the public domain. The SE33

[1] The term "blue sky laws" is derived from a legal case where a judge condemned a person for having sold to an investor a security whose value was equivalent to a piece of blue sky.

also contains within it a general set of anti-fraud regulations which the SEC is charged with enforcing.

The other most important piece of U.S. securities legislation is the Securities and Exchange Act of 1934. This act is designed to regulate the trading process of those participants operating on secondary markets by ensuring transparency in the market and the strict supervision of intermediary activity. Under the SEA34 securities intermediaries must register with the SEC and are only then allowed to trade in securities if they comply with the capital requirements established by the SEC. The Securities Investor Protection Act 1970 (SIPA70) integrates the SEA34 under the profile of investor protection and is also responsible for establishing the Securities Investor Protection Corporation. This institution, whose funds are derived from the contribution of its participants, is charged with guaranteeing creditors recompense in the case of financial mismanagement by intermediaries. The SEA34 also sets forth rules to protect the general stability, and fairness of the markets based on the anti-manipulation rule prohibiting the dissemination of false and misleading information. These general rules have been adapted to specific situations by the self-regulatory organisations ruling the exchanges.

Finally, in order to avoid speculation in declining markets, the commission prescribes short sales at "plus tick" (if the last sale was at a higher price than the sale preceding it, it is an up tick or plus tick) or "zero-plus tick" (if the last sale price is unchanged but higher than the last preceding sale it is a zero-plus tick). The rule was designed to prevent abuses from so-called "pool operators", who drive down the price of a security by short selling it in large quantities and then profiting by repurchasing it at the lower price.

The second-tier of the U.S. regulatory structure is represented by the Self-Regulatory Organisations. SROs are membership organisations, covering exchanges, broker-dealer membership associations, clearing houses and depositories, possessing rule-making and enforcement responsibilities derived from the SEA34. They are responsible for establishing, reviewing, and enforcing standards of conduct. Under the SEA34 all SROs must register with the SEC, with each registration requirement varying according to the type of entity involved. These requirements are generally intended to ensure that SROs accept qualified persons as members, set fair membership standards and do not create access barriers to the facilities they provide.

The SEC regulates SROs according to several profiles: registration requirements, compliance requirements, rules review and approval, censure and sanctions. Furthermore, it also has inspection authority over each organisation and their members as well as possessing the ability to investigate their various programmes and clearing operations. The SROs are required to set and enforce all fees and charges on their members and ensure that they are in compliance with federal securities laws. In addition, they must send all new rules, or amendments to existing rules, to the SEC for final approval.

Broker-dealers are regulated according to the SEA34 provisions that require them to be to be registered with the SEC before they can deal in securities. By contrast, banks are regulated by the Federal Reserve and are excluded from the broker and dealer definitions contained in the SEA34 and SE33. However, their subsidiaries operating as broker-dealers in the securities markets have to be registered with, and are subject to, the rules and regulations of the SEC. In addition, broker-dealers are subject to the disclosure requirements established by the SEC and must report periodically to both the SEC and their competent SRO. Whilst short-term information requirements on financial statements are not necessarily audited all annual reports containing financial statements, changes in shareholders' equity and subordinated liability, must be audited and filed with the SEC. Furthermore, in cases where broker-dealers carry customer accounts, they are obliged to provide each customer with an audited balance sheet. Finally, intermediaries must also give notification to the SEC of any instances where they are experiencing financial difficulties.

Financial responsibility rules are designed to provide safeguards for customer funds and securities held by broker-dealers. The primary responsibility of intermediaries in this regard is to maintain accurate books and records and be in possession of sufficient liquid assets. In this area the most important protective measures are, the "Net Capital Rule", which establishes the minimum net capital required when dealing in securities, the "Customer Protection Rule", which prevents a broker-dealer from using customer capital to finance its business costs, and the so-called "Regulation T", which is an important integrative regulation of the FED related to maintaining the stability of financial non-bank intermediaries. The latter regulation is set forth by the Federal Reserve and establishes a margin of requirements in the event of customers borrowing from broker-dealers in order to finance their purchases of securities. Finally, broker-dealers are required to join the Securities Investor Protection Corporation (SIPC) to guarantee customer credits.

Another set of rules established by the SEC in relation to broker-dealers concerns the area of risk assessment requirements. Under the authority given to it by the Market Reform Act of 1990, the SEC adopted two rules in July 1992 pertaining to the means by which information about affiliates of broker-dealers can be obtained. The purpose of the rules is to establish an accepted risk assessment, record-keeping, and reporting mechanism for registered broker-dealers. This requires the broker-dealer to maintain accounts and reports with respect to Material Associated persons, and to file a quarterly report on such information.

The workings of broker-dealers are further regulated by a set of federal security laws which legislate for their conduct and ensure that proper business procedures are followed. These rules are derived from the general anti-fraud provisions of the 1933 and 1934 Acts. Under what is known as the "shingle" theory, a broker-dealer, by virtue of engaging in the brokerage profession, implicitly agrees to represent and act fairly in all dealings with a customer. This act of representation implies a set of duties and obligations, which the intermediary must observe in dealing with customers.

Both the SROs and SEC periodically review broker-dealers to assess and ensure compliance with the federal and SRO regulations. These examinations centre on a review of financial records and sales practices and are intended to ensure that the broker-dealers' net capital is sufficient and that customer reserve accounts are adequately funded (margin accounts). Furthermore, they are intended to identify any abuses such as unauthorised trading, unsuitable transactions, excessive trading or churning, market manipulation, and insider trading, which may be taking place in the market. Investment advisers, investment companies and transfer agents are regulated according to specific federal laws that prescribe registration with the SEC and empower the commission to regulate and supervise them.

INDIA

The current regulatory structure of the Indian securities markets was established by the Companies Act of 1956. This Act governs the incorporation, management, administration, operations, and functioning of all Indian companies. Other important legislation includes the Securities Contracts (Regulation) Act of 1956, which regulates the secondary market and stock exchange, the Securities and Exchange Board of India Ordinance of 1992, which established the Securities and Exchange Board of India (SEBI), and the disclosure and investor protection guidelines of 1992, which ensure the implementation of the 1992 ordinance and the regulation of regulate primary markets.

Indian securities markets are characterised by a decentralised regulatory structure, where the various investment activities and intermediaries are separated and supervised by specialised authorities. The key institution in this regard is the SEBI which is responsible, in conjunction with as yet completed self-regulatory structure, for the regulation of the entire securities markets. The SEBI is also responsible, as decreed by the 1992 Act, for providing SROs with the power to regulate their members directly according to the rules of conduct and disclosure. In addition, all rules and courses of action adopted by the SROs must firstly be submitted to the SEBI for approval.

The SEBI is managed by a board consisting of a chairman and four members all of whom bar one, who is appointed by the Reserve Bank of India, are appointed by the central government. In a certain respect the SEBI can be seen as something of a decentralised institution but one that is not properly independent from the interference of other authorities such as the Central Bank and the government. The SEBI is also responsible for regulating the registration of broker-dealers, the disclosure responsibilities of issuers and intermediaries, (both on primary and secondary markets), the rules of conduct of intermediaries, and maintaining the financial stability and transparency of the market through the monitoring of instances of financial-fraud, insider trading and market manipulation. In addition, it regulates and directly supervises the self-regulation agencies, monitors take-overs and mergers, supervises the activities of investment advisers and investment companies as well as undertaking the training of securities intermediaries. The task of implementing these regulatory measures is entrusted to the various SROs.

The Indian system also allows for financial intermediaries, primarily brokers who have obtained special authorisation, to act as market makers for given securities. These brokers are then obliged to register with the SEBI, with their self-regulating body, and with the stock exchange.

OMAN

The "Muscat Securities Market" (MSM) was created in June 1988, according to royal decree, by Muscat Securities Market Law. The MSM is a combination of a stock exchange and a regulatory agency governed by a Board of Management. The objective of the agency is to regulate and supervise both the primary and secondary markets. In addition to establishing the MSM the Securities Act also decrees that investment activity can only be carried out by those broker-dealers licensed by the Board. It also legislates that certain sectors of investment business, in particular investment banking sales, and the placement of securities, be placed under the regulation of the Central Bank and the Ministry of Finance. This overlap in regulation procedure originates from the Banking Law of 1974, and the Regulation Governing Investment Banking Activities in the Sultanate of Oman issued by the Board of Governors of the Central Bank of Oman in 1988. These directives establish the Central Bank as the key regulatory institution by charging it with the sole power to issue licenses to those wishing to engage in investment activities and mergers and acquisitions, advisory services, and all other investment activities. This means that securities markets in Oman are currently over-regulated resulting high regulatory costs that act as a disincentive for companies to go public.

Moreover, the requirements imposed on intermediaries by the Central Bank are not the same as those imposed by the MSM. Indeed, a recent World Bank report recommended that eliminating the overlapping authority of the Central Bank and MSM and granting the MSM greater independence from government interference were the two most pressing changes needed in order to develop capital markets in Oman. Furthermore, it was also seen as essential, in order to stimulate and encourage investor confidence, to establish a system whereby the regulatory body of the securities market was allowed to act independently of any particular interest, be they private or governmental.

KOREA

The Korean Securities and Exchange Law (KSL) of 1962 established the legislative basis for the functioning of the securities market in Korea. This regulatory structure bears much similarity with the U.S. model in that it is essentially a self-regulating model overseen by the government through the operations of a specifically established authority. However, the Korean securities market, characterised by specialised securities intermediaries, is still largely under the direct control of government.

The Korean Securities and Exchange Commission (KSEC), despite being established by the 1962 Act, has only been in operation since 1977. It acts as the main regulatory body of the Korean securities markets under the guidance of the Ministry of Finance (MOF). The members of the commission are appointed by the government with the result that, as in the case of India, it is not an entirely "independently" functioning agency. The KSEC has a wide number of regulatory responsibilities including stock markets supervision, ensuring corporate and intermediaries' meet full disclosure requirements and that proper accounting and auditing practices are followed. It also sets the guidelines for the financial management of listed corporations and for the control margin requirements of intermediaries in addition to being directly responsible for the regulation of transfer agents.

The Korean system also established two self-regulatory bodies, the Korean Stock Exchange (KS) and the KSDA, in 1953 to further bolster the control and monitoring of the securities markets. The latter institution has self-regulatory powers over its members in terms of the rules of conduct a securities firm must comply with to be registered with the KSAD. All securities companies have to be members of the KSDA. This authority is also responsible for the training of securities market professionals, the mediation of conflict among member firms, and the registration of over-the-counter stocks.

The KS on the other hand was privatised and reorganised into a membership organisation in 1988. It supervises the listing and delisting of securities, conducts market surveillance, and is responsible for the periodic disclosure of the information from listed companies. There is a concentration rule on the KS, prescribing that all listed shares must be traded on the exchange. The KS, through its subsidiary the Korean Security Settlement Corporation, is also charged with supervising the cleaning and settlement of securities under the book-entry clearing system.

Korean securities firms must be licensed by the MOF before they can act as brokers, dealers, or underwriters. In 1982 the KSL was revised to increase the levels of disclosure occurring during public offerings, tighten insider-trading regulations, and increase the supervision of securities companies. Further reforms occurred in 1989 when brokerage commissioning was partially deregulated and the first movements towards an opening up of the market saw the entry of a number of foreign investors and foreign securities firms onto the domestic market. However, the financial system as a whole still remains under government control with the Bank of Korea controlling the banking system and the insurance markets being regulated by the Ministry of Finance.

TAIWAN

In 1960 the government of Taiwan established the Taiwanese Securities and Exchange Commission (TSEC) to supervise and control its securities markets. The Taiwan Stock Exchange (TSE) was created in 1962 as a corporation owned by state-controlled banks and enterprises, responsible for the listing of companies, diffusing market information, and ensuring the fair and orderly operation of market procedures. It also regulates disclosure requirements, particularly with regard to cases of initial public offerings (IPOs) and capital increases of listed companies for companies listing on the stock exchange. Such companies have the obligation to publish quarterly financial statements, along with sales figures, and a monthly report on any relevant issues that may affect share values. In addition, all other issues relating to a company's financial dealings must be disclosed to the TSEC and stock exchange on an annual basis and be made available to the public domain.

The TSE is independent from the member firms, which pay an annual fee to be part of it. All transactions in listed shares, with the exception of a number of limited and specialised cases, must be made through the TSE. The Securities and Exchange Law was reviewed in 1988 abolishing the ban on the licensing of new securities firms. In addition, intermediaries cannot directly extend credit to customers or accept their deposits.

THAILAND

Thailand's securities markets are regulated by the Securities Exchange of Thailand (SET) established in 1974. This law created a general regulatory agency in combination with a market place that bears much resemblance to the US model of legislation. A concentration rule establishes that all trading in listed securities must take place on the SET. In a bid to introduce market stability a limit on price volatility was set at 10% along with the standardisation, but not rigidly fixed levels, of brokerage commissions. The regulation, implementation, and enforcement of these and other directives, such as the control of insider trading and public offerings take-overs and the monitoring of the rules of business conduct, are carried out by the SET. The clearing and settlement systems are monitored and regulated by the Share Depository Centre which is under the control of the SET.

CHINA

The Shanghai Securities Exchange was inaugurated in December 1990 with the Seen Hen Securities Exchange being established soon after in April 1991. These two markets are directly supervised by the National Administrative Committee of Securities, headed by the governor of the People's Bank. The committee is responsible for all aspects of securities markets' regulation. Its regulatory undertakings are mainly concerned with issues related to the disclosure and financial requirements of both companies and intermediaries. The committee is also provided with powers to intervene in and protect against any instances of insider trading or market manipulation.

TURKEY

In 1981 the Turkish Parliament passed the Capital Markets Law, and the following year saw the establishment of the Capital Markets Board (CMB). Four years later the Istanbul Stock Exchange (ISE) began its operations. The CBM is a government run authority that regulates the stability, trading practices and degree of information disclosure of the securities markets. The ISE, operating under the control of the government through the supervision of the CBM, is responsible for ensuring market diffusion and the regulation and surveillance of all listing requirements. The governing council of the ISE consists of a chairman, appointed by the government, and four members each representing a brokerage house, an individual member, a commercial bank, or a development bank. The ISE also requires its members to fulfil capital adequacy requirements and is given regulatory authority to maintain and enforce fair and orderly trading practices.

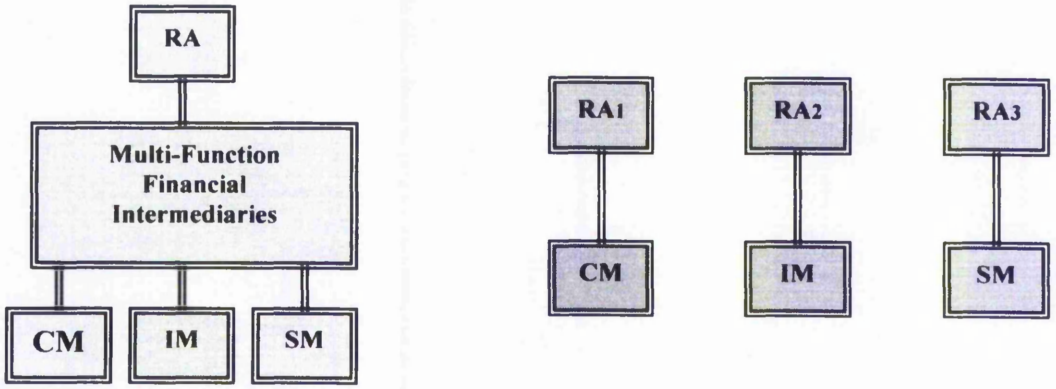
Table 3.1: FINANCIAL REGULATION BY AUTHORITIES IN DIFFERENT COUNTRIES

Country	Securities	Broker Dealer	Banks	Insurance	Take Over	Inv. Co.	Trading	Manipulation & insider Trading	Public Offering
France	SEC	SRO	CB	CAN	SEC	SRO	SEC	SEC	SEC
Germany	CB	CB	CB	FSOIB	MF	MF	SRO	SRO	SRO
Japan	SB	SB& SRO	BB& CB	BB	MF	MF	SRO	MF	MF
U.K.	SEC	SRO & IRE	CB	DTI	TOP	SRO	RIE	SEC	SEC
U.S.A.	SEC	SRO	CB	MC	SEC	SEC	SRO	SEC	SEC
China	SEC	SEC	CB	*	*	*	SEC	SEC	SEC
India	SEC	SRO	CB	MF	SEC	SEC	SRO	SEC	SEC
Korea	SEC	SRO	CB	MF	SEC	*	SRO	*	SEC
Oman	CB	SEC	CB	MF	CB	*	SEC	*	CB
Taiwan	SEC	SEC	CB	MF	SEC	*	SEC	*	SEC
Thailand	SEC	SEC	CB	MF	SEC	*	SEC	*	SEC
Turkey	SEC	SEC	CB	MF	*	*	SRO	*	SEC

SEC = Securities and Exchange Commission
SRO = Self–Regulatory Organisation
CB = Central Bank
MF = Ministry of Finance of each country
CNA = Conseil National des Assurance. Under the Ministry of Finance (FR)
FSOIB = Federal Supervisory Office of Insurance Business (GER)
SB = Securities Bureau, Ministry of Finance (JAP)
BB = Banking Bureau, Ministry of Finance (JAP)
RIE = Recognised Investment Exchange (UK)
TOP = Take Over Panel (UK)
DTI = Department of Trade and Industry (UK)
MC = Ministry of Commerce (USA)
FR = France
UK = United Kingdom
GER = Germany
JAP = Japan
USA = United States of America
* = No data available

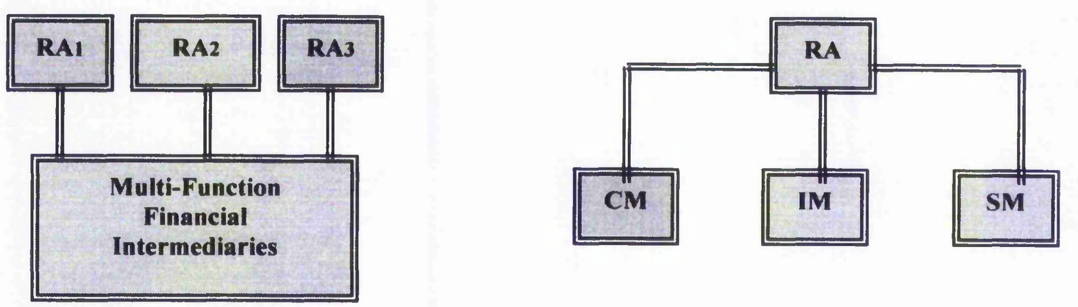
MODELS OF FINANCIAL REGULATIONS

Figure 3.1: PURE MODELS



A-1 Centralised Model **B-1 Decentralised Model**

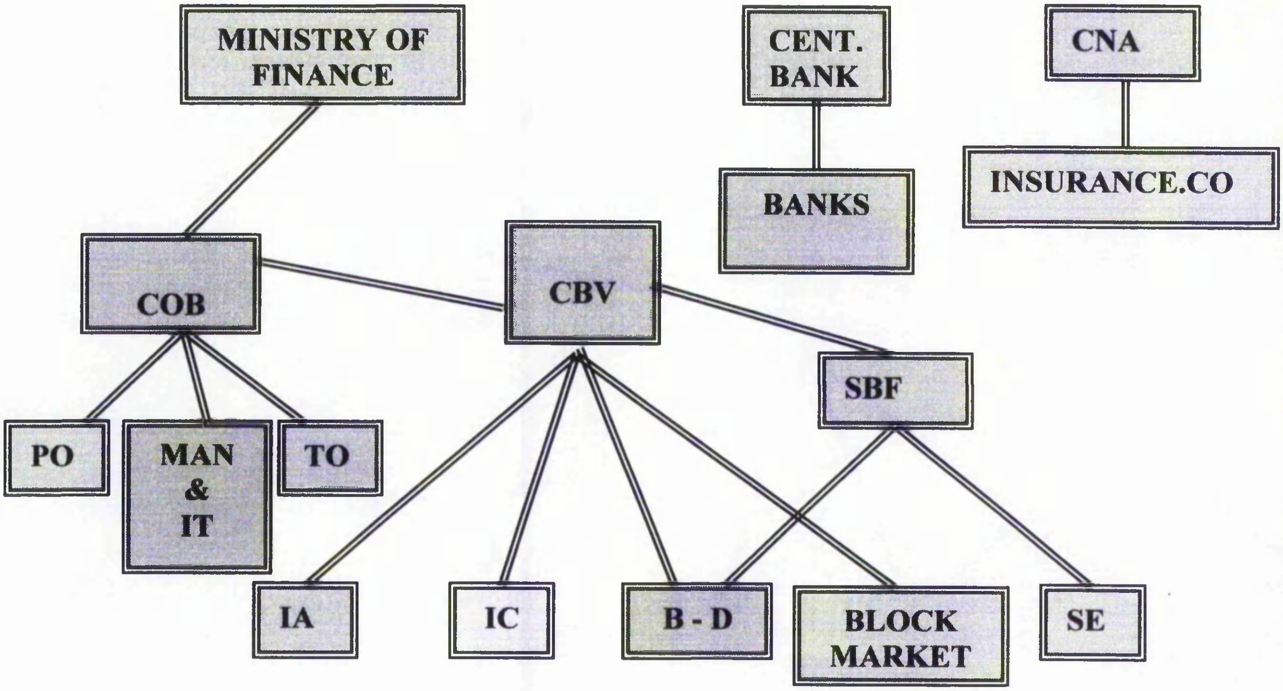
Figure 3.2: MIXED MODELS



C-1 **D-1**

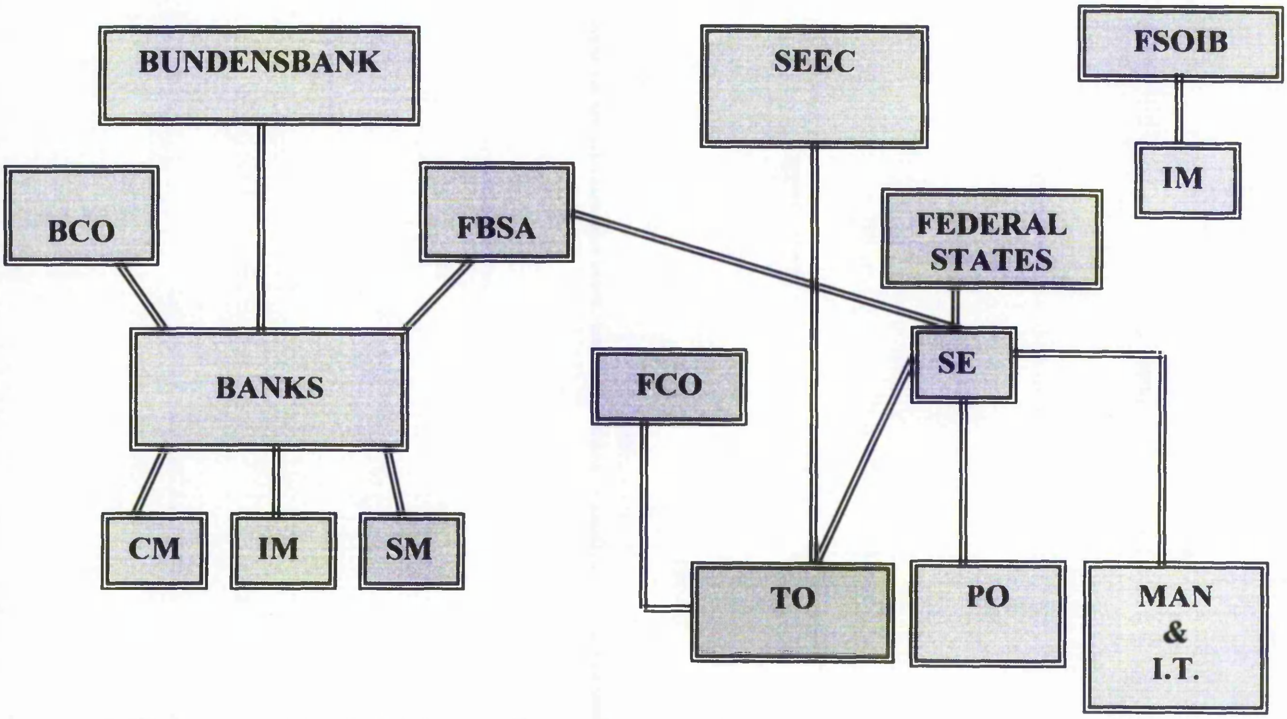
RA	=	Regulatory Authority
CM	=	Credit Market
IM	=	Insurance Market
SM	=	Securities Market

Figure 3.3: FRANCE



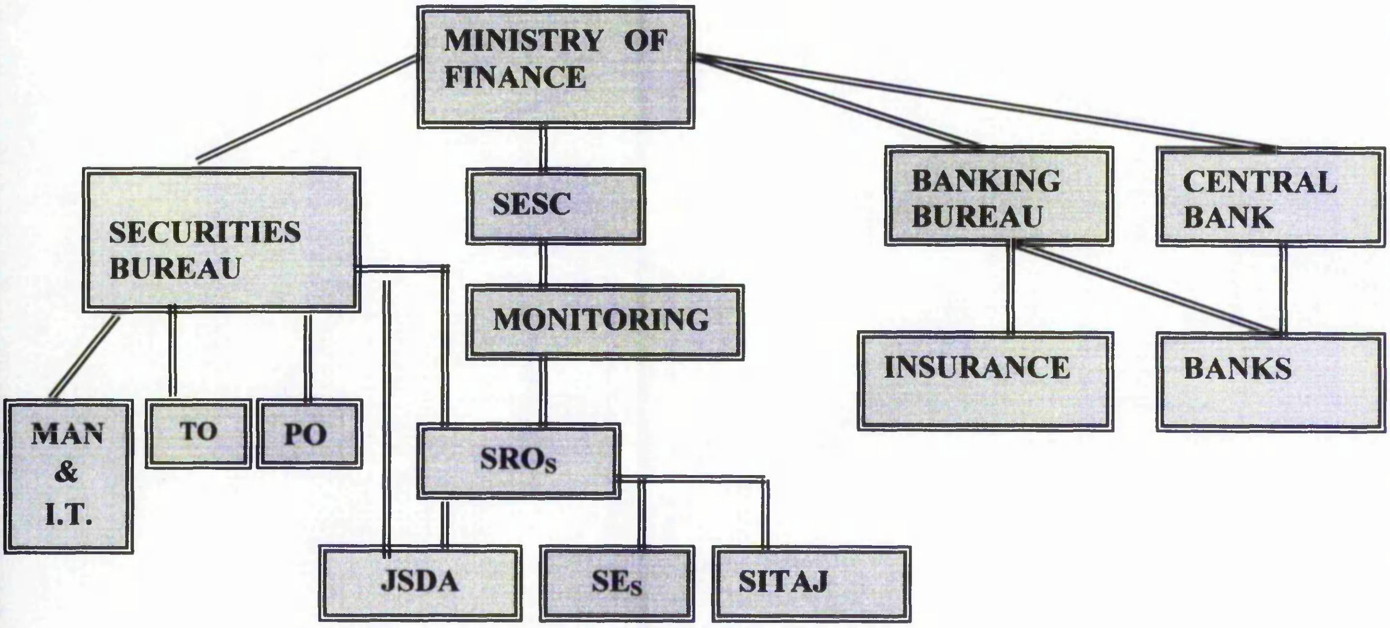
COB	=	Commission des Opérations des Bourses
CBV	=	Conseil des Sourses de Valeurs
SBF	=	Societe des Bourses Francaises
CNA	=	Conseil National des Assurances
PO	=	Public Offering
MAN & IT	=	Manipulation and insider trading
TO	=	Trading Operation

Figure 3.4: GERMANY



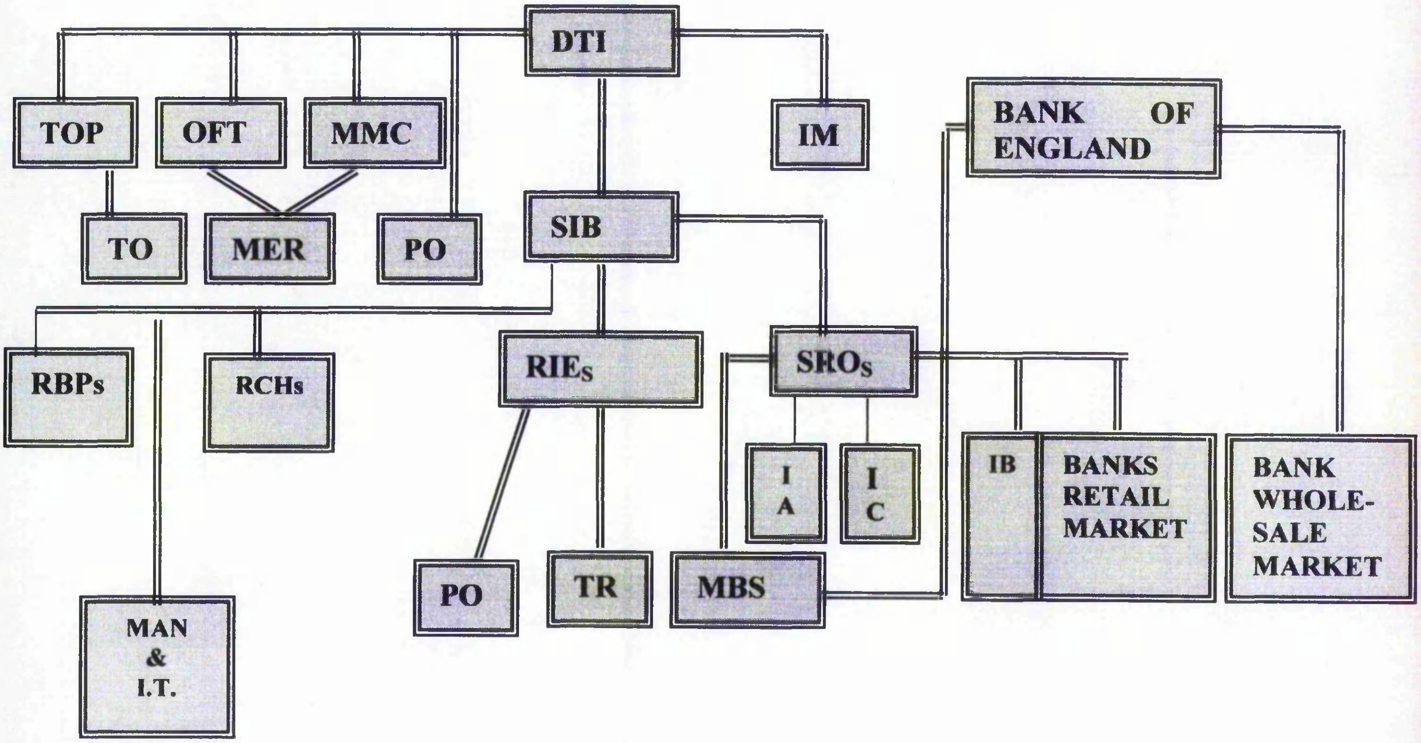
SEEC = Stock Exchange Expert Commission
BCO = Banks' Compliance Offices
FCO = Federal Cartel Office
FBSA = Federal Banking Supervisory Authority
FSOIB = Federal Supervisory Office of the Insurance Business
TO = Trading Operation
PO = Public Offering
Man & I.T = Manipulation and insider trading

Figure 3.5: JAPAN



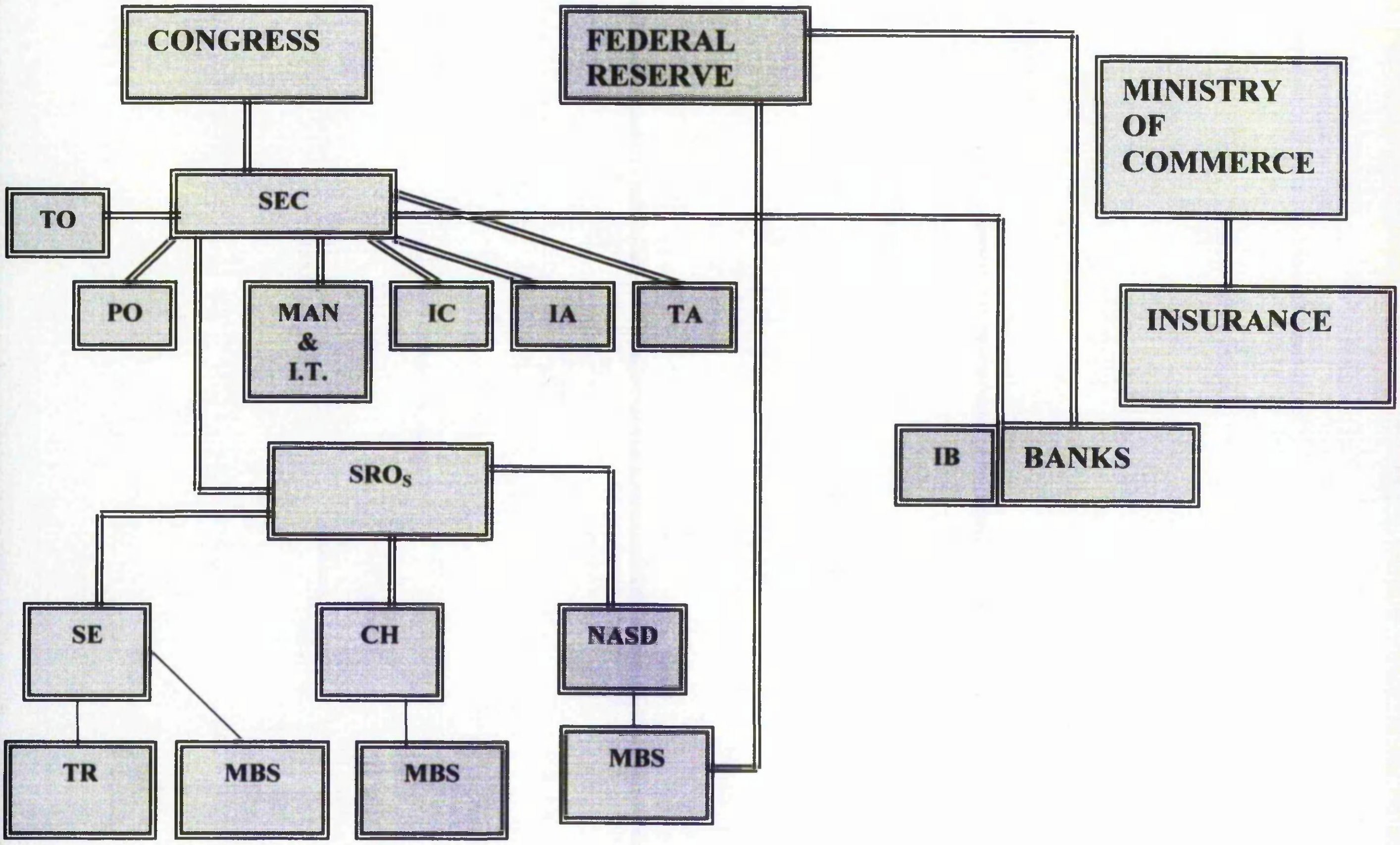
SESC	=	Securities and Exchange Surveillance Commission
JSDA	=	Japan Securities Dealer Association
SITAJ	=	Securities Investment Trust Association of Japan
SROs	=	Self- Regulatory Organizations
SEs	=	Stock exchanges
TO	=	Trading Operations
Man & I.T	=	Manipulation and insider- trading
PO	=	Public Offering

Figure 3.6: UNITED KINGDOM



DTI = Department of Trade and Industry
TOP = Take Over Panel
SIB = Securities Investment Board
RIEs = Recognised Investment Exchanges
RCHs = Recognised Clearing Houses
RPBs = Recognized Professional Bodies
OFT = Office of Fair Trading
MMC = Monopolies and Mergers Commission
PO = Public Offering
Man & I.T = Manipulation and insider trading
TO = Trading Operation

Figure 3.7: UNITED STATES



SEC = Securities and Exchange Commission
NASD = National Association of Securities Dealers
TA = Transfer Agent
SROs = Self- Regulatory Organizations
TO = Trading Operations
PO = Public Offering
Man & I.T. = Manipulation and Insider trading

CONCLUSION

Studying the different capital markets around the world highlights the fact that depending on the choice of the supervisory authority and acting agents, one is able to discern the basic structure and orientation of a particular financial system. In general capital markets can be seen to belong to either a centralised or decentralised system. However, as has been shown these two systems represent the extremes of the market structure and most markets exhibit a greater complexity and sophistication by employing a wide range of financial systems in choosing the structure of their particular capital market. Indeed, given the wide range of choice available how is one to decide which elements to employ and what particular market structure to follow? It is too simplistic to assume that the choice might have been arrived at by chance or that the system employed was the one guaranteed to ensure optimum returns, sustained financial development, and increased levels of economic growth. Whilst acknowledging that these factors are important considerations they are not the only criteria to be considered in deciding on and analysing the workings of a particular financial system. Rather, other issues such as the events of history, different political and cultural ideologies, have an equal impact and effect on the functioning of capital markets and their interaction with one another in the global economic system. Nevertheless, what is clear is the fact that the economic performance of a particular market is largely dictated by the financial structure in which it is forced to operate.

CHAPTER 4

THE EVOLUTION OF FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH

4.1 INTRODUCTION

The current global economic situation is one where stock markets are booming and stock market capitalisation grows every year. However, despite this positive picture it must be noted that a disproportionate amount of this growth occurs in emerging markets. Furthermore, in spite of these developments there exists as yet little empirical evidence in assessing the effect and importance of stock markets on long-term economic growth levels. This arises from the fact that economists possess neither a commonly agreed concept or measure for analysing the influence of stock market development on the performance of financial systems. This chapter sets out to address this problem of assessing the role of capital markets in the development process by analysing the correlation between financial development and economic growth. The central issues is this regard relate to the need to highlight the importance of a developed stock market for national economic growth by examining the contribution, correlation, and causality of stock markets and growth as well as the relationship between stock market development and financing patterns.

4.1.1. THE IMPORTANCE OF A DEVELOPED STOCK MARKET FOR NATIONAL ECONOMIC GROWTH

The world's stock markets have shown substantial and sustained growth in just about every country over the past decade. In addition, from 1984 to 1994 their capitalisation rates have grown fivefold to a combined total value of $18 trillion. The majority of this money is still invested in industrial nations, but the effects of this boom have led to a dramatic growth in the levels of investment in emerging countries. Foreign investors have increased their annual net investment in emerging markets from $13 billion in 1990 to $61 billion in 1993.

This sharp increase in the level of private equity investment in the developed world can be attributed to what are known as "push" and "pull" factors. The push factors are those driving for better profits and increased diversification opportunities, which, even allowing for risk adjustments, are generally higher in developing markets. At the same time the investment community has increasingly recognised the fact that the stock exchanges of developing countries tend to have a low, even negative, correlation with stock markets in industrial nations. This is a problem for investors as negatively correlated stock markets move in opposite directions i.e. when one is heading up, the other is usually going down. However, increased levels of investment in the developing world are a means of reducing such overall portfolio risks. Indeed, recent research from the banking sector seems to confirm this point when it states that cross-country portfolio diversification is much more important than diversifying across sectors.

The "pull" factors refer to the beneficial impact on the financial sectors of developing countries arising from the introduction of wide-ranging structural, legislative, and economic reforms. The changes needed to attract and encourage investor confidence include the liberalisation or elimination of capital restrictions, an improvement in the flow of information, and the introduction of measures to ensure investor protection.

In recent years the rush to invest in the developing world slowed considerably. The most dramatic instances occurred in Latin America where private capital flows dropped the most dramatically, culminating in the year-end Mexican crisis – a crisis brought about in part by an overdependence on foreign capital. The Mexican difficulties, along with a revival in the U.S. equity market, were to cause a further slowing of the overseas investment market in 1995 resulting in a consequent stagnation in portfolio flows. Indeed, despite increased integration, such instances highlight the fact that the international market will continue to remain imperfect for many years to come. Economic turbulence, investor conservatism, and variances in national growth rates will continue to effect returns and market conditions.

One of the ways by which increased funds could be invested in the stock markets of developing countries would be to enlarge the, at present, still minuscule investment, in such markets by institutional investors of the industrial countries. In general such investors, for example U.S. pension funds, are generally more adventurous in their investment choices than their counterparts elsewhere in the industrial world. However, despite this fact their level of investment is still quite small, as in the case of a typical U.S. fund, which holds no more than 1 to 2 percent of its portfolio in equity securities in emerging countries. This conservatism belies the fact that there are considerable returns to be made through substantial investment in emerging markets. Recent studies have revealed that a typical pension fund could raise its expected annual returns by 2 percentage points, with no subsequent increase in risk, if it increased its holdings in emerging market stocks by 20 percent of its portfolio. Such changes will not occur overnight but as fund managers become increasingly aware of the returns to be made in emerging markets capital will begin to be moved to developing countries in increasingly larger amounts.

However, once this money does arrive it will not be channelled to all developing countries equally as investors tend to discriminate between different markets according to their potential to ensure a smooth flow of capital and an adequate return on investment. This has proved to be the case as most equity flow has been concentrated in Asian and Latin American countries with other areas such as Africa and the Middle East being somewhat ignored by the investment community of the more developed countries. The emerging markets in Asia have been particularly successful in attracting such investment. For example they account for all the private equity from Japan and half of that from the U.S. invested in developing countries. However, this does not tell the full story as there are wide variances visible within such regions. For example Hong Kong is the recipient of more U.S. equity investment than all the other Asian countries combined. Such as situation is comparable to that in Latin America where the majority of equity investment has gone to the more "developed" of the developing countries (those that have a sound institutional and regulatory frame-work for the capital market) particularly Argentina, Brazil, and Mexico. However, whilst such decisions help to alleviate investment risks they cannot eliminate them, as events in Mexico have shown.

Indeed, despite these discrepancies and discriminations across regions it is clear that all emerging countries require overseas investment and outside capital in order to sustain economic growth. This is a particularly urgent requirement given the fact that most have reached their borrowing limits and are in danger of being the indirect victims of the increasing political pressure placed on the aid budgets of industrial nations. In this regard, encouraging international private equity investment would act as a sound alternative to the accumulation of more debt and the uncertainty of relying on foreign aid, helping to establish stability in the markets and encouraging further growth and investment. A key element of this undertaking would be to strengthen the position of the stock market as the main engine of economic growth.

The importance of a healthy and vibrant national stock market is underlined by a recent study showing that a developed banking system and a robust stock exchange not only promote economic growth, but in fact predict it. The key factors in measuring the effectiveness of a country's stock market are its capitalisation, liquidity, and turnover rates. Each measure helps to reveal something about where a national economy is headed. Researchers have found a correlation between such stock market indicators in 1976 and the resultant average growth of an economy over the period 1976-1993. Indeed, this research has conclusively proven that such a correlation is not simply the result of stock market traders and investors anticipating growth. For example, it has shown that the indicators of liquidity, whilst closely associated with growth prediction, act as a measure of trading volume, and not just those of price. This proves that stock market development does not merely follow economic development, but provides the means of predicting future rates of growth in capital, productivity, and per capita GDP.

If nothing else, the potentially large economic benefits arising from a vibrant and fully functioning stock market serve to highlight the economic costs of government efforts to impede market development by policy or law. Conversely, a national program that encourages both markets and banks to thrive can have dramatic effects. This can be clearly seen by looking at the effects of combining a one-point standard deviation increase in measuring the level of banking development with a similar deviation in stock market development. The results are an increase in real per capita growth of 1.6 percent a year over the eighteen years of the study, which amounts to a 33 percent accumulated increase in GDP over the period.

Despite the acknowledged benefits accruing to a developing economy as a result of a large inflow of private equity money it must be noted that such large-scale investment is not without its risks or drawbacks. The recent upheavals and crises experienced by Mexico and other Latin American nations attest to the fact that private capital flows can be extremely volatile. In instances where the international investment community becomes aware of factors such as weak exports, an overvalued currency, a rise in consumption relative to savings, or an over-reliance on short-term capital inflows, economic confidence begins to disappear and capital starts to move out of an economy. Whilst a government that seeks to attract international equity capital is, knowingly or not, committing itself to sounder, more agile economic management it must be recognised that this is but one element in overall economic management. The mix of policies needed to sustain inflows of private capital varies from country to country. However, in encouraging, planning, and sustaining economic growth and financial development there is no substitute for fiscal restraint, an emphasis on exports over consumption, and sound regulation of the banking system and the capital markets.

4.2. CAPITAL CONTROL, LIBERALISATION AND STOCK MARKET DEVELOPMENT

Stock markets in developing countries account for a disproportionately large share of the recent boom in global stock market activity. The total value of outstanding publicly traded stocks world-wide surged from about $6 trillion in 1986 to more than $20 trillion in 1996, with the proportion of world-wide stock market capitalisation represented by emerging markets showing a similar and significant threefold increase. In addition, the total value of stock transactions in emerging economies soared from about 2 percent of the world total in 1986 to 12 percent in 1996.[1]

The rapid emergence of markets in developing countries in recent decades has been accompanied by, and in certain instances can be attributed to, an explosion in inward international capital flows. Net private capital flows to developing nations have jumped tenfold over the past decade, exceeding $250 billion in 1996.[2] This increase is further significant when it is taken into account that equity flows, negligible less than a decade ago, now represent almost 20 percent of total private capital flows to developing nations. These trends raise two critical questions for policymakers in developing countries. Firstly, do developing countries themselves benefit from the rapid development of their stock exchangers, and secondly, does liberalising international portfolio flows enhance stock market development and promote long-run economic growth?

Stock markets contribute to overall economic development by enhancing the liquidity of capital investments.[3] Many profitable investments require a long-term commitment of capital, which is not always forthcoming from investors who do not want to tie up their savings for long periods. These problems are avoided in a liquid equities market that allows savers to sell shares easily and quickly. As savers become comfortable with investing in the equities market they are likely over time to rebalance their portfolios away from short-term toward longer-term investment opportunities due to the latter's potential for higher returns. This rebalancing is in turn beneficial to firms as it lowers the cost of shifting to more

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1 These figures are form the International Finance Corporation's Emerging Markets Facts Book and use its classification of emerging and developed markets. Hong Kong and Singapore are classified as developed countries. Shifting them into the emerging market category makes the disproportionate boom in emerging markets even more noticeable.

2 These capital flow figures are from the World Bank's, *Private Capital Flows to Developing Countries*, (Oxford University Press, 1997).

3 See, Ross Levine, "Stock Markets, Growth, and Tax Policy", *Journal of Finance*, September 1991 and Ross Levine, "Financial Development and Economic Growth: Views and Agenda", *Journal of Economic Literature*, June 1997.

profitable, in other words more productive, longer-term projects. This higher-productivity capital also helps to boost overall economic growth by increasing returns on investments in equity, which may prompt individuals to save more, adding further to investment levels in physical capital.

However, some economists argue that markets which are extremely liquid may in certain instances have a detrimental on economic development. This arises from the fact that they can reduce long-term investor commitment, by allowing them to sell stocks quickly, as well as lowering the incentives of stock owners to exert proper corporate control over the performance of managers and firms.[4] In other words, dissatisfied owners sell their shares instead of working to improve the performance of a given firm. In essence, this view argues that greater stock market liquidity impedes economic growth by hindering corporate governance.

This approach can be contrasted with other more recent studies that suggest that well-functioning equity markets can in fact lead to an acceleration in economic growth.[5] Their evidence is based upon the relationship between indicators of stock market liquidity and economic growth.[6] An example of such an undertaking would be to consider the total value of the trading volume of a country's stock exchanges expressed as a share of the country's gross domestic product (GDP). In this instance the value-traded ratio does not directly measure the costs of buying and selling securities at posted prices. However, averaged over the long-term, the value-traded ratio is likely to vary with market liquidity as trading becomes easier, less costly, and less risky.

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4 See Andrei Shleifer and Robert Vishny, "A Survey of Corporate Governance" *Journal of Finance*, September 1997.

5 See Levine and Zervos, "Stock Markets, Banks, and Economic Growth".

6 This data is taken from the International Finance Corporation's Emerging Markets Data Base (electronic version) and the International Monetary Fund's International Financial Statistics (various issues).

Applying this value traded ratio approach in assessing the relationship between market liquidity and economic growth to a selected group of 38 different countries[7] resulted in the following findings: nine countries were shown to have the most illiquid markets of the group; this was following by a group of ten countries who were found to have the next most illiquid markets; the next group with a lower liquidity ratio contained ten members; the final group consisted of nine countries deemed to have the largest value-traded ratios. Furthermore, those countries with relatively liquid stock markets in 1976 experienced a much faster rate of GDP growth over the subsequent eighteen years than those countries with illiquid markets. Moreover, countries with the most liquid stock markets in 1976 were also seen to have accumulated more capital and enjoyed faster productivity growth over the same period. In this regard it shows that liquidity levels boost the quantity and productivity of capital investment, both of which accelerate economic growth.

Indeed, this is not an isolated case as alternative measures of stock market liquidity reveal similar findings. For instance, the turnover ratio, which equals the total value of shares traded as a share of market capitalisation, is also seen as a good forecaster of economic growth. This measures liquidity rates according to the value-traded ratio divided by stock price volatility and highlights the fact that the more liquid a market the greater is its ability too handle high volumes of trading without large price swings. In addition, it also reveals that increased rates of economic growth measure tend to arise from those countries with more liquid stock markets.

[7] The 38 countries are Argentine, Australia, Austria, Belgium, Brazil, Canada, Chile, Columbia, Denmark, Finland, France, Germany, Greece, Hong Kong, India, Indonesia, Israel, Italy, Japan, Jordan, Korea, Luxembourg, Malaysia, Mexico, the Netherlands, Nigeria, Norway, Philippines, Portugal, Singapore, Spain, Sweden, Taiwan, Thailand, United Kingdom, United States, Venezuela and Zimbabwe.

The importance and influence of these factors can be seen in that they appear to be the only ones to have a significant effect on both liquidity and economic growth. For example there is no evidence to show that higher stock market volatility adversely affects growth. Nor does there seem to be a strong link between the size of the stock market in a country, as measured by the market capitalisation divided by GDP approach, and levels of economic growth.[8] Once again liquidity, (the ability to buy and sell equities easily), is shown to have the strongest effect on long-term growth rates.

The relationship between liquidity and economic development and the general improvement in growth levels is not simply the result of liquidity serving as a proxy for other sources of growth. Indeed, the link between the two entities has been shown to be strong and sustaining even after controlling and adjusting for factors such as inflation, differing fiscal and education policies, the efficiency of the legal system, exchange rate policy, and openness to international trade. This connection is evident in cases where raising stock market liquidity may independently produce sizeable growth dividends. Evidence of this can be seen in the case of Mexico where statistical analysis has shown that if its value-traded ratio in 1976 had been the average of the 38 countries surveyed (0.06 instead of 0.01), then the average Mexican's income would be 8 percent greater today.[9] This forecast must be viewed cautiously, however, since it does not specify how to enhance liquidity. Nevertheless, the example does illustrate the potentially large economic costs of policy, regulatory, and legal restrictions that impede stock market development.

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8 Regression results fail to show a significant statistical relationship between market volatility and economic growth. However, a significant positive relationship between stock market size and economic growth is found, but these results depend crucially on the inclusion of an additional three countries. See Levine Zervos, "Stock Markets, Banks, and Economic Growth".

9 See, Levine and Zervos, "Stock Markets, Banks, and Economic Growth".

However, whilst highlighting the importance of stock market development it must be noted that traditionally development specialists have focused on banks and viewed stock markets as unimportant.[10] The primary reason attributed to such a focus lies in the fact that much more corporate capital is raised from banks than from equity issues. The weakness of such a view arises from its failure to recognise that stock markets and banks provide different but equally important financial services. Indeed, as has been shown stock markets can have as positive an effect on economic development despite the fact that firms obtain the bulk of their capital from other financial institutions.

The effect of stock markets on overall growth levels can be distinguished from those of the banking sector by further examination of the results of the survey of 38 countries in 1976. The first group were shown to have a greater-than-median stock market liquidity (as measured by the value-traded ratio) along with a greater-than-median level of banking development, where the latter was defined as bank credit divided by GDP. Group two had liquid stock markets but less-than-median banking development whilst the third had less-than-median stock market liquidity but well-developed banks. The final group of countries showed evidence of illiquid stock markets and less-than-median banking development levels.

What these findings attested to was that countries with both liquid stock markets and well-developed banks grew faster than countries that had illiquid markets and underdeveloped banks. More interestingly, greater stock market liquidity also led to faster growth rates in spite of the level of banking development. Similarly, increased economic growth has also been evidenced where greater banking development exists regardless of the level of stock market liquidity. Thus, the question is not one of stock markets versus banks but rather of

10 See the discussion in the World Bank's World Development Report, 1989.

stock markets and banks working in tandem or independently as each is an essential and strong predictor of growth in its own way.

Clearly, stock markets offer something to the economy that banks do not and vice versa. As suggested above, stock markets may play a prominent role in expanding opportunities for risk trading and boosting liquidity. In contrast, banks may focus more on establishing long-term relationships with firms by acquiring more detailed information about managers and a firm's future prospects. What is evident is that economies need both liquidity and information about firms in order to develop, improve, and sustain growth rates. Thus, if each institution focuses on its particular area of specialisation then both stock markets and banks, working together, and independently, will have a significant impact on economic growth.

The fact that the operations of both stock markets and banks are not mutually exclusive is evident in the incidences of overlap in the services they provide and functions they perform. Primary among these are the ways in which both institutions help savers to diversify risk, provide liquid deposits, and stimulate the acquisition of information about firms in facilitating market development and growth. A well-functioning equity market enables entrepreneurs to make long-term, and more productive, investments in physical capital because they have access to longer-term sources of funds. The existence of increased levels of productive capital in addition to offering higher returns also builds market confidence amongst lenders and equity investors alike. Greater stock market liquidity in emerging market economies is associated with an increase in the amount of funds raised through bond offerings and bank loans. Indeed, most capital accumulation is financed through bond offerings and bank loans.[11] As a result, corporate debt-equity ratios actually rise with greater stock market liquidity.[12] Accordingly, the data strongly suggests that stock market development in emerging market economies tends to complement rather than replace bank lending. This last point is extremely important, particularly within the operation of liquid markets, where investors want to make a profit by identifying undervalued stocks, which they can only do by exploiting such information. The free flow of information arising from the trading of company shares also boosts lenders understanding of, and confidence, in the prospects of these firms and the market as a whole. While this overlap of functions undoubtedly exists, the empirical findings show that stock markets provide a sufficiently distinctive bundle of financial services to those of banks allowing both institutions to operate and enjoy an independently strong link with long-run economic growth rates.

4.3. FOREIGN INVESTORS AND STOCK MARKET DEVELOPMENT

The key question with regard to foreign investment in the stock markets of developing countries is whether, or indeed how far, they should go in reducing impediments to international capital flows?[13] The inward flow of foreign capital is generally seen as a means of enhancing the integration of domestic markets into world capital markets. Therefore, a reduction in the restrictions and limitations on capital inflows or a reduction in the limitations on repatriating dividends or capital are seen as means of facilitating and encouraging foreign investors into developing markets. However, in both cases, despite the possible benefits, the

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11 See Colin Mayer, "New Issues in Corporate Finance", *European Economic Review*, June 1988.

12 See Asli Dermirguc-Kunt and Vojislav Maksimovic, "Stock Market Development and Financing Choices of Firms", *World Bank Economic Review*, May 1996.

13 Many factors influence the functioning of stock markets, including legal, regulatory, accounting, tax, supervisory, policy, and political conditions. A full discussion of these factors is beyond the scope of this section. For a more detailed analysis of the legal determinants of securities market development, see Rafael La Porta, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, "Legal Determinants of External Finance", *Journal of Finance*, July 1997.

lowering of barriers to cross-border capital flows has substantial affects on the functioning of emerging stock markets. This in turn affects domestic firms who, in seeking foreign investment, will often have to upgrade the quality and quantity of information disclosed to investors. Furthermore, as more foreign investors enter the market, pressure will be applied to the market to upgrade its trading systems and modify its legal frameworks to support a greater variety of financial instruments. Additional problems arise with the fear that opening up domestic stock markets to foreign investors increases the risk that share prices will become more volatile as cash fluctuates according to good or bad economic reports.[14] Such erratic movements in the market could in turn lead to complications in macroeconomic and exchange rate policies and at the same time deter local companies from making long-term investments.

The evidence suggests, however, that lowering the barriers to international investment encourages stock market development and has positive effects on economic growth.[15] This is borne out by examining the development of fourteen countries that liberalised controls on international portfolio flows. In twelve out of the fourteen countries surveyed it was found that stock market liquidity rose significantly following the liberalisation of international investment restrictions. For example, the decision by the Chilean government to liberalise the restrictions on dividend repatriation in January 1988 resulted in a substantial rise in market liquidity.[16] Indeed, while figures differed between the various countries listed none of them experienced a statistically significant fall in liquidity following liberalisation. Combined with

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14 These fears would appear to be misplaced with respect to the behaviour of foreign institutional investors with long-term investment objectives, such as U.S. mutual funds. See John Rea, "U.S. Emerging Market Funds Hot Money or Stable Source of Investment Capital?" *Investment Company Institute Perspective*, Volume 2, Number 6, December 1996. This study examined the behaviour of shareholders and the portfolio managers of U.S. mutual funds that invest in emerging markets. The study found that neither shareholders nor portfolio managers believed that industry would exacerbate a financial crisis or contribute to increased market volatility.

15 See, Ross Levine and Sara Zervos, "Capital Control Liberalisation and Stock Market Development", World Development, forthcoming.

16 While dividends may now be repatriated freely, Chile continues to restrict the repatriation of foreign investors capital contributions.

the earlier finding that market liquidity boosts economic growth, these results suggest that liberalising international capital flow restrictions can further aid and accelerate economic growth by enhancing stock market liquidity.

However, it must also be noted that in seven out of eleven cases stock market volatility increased sharply for a number years following the introduction of the liberalisation policies . This volatility proved to be a somewhat transitory phenomenon as markets adjusted and in the long run the greater openness to international capital was seen to lower stock return volatility. In addition, volatility is not associated with long-run growth, while greater liquidity is strongly linked to faster growth. Thus, if policymakers have the patience to weather short-run upheavals in the market, liberalising the restrictions on international portfolio flows offers expanded opportunities for economic development.

In summary, the evidence suggests that policymakers in emerging markets should take steps to provide greater access to their equity markets because it will enhance the likelihood that their citizens will enjoy better living conditions in the future. While it is true that stock market development does not represent a financial elixir for economic growth, liquid stock markets can be an important contributor to growth, and liberalising restrictions on international portfolio flows is an effective way of improving access to well-functioning equity markets.

4.4. CAPITAL STRUCTURE CHOICE AND FINANCIAL MARKET DEVELOPMENT

Most economic literature agrees that stock markets are important financial institutions in ensuring the smooth functioning of economies, even in those where there already exists a well-developed banking sector. This is seen in the way in which stock markets provide investors with liquidity and increased opportunities to diversify their portfolios as well as transmitting information to investors about a particular firm's prospects. Central in this regard is the difference between equity and debt financing. In general both forms are not perfect substitutes for each other with the former, operating through the stock market, playing a key role in managing the conflicts of interest that may arise between different stakeholders in a particular firm. The different attributes of debts and equity financing also influence the development of markets that facilitate the issuance and trading in equity, which is in turn reflected in the financing decisions of individual firms. However, while these differences have been acknowledged there have been few attempts to formally model the effects of financial market development or the financing choices of a particular firm on their investment decisions.

The few notable exceptions to this oversight include Pagano's (1993) model of the effect of opportunities for diversification on entrepreneurs' portfolio choices, Bencivenga et al.'s (1994) analysis of the influence of financial liquidity on technology choice, and Boyd and Smith's (1995) study of the implications of debt and equity financing for capital investment. Furthermore, in spite of the scarcity of empirical studies on the subject there are a small number such as Titnan and Wessels (1988) analysis of firm debt-equity ratios in the US, Ragan and Zingales's (1994) similar study of developed countries, and Demirguc Kunt and Maksinovic's (1994) of the ratios for developing countries, which seek to examine the relationship and effect of market development or financing choices on investment decisions. In addition, studies by Mayer (1989) and Singh et al (1992) have sought to broaden this area by examining the corporate financing patterns in developed and developing countries respectively.

However, the most comprehensive work in this area appeared with Demirguc Kunt and Maksimovic's (1995) study in which they compared the relationship between capital structure choice and financial market development across a sample of thirty developed and developing countries. They investigated the extent to which the variation in the aggregate debt equity ratios within these countries could be explained by the level of financial market development, macroeconomic factors, the differences between the tax treatment of debt and equity securities, and the firm-specific factors identified in corporate finance literature as determining financial structure. Their findings showed that in general there is a positive relationship between bank development and leverage, and a negative, but significant, relationship between stock market development and leverage. However, when they broke their overall research samples in sub-categories, controlling for the other determinants of firm financing, they discovered an interesting relationship between leverage and stock market development. They found that in developed stock markets further or increased development leads to a substitution of equity for debt financing. By contrast, in developing stock markets, large firms become more levered as the market develops, whereas smaller firms appear not to be significantly affected by market development.

The results of their survey have important implications particularly for developing countries. This arises from the fact that in such countries banks are fearful of stock market development, which they see as a threat to their business. Demigurc et al's (1993) findings would seem to suggest that they have little reason to fear such developments as they show that initial improvements in the functioning of a developing stock market produce a higher debt equity ratio for firms, and thus more business for banks. Furthermore, the results also suggest that in countries with a developing financial system, stock markets and banks play different, yet complementary roles. Thus, policies undertaken to develop stock markets need not affect the existing banking system adversely.

4.5. CAPITAL STUCTURE CHOICES

In those economies at the early stages of development financial markets are relatively liquid, heavily regulated, and register only a small proportion of the risks traded. Little is known about the effect of such conditions on the optimal financing choices made by firms.

Demirguc Kunt and Vojislav Maksimovic (1994) have attempted to consider these effects by examining the capital structure choices of firms from ten developing countries using annual data figures for the period 1980-1991. Their approach starts by firstly describing the financial structure choices made by these firms and comparing them to U.S. financial structure choices. They then go on to analyse whether the models developed for U.S. institutions can explain the capital structure choices in their panel of developing countries (Korea, Malaysia, Brazil, Mexico, Turkey, Jordan, Zimbabwe, India, Thailand, Pakistan).

Despite the fact that their model and findings were directed at understanding the capital structures of developing countries the models of financial structures which they used were based on US institutions and developed with the aim of explaining US data. Nevertheless, testing the data from economies with less developed financial markets and very different institutions against those of a highly developed economic power provided a means of comparison and a test of the robustness of their chosen structures. In this sense Kunt and Maksimovic's (1994) work can be viewed as a complement to the work undertaken by Bradley, Jarrell, and Kim (1984), and Titman and Wessels (1988), concerning US structures, and Ragan and Zingales (1994), who examined a sample of several developed countries.

Kunt and Maksimovic (1994) have also used a number of agency and tax-based theories in their analysis of the capital structure choices of developing countries. However, once again certain provisos have to be made in comparing them to similar firms in the U.S. Firstly, as mentioned the financial markets in developing countries are underdeveloped and much more heavily regulated than in the U.S. In addition, the firms in the sample chosen by Kunt and Maksimovic are much smaller than the comparable U.S. firms on which financial structure models are usually tested. Finally, it must also be taken into consideration that the tax treatment of debt and equity vary considerably in each country.

Despite these differences, both the agency and tax-based models proved to be very adept and accurate at predicting the different capital structure. They showed that net fixed assets are positively related to long-term debt and that those firms that are more profitable, and those making large payouts to shareholders, have less debt. In addition it was found that firms with high market to book ratios have more debt than firms with high non-debt tax shields. Furthermore, total indebtedness is negatively related to the ratio of net fixed assets to total assets with the result that firms with assets that could serve as collateral tend to finance themselves by retained earnings or equity issues rather than by the issuance of long-term debt. As a consequence the long-term credit market was seen to function ineffectively in most of the developing countries investigated. Therefore, the main determinants of capital structure, for both short-term and long-term equations, in most of the countries analysed were seen to be asset structure, liquidity and industry effects rather than firm size, growth opportunities and tax effects.

4.6. STOCK MARKETS, BANKS AND ECONOMIC GROWTH

Established theory provides conflicting predictions about both the impact of stock markets and banks on the overall levels of financial development and economic growth. Many models emphasise that well-functioning financial intermediaries and markets ameliorate information and transaction costs thereby fostering a more efficient distribution of resource allocations and helping to hence faster long-run growth rates (Bencinenga and Smith, 1991; Bencinenga, Smith and Starr, 1995; King and Levine, 1993a.). These models, however, also show that financial development can have a detrimental effect on growth. This arises from their undertakings to enhance resource allocations and the returns to savings, which can lead to a lowering of the savings rate. If there are sufficiently large externalities associated with savings and investments, then financial development slows long-run growth. Such conflicting findings are also found in the analysis of the role of stock markets and banks in affecting growth rates. The central question is whether these institutions compliment one another, exhibit significantly different functions, or can act as substitutes in effecting financial development. Boyd and Prescott (1986) argue that banks play a critical in improving resource allocation through the creation of information frictions, while Stiglitz (1985) and Bhide (1993) stress that stock markets do not produce the same improvement in resource allocations and corporate governance as banks. On the other hand, some models emphasise that the inefficient monopoly power and conservative approach actually mitigates against the competitive, growth enhancing, and innovative activities promoted and practised by markets (Allen and Gale). Finally, there is another school of thought which states that it is not a question of banks or markets effecting growth rates by functioning independently but rather of the two institutions working in tandem with one another and using their particular skills in encouraging overall financial development by ameliorating specific different information and transaction costs (See Levine (1997), Boyed and Smith (1998), Huybens and Smith (1999) and Denirguc-Kunt and Levine (2001).

Thorsten Beck and Ross Levine (2001) in a detailed study have explored the interaction between stock markets, banks and economic growth by using a panel dataset for 40 countries over the period 1976-1998. They set out to examine whether banks and stock markets each have an independent impact on economic growth. Towards this end they employed new panel econometric techniques in order to reduce the statistical shortcomings evident in many of the existing growth studies. Furthermore, their undertaking was also unique in that while most existing studies focus only on the bank-growth relationship[17] they set out to assess the independent growth impact of both stock markets and banks. This is crucial as the omission of an analysis of stock market development makes it difficult to assess whether a positive relationship between bank development and growth holds when controlling for stock market development. Furthermore, it fails to show whether banks and markets each have an independent impact on economic growth as well as making it difficult to identify the separate impact of stock markets and banks on economic success. The Beck and Levine (2001) study sets out to shore up these shortfalls in providing a comprehensive picture of the effects of all financial institutions on economic growth rates. Their findings prove that markets and banks are both equally important institutions impacting on economic growth rates. In addition, banks and stock markets are found to work jointly, regardless of the panel-methodology or the conditioning information they employ, in easing information and transaction costs, thereby enhancing resource allocation and economic growth. Furthermore, the measure of stock market development and the measure of bank development also, after controlling for other growth determinants, country specific effects, and potential simultaneity bias, exhibit a significant effect on growth regression. However, these positive conclusions

[17] For example, King and Levine (1993 a, b) show that bank development is the key factor explaining economic growth, while Levine (1998, 1999) and Levine, Loayza and Beck (2000) also show that the positive relationship between bank development and growth is not due to simultaneity bias.

need to be qualified. It must be recognised that the two-step indicator always indicates that both stock markets and banks independently boost growth. In addition, the impact of control variables such as government size, inflation trade openness and black market premiums must also be taken into consideration with regard to such assessments.

In another study, Levine and Zervos (1998) have found that initial measures of stock market liquidity and banking sector development are both strong predictors of economic growth over the eighteen years which their study covered. This approach, however, does not account for potential simultaneity bias, nor does it employ controls for country fixed effects (See Harris (1997) and Levine (2001)) or cross-country studies of stock markets and economic growth using instrumental variables (see, Atje and Jovemomic (1993)). Arestis, Demetriades and Luintel (2000) use quarterly data and apply time series methods to five developed economics and show that while the banking sector and stock market both influence growth rates, the effect of banking sector development is substantially larger than that of stock market development. Similarly, Rousseau and Wachtel (2000) also show that both banking sector and stock market development help to explain subsequent growth, even after controlling for reverse causality. However, what is evident from the findings of all these different studies is that while markets and banks may independently spur economic growth it is difficult to identify the specific components of the financial system most closely associated with economic success.

A developed stock market is as important to national economic growth as the banking sector. While the importance of the financial sector has long been recognised, the contribution of the stock exchange has been less obvious. What is clear is that while banks and stock markets may provide different and specific functions, their operations are not mutually exclusive and the efficient running of both institutions is essential in stimulating capital accumulation, improving productivity rates, and increasing the overall levels of economic growth.

CHAPTER 5

THE FEATURES OF ISLAMIC FINANCE IN IRAN

5.1 INTRODUCTION

Before beginning a detailed analysis of the capital market in Iran it is necessary to preface the discussion by examining the specific strictures of Islamic economics as they operate in the country's financial sector. This chapter sets out to describe the main features of Islamic finance in Iran, particularly with regard to issues such as interest and profit, as well as highlighting the Islamic reform of financial intermediaries and the functioning of Islamic financial facilities. Given that financial development and modernisation are predicated on a fully functioning market economy it is necessary to examine the specific and unique attributes of Islamic financial undertakings and their functioning within a global capital environment. Towards this end chapter five attempts to explain how the complex structure of Islamic financing works within, contradicts or adapts to the demands of the market economy.

5.2 THE FEATURES OF ISLAMIC FINANCE IN IRAN

More than twenty years have passed since Iran chose to employ a nationalised and Islamic based financial system. While the banking system was nationalised soon after the revolution of 1979, it took a few years before the usury-free Islamic banking law was passed into law in 1983. The nationalisation of the banking system was an attempt by the new regime to alleviate the financial chaos that occurred in the immediate months following the revolution and which saw the flight, a total collapse of confidence in the banking system, and runs on savings. The nationalised banks were then "amalgamated" leading to a situation where the Iranian banking sector was now dominated by fewer but larger banks all of whom were under government control. The revolutionary regime then set about Islamicising the entire financial system. This process involved the adherence of the financial system to the dictates of Islamic sharia law and included such decrees as the passing of a law forbidding usury and the elimination of interest which was replaced by "commission and minimum guaranteed" payments. The abolition of interest was not passed into law until late 1983 under the directives of the Usury-free Islamic Banking Operations Law, which is generally seen the pillar of the Islamic banking system in Iran.

5.3 ATTITUDES TOWARD INTEREST AND PROFIT

Islamic economics is based on a system of ethical values. The verses in the Qur'an that deal with economic issues are inter-related with those that are concerned with ethics and morals. The Islamic approach to economic issues views economic prosperity and spiritual development as simultaneously important and conjoined elements in the attainment of human happiness.

At the centre of the Islamic economic system is a collection of rules and institutions defined by the body of law of the Qur'an called *shari'a*. These declarations cover issues such as the allocation of resources, property rights, management, production, consumption, the functions and working of markets, and the fair distribution of income. In addition, to these core rules there also exists within *shari'a* a number of lesser injunctions derived from decisions taken by the religious authorities. This deliberate intervention in economic matters is aimed at enhancing the functioning of societies and improving the well being of its citizens.

5.4 PROHIBITION OF INTEREST

The earning of interest from financial transactions is strictly prohibited by the Qur'an and is the central and unique element guiding the design and conduct of Islamic financial and monetary relations. This prohibition revolves around the principle of preventing the exploitation of the needy and poor by charging interest on borrowed money. In this regard the Islamic approach differs fundamentally from all other economic theories in that while it considers money as a medium of exchange, a standard of value, and a unit of account in Islam, it rejects its function as a store of value and accumulator of wealth. The rational for this prohibition stems from four elements:

1. **Justice**: Islam considers interest un-justified and harmful to the health of society. If money is lent as a financial contribution, with no intention on the part of the lender to participate in the investment outcome, then he or she is entitled to receive their original sum (principal) back without interest. If on the other hand, money is lent with the intention of participating in the business outcome, the lender is then liable for a portion of the losses or profits arising from the outcome of the investment. The charging of interest on loans is even more contentious as such an action violates one of the main tenets of Islamic economics, the support of the needy with surplus wealth. In addition, the earning of interest is seen to have detrimental effects on society in that creates an idle class of entrepreneur who receive income on the backs of others rather than devoting their labour and enterprise constructively for the benefit of society.
2. **Contribution of capital holders**: a positive contribution by capital holders to real economic activity is encouraged in Islamic finance. Since money should not

yield money per se, money holders are expected to work hard and become directly involved in the business ventures they finance with their money.

3. **Decentralisation of wealth**: Islamic finance discourages the concentration of wealth in the hands of capital holders.

4. **Property rights**: Money represents the claims of its owners to the property rights created by the assets generated as a result of: a) individual labour and natural resources, and b) the exchange and remittance rights of those less able to utilise the resources to which they are entitled. The lending of money is viewed as a transfer of these rights from the lender to the borrower for which only a sum equivalent to the original figure lent can be claimed. In other words, interest charged on loaned money represents an unjustifiable claim on property rights.

In contrast to pure interest, profit is approved of and encouraged in Islamic finance. However, a condition of such earnings is that any profits accrued must be shared between the borrowers and lenders according to agreed percentages rather than absolute amounts. This is the principle around which the legal relationship between business partners revolves.

5.5 ISLAMIC FINANCIAL FACILITIES

As long as the conditions of financial contracts are consistent with *shari'a* there is substantial freedom in designing contracts based on the consent of the parties involved. The key issue in this regard is that the shares (profits or losses) of the parties to the contract be based on the principle of an uncertainty of outcomes. This is done in order to prevent the lender from realising higher returns on his financial capital when the capital wealth carries a higher value in the future. Even a guarantee by the working partner to protect the original invested capital is not allowed in Islamic contracts, because it replaces the element of uncertainty. The fact that Islamic financial arrangements carry a fixed rate of interest has meant that, despite the freedom it gives in designing contracts, certain key financial instruments are absent. To fill this gap, and in order to facilitate the workings of the general provision of uncertain outcome, a number of financial instruments or additional credit facilities were introduced by the authorities shortly after the revolution. In general, there are two main types of Islamic financial instruments: those, which are characterised by the sharing of profits (and loss) and those in which profit sharing is not applicable.

The instruments in the first group include *Mosharekat* (profit sharing), direct investment, and *Mozarebeh* (trust sharing). Those in second group include *Qard-al-hasan-e* (interest free loan-deposit), installment transactions, *Salaf* transactions (purchase with deferred delivery), *Ijare* (lease), *Morabeheh* (combined sales instalments), and *Iktina* (lease with eventual ownership).

Qard-al-Hasan-E (interest free loan/deposit)

Qard-al-hasan-e is an interest free loan that can be collateralised. It is used by banks as the basis for lending money and in the management of customers savings and current accounts. Borrowers repay only the principle to the bank plus a management fee that is set by the Central Bank. These loans are granted to institutions, individuals, and bank employees based on an assessment of needs and in accordance with directives of the relevant financial authorities.

Musharakat Madani (civil participation)

Under this contract the bank and the client negotiate the ratio, based on a feasibility study of the expected profitability of the project being financed, at which the profits from the financed activity will be divided between them. This contract is used for financing manufacturing, housing, trade, and services projects. There are two versions of such a contract.

In the first version, the bank and the client determine the profit distribution ratio according to the level of their respective capital contribution to the project. However, the contract also specifies that the bank will only get a share of the profit returns equivalent to the rate specified by the Central Bank and will forego to the client all profits in excess of this rate. Similarly, the client must compensate the bank if the profits accrued from the investment are less than the rate set by the Central Bank rate. Furthermore, the bank requires the client to provide collateral before proceeding with the loan in order to insure itself against any losses that may arise. In the second version, the bank calculates the exact *musharekat* ratio that would make the return to the bank equivalent to the lending profit rates as mandated by the Central Bank. The client is expected to pay a share equivalent to the agreed profit irrespective of the actual rate of profit and is also required to provide insurance cover for the financed items.

Banks get collateral on the m*usharekat* contracts indirectly in two ways. Firstly, when a contract is concluded the bank can extend a national *qard-al-hasan-e* loan (e.g. 1,000 rials) against which it requires the client to present a collateral with value equivalent to that of the *musharekat* contract. If the bank does not receive the agreed profit rate from the investment it will convert the outstanding balance into a loan and ask the client to pay it in addition to the *qard-al-hasan-e* loan or risk losing their collateral. The bank is also legally permitted to ask a client to present additional collateral to safeguard against possible financial misconduct.

Musharekat hoquoqi (equity participation)

This financial instrument allows banks to acquire shares in existing or newly established companies. They normally finance such activities from their own resources but they are also permitted to hold additional investment deposit funds to enable them to engage in such activities. There are certain restrictions, foremost of which is the need to obtain Central Bank approval, regarding the percentage of the bank's participation that can be invested as share capital. The bank derives its income from such investments according to the dividends declared by the respective companies.

Direct investments

Direct investment refers to the capital provision held by banks for the implementation of profit making, productive, and development projects. The banks normally utilise their own resources in committing to such investment projects. However, they are also permitted to use depositors funds subject to the return being in line with the minimum rate of return determined by the authorities. This investment scheme prohibits banks from investing in the production of luxury or non-essential products.

Mozarebeh

A *mozarebeh* contract is one whereby one party (the bank) undertakes to provide capital (cash) on the proviso that the other party (the client) only employs such capital in trade activities (buying and selling financed goods) and that both parties share the resulting profit (the distribution of profits and all other issues are handled in similar fashion to those of a *musharekat* contract). This is a restricted type of contract where the entrepreneur can only use the amount of funds specified in the contract. However, while the bank may be able to restrict the level of capital being invested, in practice, it has little control over how these funds are used. The client is also required to provide insurance cover for all activities financed.

Other investments

The banks are also responsible for investing in a number of other ventures such as government bonds, public utility bonds, and shares. Such investments are undertaken in order to utilise surplus funds or because of directives received from the authorities.

Salaf (forward delivery contract)

This is a contract used primarily to fund agricultural activities. In this instance a bank provides funds for the purchase of agricultural goods at a fixed price for a future delivery date. The contract gives a farmer *wekalat* (power of attorney) enabling him to sell the goods (on behalf of the bank) as and when they are ready for sale. The farmer is then paid a commission for his services. The contract also stipulates that the farmer is obliged to arrange insurance cover against any destruction or failure to produce the goods and is required to consult the bank in the case of the price of the goods falling below the contracted price. In practice, the farmer keeps the price difference if the sale price is higher than the forward price that was specified in the contract; in effect selling the goods to himself at the contract price and reselling them afterwards at a higher price. The bank only receives the profits arising from the premium on the forward price. If the sale price is less than the forward price the bank is expected to carry the loss, although in practice the bank rarely does so.

Morabeheh (combined instalment sales)

Under this arrangement, the customer pays the price of the subject matter, plus the bank's mark up, in instalments, over a set period of time. The mark up rate is determined annually by the Central Bank according to the type of industry or services being financed. The repayment period of the contract can range from one year for raw materials or up to twenty years for housing loans. Banks use the *morabeheh* contract to provide short, medium and long-term financing to the manufacturing (the purchase of raw materials, machinery, equipment and installations), housing, and construction sectors. The bank would normally insist on having the financed items insured by the customer for the entire duration of the contract. The agreement is collateralised by the assets acquired from the financing as laid down by the terms of the contract.

In the case of late payment a penalty, equivalent to an annual rate of 6 percent of the principle, is charged by the bank to the customer. In the event of default on payment the client is liable for the principle, the mark that would be accrued during the remainder of the term, and the 6 percent annual penalty. If the client continues to be in default after the expiration of the contract term a new mark up rate plus the penalty rate will be applied on an annual basis. Furthermore, the bank can choose to foreclose on the client by retaining the collateral.

Hire purchase under Ijare (lease) contract

Hire purchase is a leasing contract where the leaseholder, at the end of the period of the lease and upon fulfilling the conditions specified in the contract, receives the title to the leased property. This type of contract is usually used in the purchase of property. The bank enters into a contract whereby it acquires the property for the customer, and then enters into an *ijara* (lease) contract with the customer who pays rentals (profit plus principal) for the duration of the contract. At the end of the contract (i.e., when the customer has paid the full values of the asset, as agreed at the beginning of the contract) the title is transferred to the customer. Throughout the period of the contract the customer is responsible for the maintenance and insurance of the property. The profit rates accruing to the bank are based on the margin rates published by the Central Bank. Although, the title of the asset is in the name of the bank it must obtain a court order in order to get possession of it in the case of a default in payment.

Jo'aaleh (service financing contract)

When banks provide a *jo'aaleh* service they are acting as a broker for the user of loaned funds in financing an investment service (most investments occur in the housing but also in the trade and manufacturing sectors) for which they take a percentage of the profits as a service fee. When used for housing maintenance, the owner of the house would request the bank to arrange maintenance of the property with the borrowed funds being repaid by the customer in instalments. For small amounts third party guarantees are taken as collateral while for larger amounts the property itself serves as the collateral.

Mobilisation of funds

Banks are allowed to mobilise funds by offering a number of different deposit facilities, subject to banking regulations and legal directives. These laws state that the bank must guarantee all deposited funds and that customers can withdraw these funds on demand.

Demand deposits. These are current accounts that are used primarily for payment services. They are considered to be a type of *qard-al-hasan-e* from depositors to the banks and as a result customers do not earn any returns on them. In addition, current account deposits are guaranteed by banks and can be withdrawn on demand.

Saving deposits. These deposits, like demand deposits, are based on the system of *qard-al-hasan-e*. However, they differ slightly in that if a specific minimum average balance is maintained for at least 3 months, depositors become eligible for an annual raffle bonus equivalent to 2 percent.

Investment deposits. These are income earning deposits with maturity periods that range from 3-months, to 1,2,3 and 5-years. These deposit types bear a certain similarity to the *wekalat* contract, where banks are entrusted by depositors to manage their funds, for a fee, with depositors bearing all the risks. However, the main difference lies in the fact that in this instance the bank is subject to the strict controls of the Central Bank. At the beginning of each year the Central Bank announces the expected profit rates for various deposits facilities (in 1999/2000 they were 8%, 14%, 15%, 16%, and 18% respectively for the 3-months, 1,2,3, and 5-year deposits). These rates represent the expected profitability of the banking system as a whole. Depositors are compensated according to the pre-announced rates regardless of whether the particular bank they placed their deposits in made a profit or not. If the bank's profits turn out to be higher than the announced rates, they are obliged (at the instruction of the Central Bank) to make additional payments to depositors. In the reverse situation, where profitability rates are less than expected, the banks are still expected to meet the returns guaranteed to depositors by the announced rates.

Special investment deposits. These are special deposit facilities, such as pension funds, which certain financial institutions are allowed to operate on receipt of an official government permit. The bank acts as the true manager of such funds (under a *wekalat* contract) and places them in specified projects and investment ventures. All profits accruing from such undertakings are forwarded to depositors with the bank taking a negotiated fee for its services. These funds are permitted to be lent out at rates higher then those announced by the Central Bank, thus earning higher rates of returns for depositors.

Special trusts deposits. The funds in these deposit accounts are placed there by individuals and organisations for the directed purpose of being used for/donated to charitable causes. The bank charges an agreed fee for providing this service.

Foreign currency deposits. Foreign currency can be placed in demand, savings, or 3-month investment deposit accounts. The demand deposits do not earn any income whereas the 3-month account earns LIBOR plus one percent (as a maximum). The foreign currency is then placed by the bank in the Central Bank at a rate equal to the LIBOR plus two percent interest.

Inter-bank Market. This is where banks place their surplus funds in other banks. However, this practice is not very common and is usually done on the instructions of, and according to the terms (rates and maturity) determined by, the Central Bank.

CONCLUSION

An obvious conclusion to be drawn from the foregoing analysis of Islamic financing practices is that all investors and capital users, regardless of their religious convictions, or indeed, the financial system in which they operate, are primarily motivated by the same financial concerns. All are driven by profit and seek to limit the risks to their investment. In addition, they value liquidity, if the cost is not too high, and tend to prefer the quick return that accrues from short-term rather than long-term investments. Islamic finance will grow only to the extent that it can respond in a reasonably efficient way to these basic economic drives (Frank e. Vogel and Samuell. 1998). Indeed, such a response or accommodation with these demands are somewhat urgent given the fact that no financial system can survive in the contemporary world unless it is in a harmony with dominant global financial market forces[18].

[18] For more details see, Nagavi, S. (1981) *Ethics and Economics,* (England), Frank E. and Samuel Hayes (1998) *Islamic Law and Finance* (Kuala Lumpur), and Sadr M. (1982) *Our Economics* (Tehran).

CHAPTER 6

FINANCIAL MARKETS IN IRAN

MONEY, CAPITAL AND INFORMAL MARKETS

6.1 INTRODUCTION

The financial systems of developed countries, through a combination of experience and agreeable laws, are generally defined as well functioning formal financial markets conducive to capital and investment ventures. The situation in developing countries by contrast is one where, due to contradictory policies and poorly functioning legal regulations, financial systems are "repressed" and "informal" financial markets exist. Such a financial structure stands as a major obstacle in encouraging investment and stimulating economic growth and development. This is very much the case in relation to the functioning of financial markets in Iran.

This chapter presents a detailed description and analysis of the structure and peculiarities of the Iranian financial markets. In this respect a detailed examination of both the Iranian money market and its capital market, especially as it relates to the Tehran Stock Exchange, which is the only existing market for long-term capital in Iran, will be undertaken. Finally, given the developing nature of the Iranian financial system a detailed analysis will also be provided of the "repressed financial" system and "informal" financial markets that arise and exist as a result of this situation.

6.1.1. CLASSIFICATION OF FINANCIAL MARKETS AND THE IMPORTANCE OF THE SECURITIES- BASED SYSTEM

An important distinction should be drawn between the securities based and bank based financial systems in terms of the benefits of using the mechanism of securities issuance. The following are the main points to be considered in this regard:

1. Securities provide direct finance for governments, municipalities and production/ commercial units and are issued in order to secure capital for the balance sheets of governments and private sector entities. In most developed capital markets the average capital dependency of large industrial entities issuing shares and other types of securities in securing financial resources is over fifty percent. By contrast long–term capital institutions such as the banking system play a minor role in such ventures. However in Iran, as in many other developing countries, where there exists a large banking system, on which all financial institutions and investors depend, such capital dependency rates are not attainable.[19]

2. The divisibility of capital. In some cases, the size of the capital required for a project is so large that securing the entire capital would be impossible for one or even a few investors to undertake. By "dividing capital" securities based markets allow for such large-scale projects to be financed.

3. The formation and accumulation of national capital in the economy. One of the basic methods in the formation and accumulation of capital in an economy is through the centralisation (organisation) of the activities of the financial markets. By issuing and

[19] The term "repressed" financial system is used in describing the financial systems of developing countries, see Gurley, J., and E. Shaw, (1960), *Money in a Theory of Finance*, Brookings Institute, Washington D.C., and (1955), Financial Aspects of Economic Development, *American Economic Review*, pp. 515 – 38.

distributing securities, companies and municipalities allow for public participation in economic and development affairs.

4. Increasing capital efficiency and optimal portfolio arrangements. The operation of selected portfolio arrangements through financial markets allow investors to maximise the "efficiency" of their capital. Such portfolios are in turn made more efficient by the diversified use of a variety of short and long-term and "risk less" government securities.

5. A channel for transferring ownership and privatisation. One of the main ways in which the ownership of government owned economic units can be transferred to the private sector is by the selling of shares on the financial markets. The Iranian stock exchange, or Bourse, plays a leading role in such enterprises[20].

6. Achieving the optimal capital structure for the projects. Securities, in addition to bank based funds, are key facilitators in helping to obtain the maximum capital structure for a given project.

There are certain other advantages, such the increased efficiency in mobilising funds[21] and an accurate and unbiased pricing system, that also arise from securing resources on open financial markets. In addition, an auction and market orientated system sets and standardises prices that lead to less financial distortions than would be possible in the banking system. However, such benefits do not accrue to repressed financial markets. This is very much the case in Iran where the repressed banking system has little impact, especially with regard to government financial borrowing requirements, in effecting the rate of inflation. This lack of

[20] It should be noted that due to the high risks involved in a securities market, especially shareholding, and contrary to the beliefs of some officials in Iran, the Bourse is not a safe medium for creating or expanding a policy of "social justice" in relation to the distribution of income.
[21] Here "efficiency" is defined in terms of latest and most up to date prices.

control can be clearly evidenced in the instances where ministries and municipalities obtain credit through the banking system. These financial undertakings are usually accompanied by an injection of reserves and an increase in "high powered money" both of which have drastic inflationary repercussions. Such detrimental outcomes could be avoided by engaging in a securities flotation as such an action has no inflationary effects. Minimising the cost of capital (COC) through securities issued in an efficient market system is also available to other economic entities and is necessary for maximising the value of a firm. In other words, interest rates and output are inversely related in the real sector of the economy[22].

6.1.2. CLASSIFICATION OF FINANCIAL MARKETS

Having drawn a distinction between market and bank based financial system it is beneficial to draw a number of further distinctions in differentiating between long and short-term financial markets. Globally speaking, financial markets can be classified according to several different categories:

A. Money Market (with short–term maturities)

A–1 Official Money Market (credit facilities)

A–2 Inter–bank Money Market

A–3 Deposit Market

B. Capital Market (with long–term maturities)

B–1 The Bond Market

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[22] See, Hubbard, R.G. (1997) *Money, the Financial System and the Economy*, (2nd ed.), (Addison Wesley: Massachusetts), pp. 618 – 20.

B–2 The Stock Market

B–3 Other Markets (e.g. Futures Market)

C. Informal (Bazaar) Market

It must be noted that the application of this taxonomy is somewhat limited in the case of Iran. For example, category A (money market), with the exception of credit facilities, is absent in Iran. In addition, while an inter–bank money market exists it is too small to have any significant impact in effecting monetary policy or the efficient flow of funds. This is particularly evident in the case of the Central Bank which possesses no inter–bank system and is therefore greatly hindered in its ability to influence and effect interest rates exists.

6.2. THE IRANIAN BOND MARKET

These developments were introduced in order to expand and increase the financial development and financing of both government and private funded projects within an Islamic based economic framework. Towards this end the Central Bank, having considered recommendations from academics and practitioners involved in the financial sector, decided on the introduction and design of a new type of security in 1995. This was soon followed by a decree from the Currency and Credit Council legislating for the introduction of what became known as “participation securities”. The rules governing the operation of this new security were established by the Central Bank. The Tehran Municipality first issued the bonds in order to finance a city renovation project.

6.2.1 **The need for participation securities**: These were seen as essential introductions into the Iranian financial market given the undertakings to remove interest from transactions and the strict Islamic principles governing usury and banking operations. In addition, it should be recalled that bonds were abolished by the new regime in the early years after the revolution. This further exacerbated the need to introduce some new form of securities that would replace the now defunct bonds and debt certificates. Such undertakings were seen as necessary and crucial elements, particularly given the current economic conditions in Iran and the "lopsided" balance sheets experienced by most enterprises, in encouraging and stimulating economic growth. This was especially true given the fact that government resources were not sufficient for the vast number of development and reconstruction projects that were urgently required, particularly after the devastation of the eight-year war with Iraq. At the same time, the traditional resources of revenue, such as oil incomes, were severely reduced. Hence, it became essential to look for, develop, and utilise non-traditional sources of financial instruments. This issuance of participation securities was also important as a means of offsetting the mounting budget deficits that had resulted in an increase of government and public sector debt to the Central Bank, which had further resulted in an increase in the monetary base liquidity levels. In addition, these new securities also allowed for the increased and more efficient absorption of public savings.

6.2.2 **Prediction of participation securities in the annual budget of the country:** Arising from the budget law of 1996 the government was authorised to issue participation shares with a view to accelerating the completion of construction projects as well as national and provincial schemes. These securities work according to a system where the government guarantees the principal invested and is contracted to pay all profits arising from the investment to the investor every six months. In recent years, certain companies, in both the private and public sectors, have obtained permission from the Central Bank to issue three to five year participation securities in order to complete unfinished projects or to secure working capital.

6.2.3 **<u>Problems and ambiguities in the participation securities market:</u>** As a form of financing participation securities possess a number of clear advantages. Firstly, the organisation that issues the securities is able to determine the due date in accordance with their financial strategy. The volume of securities can also be determined in proportion to the financial needs of the companies and country to the pre-determined threshold of banking facilities. This allows the capital structure of the project to be facilitated through the use of gained resources and enables capital engineering to take place thus reducing the project's overall capital costs. Second, the lack of the owner's right to vote in the public assembly of the companies or projects allows more options to those charged with executing the related project. In addition, the publication of these securities can also help to prevent the increase of a monetary base and of cash levels, thus reducing inflationary pressure. However, whilst acknowledging these benefits it is also necessary to bear in mind that these securities also have a number of disadvantages foremost of which is the fact that they are not yet allowed to be traded on the Tehran Stock Exchange. Furthermore, the organisations and investors that issue these securities are subject to the uncertainties involved in dealing with diverse groups of lenders rather than with one financial institution such as a bank. Also, projects and their executors are subject to the information disclosure regulations of the market where all information must be made available to the public domain.

6.3 THE IRANIAN MONEY MARKET

The "banking system" (in its broad definition) in Iran is made up of the following main institution: nine governmental commercial banks, four specialised (development) banks, three private commercial banks, several non-bank financial institutions, and the Central Bank of Iran. In conjunction with this formal system, there is also a growing "informal" financial sector, which is primarily concerned with short–term credit trade and self–finance. This contrasts with the long–term financing of the Iranian capital market, which primarily takes place through the Tehran Stock Exchange.

1. Official Money Market: Treasury Operations

To understand the peculiarities of the Iranian (formal) money market particular reference needs to be made to the activities of the Treasury and the Ministry of Economy and Financial Affairs. The Iranian Treasury belongs to and is directed by the Finance Ministry, but is operated by the Central Bank.[23]

2. Iranian Inter- Bank Money Market

The Iranian inter-bank money market can be divided into two main sections (a) Bridge Financing and (b) Inter-bank Deposit Market.

2.1. Bridge Financing

In the Iranian money market bridge financing functions more or less as a discounting paper mechanism between the Central Bank and the commercial banking system. If and when a bank falls short in its loan obligations the Central Bank acts as a "lender of last resort" by advancing loans to the said bank. However, this mechanism functions differently from discounting paper in that in this instance there is no "paper" to discount. The source of this "bridge financing" is the legal reserve and clearance accounts of the commercial and specialised banks maintained at the Central Bank. Reserve accounts contain the legal reserve requirements and clearance accounts that are mainly used for check clearance within the

[23] Specialised and commercial banks are active in financing fixed capital enterprises of to 3 years, which can in certain circumstances be extended up to a total of five years. The repayment of these facilities is to be paid back between two and three years after the end of the agreed term i.e. this would mean that the total contract would take eight years in the case of a five year agreement.

banking system[24]. In bridge financing, the Central Bank initially relies on the "extra" funds left over in the clearance accounts over and above the zero clearing level.[25] However, if there were not enough clearance account funds to satisfy the banking system "demand for bridge financing" (or demand exceeds the "supply of float"), and if the Central Bank wishes to inject funds into the banking system and engage in expansionary monetary policy, it then resorts to using funds from the legal reserve accounts. In this situation total reserves could drop below the level legally required putting a strain on its daily operations and financial obligations as well as over-extending its credit limits.[26] The interest rate on these transactions is set very high, usually between 30 and 36 percent (monthly at 3 percent), so as to "penalise" the requesting bank. As an example of an inter-bank market it is worth noting that "bridge financing" is a relatively new phenomenon in Iran (prior to 1991 it did not exist at all) and has only operated within the Iranian money market for the last twelve years.

2.2. Inter- bank Deposit Market

A second type of inter-bank system exists in the Iranian money market based on the flow of funds from the commercial banks to the specialised banks. This "inter bank market" is created and directed by the Currency and Credit Council (CCC) and managed by the Central Bank. Examples of institutions using this system include the Agriculture Bank and the Industry & Mines Bank[27]and the system itself is notable for the fact that it functions in an area where most specialised banks are not deposit taking institutions and where their deposits and allocation needs do not necessarily match. However, due to the adoption of a philosophical

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[24] The government sets the bonds at a very low rate usually in the range of 1.5 to 2 percent (see Currency & Credit Council Directives, Bank Supervision Department)

[25] The commercial banks are government owned and operate under the supervision of the Central Bank of Iran. Thus, there as no collateral used for these transactions and accounts are kept by the clearance organisation attached to the banking system.

[26] The balance in the clearance account is part of each bank`s reserve account.

[27] The Housing Bank is the only specialised bank in Iran which has increasingly relied on deposit taking processes. This has led to the introduction of a number of new deposit mechanisms in order to fulfil the needs of prospective homeowners.

development strategy of "balanced growth" in Iran[28], the central Bank has determined that deposit funds should flow from the commercial banks to the specialised banks. In determining the amount of funds that can be given by the commercial bank to the specialised banks the CCC uses the following formula and procedure:[29]

Balance of Facilities already allocated + (plus)

Old Obligations by Banks (to be met during the year) + (plus)

Forecast of New Obligations (through the annual budget) + (plus)

New Obligations by Banks (according to their own management).

A second series of items should also be considered:

Balance of Old Deposits + (plus)

Forecast of New Deposits (absorbed during year) + (plus)

Fresh Injections (determined by the budget process)

The amount that can be lent is determined as the difference between the first and second series of items. In addition to deciding the amount of funds allowed to flow within this "inter bank system," the CCC also determines the loan rate and the duration of the "inter-bank fund" loans. The inter-bank rate is generally set at low levels and currently is about 7 percent[30]. The rationale used in deciding this rate is the belief that it should be below the "cost of funds" at the commercial banks. However, the CCC "pricing" system has the detrimental effect of

[28] There is no official statement on this "balanced growth" strategy, but its existence can be inferred from the content and tone of official speeches relating to monetary and finance policy

[29] This practice may lead to "over loan." Over loan refers to the financial policies adopted by the Japanese banking system and the Bank of Japan during the post-WWII era.

[30] The top deposit rate at commercial banks is 24 percent. See Currency and Credit Council (CCC) directives during the first development plan (1989 – 93).

reducing the "spread" of Iranian commercial banks and damaging their profitability, capital adequacy and long-term growth rates.

2.3. THE PECULIARITIES OF THE IRANIAN DEPOSIT MARKET

The Iranian "money market" can be seen to be a somewhat limited market in comparison with the wide array of "deposit market" choices available in more advanced countries. Differences with more advanced markets are also discernible in the area of deposits, or packaging in such instruments as the certificate of deposits, which are not transacted between banks in any money market. Such problems are lessened in instances where personal deposits with banks can be used as collateral in certain transactions and where bonds (such as "performance bonds") are issued allowing for the pursuance of transactions such as housing and development contracts. However, the main obstacle to the creation and development of an advanced and fully functioning money market in Iran is the absence of financial instruments like certificates of deposits. In turn, this shortcoming causes deposit funds to be under-utilised by banks thus discouraging an active market and reducing economic growth.

6.4 AN INTRODUCTION TO THE INFORMAL FINANCIAL MARKETS

In general, developed countries, due to their experience and progressive laws, are seen to have well established and what are known as "formal" financial markets. Developing countries by contrast, lacking the necessary experience and possessing contradictory laws and unsure policies, have a "repressed" financial system that leads to the formation of "informal" markets. Despite the fact that such markets exhibit certain useful features, for the most part they are generally seen as obstacles to economic development.

In examining the different structures of various financial systems and markets is worth mentioning that (in principle) capital and investments are not bound to specific markets and borders. They have the ability to move across a country's borders, from one city to another within a particular country or from a formal financial sector to an informal market. Such movements are often referred to as capital flight or disintermediation[31] and are seen as undesirable policies responsible for the formation of a repressed financial system and a reduction in levels of productivity. This is a situation that is exacerbated by the parallel relationship between these markets and the underground economy leading to a further reduction in financial resources. The international capital restrictions in Iran have added to the depth of this problem of capital accumulation.

6.4.1. DEGREE OF DESIRABILITY, TAXONOMY , AND FINANCIAL MARKETS

The desirability or benefits arising from informal financial markets lies in the fact that they offer financial services to those who, due to past records or a lack of security, are excluded from the formal financial. Furthermore, since the cash paid to these people can be used in production or for personal financial needs it can lead to certain instances of growth. However, these benefits are far outweighed by the negative effects that such markets have on the financial system and the economy at large.

The existence of informal markets stand as a marker highlighting the inefficiency or ineffective operation of the formal financial system. The restrictive laws and the lengthy procedures involved in securing loans and credit in the formal system are all factors that lead individuals to use, and indeed sustain, the services of informal markets. In the majority of

[31] For a more detailed discussion on disintermediation, see Mishkin, F.S., (1995), *Money, Banking and Financial Markets*, (4th Ed.), (New York: Harper Collings), p.245.

cases there are no reliable statistics and information about the functioning of informal financial markets, hence the identification recognition and detailed analysis of these markets is somewhat problematic. However, in a developing country such as Iran it is possible to identify the operation of four main financial systems: formal financial organisations and markets, semi-formal financial markets including "self–finance" operations, grey markets[32] and black markets. The majority of self–financed operations are those that involve the direct investment by individuals in housing (the majority of real estate developers rely on this source of finance), small private productions, and trade units. Grey markets include the operations of co-operative organisations and credit groups as well as certain "loan funds". Whilst these markets are not illegal per se most governments tend not to look too favourably on their operations. This situation contrasts with that of the black market where all activities are deemed illegal. Black markets are involved in activities such as smuggling or illegal foreign exchange transactions that can disrupt and control a country's exchange rate and balance of payments capital account. For example, before the collapse of the USSR, and despite the prohibitions on exchanging the rouble for foreign currency, there existed a huge black market in illegal foreign exchange transactions in Moscow. This business was endemic within most sectors of the economy even including the largest supermarket in Moscow, GUM, which conducted such business next door to the offices of the secret police. In Iran following the government policy shift in April 1995 from "liberalisation" to "stabilisation", the foreign exchange grey market has now become a black market.

[32] These terms are explained below. See Adams, D. and R. Ladman, (1979), *Lending to the Rural Poor Through Informal Groups, Savings and Development*, (World Bank publication) for more details.

6.4.2. THE FACTORS DETERMINING "CAPITAL FLOW" TO INFORMAL MARKETS

This section sets out to explain the factors and variables that effect the change of formal assets into informal ones, or what might be defined as a reduction in the proportion of formal assets to informal assets, as well as examining the causes behind the flight of capital from formal to informal markets.

6.4.3. EXPECTED RETURNS ON THE PROPORTION OF FORMAL ASSETS TO INFORMAL ASSETS

The choice between these two types of assets is primarily determined by the expected rates of return. The increased returns accruing from informal assets has led to many investors reorganising their investment portfolio returns to include a larger proportion of informal assets. This in turn has resulted in increased incidences of capital flight and led to an expansion in informal markets. It is also worth mentioning that in this instance "return" refers to and includes the vast spectrum of returns, such as those in the banking system, the non-banking sector and those related to stocks and bonds, occurring in both sides and at both extremes of these markets.

6.4.4. EXPECTED INFLATION

The owners of assets tend to favour the receipt of adjusted or real returns rather than the nominal returns that accrue from expected inflation rates. As a result, an increase in expected inflation rates reduces the real rate of formal returns and consequently causes more demand for informal assets. In other words, an increase in inflation (or its expectation) reduces the purchasing power of the returns on formal asset investments to the benefit of informal assets.

6.5 THE RELATIVE RISK OF FORMAL AND INFORMAL ASSETS

Increases in investment risks inside formal markets tend to result in outward capital flows that contribute to the development and expansion of informal markets. In other words, if risks increase in the formal sector without a subsequent upward adjustment in rates then alternative investment opportunities are sought by investors in the informal sector.

6.5.1. THE EXCHANGE RATE IN INFORMAL MARKETS

The exchange rate (and expected exchange rate) could be considered as a separate factor in the development of informal markets. In general the weakening of the exchange rate causes a reduction in the wealth value of formal assets and leads to an increase in the holding of informal assets.

6.6 MAJOR ECONOMIC FACTORS AND GOVERNMENT POLICIES

Major monetary policies and decisions, such as an increase in the growth of money stock or the persistent growth of the volume of money due to budget deficits and financial policy directives, can also play a large part in effecting the replacement of formal assets by informal ones. It is therefore extremely important that a government is mindful of its fiscal actions so as not to distort the structure and balance of the formal financial sector.

TAXES

High taxation, or a substantial increase in tax rates (taxes on returns, on income, on wealth, etc.) increases the tendency toward the holding of informal rather than formal assets. Indeed, such policies can also lead to increased incidences of tax evasion.

OTHER FACTORS

With the exception of countries such as Switzerland, where bank secrecy laws play a major role in the attraction and protection of investment in the formal sector, in general, restrictive and inflexible laws are seen as key contributors in the development of informal markets.

FINANCIAL STAGES OF DEVELOPMENT

Another reason for the establishment of informal financial markets is that they often represent the first stage on the road to developing a formal market in instances where the latter does not yet exist. This allows an economy the opportunity to establish certain financial structures where none exist and enables a developing country to take the first steps, in time, toward a fully functioning and regulated formal financial structure.[33]

LOW RETURNS AND RISKS

In instances where the returns on assets in the formal financial system are reduced, due to such factors as inflation and/or legal complications, or where greater risks to investment become evident, there tends to be an accompanying outflow of funds toward better opportunities existing in the informal sector. From this viewpoint a high-risk financial system

[33] From this perspective, one should not consider all components of informal markets harmful and unnatural.

with negative real rates, as in the case of weak banking system, is one of the most significant reasons encouraging the development of informal financial markets.

SMALL UNITS AND TRADERS

Most small unit investors such as farmers, traders and unregistered units, do not posses the ability or capacity needed to secure their financial needs through formal markets and banks. Furthermore, the facilities requested by these units are generally very small and the high transaction costs that they encounter in dealing with institutions such as banks make such sources of finance financially unviable. These factors, combined with the formal markets unwillingness and inability to easily evaluate the credit risk of these units, force such small-scale investors to use informal markets.

CAPITAL RATIONING AND QUEUES IN THE FINANCIAL SYSTEM

In an underdeveloped formal market additional demands on or scarcity of capital exists and in the majority of cases resources are allocated through capital rationing. Such a situation inevitably leads to "queues" in the financial system which result in many of the smaller economic units leaving the formal market for the informal or black market.

6.7 PROBLEMS IN EXECUTING USURY LAWS AND REAL ISLAMIC BANKING

The highly regulated nature of the financial system in Iran, with its laws prohibiting usury and its strict alignment with Islamic principles, in many cases induces investors, not willing to deal with red tape and seeking higher returns, to become involved in illegal dealings in informal markets. Furthermore, the difficulty and deficiency in executing a "usury less" banking law and establishing a partnership system between depositors and lenders also assists in the development of informal markets where "high" rates are available to investors.

TEHRAN INFORMAL FINANCIAL MARKET FEATURES

In developing countries the majority of economic activities are derived from the financial dealings of small-scale economic units such as farmers, retailer producers and traders and owners of small industries. The majority of these units do not "register" with government offices and in certain instances do not even possess a business license. However, despite this they have very specific financial needs that are essential in supporting their various different enterprises. For example traders require short–term financial security to buy goods as well as short–term investment opportunities for their temporal surplus capital. This contrasts with retailer producers who generally need middle term financial resources for buying facilities or employing a labour force (family or non–family). These needs are different in turn from those of small farmers who require a financial system that will be able to cope with erratic seasonal incomes and high–risk fluctuations. In this respect the organisation and characteristics of the formal financial sectors are not necessarily conducive to or able to deal with these particular financial needs. As a result smaller scale financial units look to the informal market to meet their various capital and investment requirements.

The main reason for this alignment of small-scale economic units with informal markets lies with the ease by which the former can receive credit resources than in formal markets which tend to have a lengthy and complicated bureaucratic procedure. Furthermore, the profit rate on deposits in informal markets tends to be higher as well as the fact that deposit markets are not registered, making it easier to conceal incomes from tax auditors.

The informal market is also kept active by, and indeed could be seen to fill a gap arising from, shortfalls in the formal market such as a shortage of funds, a scarcity of investment in certain particular sections of the economy, or collateral requirements that are too high for many investors to meet. However, whilst informal markets, operating on a system of personal contacts and bilateral confidence, can substantially reduce certain transaction costs they also increase the financial risk to investors. The measures taken to guard against and reduce the risk factors rest on an informal system of "social prestige" built on mutual trust and a desire not to jeopardise future dealings in the market. From the perspective of the limited studies, including the World Bank's research, conducted on the conditions of financial markets in developing societies, the major characteristics of informal financial markets can be presented as follows.

PLAYERS AND INFORMAL MARKET RATES

The main players associated with informal markets include, merchants, moneychangers, goldsmiths, second–hand dealers, relatives, friends, and small-scale economic agents. The make up of the market is somewhat dictated by the fact that informal markets are not designed for long–term activities and the maturity time scale of most transactions is very short. This wide range of actors is matched by a large volume of financial transactions as reflected in the vast spectrum of interest rates observed in informal markets.

RISK PREMIUM

In informal markets a transaction between a credit provider and credit receiver takes place on the basis of previous financial records and a familiarity with available information, both of which are designed to reduce the investment risk for both parties. However, in instances where the necessary records do not exist, or where one cannot accurately verify the risks involved, a risk premium with high daily and monthly rates will be established between the two parties. These premiums, and indeed transaction expenditures as a whole, are high due to the fact that the risk factors in informal markets cannot be distributed or offset socially i.e. via the governmental banking system.

In certain situations where the lender and borrower are friends or well known to one another cash can be loaned "without interest". Of course, money loaned without absolute interest does not exist, but a non-pecuniary return can replace materialistic return.

RECEIVING INFLATION PREMIUMS

Inflation premiums are another reason for high informal rates. Indeed, in certain situations where an inflation premium is not paid into the banking system, the resources tend to flow to the informal market. The inflation rate on consumer goods in Iran has increased substantially over the past number of years from 20.7 percent in 1991 to 44.5 percent in 1995. However, during this same period the time deposit rates in the banks increased at a much slower rate. This has been one of the most critical reasons for the establishment of informal markets in Iran as the possibility of receiving an inflation premium in banking system does not exist. Therefore small and big deposit markets invest in the informal system to prevent the fall in the value of their money.

USES OF INFORMAL FINANCIAL RESOURCES

As mentioned short-term commercial traders (in Iran this refers predominantly to those operating in the traditional bazaar) are the main users of the informal financial market. They use this form of market primarily to reduce income fluctuations, for personal needs and to access capital funds in times of emergency. Such short-term uses, in conjunction with the high rates charged, tend to militate against the use of the informal market by large production and industrial interests whose focus tends to be more long-term.

SEMI-FORMAL ORGANISATIONS AND GREY MARKETS

Co-operatives and credit groups are the main institutions operating within the "semi–formal" or "grey" market. These organisations have a predominantly humanitarian focus and are usually set up by governments or benevolent individuals. The "Grameen Bank" in Bangladesh is an example of one such successful semi-formal organisation and has now over 300 branches operating throughout Bangladesh. In Iran, co-operatives are organised by, and operate under the auspices of, the Co-operative Ministry.).

ESTIMATES OF TRANSACTIONS CONDUCTES IN TEHRAN'S INFORMAL FINANCIAL MARKET

In attempting to approach an understanding and analysis of transactions conducted in the informal markets it must be realised that in many cases figures do not exist and available statistics are often unreliable. This is a factor that is further hindered by the fact that in general the incidents of informal markets are seen to be higher and much more prevalent in developing rather than developed countries. In other words, the reliable and open information that exists in developed markets through official monitoring and regulation and the pursuit of financial-liberalisation policies does not exist in informal less developed markets.[34] Therefore, most of the statistics concerning the informal sector have been collected via sampling.

According to World Bank reports there are instances in certain less developed countries where informal credit equals 80 percent of formal credit and accounts for some 17 percent of the national income.[35] Other statistics have also shown similar findings as in the case of Bolivia where one-third to half of the population in certain cities were found to have

[34] World Bank, (1989), Work Development Report, Washington, D.C.

[35] This compares with the underground economy in the UK which is estimated to be 3 to 11 percent of national production. See, Higgins, M., (1988), "Assessing the Underground Economy in the United Kingdom", in Feige (ed.), *The Underground Economies*, (Massachusetts: Cambridge University Press).

participated in periodical credit and deposit assemblies. These studies have also found that large co-operatives, such as the Grameen Bank in Bangladesh which has 250,000 members and is active in 5400 villages, are big players in the informal markets of less developed countries. Similarly, the "micro fund" organisations of Java serve around 8500 villages and pays $100 million in small credits annually.

However, it must be noted that black markets exist because of their high profit rates and as a result they are not simply restricted to economies of developing countries. For example the US economy has a large black market where loan sharks charge exorbitant rates of interest on loans and where transactions in illegal goods such as narcotics net huge profits

The Iranian *bazaar* (including trade credit and exchange market) is traditionally seen as the main informal market in Iran although it should be noted that other informal financial organisations also operate in the economy. The Tehran Bazaar is one of the main financial institutions in the country and is responsible for the transfer of large amounts of financial resources and capital most of which is in the form of trade credit. This informal market is not just restricted to traders and it also includes the financial activities of many of smaller production units and individuals. Indeed, the financial power of the *bazaar* can be seen from the fact that prior to the central bank circulars in 1995 prohibiting traders and companies from using foreign exchange markets, most companies had used the informal market in obtaining and financing their exchange requirements.

In addition, many companies have stated that they are forced to use the informal market for their financing needs due to the inefficiency of the banking system.[36] These actions also extend to employees of companies who use the informal sector to obtain interest free

[36] For example, the directors of a particular manufacturing producing company claim that during the past number of years at least 10 percent of the financial resources needed to finance trading have been provided by the informal market. Another private company has also told of the 10 million rial loan that it borrowed from the informal market in order to pay to have its goods/merchandise released from customs.

loans from employers. This practice is so widespread that the financial manager of one particular service unit estimates that such actions account for a more than 10 percent reduction in the average employee's pay packet. Furthermore, it is estimated that if only one-third of employees borrow in this way then the figure accruing to the informal market works out about 3 percent of total incomes. Although, there have been no comprehensive analyses estimating the exact volume of trade conducted on the informal markets in Iran there does exist a number of sampling studies that serve as a foundation for future investigations.

INVESTIGATIONS BY THE IRAN BANKING INSTITUTE INTO THE VOLUME OF TRADE CONDUCTED IN INFORMAL MARKETS

The findings of the Iran Banking Institute sampling study of 1993 into the use of informal markets estimated that the share of informal financial market in Tehran for the year 1991 was 21 percent[37].

In return, those who requested loans succeeded to take a credit of 45 percent from the Qard–al–Hassaneh funds, 29 percent from their affiliated organisations and 45 percent from the co-operatives.The two above–mentioned studies contradict each other.

But, with the consideration of the estimated results it is observed that the related figures are compatible with each other to a great extent.

If the group of "Friends" in the studies of Central Bank is considered a component of informal market and added to the informal "usury" market, the drastic differences between these two studies would be eliminated. In other words, it could be estimated that informal market (including "usury" market and friends) include between 18 to 21 percent of the total financial partnership. Between 45 to 50 percent belongs to Qard–al–Hassaneh funds, 28 to 29 percent to affiliated organisations and between 3 to 5 percent to co-operatives.

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37 Iran Banking Institute, (1993).

ESTIMATE OF LENDING RATE

The results of these estimations (i.e. estimating the proportion of informal market facilities to those of the banking system and then combining them with the Central Bank study) suggest a larger and more active informal financial market. According to this analysis the proportion of the total informal facilitation to the banking system in Tehran was estimated to be roughly 48 percent. It was also found that 60 percent of loans had taken place in the informal market. However, with regard to the average loan amounts available in the informal market the estimates showed that that this figure stood at about 32 percent relative to that of the banking system facilities.

INTEREST RATES IN THE INFORMAL FINANCIAL MARKET

The studies examining the functioning and use of interest rates in Tehran's informal financial market date from the period before the Islamic Revolution of 1979. However, an analysis of these studies, in this case a 1965 report, provide a clear, and still relevant, picture of the functioning of the informal sector in Iran, which, particularly in the case of the *bazaar*, despite political upheavals has continued to operate in much the same way as it has done for centuries. The report under investigation shows large fluctuations in profit rates over the course of the year. This erratic behaviour can be attributed to a number of different factors.

The first three months of the year exhibit small fluctuations that became much more pronounced in the second half of the year as commercial activities declined sharply as a result of a deadly epidemic that occurred in the northern and eastern districts of the country. In Tehran, market transactions came to a virtual standstill with a resultant effect on profit and interest rates that saw the signature of "excellence" (lowest risk premium) register at 1.5 percent and the signature of "first class" (with high-risk premium) at 3 percent. The increase in the availability of agricultural products and the flourishing of export activities in the third quarter of the year had caused an increase in the cash being demanded in Tehran leading to a subsequent rise in interest rates.

In the last three months of the year the interest rate fluctuations were even more severe. This was particularly evident in the middle of December when export activities slowed substantially as a result of the Christmas holidays. These falls were further exacerbated by the fact that these holidays coincided with the holy month of Ramadan leading to the lowest interest rates of the year and a temporary recession. However, these difficulties were quickly reversed as export activities began to increase and continued to do so up until the beginning of the Iranian new year (Norouz) elevating interest rates to their highest level for the entire year. It was also noticed that the months of most difficulty showed greater increases and more fluctuations in the rates and prices in Tehran's financial market than at any other time during the year.

Whilst this survey has focused specifically on the financial market in Tehran it should be noted that before the advent of the Islamic Revolution the Central Bank was also responsible for the collection of data and statistics on all the informal markets operating in the major cities throughout the country. For example their study of the profit rates on commercial loans transacted during 1969 show that the highest rates, of 31.3, 30.9, and 29.7 percent, occurred in the cities of Ardabil, Rasht, and Zanjan respectively. This compared with figures from Yazd, Isfahan, and Tehran, which, at 13.8, 16.1, and 17.4 percent, were deemed to be the lowest in the country at the time.

It was not until 1991 that the authorities of the Islamic Republic began to undertake their own studies into the workings of the informal financial markets operating within the country. In that year the Central Bank released a report, entitled "The Condition of the

Unorganised Financial", investigating the workings of the informal market. It discovered for example that the interest rate in the informal markets of cities such as Qom and Karaj fluctuated at between 36 and 48 percent. The figures for the following year showed that in Qom the interest rate fell to between 24 and 36 percent whilst in Karaj it remained unmoved from the previous years level. The rates of interest for Tehran along with a number of other important cities are shown in table one in a bid to provide a more comprehensive picture of informal markets in Iran[38]. These findings show that the rates of interest in Tehran fluctuated from a low of 36 percent to a high of 42 percent. The lowest rate was found in the city of Sari, which had a figure of 24 percent, whilst the highest, 80 percent, occurred in Oromeyeh, which also registered the highest fluctuation rate. Overall the average maximum rate was calculated at 52 percent while the minimum equivalent registered at 31 percent.

TABLE 6.1: THE INFORMAL IRANIAN FINANCIAL MARKET INTEREST RATE FOR TEHRAN & OTHER MAJOR CITIES IN 1991

CITY	MINIMUM	MAXIMUM	RANGE
TEHRAN	36%	42%	6%
ARDEBIL	0%	48%	0%
ESFAHAN	40%	60%	20%
AHVAZ	36%	72%	36%
BOROUJERD	28%	36%	8%
TABRIZ	36%	60%	24%
RASHT	35%	60%	25%
OROMEYEH	40%	80%	40%

[38] Central Bank of Iran, (1991), *Survey of Informal Financial Markets*, Tehran.

CITY	MINIMUM	MAXIMUM	RANGE
ZAHEDAN	30%	48%	18%
ZANJAN	42%	60%	18%
SARI	24%	48%	24%
SHIRAZ	36%	48%	12%
GHAZVIN	30%	42%	12%
QOM	36%	48%	12%
KERMAN	0%	48%	0%
KERMANSHAH	30%	40%	10%
MASHHAD	30%	50%	20%
HAMEDAN	48%	60%	12%
YAZD	30%	45%	15%
AVERAGE	30.89%	52.37%	16.42%

Source: Central Bank of Iran 1994.

The reason for the vast range of informal rates occurring in almost all the cities surveyed can be attributed to the high-risk premium or "signature" as it is called in the market. The drastic differences between each of the cities highlight the imperfection of the country's capital market, the segmented financial markets of different cities, and a lack of mobility of cash and capital.

A further examination of the functioning of interest rates in informal markets is offered in table two which looks at the real and average nominal rates of interest. These figures show that the highest average interest rate of 60 percent was once again found in Oromeyeh. The lowest rate was registered in the city of Boroujerd at 32 percent while the rate in Tehran was just slightly higher at 39 percent. The table also shows the average rate of "real" interest which is calculated in relation to each of the different cities particular rate of inflation. In Tehran, the informal real rate was almost 15 percent, which was slightly lower than the 19 percent countrywide average. These rates serve to further highlight the limited resources, high demand for funds, and the high levels of risk involved in dealing in informal markets. This is underlined by the fact that because of the way in which the real rate has been calculated, i.e. by correcting the inflation premium, it provides a more accurate picture of the high–risk premiums and restrictions involved in transactions undertaken in these kinds of financial markets.

TABLE 6.2: INFORMAL MARKET NOMINAL & REAL INTEREST RATES

TEHRAN & MAJOR CITIES IN 1991

CITY	AVERAGE NOMINAL RATE	AVERAGE REAL RATE
TEHRAN	39.0%	14.6%
ESFAHAN	50.0%	25.6%
AHVAZ	54.0%	29.6%
BOROUJERD	32.0%	7.6%
TABRIZ	48.0%	23.6%
RASHT	47.5%	23.1%
OROMEYEH	60.0%	35.6%
ZAHEDAN	39.0%	14.6%
ZANJAN	51.0%	26.6%
SARI	36.0%	11.6%
SHIRAZ	42.0%	17.6%
GHAZVIN	36.0%	11.6%
QOM	42.0%	17.6%
KERMANSHAH	35.0%	10.6%
MASHHAD	40.0%	15.6%
HAMEDAN	54.0%	29.6%
YAZD	37.5%	13.1%
AVERAGE	43.71%	19.31%

Source: Central Bank of Iran, 1994.

6.8. THE DEVELOPMENTAL TREND OF THE CAPITAL MARKET IN IRAN AND ITS PROSPECT FOR FUTURE DEVELOPMENT: AN OVERVIEW FROM THE PAST TO THE PRESENT

Background

1936-1966

The original idea of establishing an organised capital market with the purpose of accelerating the process of industrialisation of the Iranian economy began in the 1930s. The structure and functioning of the proposed market was laid out in a report published by Bank Melli Iran in collaboration with advisers from the Brussels' Stock Exchange in 1936. However, the turmoil of the Second World War and the political upheavals that followed meant that these proposals were never implemented. Indeed, it was not until 1966 when parliament passed a law on the issue that Iran finally had its own stock market.

1967-1979

The Tehran Stock Exchange (TSE) was inaugurated in April 1967. In the first year of its activities only six companies had been accepted as members and allowed to trade on the exchange. Soon afterwards its activities and importance began to grow as government bonds and treasury bonds were deposited with the TSE. This growth continued into the 1970s when the economic boom and massive expansion of the national economy increased the demand for capital (investment) and the purchase of the stocks. In addition, certain institutional changes, such as the transfer of government stocks or the shares large companies to the private sector, also led to an increase in the activities of the stock market. These factors meant that by 1979 there were now 105 companies and financial institutions (24 of these included commercial and specialised banks) registered with, and operating on, the TSE. However, despite these rapid advances the stock exchange was still very much in the preliminary stage as regards its ability to play an active and influential role in the overall growth and development of the economy. This is clearly seen by the fact that the ratio of the exchange (dealing–trade) of stock to gross domestic product in this period was never more than 0.1-0.2 percent.

TABLE 6.3: TRANSACTION OF STOCKS & GOVERNMENT BONDS PRIOR TO THE ISLAMIC REVOLUTION

	1968		**1973**		**1978**		**1968-**	**1978**
	Value	%	Value	%	Value	%	Value	
Stocks of companies	31	26	1322.7	47.6	23380.5	68.4	83225	55.3
Government bonds	92	74	1451.12	52.3	10824.7	31.6	67370	44.7
Total	123	100	2773. 9	100	34205.2	100	150595	100
% of stocks from GDP	0.0 2		0.2		0.6		0.5	

Source: Tehran Stock Exchange 1998

1980-1988

One of the main economic changes to occur following the Islamic Revolution in Iran was the way in which the entire economy was restructured through a system of nationalisation that greatly expanded the role and size of the public sector. In June 1979 the new regime assumed the control and ownership of all insurance companies and specialised banks. This resulted in the thirty-six commercial and specialised banks that had existed before the revolution being restructured and amalgamated to form just six large government owned banking institutions. Such an altered economic structure, in conjunction with the introduction of Islamic laws, such as those forbidding the earning of interest, led to a general reduction in the need for, and level of, private capital, and as a result greatly reduced the activities of the stock exchange. The role and significance of the stock exchange was further challenged with the introduction of the Law on the Preservation and Development of Iranian Industry. This law transferred the management and ownership of a large number of private manufacturing (particularly those that were seen as occupying a strategic roles in the economy, or had been major shareholders in the banking system, or were affiliated with the previous regime) and industrial companies to government owned foundations and public institutions. The effect of this legislation led to an increased decline in stock transactions, as an additional twenty-four companies were removed from the stock exchange, and raised serious questions about the future of the stock exchange. This figure was in addition to the seventeen banks, two insurance companies, and thirty-one industrial companies that were also forced to discontinue their financial activities due to confiscation or nationalisation. Within one year of the revolution the economic policies of the new regime had resulted in almost halving the number of companies (from 105 in 1979 to 55 in 1980) registered and trading on the stock exchange. Indeed, this decline can be measured further by the fact that only three years after the nationalisation of all banks and insurance companies the main transactions conducted on the stock exchange were confined to government bonds. However, even this form of trading became redundant and was soon abolished as the government adopted the Islamic system of interest free banking. Following this the stock market became something of an irrelevance and remained in limbo in a state of semi-closure for almost a decade. Added to this was the fact that this period covered the eight years of the Iran-Iraq war, which saw a further reduction in the activities of the private sector market economy as the government expanded the scope and size of its economic activities in running what was now effectively a war economy. This situation continued until the end of war 1988 when the economic prospects of the capital market were faced with new challenges as the country entered a period of political and infrastructural reconstruction.

TABLE 6.4: THE TRANSACTION IN STOCKS AND GOVERNMENT BONDS FROM 1979-1988

YEAR	1979		1980		1988		1979-1988	
	Value	%	Value	%	Value	%	Value	%
Stocks of companies	30.2	0.7	---	---	9900	100	20200	81.1
Government bonds	4075	99.3	538	100	---	---	4713.8	18.9
Total	4106.1	100	538	100	9900	100	24913.8	100
% Of Stocks from GDP	0.7		0.008		0.04		0.02	

Source: Tehran Stock Exchange 1992

1989-1996

In the summer of 1988, and within a few months after the acceptance of the UN cease-fire resolution by Iran that finally ended the war with Iraq, the economy began to move from a war footing toward a period of reconstruction. The new direction of the Iranian economy was one that placed more of an emphasis on private sector and capital market activities. This meant that the stock market would be required to play a greater role in economic activities, which, in conjunction with the support, and changed economic priorities, of the government began to show signs of a recovery and an increase in transactions by the second half of 1988. The growth in transactions was greatly aided by the directives of the first post-war budget of March 1989 which formed the first part of the government's First Five-Year Economic, Cultural and Social Development Plan. The emphasis was now to be placed on the private sector and capital market as the main elements in reconstructing a shattered economy. This change in direction was clearly laid out in the budget bill which, in a bid to alleviate the financial burden on the government, transferred a large proportion of the stocks of state-owned companies to the private sector. Thus, after almost a decade of recession and half closure the Tehran Stock Exchange (TSE) now found itself as the main institution charged with the responsibility of implementing the new economic ethos. In order to pursue these privatisation policy objectives the TSE was required to create an efficient, reliable, fair and transparent market. It then had to undertake the task of mobilising savings funds and directing them towards the various investment opportunities by compiling and transferring private liquidity to productive economic activities. During this period the activities of the TSE witnessed a considerable growth with the number of companies registered and trading on the exchange increasing rapidly from 67 to 249. In addition, the annual average value of stock transactions increased by 190 percent producing a total of 4920.3 billion rials in revenue for government economic programmes. Despite the fact that such figures are somewhat minimal when compared with GDP they are quite considerable when placed within context of the stagnant economic development of the previous decade and the short period of time in which they were achieved.

TABLE 6.5: THE PERFORMANCE OF THE TSE 1989-1996

Year	Number of companies accepted	Value of Transaction	% of GDP	Financial Resources Provided	% of growth	Market Value	% of stocks from GDP
1989	67	11.1	0.04	-	-		
1990	79	64.9	0.18	17.2	-	772.4	2.1
1991	108	478.3	0.95	58.1	237	2458	5.1
1992	140	352	0.5	68.7	18	2207.2	3.4
1993	151	515.7	0.6	82.4	20	2891.6	3.1
1994	163	793.4	0.6	258.5	246	6663.7	5.1
1995	201	1880.6	1	1924.2	574	21435	11.9
1996	249	4381.6	1.9	2511.2	30	31164.4	13.2
changes	182	8477.5	1	4920.3	-	-	-

Source: Tehran Stock Exchange 1998

However, it must also be noted that in spite of the improvements made the period covered in the above table also illustrates the high level of fluctuations that occurred in stock exchange activities. This is particularly evident in the severe and one-sided fluctuations in the figures for the years 1991, 1994 and 1995. These were followed by a series of periodical ups and downs that resulted in the raising of investor expectations and the creation of uncertainty in the market. The net result of these variations and inconsistencies was that in the last two years of this period (1995-1996) price increases slowed, the price index of stocks fell, and the stock exchange entered a period of recession in the first half of 1996. This situation was exacerbated further by the tendency of many companies to provide financial resources to stockholders from their cash income and debt resources which led to a general reduction of the profit margin of the stocks of a number of companies on the TSE. Another factor effecting stock market performance was its underwriting of a large number of newly established investment companies which created unrealistic and unachievable stockholder expectations. However, the single most important factor contributing to the price increases and formation of a bulb market during this period was the lack of a properly codified and enforced set of rules for regulating and effectively monitoring the market. The absence of such a mechanism resulted in the creation of an inefficient market that was unable to ensure that dealers acted honestly and openly in their dealings, that there was a full disclosure of financial data and information flows from companies to investors, and that structural bottle necks could be avoided.

Indeed, the failure to establish a regulatory and monitoring system alongside the negative consequences related to the periodical ups and downs in the price of the stocks reduced the effectiveness of the stock market as the main financial instrument for mobilising capital resources in the Iranian economy. This in turn created doubts in the minds of investors, increased the risks involved in making investments, and as a consequence led to a decrease in the numbers willing to invest their capital. The task of investors was also made more difficult by the fact that even if they did wish to invest in the stock market the limited accessibility of the market meant that only a small percentage of them could be absorbed into the market under high-risk conditions.

TABLE 6.6: THE CHANGES IN THE PRICE OF STOCKS DURING THE YEARS 1989-1996

YEAR	PRICE INDICATOR OF STOCKS	PERCENTAGE OF CHANGES
1990	189.06	-
1991	472	149.6
1992	435.12	-7.8
1993	403.5	-7.3
1994	694.28	72.1
1995	1549.44	123.2
1996	1936.75	25
Average change	-	59.1
Deviation of change criteria	-	67.1

Source: Tehran Stock Exchange 2000

1997 and after

From 1997 onwards there was a new approach taken in attempting to develop and restructure the stock market. These undertakings involved an institutional structural reform of the financial sector based on the establishment of a series of rules and regulations and the creation of an efficient and organised Stock Exchange that would replace the small-scale and inefficient activities of the TSE. This was a particularly ardent and much needed task as the TSE had become somewhat obsolete. It no longer possessed the capacity to carry out its assigned task of selling government stocks and in the absence of a regulatory code of conduct had been open to systematic abuse by the actions of unscrupulous traders. These factors had led to severe price fluctuations and the formation of an unreliable "bulb market" which acted as a disincentive for the investors to enter the market.

To alleviate these discrepancies and reform the financial structures and functioning of the market steps were taken to increase the operational efficiency and information sharing capacities of the TSE by enhancing the proportion of qualitative and quantitative norms and procedures used in supervising the actions of market operators. The adoption of these reform measures from 1997 onwards resulted in the establishment of a market that was transparent, stable, well regulated and attractive for investors. The influence of these improvements could be clearly seen just one year later when the stock market entered its first period of sustained growth. During the five-year period from1998 to 2002 the average investment output on a basket of stocks showed an annual increase of 38.2 percent. Adjusting this figure to take into account the average inflation rate of 15.9 percent occurring during this period the real output rate for stock market was calculated at a healthy 22.3 percent. In addition, the ratio of the value of the stock market to gross domestic products over the same period registered an average growth rate of 20% rising from 8.1 percent in 1997 to approximately 16 percent by the end of 2002. The reforms also led to an increase in the volume of stock transactions which rose by 72 percent as well as an increase in the number of traders using the exchange which rose by 46 percent. The overall performance of the Iranian stock market during this period, despite being exposed to a number of external shocks and destabilising factors, as well as a series of regional financial crises, has shown that the restructuring and reform programme have worked in creating a market that is prosperous and stable and capable of attracting the capital and confidence of both local and international investors. The key element in this turnaround has been the introduction and enforcement of a regulatory and monitoring mechanism that has led to a transparent market encouraging investor confidence.

Table 6.7 : performance of stock exchange during 1997 - 2004

Description	creteria	1997	1998	1999	2000	2001	2002	2003	2004	% of change 1997-2004	% of change 1997-2004 adjusted
Indicator of total outcome (TEDPIX)	—	—	1911.9	3266.3	5221.4	7502.0	11614	27061.53	30762	1508	593.75
Indicator of cash income (TEDIX)	—	—	2055.0	2447.4	2898.1	3299.3	3704.65	3933.16	4198.13	104	11.95
Indicator of total price (TEPIX)	—	1653.06	1538.0	2206.2	2978.3	3758.8	5062.76	11379.37	12113.01	632.7	170.47
Value of stocks and priorities transactions	Billion Rials	2017.6	3116.8	5243.6	9176.7	7830.9	22776.1	66869.81	104202.3	5064	512.14
Number of stocks and priorities	Million Stock	556.2	1202.7	1181.9	1681.5	1705.6	4145.3	7878.8	14270.9	24.65	—
Market value of stock	Billion Rials	27128.8	26584.6	43743.3	62486.6	81681.8	117772.9	309695.8	387547.2	1328	621.55
Ratio of activities	percentage	6.9	12	14.9	17.3	9.6	15.7	21.5	26.88	1900	630.32
Number of companies accepted to TSE	Unit	263	281	295	307	321	334	370	422	60.45	—
Value of government stocks	Billion Rials	339.7	1179.6	2034.8	2248	468.5	4418.3	9003.7	6795.2	—	—
Number of government stocks	Million Stock	69.6	547.4	242.7	326.9	136.5	967	759.4	682.6	880	—
Ratio of market value of stock to GDP	percentage	9.8	8.1	10.5	12.5	12.3	16.2	28.3	28.03	186.02	—
Gonsumer price index	percentage	100	118.1	141.8	159.7	177.9	206	238.2	273.9	173.9	—

Source: Tehran Stock Exchange

TEDPIX : Tehran Exchange Devidend Price Index
TEDIX : Tehran Exchange Devidend Index
TEPIX : Tehran Exchange Price Index

TABLE 6.8: Total Stocks and Government bonds in different years

Year	Stocks		Government Bonds	Total
	Banks	Companies		
1967	-	15	-	15
1968	-	31	92	123
1969	-	89	44	133
1970	-	106	14	121
1971	-	134	254	388
1972	-	334	865	1,119
1973	798	524	1,451	2,773
1974	4,489	2,015	4,456	10,692
1975	4,020	6,701	7,342	18,064
1976	17,907	3,156	17,191	38,256
1977	12,890	6,597	24,929	44,417
1978	14,990	8,389	10,824	34,205
1979	-	30	4,075	4,106
1980	-	-	538	538
1981	-	-	49	49
1982	-	2	48	50
1983	-	6	3	9
1984	-	1,167	-	1,167
1985	-	1,211	-	1,211
1986	-	1,735	-	1,735
1987	-	1,690	-	1,690

Year	Stocks		Government Bonds	Total
	Banks	Companies		
1988	-	9,935	-	9,935
1989	-	11,139	-	11,139
1990	-	64,687	-	64,687
1991	-	478,326	-	478,326
1992	-	352,078	-	352,078
1993	-	515,688	-	515,688
1994	-	793,399	-	793,399
1995	-	1,880,568	-	1,880,568
1996	-	4,381,576	-	4,381,567
1997	-	2,132,814	-	2,132,814
1998	-	2,435,526	438	2,435,964
1999	-	3,972,487	380	3,972,867
2000	-	8,734,942	-	8,734,942
2001	-	8,684,300	-	8,734,942
2002	-	15,262,242	-	15,262,242

Source: Tehran Stock Exchange 2002

TABLE 6.9: A CHRONOLOGY OF EVENTS RELATED TO THE TSE

1936	Bank Melli Iran with the co-operation of two advisors from the Brussels' Stock Exchange completes a feasibility study for the establishment of the TSE.
1954 – 65	Detailed study for establishing the TSE continued.
1966	Parliament passes the law establishing the TSE.
1967	Treasury Bonds and Government Bonds are exchanged in the TSE.
1969	23 companies and 3 Government Bonds Institutions are accepted as members of the TSE.
1978	The number of the companies accepted to TSE reaches 105.
1979	The Islamic Revolution.
1980	Due to the confiscation and nationalisation of economic enterprises the number of the companies on the TSE is reduced to 55.
1983	With the adoption of an interest free banking system the practice of trading Government Bonds is discontinued.
1989	After almost a decade of semi-closure the TSE is revived and positioned as a key instrument of the economic reconstruction programme laid out by the First Development Plan (1989-1994).
1990	Stocks Price Indicator (TEPIX) was introduced.
1991	29 companies to the TSE. The number of accepted companies operating on the TSE reaches 108.
1992	TSE joins the International Federation of the Stock Exchange (FIVB). TSE Hall is transferred to the new premises of the TSE.
1994	The TSE Service Company is established and charged with the responsibility of introducing a computerised system for all transactions.
1995	The TSE joins the Federation of European and Asian Stock Exchanges as a founding member. (FEASE)
1996	Hospital projects participation bonds replace government bonds as a financial instrument.
1997	The TSE Service Company is accepted as a member of the Association of National Numbering Agencies (ANNA). The Certificate of Foreign Exchange Deposits was introduced in the TSE as a negotiable instrument.
1998	Two new stock exchange indicators, TEDPIX and TEDIX, are designed and introduced to the market.
1999	The TSE projects for establishing the future exchange of commodities, the creation of a regional stock exchange, and electronic stock exchange are approved within the framework of the Third Five-Year Development Plan (2000-2004).
2000	The TSE completes a feasibility study on the creation of a regional stock exchange and an exchange market for metals.
2001	The TSE project to create a Sub–Hall within the new criteria for the acceptance of new companies is passed by the TSE Council
2002	The first Regional Stock Exchange is established in Mashhad

6.9. THE INSTITUTIONAL STRUCTURE OF THE CAPITAL MARKET IN IRAN

1. The Structure for Regulating and Supervising the Market

The supervisory structure of the capital market in Iran was laid out in the 1946 law establishing the formation of the TSE. This law confirms the TSE as a secondary market for stocks and establishes a regulatory system that consists of three supervisory organs and one executive body.

2. Supervisory Organs

2.1 The Stock Exchange is deemed to be the highest decision making financial body responsible for the supervision of the TSE and the implementation of the directives laid out in the 1946 law. To undertake these tasks a Stock Exchange Council consisting of eight members was established. These members include the Governor of the Central Bank of Iran, who is the Head of the Council, the President of the Board of Directors of the TSE, the Deputy Attorney General, the Head of the Chamber of Commerce, along with four other members chosen by the Minister of Economic Affairs and Finance. This latter group consists of the Deputy Minister of Economic Affairs and Finance and three experts in the field of economics and finance. The Council is an independent body whose decisions, as decreed by Article 31 of the 1946 law, are only valid if agreed to by a two-thirds majority of its members.

2.2 The TSE Admissions Board. This Board is responsible for granting companies permission, or indeed withdrawing that permission, to become members of, and engage in trading activities on the TSE. Its board of members consists of the Deputy Governor of the Central Bank, who is the Chair of the Board, the President of the Board of Directors of the TSE, a representative from the Chamber of Commerce, Industry and Mines, as well as two certified accountants (whose membership is approved by the TSE Council) and an observer from the TSE Council.

2.3 Arbitration Board. This institution is charged with the settling of any disputes that may arise between dealers (agents) or between dealers and customers. It consists of a representative from the Ministry of Justice who acts as the Head of the Board, a representative from the Chamber of Commerce, Industry and Mines, and a representative from the Stock Exchange Council.

3. The Regulatory and Supervisory Structure of Second Dealing on the Stock Exchange in Iran.

3.1 The Stock Exchange Council consists of:

- The Board of Admissions of the Stock Exchange
- The Organisation of the brokers of Tehran Stock Exchange Market.
- The Board of Arbitration

3.2. Executive Body

The Tehran Stock Exchange Organisation is run by a seven member Board of Directors who are elected by the members of the organisation's General Assembly along with a representative from Stock Exchange Council. Five of these members must be elected from among the brokers of the Stock Exchange and out of this five four must be chosen from brokers who represent banks. The Board of Directors elects the Secretary General of the TSE who also performs the function of chief executive of the organisation.

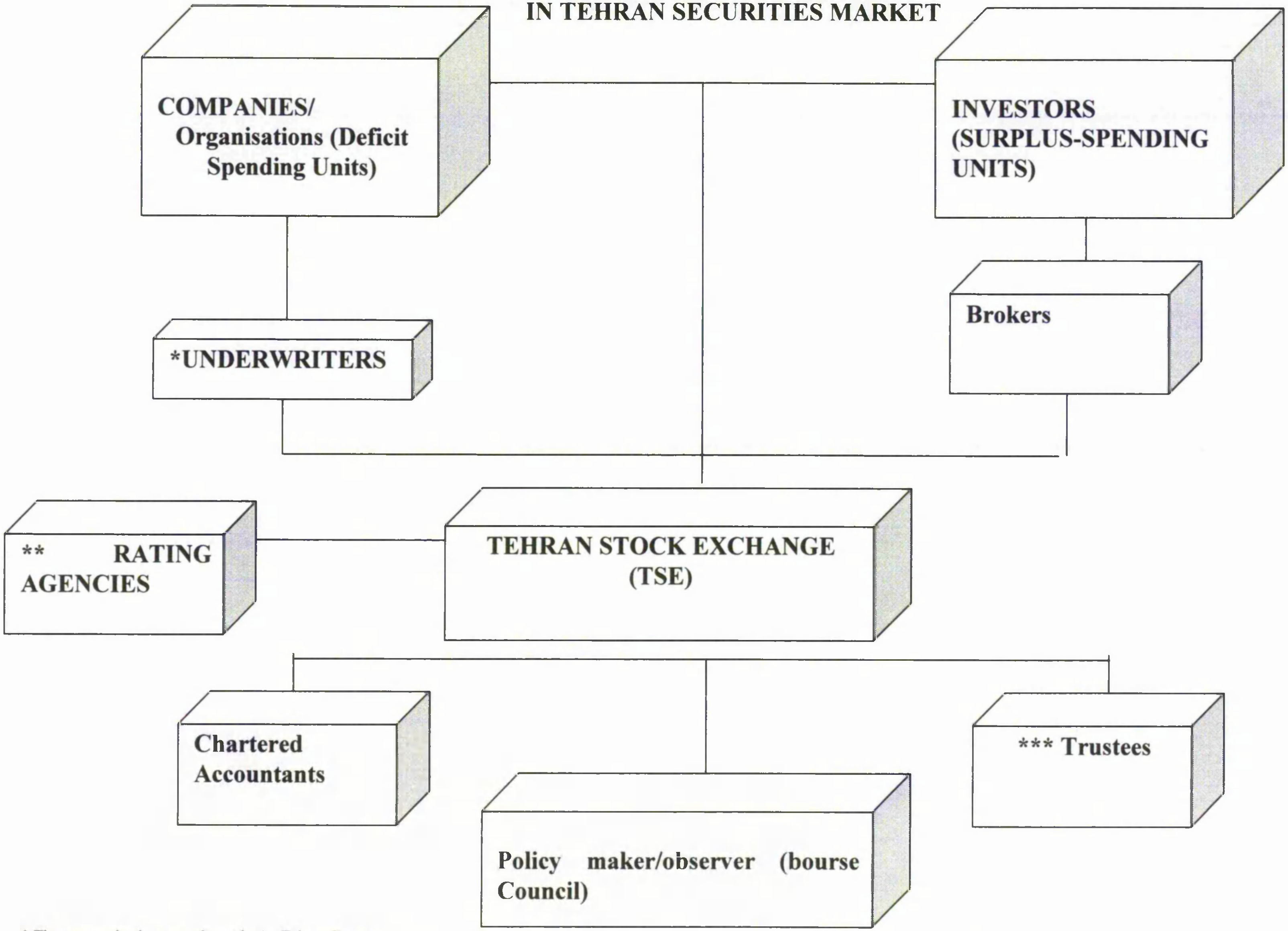
6.10. EXECUTIVE STRUCTURE OF THE SECOND HAND MARKET OF THE STOCKS IN IRAN

Stock Exchange Council	Members Established according to Article 5 of the law establishing the TSE adopted in 1946	-Governor of the Central Bank -President of the Council -Deputy Attorney General -President of the Board of Directors TSE -President of the Chamber of Commerce, Industry, and Mines of Iran. -Deputy Minister of Economic Affairs and Finance. -Three Experts on Financial and Economic Affairs as recommended by the Minister of Economic Affairs and Finance and endorsed by the Cabinet

Stock Exchange Council	Duties	1)Adoption of the necessary rules, regulations and procedures for the implementation of the Law Establishing the TSE 2) Supervising the implementation of said Law. Sending a representative to the Board of Directors and the Board of Admissions as an observer. 3) Assigning a representative to the Board of Arbitration. 4) Reconsidering /reversing the decisions of the Board of Directors and the Board of Admissions of the TSE.

Board of Admissions	Members Article 5 of the law on the establishment of the TSE adopted in 19 46	-Deputy Governor of the Central Bank (Chairman of the Board). -President of the Board of Directors of TSE. -Representative of the Chamber of Commerce, Industry and Mines. - Two Certified Accountants endorsed by the TSE Council
	Duties	Deciding on the admission or non-admission of stocks onto the TSE
Board of Arbitration	Members Article 17 of the Law on the establishment of the TSE adopted in 1946	-Representative from the Ministry of Justice (Chairman of the Board). -Representative from the Chamber of Commerce, Industry and Mines. -Representative from the TSE Council
	Duties	Responsible for settling all disputes between agents (dealers) or between agents (dealers) and their customers.

CHART 6-1: PLAYERS AND PRATICIPANTS IN TEHRAN SECURITIES MARKET



* These organisations are absent in the Tehran Bourse.
** Rating agencies assess the risk of securities (especially debt securities) and assign ratings to companies, government, and semi-governmental agencies. They also have the ability to change these ratings according to alterations in risk assessment, the main type of which is "default risk". Risk assessment is done by the Standard and Poor's (S&P) rating, which is a grading system that starts with a triple A (AAA) rating and ends with a D rating (for securities without collateral on which interest is in arrears). In addition, rating companies can also act as investor services companies.
*** Trustees institutions operate under the auspices of Bank Melli Iran and Bank Mellat and deal primarily in municipality bonds and the more recently established hospital bonds.

6.11. ACTIVE BODIES

The TSE brokers are considered to be the most important financial intermediaries operating in Iran's capital market. They alone have the authorisation to work in the TSE in the buying and selling of negotiable notes according to the terms laid out by the 1946 act.

Investment companies are another important intermediary group in Iran's capital market. These companies are divided into two groups based on criteria adopted by the TSE Council in 1988:

1. Those investment companies that are established to manage a non-capital receiving company portfolio.
2. Those investment companies with ownership levels in the stocks of capital recipient companies that make it possible for them to intervene in the management, such as contributing a member to the board of directors, of the recipient companies.

NEGOTIABLE FINANCIAL INSTRUMENTS

Negotiable notes in Iran are governed by and legislated for according to paragraph two of article one of the 1946 law establishing the TSE. According to the provision of this article negotiable notes include all financial items such as company stocks, export certificates, treasury bonds and participant bond issued by companies, municipalities and institutions affiliated to the government and the treasury, which are negotiable and can be exchanged. However, after the Islamic Revolution and following the Islamicisation of the economic system all negotiable notes that accrued interest were forbidden from being traded on the market. Under such circumstances stocks became the main negotiable instrument on the TSE as they were generally seen to better reflect the level of sharing commitments and earning of their owner. Today the issuance of stocks is the main method used by the Iranian market in providing the necessary financial resources for large investments. The most common type of stocks held are referred to as ordinary stocks. Despite the fact that most company stocks are issued in the form of ordinary stocks they generally divided into two main categories: stocks with a name and those without one.

According to article 25 of the Trade Law of Iran all stocks must be printed, identical in form, and have serial numbers on them. The name of the company, registration number, the amount of paid capital, the type of stock, its nominal value (this should be a coefficient of 100 or 1000 to better facilitate exchange), and the amount paid, should also be listed on the certificate. In addition, stock certificates should be signed by at least two persons authorised for the task according to the directives of the Article of Association of the company.

Stockholders, in addition to their voting rights and dividend entitlements, are also given preferential rights in the purchase of stock. These rights entitle the existing holders of ordinary stock to first preference in the buying of newly issued stocks thus allowing them to keep the percentage of their ownership at a fixed level. The safeguarding of stockholders interests against price reductions arising from new share issuance's and the desire to maintain stockholder control over management are the main reasons for the granting of preferential rights.

The foreign exchange export certificate, later renamed the foreign exchange certificate, is another important financial instrument first traded on the TSE in July 1997. This certificate proves that an exporter has exported a certain commodity and sold the resultant foreign currency to the Central Bank of Iran at the official rate of exchange. The owner of these certificates is permitted to import goods equivalent to the amount listed on the certificate and can exchange or sell this certificate on the TSE through the agents of TSE registered banks. The legislation governing the functioning of these certificates was contained in article one paragraph two of the 1946 (they were not traded until over fifty years later), which stated that security certificates could be exchanged on the TSE once their foreign currency earnings had been deposited. From March 2000, in order to facilitate the settlement of all foreign exchange commitments and better utilise the foreign exchange earnings of non-oil exporters, the special purchase rate on foreign exchange certificates of $1/Rials

3000 was discontinued. This was replaced by a new rate and a foreign exchange deposit system that took the place of the foreign exchange export certificates traded on the TSE. However, this new practice was itself discontinued by the TSE in early 2001.

Along with stocks, participation bonds are considered to be one of the most important negotiable instruments traded on the TSE. These bonds replaced the old government bonds which were traded before the revolution. They were first issued by the Ministry of Housing and Urban Development in 1995 (according to paragraph 84 of the Budget Law) in order to fund a hospital building project and were actively traded on the TSE from 1996 onwards. Participation bonds are exchanged between those investors who wish to engage in government funded schemes, such as construction or manufacturing, or in the financial activities of state-sponsored companies, municipalities, and non-governmental public institutions. According to article 25 of the 1996 law on the modality of the issuance of participation bonds, these bonds were declared to be negotiable documents that could be issued with or without a name. In addition, they must show a nominal value and can only be issued for a certain period of time. The holders of these bonds share in the profits accruing from the implementation of projects by these bodies proportionate to the nominal price and the duration of their participation. In 2002 the TSE Council expanded the trade in, and variety of, participation bonds exchanged on the TSE in order to increase the diversity of negotiable instruments traded on the exchange.

Conclusion

Despite the changes in government and economic ideology to have occurred in Iran over the past twenty-five years the financial system and stock exchange still continue to operate according to the rules and regulations laid down in the 1946 Law. This is something of a problem, hindering financial development and economic growth, as this law only legislates for the activities of the secondary market for the trading of listed securities. In this respect the Iranian financial market lacks the comprehensive regulations needed to ensure the smooth and efficient operation of the primary market e.g. underwriting activities, the timely and full disclosure and dissemination of all relevant economic data. This is a situation that has not been addressed by additional legislation which fails to tackle issues such as insider trading, ensuring shareholder protection, and guarding against illegal take-overs. These factors, in addition to that fact that the Iranian stock market operates under the direct influence of several government agencies, has led to a structure that is inefficient and an impediment to stimulating economic growth and development.

CHAPTER 7

ECONOMIC GROWTH IN SELECTED COUNTRIES VIS-A-VIS THEIR FINANCIAL SYSTEM

7.1 INTRODUCTION

This research has been concerned with illustrating and examining the nature of the relationship between the structural choice of capital markets and their influence on the pace of economic growth. The first step in this undertaking involved an in depth analysis of the financial structure of a particular country and their adherence to either a predominantly bank-based or market based system. This was then followed by the application of a number of precisely calculated indices (to measure the size, activity, and efficiency of the financial structure (Kunt and Levine; 1999)) in correlating the relationship between financial intermediary, equity market development, and GDP per capita in assessing the level of economic development. This chapter continues this approach by applying such a model to a selected panel of fourteen different countries[1] (with particular attention been given to the case of Iran) in examining the impact of stock market activities on overall economic growth over a six year period. For the purpose of the survey and to accurately examine the collected data, countries were grouped into low, lower middle, upper middle and high-income categories according to 1997 world development indicators. Taking the 1995 GNP per capita figures for each country the classification figures were taken as; low was set at $765 or less; lower middle, $760-$3035; upper middle, $3036-9385; high, $9386 or more. All tables used for this survey are presented in appendix.

[1] The selected countries are France, Germany, India, Iran, Japan, South Korea, Malaysia, Oman, Singapore, China, Turkey, Thailand, united kingdom and the United States of America. The reason for the selection of these countries is to create a broad range of growth levels, per capita income rates, and financial structure in creating a comprehensive model of comparison.

7.2 THE METHODOLOGY

In order to be able to effectively rank the financial structure of a particular country as either market based or bank based, it is necessary to define a set of indicators capable of measuring the scale of the activities and efficiency of both systems. In this respect those countries which exhibit a below mean average ratio of banking sector development to stock market development are classified as market based whereas those with a higher ratio rate are classified as bank based. However, certain qualifications need to be made with regard to this system of classification. The main shortcoming of this method is the fact that it tends to identify certain countries with regard to a particular financial system which are often poorly developed in relation to international standards. To qualify such categorisations it is necessary to introduce a third system and identify countries as possessing an "underdeveloped financial system". A country's financial system is considered underdeveloped if it has below median values of both bank and market development.

The data and statistics used in analysing the fourteen countries under investigation are drawn from respected international sources, in particular those of the I.F.C. and World Bank, and cover the period from 1975 to 2000. However, even using such sources, and utilising a comprehensive comparison of data, in certain instances there are omissions and gaps in the available data necessitating a reduction in the scope of the survey and a restriction to a period for which information is complete. The period chosen for investigation is the six-year period from 1993 to 1998 where complete statistics were available for all fourteen countries.

7.3 CLASSIFICATION OF FINANCIAL MARKETS AND THE IMPORTANCE OF THE MARKET–BASED SYSTEM

An important distinction should be drawn between the market–based financial system and the bank–based financial system in relation to the benefits accruing from using the mechanism of securities issuance. The following advantages can be pointed out:

1. Securities provide direct finance for governments, municipalities, and production/commercial units. In the securities markets, they are issued in order to secure capital for the balance sheets of private sector entities and governments. In certain developed capital markets the average capital dependency of large producing industrial entities issuing shares and other types of securities is over fifty percent. Such methods of securing financial resources and long-term capital tend to relegate and in many instances supersede the dominant role of the banking system. This is somewhat problematic for developing countries such as Iran where there are a limited number of financial options for securing capital funding and where the majority of economic units (including the Iranian government) are dependent on a large bank-based system as the sole means of securing financial resources.

2. Divisibility of capital. In some cases, the size of the capital required for a project is so large that securing the entire capital would impossible for one or even a few investors to undertake. In these instance securities–based markets provide a means by which large scale projects could be funded by "dividing capital".

3. Formation and accumulation of national capital in the economy. Fully functioning financial markets operating according to a centralised (organised) structure are the main institutions and means of forming and accumulating capital within an economy. By issuing and distributing securities, companies and municipalities allow for public participation in economic and developmental affairs.

4. Increasing capital efficiency and optimal portfolio arrangements. Selected portfolio arrangements allow investors to maximise the "efficiency" of their capital. In addition, diversification through the use of a variety of securities (short and long– term, as well as "risk–less" government securities) allows for efficient portfolios to be achieved.

5. The channel for transferring ownership and privatisation. One of the ways of transferring ownership of government economic units to the private sector is by offering shares in the financial markets.

6. Achieving the optimal capital structure for projects. Securities, in addition to bank–based funds, facilitate in obtaining the optimal capital structure for projects.

Furthermore, securing resources from open financial markets rather than bank-based institutions have the additional advantages of being more efficient in mobilising funds as well as being more open and unbiased in their pricing. The auction and market orientation of such a system helps to set prices with fewer distortions than would be possible in the banking system. This is particularly highlighted in a repressed banking system[2] such as Iran's which has no impact on inflation rates especially with respect to government financial borrowing requirements. Indeed, in instances where ministries and municipalities obtain credit through the banking system this is usually accompanied by drastic rises in inflation due to the accompanying injection of reserves and the increase in "high powered money". By contrast securities flotation has been shown to have little if any inflationary effects. This ability to minimise the cost of capital (COC) through securities issued in an efficient market system is not restricted to government institutions and is available to other economic entities allowing them to maximise their value and economic worth. In other words, interest rates and output are inversely related in the real sector of the economy[3].

7.4 INTRODUCING INDICATORS

The indicators which are used in this study are classified according to three categories, "development of the banking sector", "development of the stock market", and overall indicators" (Kunt and Levine; 1999).

7.4.1 THE DEVELOPMENT INDICATORS OF THE BANKING SECTOR

1.1 **RATIO OF CLAIMS OF DEPOSIT MONEY BANKS ON PRIVATE SECTOR TO G.D.P (CPSR):** This measure excludes credits to the public

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[2] The term Repressed Financial System is used to define the particularities, such as negative real rates of interest, found in the financial systems of developing countries. See Gurley, J., and E. Shaw, (1960), *Money in a Theory of Finance*, (Washington DC: Brookings Institute), and, (1955), "Financial Aspects of Economic Development", *American Economic Review*, pp. 515 – 38.

[3] See, e.g., Hubbard, R.G., (1997), *Money, the Financial System and the Economy*, (2nd ed.), (Massachusetts: Addison Wesley), pp. 618 – 20.

sector by aggregating bank claims on the private sector. This ratio functions as a general indicator of bank activity in the private sector.

1.2 **BANK NET INTEREST MARGIN (BNIM):** This measure refers to bank interest income minus the interest expense of total assets. Tighter interest margins are frequently viewed as representing greater competition and efficiency.

7.4.2 THE INDICATORS OF STOCK MARKET DEVELOPMENT

1. **THE RATIO OF MARKET CAPITALIZATION TO G.D.P. (MCR):** This refers to the ratio of the value of domestic equities traded on domestic exchanges relative to G.D.P. and is used for measuring market size.
2. **THE TOTAL VALUE TRADED AS A SHARE OF G.D.P (TVR):** This indicator measures market activity as the value of stock transactions relative to the size of economy. Total value traded as a share of G.D.P. is frequently used to gauge market liquidity because it measures trade relative to economic activity (Levine and Zervos 1998).
3. **TURNOVER RATIO (TOR):** Turnover ratio measures the efficiency of the market and is calculated as the value of domestic equities traded on domestic exchanges. However, the turnover ratio is not a direct measure of market efficiency as it does not measure trading costs. Rather, it measures the value of stock market transactions relative to the size of the market and is frequently used as a measure of market liquidity (Demirgug-Kunt and Levine 1996a).

7.4.3 OVERALL EFFICIENCY INDICATORS

The main overall efficiency indicators used in analysing the different levels of stock market and banking development are:

1. **RATIO OF TURNOVER AND TOTAL VALUE TRADED TO G.D.P. (TUT):** This is used to measure stock market liquidity as seen by the fact that it interprets higher levels as indicating a more efficiently operating equity market.

In order to assess overall stock market development on an economy-wide basis, the total value traded divided by G.D.P. measure and the turnover ratio of total value traded to G.D.P. measures are combined. This is done as the former calculates trade relative to the size of the economy, whereas the latter measures trade relative to the size of the market. Thus a small active market may have a high turnover and low total value traded/G.D.P.

Similarly bank interest margins function as a measure of banking sector efficiency e.g. high interest margin levels tend to indicate inefficient banking operations. By taking such banking efficiency measures and dividing them into each of the stock market indicators new and more accurate indicators are calculated.

Table 7.1: Classification of the countries by income

Group	Country	Average Per capita GPD (1993-99)
1	France	20333.92
1	Germany	21344.5
2	India	1883.14
2	Iran	5019.81
1	Japan	23283
1	Korea	13245.11
2	Malaysia	8073.49
2	Oman	4911.23
2	Singapore	22323.46
2	China	2620.68
2	Turkey	5972.63
1	U.K.	19357.97
1	U.S.A.	27675.83
2	Thailand	5854.16

Table 7.2: Overall results of the above mentioned ratios and indices

	GDP PER CAPITA(1993-1998)	CPSR (1993-1998)	MCR (1993-1998)	TVR (1993-1998)	TOR (1993-1998)	BNIM (1993-1998)
France	20333.92	0.87	42.84	24.33	82.30	3.44
Germany	21344.50	1.07	31.29	34.41	154.27	6.74
India	1883.14	0.24	33.36	9.34	27.10	3.97
Iran	5019.81	0.20	10.01	1.19	13.70	5.00
Japan	23283.00	1.13	65.95	24.69	38.87	2.29
Korea	13245.11	0.62	32.80	47.24	146.62	0.76
Malaysia	8073.49	0.88	230.37	140.80	59.73	2.01
Oman	4911.23	0.32	22.22	7.70	37.03	2.90
Singapore	22323.46	0.96	165.25	84.32	42.83	2.90
China	2621.68	0.98	14.13	22.95	203.06	1.55
Turkey	5972.63	0.20	19.16	24.21	138.68	2.50
UK	19357.97	1.16	138.17	54.81	52.93	2.49
USA	27675.83	0.65	107.41	89.63	96.97	1.50
Thailand	5854.16	1.01	63.47	36.16	60.42	2.77

Table 7.3: Correlation between GDPP and MCR, TOR, TVR, CPSR and BNIM

	GDPP	MCR	TOR	TVR	CPSR	BNIM
GDPP	1.0000	0.3535	0.0317	0.4074	0.5030	-0.0102
LLR	0.4106	0.4219	-0.0153	0.3124	0.8180	-0.2647
MCR	0.3535	1.0000	-0.2778	0.9344	0.4030	-0.2644
TOR	0.0317	-0.2778	1.0000	0.0097	0.2596	-0.1985
TVR	0.4074	0.9344	0.0097	1.0000	0.3994	-0.3617
CPSR	0.5030	0.4030	0.2596	0.3994	1.0000	-0.0786
BNIM	-0.0102	-0.2644	-0.1985	-0.3617	-0.0786	1.0000

Table 7.4: CDP per capita and TUT, TVR/BNIM and TOR/BNIM in selecte countries

	GDP PER CAPITA(1993-1998)	TUT (1993-1998)	TVR/BNIM (1993-1998)	TOR/BNIM (1993-1998)
France	20333.92	106.63	7.08	23.94
Germany	21344.50	188.68	5.10	22.88
India	1883.14	36.45	2.36	6.84
Iran	5019.81	14.89	0.24	2.74
Japan	23283.00	63.57	10.77	16.95
Korea	13245.11	193.86	62.43	193.77
Malaysia	8073.49	200.53	70.23	29.79
Oman	4911.23	44.72	2.65	12.76
Singapore	22323.46	127.15	29.11	14.78
China	2621.68	226.02	14.86	131.43
Turkey	5972.63	162.88	9.68	55.47
UK	19357.97	107.74	22.01	21.26
USA	27675.83	186.61	59.75	64.65
Thailand	5854.16	96.58	13.05	21.81

Table 7.5: Correlation between GDPP and TUT, TVRR & TORR

	GDPP	TUT	TVRR	TORR
GDPP	1.0000	0.2015	0.2825	-0.0696
TUT	0.2015	1.0000	0.6205	0.6538
TVRR	0.2825	0.6205	1.0000	0.5023
TORR	-0.0696	0.6538	0.5023	1.0000

General Overview

In higher income countries financial systems generally tend to be more market based and as a result stock markets tend to be more active and efficient relative to banking financial intermediaries. Indeed, in such countries the direct role of the Central Bank in credit allocation is somewhat reduced. This situation contrasts with those countries which restrict the rights of banks to engage in securities market activities, real estate and insurance, and as a result are more likely to have an underdeveloped financial system.

While the relative size measure of banks to stock markets provides useful information about the magnitude of each sector it does possess certain limitations with regard to assessing levels of development. Notably if a country has a large value of banks versus capitalisation measures, this does not necessarily indicate that it has a well-developed banking system relative to the banking system of other countries. Similarly, if a country has a very low value of bank to capitalisation measure, this in turn does not necessarily indicate that it has a well-developed equity market relative to the equity markets of other countries.

An Analysis of the Financial Sector in Iran

The financial system in Iran is essentially a " bank based" system. The inability of the capital market to adequately absorb investors, the lack of a fully functioning regulatory system, and the general levels of financial instability have created a situation where the capital market is unable to play an active role in creating a market based system in the country. Despite the establishment of a small number of "market based" institutions it is the banking system which remains the main institution in providing for the financial needs of the economy. This dominant influence within the economic affairs of the country can be clearly seen by the fact that all major banks in Iran are state owned. In addition, all banks in Iran are required to observe the interest rate ceilings assigned to them by the government, operating under the direct supervision of the Central Bank of Iran, for saving accounts and loans.

At present there are ten major government banks in Iran out of which six are commercial and four are specialised banks. The specialised banks are able to provide soft loans due to the fact that that they receive their financing from either the commercial banks or the Central Bank. Recent changes to the structure of the Iranian financial system have resulted in the establishment of three private commercial banks.

Between them the various banks have over 12,000 branches across the country as well as a number of branches in Europe and the Persian Gulf region. This network is in fact much more expanded that it should be given the restricted and highly centralised economic system operating within Iran. Indeed, the figures become all the more remarkable when you consider the fact that number of Iranian bank branches is twice that of Indonesia whilst at the same its supply of money is half of the Indonesian figure. However, the fact remains that the Iranian system is highly controlled and somewhat monopolistic where over half of the market is accounted for by the dealings of the two major banks, Bank Meli and Saderat Bank. Furthermore, the high number of bank branches can be explained by a high level of dispersal that has led to the relative spread of deposits with the financial ratio to economic activities at a low level. Similarly, the financial credits to the private sector are also low accounting for only 20% of GDP. This figure is even lower than for similar countries, such as Egypt and Tunisia, that have had a long tradition of government ownership of financial institutions.

It should also be mentioned that the " bank based" financial system in many developing countries, Iran included, is beset by corruption. This arises from the fact that in many instances bank managers are bribed into authorising risky loans which they know will not be paid back. The government banks are also not immune to the risk of bad loans. This is in part due to the political lobby for the payment of loans with low interest rates to those who enjoy political influence and support.

The general performance of Iranian banks, with their low profit rates, high volume of bad debts, large numbers of inefficient branches, and inadequate capital, is indicative of most government controlled bank-based economic systems. However, certain tentative steps have been taken over the past number of years to change this situation. This has resulted in an increased emphasis being placed on developing the non-banking financial sector with the result that the share of the capital market in Iran has increased with market capitalisation accounting for over 6.1% of GDP in 2003. These developments can be clearly seen in the increased role of the stock market and the improvement in the monetary sector and stock market indices.

It is evident that most of these improvement are attributed to the increase in oil prices. Since 2000 the economy of Iran as an oil producing country is impacted positively of oil prices.

Table 7.6 : Monetary Sector and Stock Market Indices

Description year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Ratio of on call deposits to GDP	24.4	25.6	25.3	26.4	24.7	23.4	26.8	25.6	28.2	31.32
Total value traded as a share of GDP	1	1.9	0.7	1	1.2	1.6	1.2	2.5	6.1	7.5
Ratio of market capitalization to GDP	11.9	13.2	9.7	8.2	10.2	10.8	12.3	12.9	28.3	28
Ratio of claims of deposit money banks on private sector to GDP	40	48.2	48.4	47.1	54	59.5	63.6	61.3	67.2	62.7

Source: The Central Bank of Iran, different years.

However since 2004 the capital market in Iran has suffered from a number of serious shortcomings, such as bad management, the lack of necessary laws and regulations, poor information dissemination, inappropriate transparency and the lack of an executive mechanism, which have hindered development and expansion. Until such time as these discrepancies are addresses and investors are allowed to gain up to 23 % tax free when investing in government and private banks or up to 17% when purchasing government bonds, confidence in, and the effectiveness of, the stock market will remain minimal. However, it should also be noted that the trend of stock exchange returns being price fixed in line with inflation rates has resulted in an increase in the average rate of stock market investments over the past number of years. These figures are illustrated in the following table:

Table 7.7: Comparison of Inflation Rates and the Rate of Stock Market Returns (in percentage)

Year	1997	1998	1999	2000	2001	2002	2003	2004
Inflation	23.2	15	18.1	20.1	12.6	11.4	15.8	15
Average return in Stock Market	25	-14.6	-6.9	43.6	34.8	26.3	36.4	124.7

Source: The Central Bank of Iran , Different Years.

Due to the high risk attached to investments and the lack of financial tools and institutions, the capital market, and more specifically the stock exchange, is not yet in the position to be able to absorb a considerable share of private savings. In spite of the fact that during the period 1997 to 2004 the role of the capital market in the formation of fixed gross capital improved, the sustainable development of the capital market is subject to the instigation of a comprehensive series of reforms.

Table 7.8: The Share of the Stock Market in the Formation of Fixed Gross Capital

Year	Capital increases through the stock market (Billion Rials)	Fixed Gross capital formation (Billion Rials)	Share in Capital formation (%)
1997	1000.8	69232	1.4
1998	1457.2	98.39	1.5
1999	3301.6	124.201	2.7
2000	49340	153462	3.2
2001	3592	193840	1.9
2002	6661	259143	2.6
2003	10018.7	319296	3.1
2004	32896	396839	8.2

Source: the Central Bank of Iran, different years.

The active presence of banks in the Iranian financial market and their dependence on the government has led to a situation where the financial system is "bank centred" to the detriment of the capital market. The results of the calculations made with respect to the Iranian economy show that in the short run there is a casual relation between economic growth and the ratio of market capitalisation to GDP where the liquidity of the stock market affects the economic growth. In addition, a casual relationship between the ratio of market capitalisation to GDP and the rate of capital formation is also evident. However, there is no relationship between the ratio of the value traded as a share of GDP and the rate of capital formation. This relationship in the long run is more one-sided showing that economic growth should be materialised first so that the stock market could be affected by it. The development of the stock market sector by increasing the share of the value traded will also affect the rate of the economic growth. To reach a situation where the financial requirements of the country can be met through the operations of a market based financial system requires a substantial restructuring of the entire capital market. This issue will be addressed in detail in chapter eight.

CHAPTER 8

CONCLUSION

8.1 INTRODUCTION

The main argument of this research has been that there is a discernible relationship between the structure of a capital market and the potential for economic development. Towards this end an examination and analysis of the structure and functioning of the capital market in Iran was undertaken as a specific case study. This final chapter offers a summation of the findings of this investigation as well as providing a series of structural recommendations for the future development of the Iranian financial system and economy at large.

8.2 AN OVERVIEW OF THE STUDY

Economic growth has been the central issue related to all aspects of economics. From early theoreticians such as Adam Smith and the Classical School, to the present day, most economists have shown investment and the concentration of capital to be the most important issues in influencing economic growth rates. This emphasis on investment as an essential growth factor has been used to explain the underdeveloped nature of the economies of developing countries where such investment levels are low. In this respect the main concern in such countries has been focused on attempts to remove the obstacles hindering the provision of capital recourses for investment. The main obstacle in this regard is the non-development of financial markets and their subsequent failure in absorbing capital.

During the past three decades, the relationship between financial development and economic growth has attracted the attention of many economists. However, most of the theoretical and empirical studies concerning this relationship have failed to address the issue of the causal relationship between the two entities. For the most part, these studies have tacitly accepted that at the macro level financial development is generally seen to have a positive and meaningful effect on economic growth. These findings are based on the fact that a well-developed financial system plays a key role in reducing the costs of information dissemination and cost analyses. Furthermore, a well-developed financial system will identify the most profitable businesses and investment ventures and encourage investors to invest in them. The benefits of a fully functioning and well developed financial system also extends to its ability to ensure the free flow of capital, investigate and assess the performance of management, create trading opportunities, and allow for the diversification of risk. This in turn allows for the optimum allocation and mobilisation of both human and investment resources leading to a further enhancement of economic growth.

The aim of this dissertation has been to analyse the effect of the structure of the capital market on economic growth, from the point of view of the capital market's effect on the development of the financial sector. The first stage in this investigation was to undertake a literature review the results of which were presented in chapters two and four. In addition, these two chapters also examined the relationship between financial development in particular financial intermediaries and their influence on economic growth. The positive correlation between these two entities was shown to derive from the fact that financial markets, institutions, and instruments have been created primarily to reduce information and trading costs. Indeed the basis for creating a financial system is to facilitate the allocation of resources in various places during a particular period under uncertain conditions. Thus, the main functions of a financial system can be summarised as follows:

- Producing information and allocating capital.

- Monitoring firms and exerting corporate governance.
- Risk amelioration.
- Pooling of savings.
- Easing of exchange.

All these issues were dealt with in chapter two. This chapter also highlighted the growing body of empirical analyses that found a strong positive link between the functioning of the financial system and long-run economic growth. In addition it was also shown that well-developed financial systems also play a key role in enhancing economic growth patterns by easing the external financing constraints which most firms encounter in their financial dealings. The result of these findings also showed that a system of co-evolution existed between finance and growth such as in instances where a financial crisis may act as corrective shock in restructuring a particular financial system. Moreover, the financial system may provide different services at different stages of economic development, thus necessitating change and evolution in the financial system if growth is to continue.

The various theories investigated in this chapter suggested that financial systems can also influence growth by easing information and transaction costs and thereby improving the overall levels of capital allocation, corporate governance, resource mobilisation, and financial exchange. These functions were examined by taking into account the existing commercial law structure, legal regulations, and macroeconomic policies shaping financial sector operations in a particular country. Emphasis was also placed on the need for a strong and properly functioning common law tradition in order to protect the rights of minority shareholders and allow them to adapt to the financial needs of a changing economy.

Chapter three examined the various structures of a number of different capital markets around the world and how their choice of supervisory authority versus acting agents effected the structure of their financial system. It was found that despite the wide variety of choices available, most markets could be generally classified according to whether they operate under a centralised or decentralised system. The choice as to which approach to take is usually governed according to which one allows for the optimum performance of the financial system. In other words, although historical, political, and ideological factors all play their part in influencing the structure of the market the overarching influence, in deciding on which economic model to follow, revolves around the question of how to achieve and sustain the highest levels of economic performance possible.

Chapter four looked at the importance of a developed and well functioning stock market in effecting national economic growth rates. While the importance of the financial sector in establishing and maintaining high growth has long been recognised, the contribution of the stock exchange has been less obvious. However, what has been shown is the fact that each of these elements provides a number of different but crucial and not mutually exclusive services that stimulate the accumulation of capital and contribute to improvements in productivity.

Chapter five was concerned with an analysis of the unique and particular elements of Islamic financing. It concluded that despite the structural, ideological, and functional differences between it and other financial systems, Islamic financial investors are motivated by the same economic factors as all other investors world-wide i.e. maximum profit at minimum risk. In addition, they are shown to prefer liquidity, if the cost is not too high, and value cash returns from short-term rather than long-term investments. The chapter also showed that the Islamic finance system will only grow to the extent that it can respond in a reasonably efficient way to these basic economic motivations (Vogel and Samuell, 1998). Furthermore, the Islamic financial system, or indeed any financial system for that matter, can only survive in the contemporary world if it harmonises itself with dominant global financial market forces.

Chapter six examined the workings of the stock exchange in Iran. It showed that this institution, despite the changes in regime and the restructuring of the financial sector to fit Islamic directives, continues to operate according to the elements laid down in the 1966 Stock Exchange Law. This law is somewhat restrictive as it only deals with the secondary market trading of listed securities and fails to legislate for the regulations needed for the operation of a primary market or for issues such as underwriting or the need for a full disclosure of information on all financial dealings. This situation is exacerbated by current legislation which likewise fails to address important issues of insider trading, take-overs, and shareholder protection. In this respect it has been shown that the Iranian stock market is an inefficient organisation, which operates under the heavily controlled and direct influence of several government agencies.

Chapter seven analyzed the financial structure of fourteen selected countries and found that in higher income countries financial systems tend to be more market-based. Furthermore, this survey also showed that as incomes in a particular country start to rise the economy of that country tends to move towards a more market-based system. As a result stock markets tend to become more active relative to non-bank financial intermediaries. The findings of the survey also showed that domestic stock markets tend to become more active and more efficient, relative to domestic banks, in higher income countries. Indeed, the direct role of the Central bank in credit allocation was seen to be smaller in richer countries. Countries with regulations that restrict the rights of banks to engage in securities market activities, real estate, and insurance were more likely to have underdeveloped financial systems. However, while the survey did contain some useful findings, particularly in the area of the relative size measure of banks versus stock markets, it did have certain obvious limitations. The most notable of these was in relation to the bank versus capitalisation measures, which did not necessarily indicate whether the banking system of a particular country was well developed relative to the banking system of other countries. Similarly, if a country registered a very low value of bank versus capitalisation measure this failed to show whether it had a well-developed equity market relative to the equity markets of other countries. Through calculations based on the indices of the ratio of the value of the stocks traded as a share of GDP, turn over ratio, the ratio of market capitalisation to GDP, liquid liabilities to GDP and ratio of claims of deposit money bank on private sector to GDP the relationship between economic growth and financial development was also examined.

From the macro economic point of view the overall findings of this research indicates that economic growth is positively influenced by reducing the cost of borrowing, increasing the rate of return on savings, and optimising the allocation of resources through the stock market. Thus there is causal relationship between the level of financial development and the rate of capital formation or productivity of all production factors. In this respect the stock exchange is an extremely important institution. This is clearly seen by the fact those countries which have a well developed and regulated stock market tend to have a more diversified and developed financial system. Similarly, the financial and growth indices of these countries, as shown in chapters two and four, tend to highlight high levels of financial deepening, the importance of commercial banks, and a greater allocation of credit to the non-financial private sector. To ensure and maintain high economic growth levels and increased capital formation it is essential to ensure and protect the efficiency of the stock market by establishing a supervisory authority responsible for:

- Accurate definition of its responsibilities.
- Legal authority and accountability.
- Transparency of regulatory and supervisory mechanism.

In the final analysis economic growth or lack of economic growth is seen to have a direct relationship with the level of financial sector development. In this respect the "market based" financial system can play a key role in the development of the financial sector. Taking into consideration the above-mentioned points it is clear to see that the financial sector is the engine of development.

8.3 IRAN: THE RELATIONSHIP BETWEEN THE STRUCTURE OF THE CAPITAL MARKET AND ECONOMIC GROWTH.

One of the main objectives of this study is to investigate the relationship between the structure of the capital market and economic growth in Iran. The key issue in this regard is to examine the characteristics of Iran's capital market. As a starting point in approaching this issue we may refer to the World Bank study of 125 developing countries for the period 1973-1978 (Hogendron, 1992). This study revealed that an average one percent increase in the ratio of investment to GDP can raise a developing country's level of economic growth by about 1%. It also claimed that on average 25% of all growth in developing countries can be attributed to physical investment. Furthermore, it showed a strong correlation between internal savings and the volume of investments made. However, due to the fact that the stock markets in most of these countries are underdeveloped and poorly functioning it was no surprise to find that while the demands for credit from financial institutions are unduly high these institutions have insufficient internal savings to meet demand or encourage development. As a result many of them are forced to rely on banks and informal markets to meet their financial needs. In this respect the financial system in most developing countries is predominantly bank-based with the capital market playing a minimal role in the provision of financial resources. This is very much the case as regards the Iranian financial market. Consequently, this undeveloped financial system has had a negative impact on levels of economic growth:

- In Iran the ratio of investment to GDP is poor. At the end of the Third Development Plan this ratio is expected to reach a top rate of 25%, whereas in Malaysia this ratio has been 30% over the past two decades.

- Investments made in Iran during the period 1977-2001 have experienced a negative growth rate of about 1%.
- The capital flight[1] from Iran (20817.7 Billion USD , 2001)[2] to other countries, as well as capital flows from the formal market to informal market, continues to be an ongoing problem.
- Rigid government control and state ownership of the banking system has acted as a deterrent for many investors particularly given the fact that these banks control 99% of all banking system assets in Iran.
- The commercial banks are required to follow the interest ceiling rate for deposits as well as for the granting of loans. These rates are also to be followed with respect to the credit given to different sectors of the economy. As a result, these types of restrictive measures have diminished the efficiency of the banks.
- Over the past five years the reported pre-tax profits of the banks has been shown to be about 0.2 % of their total assets.

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[1] Capital flight is a phenomenon which, though unobservable, is assumed to be widely prevalent in developing countries. While this is probably true the approaches proposed by economists to quantify it may not necessarily capture what we seek to measure: namely the flight of capital as a response to economic and political instability. Although there are several methodologies to measure capital flight, but each method differs conceptually as to what defines capital flight based on distinctions between 'normal flows' and 'capital flight', 'short term' and 'long term' and between 'legal' and illegal transactions'. Consequently estimates of capital flight vary. The popular perception at least in Iran, is that capital flight refers to the amounts of foreign currency assets that have been kept in foreign countries by Iranian citizens or corporate bodies without legal sanction for doing so. It is also postulated that, exporters under- invoice their export receipts, and the difference is keep abroad. Importers are also believed to over- invoice their imports, and draw excess foreign exchange which is kept abroad.

[2] Abdullah Almounsor, A Development comparative approach to capital flight, The case of the Middle East and North Africa, 1970-2002.

In addition to these shortcomings the Iranian capital market also suffers from a number of structural problems, as discussed in chapter six, such as the lack of a comprehensive set of laws and regulations governing the functioning of the market as well as the diversified nature of financial institutions and intermediaries, which not only hinder growth but also its ability to play an effective role in providing financial resources. However, it should be noted that the Iranian stock market is in the early stage of its evolution. For it to progress and develop the financial market it will need to undertake a series of structural and policy reforms. This will be discussed in detail in the following section. The first step in this regard is to provide an assessment of the framework and overall goals of the capital market in Iran before going on to suggest the reform structure for the stock market.

8.4 POLICY RECOMMENDATIONS

8.4.1 FRAMEWORK AND OVERALL GOALS

In general, the economy of every country consists of real and financial sectors. The real sector of the economy shows the flow of goods and services from producers to the consumers, as well as the flow of manpower from consumers to producers. The financial sector of the economy consists of three markets, money, capital, and insurance, which control the flow of funds, credit, and capital from savers, financial and credit institutions, and the owners of capital, to investors, the government, and the producers of goods and services. Economic growth and development is dependent on the co-ordinated and harmonious relationship between these different sectors. The existence of an efficient and well functioning capital market, or in a broader sense a "negotiable instruments market", is essential to the working of the economy as a whole as it is responsible for a whole host of important financial activities that are not within the scope of the other two sectors of the economy. The capital market in Iran has two main responsibilities:

1. Providing long-term financial resources with a grace period of over one-year. These resources could be in the form of stocks or other types of long-term debt certificates
2. The managing of risk by utilising a combination of instruments in reducing uncertainty and instability in the financial sector.

However, being able to effectively discharge these responsibilities requires the existence of an appropriate supervisory system for the monitoring and regulation of the entire financial system. This is essential in:

A. Protecting Investors

To ensure the efficient and open functioning of the capital market it is essential that investors are protected from fraudulent and misleading actions, such as insider trading. Access to a full and open disclosure of information (according to accepted accounting and auditing standards) allowing investors to make a better assessment of the potential risk and output of certain investment opportunities is an essential element in this regard. The task of providing such information is entrusted to suitably qualified financial intermediaries such as stock market agents who are responsible for providing investors with the necessary information on all aspects of trading, exchange, counselling, or management of investments. In addition to these steps it is also necessary to implement a series of measures in order to regulate and ensure that the actions of these intermediaries meet the acceptable standards established by a code of conduct. These measures are crucial in that they act as further protection for investors against the actions of unscrupulous intermediaries by establishing a process of neutral arbitration and compensation from losses that may be suffered as a result of such actions.

B. Ensuring fairness and transparency in the market

Ensuring fairness and transparency in the functioning of the market is also related to the notion of investor protection. This calls for the establishment and enforcement of a set of regulations that will punish and reprimand those individuals who breach the principles of trading. These regulatory and supervisory undertakings further ensure that investors have access to all the facilities and information available in making an informed investment choice. In an efficient market, the full and open dissemination and distribution of appropriate information is an important element in financial development and market growth as it effects price formations. In addition, transparency in the market relates to the degree of public access to information before and after the actual trading. The information acquired before trading refers to elements such as the level and approximate price in cases of selling or buying and enables investors to form a true picture of the situation of market prices according to different levels of certainty. Information after trading, such as the prices and volume of various dealings, shows the results of investor actions and choices. Transparency in the market is dependent on the establishment and enforcement of a strict regulatory and supervisory mechanism.

C. Reducing Inefficiency and Systemic Risk

Systemic risk refers to certain elements or components within a market that prevent it from operating according to its optimum rate of efficiency. Once again regulation and supervision are the key elements in reducing such risks to a minimum. These measures should be strictly enforced, even to the point of terminating the activities of market intermediaries, in order to ensure investor protection and reduce the risk of losses on investments.

TABLE 8.1: MAIN OBJECTIVES OF REGULATION AND SUPERVISION OF THE CAPITAL MARKET

Protecting the investor	Ensuring the fairness and efficiency of the market	Reducing systemic risk
• Full release of information that could affect the decision of the investor. Utilisation of accounting and auditing standards. • Protecting investors against misleading and fraudulent practices, market manipulation, front running and insider trading. • Issuing authorisation to qualified persons to trade in the market and supervising their activities. • Protecting investors against unscrupulous market intermediaries by giving them access to a neutral arbitration authority and making compensation arrangements for any losses sustained.	• Preventing actions and practices that are in breach of trading principles and allowing investors full and fair access to all the facilities of the market. • Assist in promoting the efficiency of the market through the dissemination and distribution of information, within suitable time intervals, on the process of price formation. • Creation of maximum transparency by arranging for public access to information before and after the trading	Creation and enforcement of regulations aimed at reducing the direct and side effect of the failure risk arising from the actions of market intermediaries

Apart from the above-mentioned objectives, the most important function of the regulatory and supervisory mechanism is its ability to create a stable environment for capital formation and sustainable levels of economic growth. This necessitates the employment of these mechanisms in a consistent way harmonious with the workings of the market in expanding and encouraging competition within the market. In order for the regulatory and supervisory system of the stock market to be able to achieve these objectives, and at the same time sustain high rates of economic growth, the system should have the following characteristics:

1. It should not impose any unnecessary limitations on the activities of market players.
2. The market should, to the maximum extent possible, be open to all active players who possess the requisite qualifications.

3. In the application of its policies due care and attention must be given to the possible side effects that could arise from their implementation.

4. The regulatory and supervisory requirements should be applied equally and without prejudice to all those who have entered into and accepted financial undertakings.

As a whole, an efficient legal, taxation, and accounting framework should be created within which the stock market can function in achieving these objectives. However, the laws and regulations related to the stock market must be established and enforced with due regard to, and in conjunction with, those laws governing the pattern and structure of the other markets operating within the national economy.

8.4.2 A FRAMEWORK FOR DEVELOPMENT OF THE STOCK MARKET IN IRAN

The capital market, in both developed and developing countries, is a large entity encompassing a number of different types of institutions, tools, and players operating according to regulatory and supervisory mechanisms that ensure the functioning of a transparent, competitive, active, fair, safe, and regulated market. The direct responsibility for regulating and supervising the activities of the capital market is normally entrusted to a supervisory body, which, depending on the financial structure of the national economy, can either act independently or under the direct supervision of the relevant government authorities. Such institutions, in addition to their regulatory functions, are also charged with the responsibility of assessing and evaluating financial strategies as well as reviewing and improving current and future economic directions. However, it must be noted that in certain instances there are a number of fundamental differences between the objectives and functions of the stock market and those of the supervisory bodies. This arises from the fact that the stock exchange is for the most part a self-regulating institution active in the second hand market of negotiable instruments performing clear cut duties according to specific objectives.

Its activities are primarily aimed at creating favourable economic conditions in order to increase the liquidity of the institutions and instruments entering the stock exchange market. In this respect the legal framework governing the activities of the entire capital market is somewhat unwieldy in being able to address the specific regulatory requirements of the stock exchange.

As a result, the existence of a stock exchange organisation in a country does not necessarily mean that the negotiable instruments market is formed in that particular country. As referred to in the previous section, the negotiable instruments market, as it is defined in other countries of the world, has not yet formed in Iran. The capital market as it exists in Iran simply refers to the activities of the TSE and a limited set of rules and regulations that are somewhat obsolete and often not enforced. Indeed, even the TSE lacks the necessary sanctions allowing it to fulfil its basic function as a stock exchange. In this way the duties of the TSE Council could not be considered equal with that of the supervisory body of the capital market as the large number of representatives from the Ministry of Economic Affairs and Finance in the Council shows the dominating role of the centralised regulatory and supervisory approach in Iran's financial markets. This is a serious problem for financial development in Iran and the economy as a whole given the fact that it is the main institution in a single instrument market. What is clear is that given these factors, the heavy reliance on the banking system, and the precarious situation of the Iranian economy as a whole, that a uniform and properly enforced regulatory system is urgently needed if economic growth and development are to be encouraged. Certain tentative steps have been taken towards this end and the effect has been that the Iranian economy is starting to take on the appearance of a decentralised economic structure albeit one acting within a highly centralised financial system. This was clearly shown in the directives and aims of the Second Economic Development Plan of Iran. In addition, regulation of the market was entrusted to the Minister of Economic Affairs and Finance, which given the fact that he is also a member of the general assemblies of the Central Bank and the Central Insurance Company can be seen as an attempt to provide a continuity in designing a supervisory system that would address the overall requirements of the market and the specific requirements of its different members.

The future formation of the capital market in Iran more than anything else calls for the establishment of a supervisory body consistent with those of other financial markets so that the present inadequate structures can be reformed or replaced in order to facilitate the desired development goals of the national economy. To this end it is necessary to undertake a more accurate study of the status of other financial markets, taking into consideration the general design and structure of the national economy and the tendency to move towards a situation where government involvement in the economy is reduced. Such an evaluation should be undertaken with regard to three specific issues:

a. Financial stability,

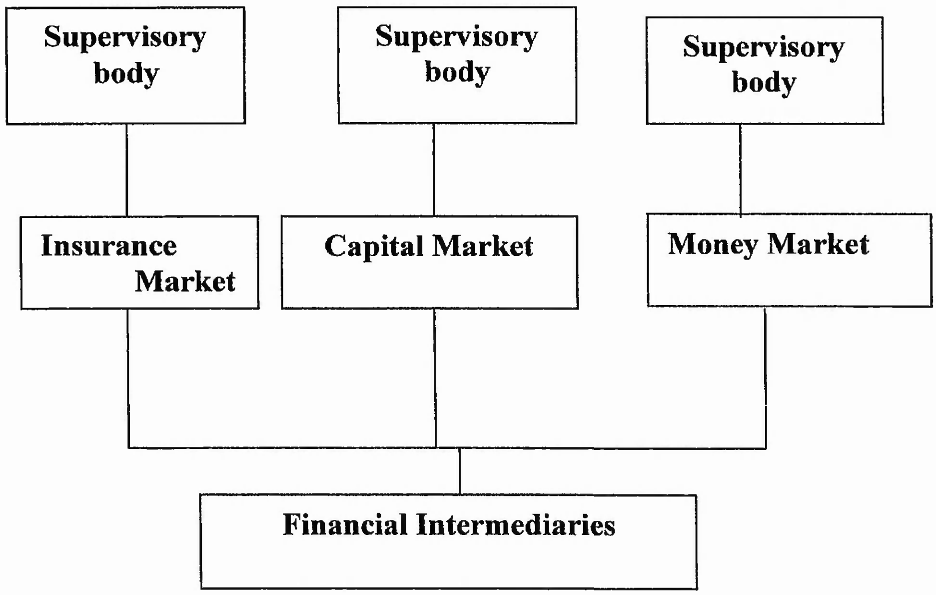
b. Efficiency of the financial system[3],

c. Ensuring the fairness and transparency of the financial system.

In this context, the most appropriate pattern for reforming the financial structure of the Iranian economy would be to move towards a decentralised structure where the regulatory and the supervisory mechanisms controlling the money, capital, and insurance markets, are separated. Furthermore, the regulation of these markets should be conducted on the basis of clearly defined duties rather than on the basis of subject. In order words the supervisory body responsible for the regulation of the capital market must concern itself with all issues pertaining to capital market activities whether they arise in the banking sector or in the insurance market.

[3] The inefficiency of the Iranian financial sector can be seen by the fact that over 90% of the total assets of the Central Bank consist of the debts of the government and governmental companies and institutions. This has occurred as a result of the public sector using the monetary sector to fund its budgetary needs.

Chart 8.1: Proposed regulatory and supervisory structure of the Financial Markets in Iran



SUPERVISORY AUTHORITY

In considering the appropriate regulatory and supervisory mechanisms for the Iranian financial system due attention must be made to the overall goals of the economy as well as the lack of a negotiable interest market. The first stage towards these ends would be the establishment of a supervisory body that is independent, accountable, and possessing the necessary authority and legal framework necessary to structure a financial system capable of meeting the developmental needs of the national economy. Having laid out these defining principles it is then necessary to establish a framework capable of carrying out these stated aims. Towards this end the general design of the supervisory body of Iran's negotiable instruments market would consist of two main parts:

1. Council of the Stock Exchange. This would be a governmental or semi-governmental controlled council responsible for fulfilling the duties and responsibilities of the supervisory body over the capital market in Iran.

2. The Supervisory Organisation of Negotiable Instruments. This would be an executive body in charge of fulfilling the duties and responsibilities of the supervisory body over the capital market.

The Council of the Stock Exchange, as the highest decision and policymaking body in the capital market, will have the following responsibilities:

a. Interpretation of all laws related to negotiable instruments.

b. Preparation and adoption of the rules and procedures necessary for the implementation of the legal regulations.

c. Proposing legal bills to parliament for the purpose of adjusting the market to the changing needs of the national economy.

The responsibilities of the Council will involve regulating the activities of the following institutions and market players:

1. An executive organisation responsible for implementing the duties and responsibilities of the supervisory authority over the entire capital market.

2. Self regulatory bodies as follows:
    - Tehran Stock Exchange as well as the Stock Exchange.
    - Commodity bourses, such as the metal bourse and the agricultural bourse.
    - The association of dealers, brokers and traders of negotiable instruments.

3. Financial intermediaries:
    - Stock exchange agents
    - Brokers
    - Institutions with a commitment to purchase.
    - Investment advisors.
    - Investment managers.
    - Investment banks

4. Investors:

- Institutional investors such as investment companies and or collective investment funds.
- Margin trading funds.
- Individual investors and non-institutional investors.

5. Publishers of negotiable instruments such as manufacturing companies or financial institutions which issue (publish) stocks as well as debt instruments irrespective of their ownership structure (status).

6. Other stock market players:

   a. Institutions in charge of assessing risk and creditability.

   b. Professional data processors of the negotiable instrument market.

   c. The Bourse Guarantee Funds.

   d. Certified Auditors.

Table 8.2: PROPOSED GENERAL PLAN FOR FORMING THE COUNCIL OF TSE

Number of Council Member	7 Members
Duration of Membership	5 years. Members of the council will be assigned at the same time so that there will always be some experienced members present on the Council.
Responsibility for assigning members to the Council	4 members by the Council of Ministers. 2 members by Islamic Consultative Assembly. 1 member by the Judiciary Body of the Government.
Modality of membership in the Council.	Full-time with the condition that members are not employees of other governmental organisations, financial markets, or institutions affiliated to the negotiable instruments market.
Modality of assigning the Head of the Council	Elected at the beginning of every year by the members of the Council.
Financing the costs of the Council and its related executive organisation	To be self administered and independent from the government budget through receiving a percentage of the value of the transactions conducted in the negotiable instruments market

The supervisory body will have the responsibility for regulating, supervising and authorising the registration of all institutions and players currently active, or becoming so in the future, in Iran's capital market. These responsibilities will exist irrespective of the fact as to whether they are related to the functions and law governing the establishment of the TSE. The supervisory organisation appointed by the Council will be the man institution charged with the responsibility of conducting and enforcing the regulatory measures and duties assigned to it by the Council. This organisation will consist of a board of governors as well as the following boards:

1- A board for the registration and supervision of financial institutions and organisations.

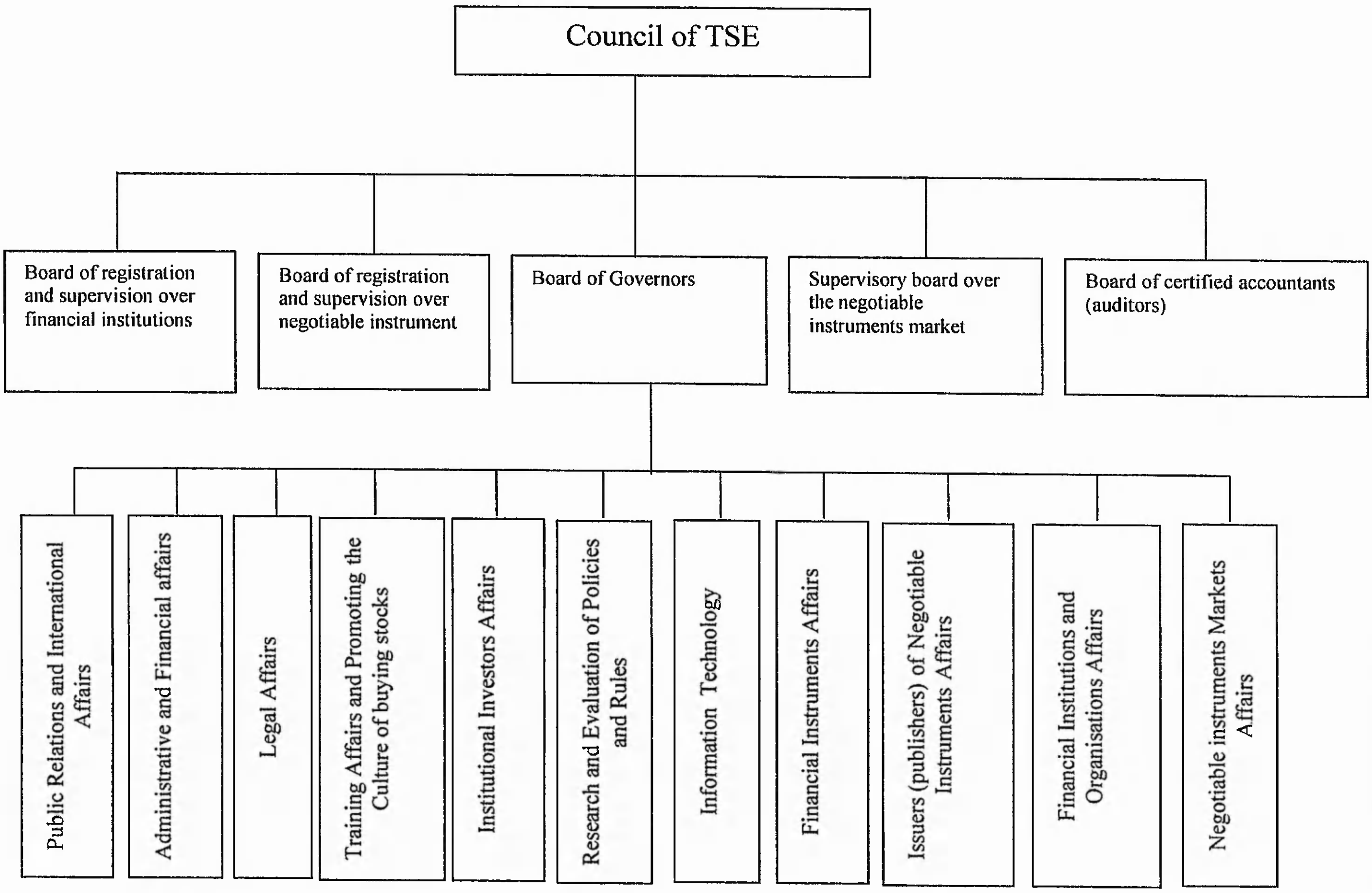
2- A board for the registration and supervision of negotiable instruments.

3- A board for the supervision of the negotiable instruments markets.

4- A board of certified auditors (accountants).

The power and executive authority of the supervisory organisation and its role in the capital market will be similar to that of the Central Bank of Iran in the money market. However, it will differ in one crucial aspect in that it will not have a separate general assembly and will be directly accountable to the Council of negotiable instruments.

Chart 8.2: Proposed Organs & Structure of the Supervisory Organisation of the Capital Market in Iran.

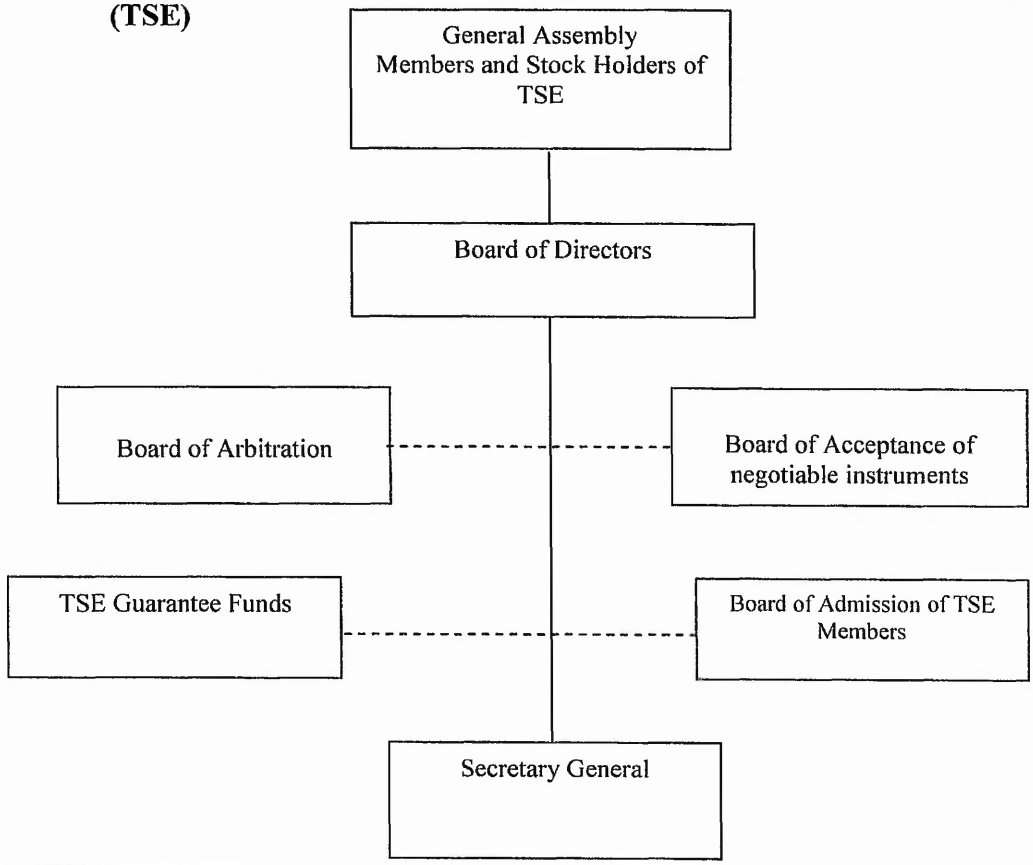


8.5: TEHRAN STOCK EXCHANGE (TSE)

One of the key elements in the formation of the negotiable instruments market in Iran lies in the need to reform the structure of the TSE in order to position it as a self regulating second hand market for negotiable instruments. This necessitates a fundamental reconsideration of the scope of the activities and decision-making responsibilities conducted by the TSE and their delegation to a TSE Council which would play a greater role in the area of regulation. This new reformed structure would also include an increased role for the TSE board of directors who would take over many of the duties currently undertaken by TSE players and financial institutions. In addition, they would also be responsible for implementing the duties of the admissions board and the arbitration board. This new structure would also encompass a general assembly of members that would function as the highest decision making body in the stock exchange electing the board of directors who would be charged with fulfilling the following duties:

a. Running the executive affairs of the bourse through selecting the secretary general and chief executive officer.
b. Controlling the admissions process for negotiable instruments through the workings of the board of admissions operating under the auspices of the Council.
c. Admitting new financial intermediaries to the stock exchange and ejecting those who contravene trading regulations.
d. Settlement of disputes between agents or agents and customers by establishing a board of arbitration for the bourse.
e. Establishing and administering the affairs of the bourse guarantee fund.

Chart 8.3: Proposed plan for improving of the Structure of the Tehran Stock Exchange (TSE)



Appendix

Table 1: correlation between GDP per capita, LRR . CPSR of group 1

	GDP	CPSR
GDP Pearson correlation	1.00	. 826 *
Sig . (2 – taild)	0	.022
N	7	7

* Correlation is significant at the .05 level (2 – tailed)

Correlation between GPD per capital , LRR, CPSR is positive. But it is not meaningful for LRR. It is significant for CPSR at .05 level.

Table2: correlation between per capita GDP , LRR , CPSR of group 2

	GDP	CPSR
GDP Pearson correlation	1.00	.406
Sig. (2 - tailed)	0	.366
N	7	7

Correlation between GDP per capital & LRR & CPSR is positive. But they are not meaningful. i.e. it is not significant at the confidence interval.

Table 3: correlation GDP per capita, banking & capital market indicators

	GDP	CPSR	MCR	TVR	TOR	BNIM
GDP Pearson correlation	1.00	.506	.599	.727	.135	-.055
Sig (2-taild)	0	.065	.024	.003	.644	.852
N	14	14	14	14	14	14

Table 4: correlation between GDP per capital & BNIM for two groups

	Group 1	Group 2
	BNIM	BNIM
GDP Pearson correlation	- .029	- .0221
Sig (2 – tailed)	.950	.634
Sig (2 – tailed)	7	7

Correlation between GDP per capital & BNIM two groups are negative. But they are not meaningful at .05 level.

Table 5: comparison between the average of MCR, TVR & TOR among two groups.

Average of	Group 1	Group 2	Comparison between two groups
MCR	97.25	50.01	97.25 > 50.01
TVR	69.06	22.25	69.06 > 22.25
TOR	97.72	65.95	95.72 > 65.95

The average of the three indicators (MCR, TVR & TOR) are greater for group 1 with respect to group 2 .

Table 6: correlation between GDP per capita, MCR, TVR & TOR

	MCR	TVR	TOR	
GDP Pearson correlation	.446	.524	-.164	Group 1
Sig . (2- tailed)	.315	.227	.725	
N	7	7	7	
GDP Pearson correlation	.550	.324	-.066	Group 2
Sig . (2- tailed)	.201	.478	.888	
N	7	7	7	

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