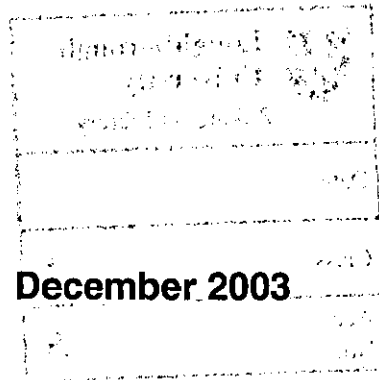


**Financial Development And Economic Growth
An Overview of Turkish Case: 1982 –1999**

**by
Olcay Yagci**

**A Master's Thesis submitted
in partial fulfilment of the requirements for the award of
Master of Philosophy of Loughborough University**



© by Olcay Yagci (2003)



Loughborough
University
Pilkington Library

Date JULY 2005

Class T

Acc
No. 0403116198.9

**To my son,
M. Kerim Deniz Yagci**

ACKNOWLEDGEMENTS:

This thesis is written with immense support, patience and understanding of Professor Barry Howcroft of the Loughborough Business School. He, foremost of all, gave a scholarship to me to begin working on this subject and continued to encourage me throughout my research. Thank you Barry. Secondly, I owe a very sincere thank you to my wife, Bahar, for her understanding and support as well. Since, Bahar did the proof reading of the thesis numerous times and had to endure a lonely social life for sometime. A very grateful thank you also goes to the external readers of the thesis whom have supplied very valuable comments during my exam. With these comments, I was able to finalise the thesis and also changed the format for a higher standard. I also would like to thank you to the staff of Loughborough Business School, from whom I learned a great deal during my first year at the University by attending to Ph.D. classes and trainings on social research. Lastly, I would like to thank to Pierre Blandin and Eric Busnel of Dresdner Kleinwort Wasserstein and Heather Day of Barclays Capital, my line managers during this research, for their understanding.

ABSTRACT

This research focuses on financial development and economic growth with a qualitative assessment of the Turkish case between 1982 and 1999.

The effect of financial development on economic growth has been examined in numerous studies throughout the modern history of economics. The dissenters and advocates contest both the theme and the empirical evidence extensively. The debate, to a certain extent, however is still inconclusive and incomplete. In essence, the diversity of variables, time discrepancies, sui-generis country structures, measurement, statistical and conceptual drawbacks and finally differences in the level of financial development of different countries initiate questionable generalisations.

Within the confines of the abovementioned discussions, Turkey is a good example to examine with its liberalisation efforts in the 1980s and a number of crises in the 1990s, most recently in November 2000 and February 2001. This study attempts to investigate Turkey's political and financial structures in order to understand the liberalisation efforts and why they failed.

The analysis will, therefore, include an examination of the historical development of the financial, banking and stock market sectors as well as an examination of the existence of the McKinnon-Shaw relationship. Findings of other empirical studies will be brought into the analysis in order to provide a full picture of the consequences of Turkey's financial liberalisation. Our assessment is that the Turkish experience of financial liberalisation has brought about some positive results in the financial sector but its impact in the real economic sectors do not justify the changes which have taken place over the last 20 years or so.

KEY WORDS

Financial development, Economic growth, Liberalisation, McKinnon-Shaw, Banking sector, Stock markets, Turkey, Turkish financial development.

List of Tables

	Page
Table 1.1: Financial Determinants of Economic Growth	4
Table 3.1: Main Economic Indicators: 1980-1998	49
Table 3.2: Primary Security Issues Registered With the Capital Market Board	59
Table 3.3: Outstanding Securities in Turkish Financial Markets	60
Table 3.4: Trading Volume	61
Table 3.5: Portfolio Compositions	62
Table 3.6: Main Indications of Stock Market and ISE	64
Table 3.7: Turkish Financial Sector at a Glance	66
Table 3.8: Indicators of Financial Deepening	68
Table 3.9: Primary Issues	70
Table 3.10: Yields and Return	71
Table 4.1: Selected Indicators of Financial Sector	80
Table 4.2: Total Assets of Banking System	82
Table 4.3: Evolution and Structure of the Banking Sector in Turkey	85
Table 4.4: Number of Banks Operating In Turkey	86
Table 4.5: Selected Balance Sheet Items of Banking System	88
Table 4.6: Structure of the Commercial Banking Sector in Turkey	91
Table 4.7: Structure and Liabilities According to Bank Groups	94
Table 4.8: Asset Structure According to Bank Groups	96
Table 5.1: Savings	102
Graph 5.2: Private and Public Sector Savings – Investment Balance	105
Table 5.3: Interest Rates and Financial Yields	108
Table 5.4: Investment	110
Table 5.5: Growth performance of the economy	112

	Page
CONTENTS	
ACKNOWLEDGEMENTS	I
ABSTRACT	II
LIST OF TABLES	III
CHAPTER I INTRODUCTION	1
CHAPTER II LITERATURE REVIEW	8
2.1 Financial Liberalisation	8
2.2 Financial Structure	13
2.3 Financial Development and Economic Growth	15
2.4 Arguments	18
2.4.1 Efficiency Effect: Goldsmith Type of Reasoning	18
2.4.2 Volume Effect: McKinnon-Shaw Type of Reasoning	20
2.5 Methodologies	24
2.5.1 Approaches	24
2.5.2 Measures	26
2.5.3 Some Concluding Remarks	28
2.6 Stock Markets: A New Source of Growth	29
2. 6.1 Measures for Stock Market Development	34
2.6.1.1 Market Capitalisation	34
2.6.1.2 Liquidity	34
2.6.1.3 Concentration	35
2.6.1.4 Volatility	36
2.6.1.5 Institutional Development	36
2.7 Conclusion	36
2.8 The Turkish Endeavour	37

CHAPTER III	TURKISH FINANCIAL DEVELOPMENT	40
3.1	Turkish Financial Markets	40
3.2	Macroeconomic Factors: Persistent Fiscal Imbalances and Financial Opening	45
3.3	Financial Liberalisation and the Evolution of the System	52
3.3.1	Financial Policies and Reforms	52
3.3.2	Interest Rates	53
3.3.3	Money and Foreign Exchange Markets	54
3.3.4	Capital Markets	55
3.3.4.1	Capital Markets and the Corporate Sector	56
3.3.4.1.1	Primary Markets	57
3.3.4.1.2	Secondary Markets	63
3.4	Performance of the Financial System: Reforms and Financial Structure	65
3.5	Microeconomic Factors: Regulatory and Supervisory Issues	72
CHAPTER IV	THE TURKISH BANKING SYSTEM	77
4.1	A General Summary	77
4.2	Features of the Turkish Banking System	82
4.3	Performance of Commercial Banks: Profitability and Efficiency	90
4.4	Resource Mobilisation and Allocation:	92
4.4.1	Resource Mobilisation	92
4.4.2	Resource Allocation	95
4.5	Conclusions	97
CHAPTER V	RESULTS OF FINANCIAL LIBERALISATION	100
5.1	The Real Economy	100
5.1.1	Savings	100

5.1.2	Public sector savings behaviour and the interaction with private savings	106
5.1.3	Private Investment	109
5.1.4	The composition of private investments	111
5.1.5	Growth performance of the Economy	112
5.2	The Financial Markets	112
5.2.1	Interest rates	112
5.2.2	Bank deposits	113
5.2.3	Credits	114
CHAPTER VI	STOCK MARKET DEVELOPMENT REFLECTIONS ON IMKB	115
6.1	Introduction	115
6.2	Stock Market Development and Economic Growth	118
6.3	Turkish Stock Market Development	123
6.3.1	Some History	123
6.3.2	Istanbul Stock Exchange Market (IMKB)	124
6.3.3	IMKB and Economic Growth: Empirical Findings	126
6.3.3 .1	The Issue of Efficiency and Volatility	128
6.3.3.2	Institutional Development and Integration of IMKB	129
6.3.4	Conclusion	131
CHAPTER VII	RESULTS OF FINANCIAL LIBERALISATION IN TURKEY: SOME CONCLUSIONS	133
REFERENCES		142
FURTHER BIBLIOGRAPHY		149

CHAPTER I

INTRODUCTION

Financial development affects economic growth. This robust statement is the subject matter of numerous studies throughout the modern history of economics. The dissenters and advocates contest both the theme and the empirical evidence extensively. The debate, to a certain extent, however is still inconclusive and incomplete. In essence, the diversity of variables, time discrepancies, *sui-generis* country structures, measurement, statistical and conceptual drawbacks and finally differences in the level of financial development of different countries initiate questionable generalisations.

The majority of the studies support the argument that financial development is a source of growth¹. Yet, causality still remains a questionable topic². The

¹ See Beck et al (1999) and Levine et al (1999) for recent studies. Also see Levine (1997) for a summary of literature as well as King and Levine (1993a) for a cross country analysis. In addition, see Levine (2000), Gregorio and Guidotti (1992 and 1995) Berthelmy and Varoduakis (1996a), Greenwood and Jovanovic (1990), Stulz (2000) for the relatively positive effect of financial development on economic growth and see Demirguc-Kunt and Maksimovic (1998) and Rajan and Zingales (1998) for the same kind of approach but in the industry level. Moreover, see Atje and Jovanovic (1993),

financial structuralists and repressionists on one side and the cautious development economists on the other all subscribe to different theories. Just as important, the empirical evidence and findings are not uniform. The debate boils down to whether financial development is important or not for an economy in terms of generating funds, re-allocating savings in the form of credit and facilitating risk management and information gathering.

One of the most important studies in this area is the Financial Repression Analysis³ (FRA) of McKinnon and Shaw (1973) which is concerned with the contribution of financial liberalisation to the economic development process. The main hypothesis of this repressionist view is that higher interest rates would lead to increased saving levels and therefore, rapid growth and development. Shaw and McKinnon (1973) argue that sub-optimal interest rates in developing countries were the primary reason behind the high level of inappropriate capital investments.

On the other hand, Goldsmith (1969), as a structuralist, states that the correlation between financial development and economic growth reflects a two-way causal relationship and that financial markets enhance growth by raising the efficiency of the investment (Pagano 1993:620).

After studying country cases, Patrick (1966) and Cameron (1966) support the view that the organisation of a financial system is crucial to economic growth. Similarly Schumpeter (1911) argued that developed financial systems promote innovations and thus affect economic growth positively.

All of the authors who accord with this particular view stress the role and importance of the financial system in economic growth⁴. All the aforementioned

Bekaert and Harvey (1995), Bencivenga et al (1996), Demircug-Kunt and Levine (1996a and b), Demircug-Kunt and Maksimovic (1996), Filer et al (1999), Levine and Zervos (1996 and 1998) and Levine (1991 and 1996) for the positive effect of the development of the stock market on economic growth.

² Patrick (1966) was the first to identify the causation. Later, McKinnon (1988:390) note that "although a higher rate of financial growth is positively correlated with successful real growth, Patrick's problem remains unsolved: what is the cause? And what is the effect?"

³ Financial repression is defined by McKinnon (1984:3) as a situation in which the repressive effect of usury laws, bank, reserve requirements, credit controls and price inflation interact to reduce and distort the flow of domestic savings. In McKinnon and Shaw (1973) analysis, a repressed financial market is characterised as the one where government policies that distort the operation of capital markets.

⁴ Valeriano and Liu (2001) summarizes the main reason why an efficient financial system is essential to an economy is that there are substantial information and transactions costs:

Asymmetric information creates adverse selection and moral hazard, and high transactions costs impose inefficiencies. By specializing in collecting information, evaluating projects, sharing risks, and providing liquidity, an efficient financial system increases financial savings, and improves their allocations across investments. Consequently, financial

scholars provide conceptual descriptions and empirical examples of how and when the financial system affects economic growth. Building on these seminal contributions, Gelb (1989), Ghani (1992), King and Levine (1993a, b) and De Gregorio and Guidotti (1992 and 1995) show that measures of banking development are strongly correlated with economic growth in a broad cross section of countries. According to this school of research, a well functioning financial system is critical for sustained economic growth.

At the other extreme, some scholars of economic development take the opposite view and argue that financial development has little impact on economic growth and development. Dornbusch and Reynoso (1989), Stern (1989), Lucas (1988), Meier and Seers (1984) and Robinson (1952) are typical of academics who accord with this school of thought.

Unfortunately the theory is ambiguous on the real effects of financial liberalisation and the empirical findings are inconclusive. One approach in empirical studies has been cross-country regressions of "financial deepening" and average economic growth. However, the result of such studies have been mixed and the relationship between financial development and real variables such as savings, investment and growth remains uncertain. Fry (1978), Jung (1986), Lanyi and Saracoglu (1993), King and Levine (1993a) and Levine (1997) have found positive relationships. Alternatively, Dornbusch and Reynoso (1989), for example, in a large sample of developing countries found no correlation between financial development (M2/GNP ratio) and average growth rates. Moreover, cross-country studies such as Khatkate (1988), Corsetti et al

intermediation increases capital productivity, and promotes economic growth. We have identified three main channels through which financial intermediaries and markets may affect economic growth.

First, a developing financial sector makes room for increasing saving rates. By using economies of scale and expertise, financial intermediaries and markets are able to provide savers with a relatively higher yield, and therefore stimulate savings. A lot of literature has shown the role played by financial intermediaries and markets in increasing savings. For example, McKinnon (1973) and Shaw (1973) emphasize the role played by financial liberalization in increasing savings and, hence, investment. They claim that financial deepening improves not only productivity of capital but also the saving rate and, therefore, investment and growth.

Second, by reducing information and transactions costs, the financial intermediaries and markets perform the essential economic function of increasing the funneling of funds from lenders to borrowers. For example, Gurley and Shaw (1955, 1960 and 1967) stress the importance of financial intermediation in channeling savings to investment. Third, the financial sector improves the allocation of resources. A recent line of research argues forcefully that financial development enhances growth by promoting an efficient allocation of investment through various mechanisms: (1) fund pooling, that is, making large investment projects possible and lending cheaper; (2) risk diversification, that is, reducing

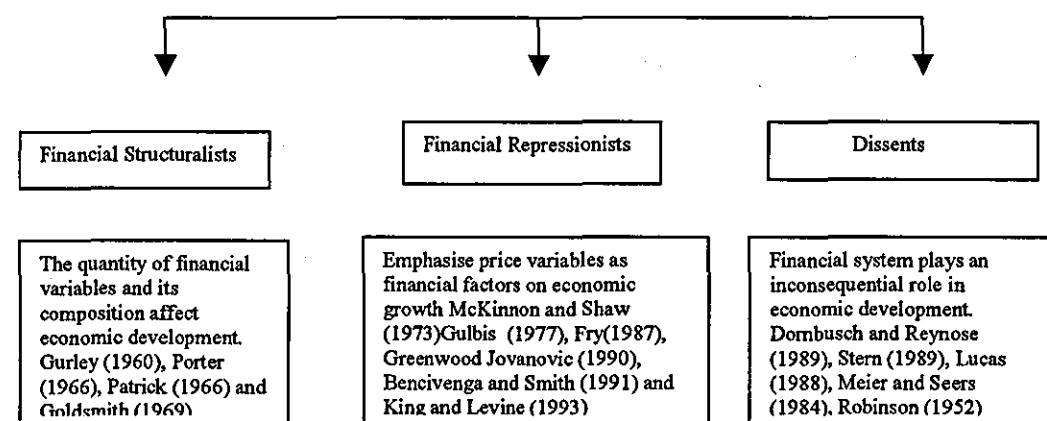
productivity and default risks by holding diversified portfolios; (3) liquidity management, that is, providing liquidity to investment projects; (4) screening, that is, gathering and evaluating information on projects to channel funds to the most profitable ones; (5) monitoring, that is, disciplining borrowers' performance to make sure they fulfill their commitments. A well functioning financial system improves resource allocation through these mechanisms.

(1992) and Thornton (1996) also show that the empirical evidence is inconclusive⁵ (Yulek, 1995:1-5). Consequently, De Gregorio and Guidotti (1992) and Fernandez and Galetovic (1994) have qualified these results and show that the relationship varies with the stage of economic growth⁶.

This brief summary of the literature also reflects an historic approach to the subject as well: Within the framework of the development of the literature on financial liberalisation and its effects on economic growth, three distinct phases can be detected: The initial phase was concerned with the idea that finance does not matter in economic growth⁷. The second phase, which paved the way for financial liberalisation efforts throughout the world, favours the importance of financial markets and their structure in economic growth. However, the reliance on perfect market assumptions stopped the wider application of the theory. The third, and a more realistic phase, has the same theoretical underpinning of the second phase but omitted the perfect market assumption. This final approach formed the basis for public policy in the financial liberalisation process⁸.

The main literature regarding the effect of the financial market on economic growth can be shown as follows:

Table 1.1: Financial Determinants of Economic Growth



⁵ Among the studies which find positive relations between financial development and real economic growth, King and Levine (1993a) are careful in considering the direction of causality. They estimate a simple model to test if the starting financial development leads to a higher subsequent real economic growth. They conclude that the causality runs rather from financial development to real development. However, the conclusions of Jung (1986) and Thornton (1996) question the findings of King and Levine and state that causality runs both ways.

⁶ More specifically, Fernandez and Galetovic (1996) find that the positive relationship within the OECD countries is much weaker than with non-OECD countries. Indeed, such a correlation is nearly absent when Japan is excluded from the OECD sample. For twelve Latin American countries, De Gregorio and Guidotti (1992) conclude that the development of the real and the financial sectors are negatively related using panel data analysis with six year averages (Becsi et.al., 1998:1).

⁷ "Economists frequently exaggerate the role of financial factors in economic development and growth is mainly due to technological progress, leaving little role for finance" Lucas (1988) "financial factors are important only when financial instability becomes a dominant force in the economy" Dornbusch and Reynose (1989)

⁸ For a detailed discussion see especially Sak (1995)

Figure 1 shows that the common element in the first two schools of thought relates to the financial variables affecting economic growth whereas the last school takes the view that financial variables are only important when they have an effect on the real sector and macro balances.

Another aspect of the financial development and economic growth nexus is the contribution of stock markets. Especially in the last five years, stock markets have been analysed in detail due to two main reasons: Firstly, there has been a huge amount of capital flow to these markets and secondly, they are now regarded as an integral part of financial development. McKinnon and Shaw (1973) have taken important steps in examining the relationship between financial development and economic growth. However, they have contributed very little on the role of stock markets. Cho (1986) introduced the role of the stock market to the McKinnon-Shaw framework by applying the theory of credit rationing (Stiglitz and Weiss, 1981). Cho's point of view can be summarised as follows:

- 1) Banks inherently suffer from the problems of imperfect information in the credit market and cannot always achieve efficient capital allocation.
- 2) On the other hand, equity finance is free from adverse selection and moral hazard effects. Therefore, expected return to an equity investor would be exactly the same as the expected return on the project.
- 3) Accordingly, the substantial development of an equity market is a necessary condition for complete financial liberalisation.

Within the context of the capital account, stock market liberalisation is basically concerned with the process by which foreign investors are allowed to trade (buy and sell) in a country's stock market. It is argued that the stock market provides backing to economic growth by supplying liquidity, risk diversification, monitoring of firms and corporate control.

Nevertheless, Singh (1997) and Stiglitz (1989, 1993), for example, challenge the argument that stock market development affects economic growth positively. They focus on the adverse effects of increased liquidity (on savings) and volatility (on efficient investment). Moreover, the interaction of stock

markets with foreign exchange markets focuses attention on macroeconomic stability when faced with shocks.

Irrespective of whether they are bank or market based, all financial systems operate within an economy. Intuitively this implies that there is a relationship. This relation has been identified as being statistically significant in most of the empirical studies. However, the direction of causation and the econometric techniques have raised significant questions. As has been argued by Levine (1997), country case studies capturing both banking sector as well as stock market development may be the key to solving these questions and revealing the real relationship.

Within the confines of the abovementioned discussions, Turkey is a good country to examine with its liberalisation efforts in the 1980s and a number of crises in the 1990s, most recently in November 2000 and February 2001. Turkey's political and financial structures need to be investigated in order to understand the liberalisation efforts and why they failed.

The analysis will, therefore, include an examination of the historical development of the financial, banking and stock market sectors as well as an examination of the existence of the McKinnon-Shaw relationship. Findings of other empirical studies will be brought into the analysis in order to provide a full picture of the consequences of Turkey's financial liberalisation.

The next chapter (Chapter 2) will discuss the relevant academic literature and the research methods used in examining the relationship between financial development and economic growth. This chapter will also capture the main stream arguments from an historic as well as a functional approach. In summarising the methodologies used in the literature, the respective strengths and weaknesses and the criticisms of these approaches will be discussed. Accordingly, the chapter will outline the rationale of the alternative methodologies and also identify the various measures and variables used in these different approaches.

Chapter three will focus on the historical development of the Turkish financial markets and analyse the political economy of Turkey from a wider perspective. This chapter will discuss the structure, development and current state of the

markets and provide an appropriate political and social context for a better understanding of financial liberalisation efforts in Turkey

Chapter 4 provides an in-depth descriptive analysis of the development of the Turkish banking sector. Accordingly, the various assets, liabilities, profits, income stream etc. of the Turkish banking sector will be discussed. An overall analysis of the banking sector, as well as the public and private bank's separate consolidated figures, will be considered. Developments in the banking sector will also be compared with changes in GDP. This analysis will be facilitated by looking at the relationships between the credit volume of the banks, the levels of savings, interest rates and money supply in the economy. This chapter will also assist in helping to understand the reasons for the current economic crisis in Turkey.

Chapter 5 examines whether a McKinnon-Shaw type of reasoning is valid in Turkey by analysing the results of financial liberalisation to-date. The chapter will ascertain whether the financial liberalisation efforts have led to an increase in economic growth over the last 20 years by increasing the volume of investments. The relationship between savings, investments, GDP, credit, money supply and interest rates will also be investigated.

In the penultimate chapter, the impact of the Istanbul Stock Exchange on the economic growth of Turkey will be investigated. The standard measures of stock market development that have been put forward in the literature will be used and the findings of some other scholars will be analysed to understand some of the current problems that the Turkish markets face. The thesis concludes by examining the main implications of financial liberalisation of Turkey and an assessment is made of their impact on the real economy.

CHAPTER II

LITERATURE REVIEW

2.1 Financial Liberalisation

Financial liberalisation⁹ can be considered an act of policy that eliminates or lessens control of price and quantity in a market. Patrick (1994:341) refers to as a goal and a process¹⁰. The goal is to achieve a market-based financial system in which institutions compete and prices (interest rates) are determined in competitive markets. On the other hand, the process component of financial liberalisation entails institutional transformation so that rules and practices are changed with the intention that prudential objectives continue to be met and cartel-like private market power is prevented (Cole and Slade, 1999:2).

Financial liberalisation is primarily aimed at increasing the efficiency and competitiveness of the sector by liberalising interest rates, strengthening the supervisory framework, reducing the controls on credit, promoting growth and deepening the financial markets. Moreover, a usual consequence of domestic liberalisation is the abandonment or lessening of the restrictions on international

⁹ The word "liberalisation" will mean financial liberalisation throughout this study if otherwise is not stated.

¹⁰ This multifaceted nature involves deregulation, liberalization, globalisation and privatisation (see Bandiera et al (1999) for detailed discussion).

capital flows and a more flexible exchange rate regime. The main impetus behind financial liberalisation is that it will promote economic growth better than a repressed system. In a repressed real interest rate environment, the quantity and quality of investments can be sub-optimum due to low returns on bank deposits, resulting in a decrease in the amount of loanable funds (Arestis and Demetriades, 1997).

The objective of increasing the role of the market mechanism in resource allocation by financial liberalisation has been a policy option since the second half of the 1970s. A growing number of developing and developed countries have implemented programmes aimed at liberalisation. Today, there is fairly wide acceptance that these programmes, if put into practice appropriately, increase economic growth and the welfare of nations. It is, therefore, clear that in many instances there should be a policy intervention in the financial system but the question remains as to what form this intervention should take. Essentially, the relaxation of controls on the financial sector over the last 25 years or so have been accompanied by greater integration with world markets. It will not be misleading, therefore to say that the easing of exchange controls and the increasing de facto integration of world capital markets, has been a key driving force behind the deregulation of most domestic financial sectors (Stiglitz et.al. 1999:3).

In order to have a successful transition process and a liberalised economy, Fry (1995: 454-60 and 1997:759) stated that some prerequisites must be satisfied:

- 1) Sufficient regulation and supervision of commercial banks;
- 2) Sufficient price stability;
- 3) Some fiscal discipline;
- 4) Some competitive behaviour (profit maximising) by the commercial banks and
- 5) A non-discriminatory tax system.

Chandavarkar (1992) identifies three distinct components of financial liberalisation, with different policy implications:

- 1) The negative aspect of eliminating financial repression and the restructuring of institutions with substantial nonperforming assets;
- 2) The positive element of reform in the regulatory and institutional framework;
- 3) The post-liberalisation agenda of how to maintain and monitor a viable competitive financial system and cope with the problems generated by liberalisation.

Nevertheless, the specifications of almost every attempt at introducing liberalisation vary. On the one hand, the problem of sequencing and the speed of policy implementation usually pose problems. The need for a suitable order of policy implementation stems from the idea that all markets cannot and should not be liberalised concurrently. On the other hand, adjustment costs also determine the speed of the liberalisation process. Moreover, the sui generis characteristics of individual countries have inevitable effects on the liberalisation process. In addition, liberalisation attempts in a more volatile environment can sometimes end in either hyperinflation, or a retreat into barter¹¹ or bank failures¹². In essence, therefore, there is no generally accepted procedural approach to financial study.

Stiglitz et.al. (1999:4) summarise the most important elements of financial liberalisation as:

- 1) Elimination of interest rate and other price controls, amounting to a reduction in the implicit taxation of financial intermediation
- 2) Privatisation of state owned intermediaries and a reduction of administrative control of credit by government agencies
- 3) Admission of new entrants into the financial services industry, reductions in the range of business activities and the removal of legal protection for cartelised financial markets

¹¹ Concerning this matter, Fry (1997:768-9) notes that "financial repression reduces economic growth. Nevertheless, abandoning financial repression as a cost-reducing device for government deficit may result in extraordinarily high real interest rates that can be just as damaging. Experience indicate that, to be successful, financial liberalisation must be accompanied by liberal reform aimed at ensuring that government debt will not explode in the aftermath of liberalisation, as well as sound prudential supervision of the banking system".

¹² See Stiglitz, J.E, Caprio, G and Honohan, P, (1999), Financial Liberalisation: How Far? How Fast?, World Bank Working Paper June 1999, for a detailed study.

The criticism of financial liberalisation has been based upon both macroeconomic and microeconomic arguments. Macroeconomic criticism focuses on output, inflation and growth and is mainly made by the post-Keynesian school. It must be mentioned that conventional Keynesian theory generally avoided finance and provided support to the view that low interest rate policies were preferable, since they stimulated capital formation. This view was effective until the 1960s despite the fact that various economic historians disagreed with the main hypothesis. At the beginning of 1970s, however, a new theory emerged. The post-Keynesian school placed emphasis on the possibility of financial fragility after liberalisation, the effect of increased real interest rates on government budget deficits and most importantly, on the role of effective demand. The school argued that as a result of financial liberalisation, the marginal propensity to save would increase leading to a fall in aggregate demand. This will cause profit rates and hence investment¹³ levels to fall. If this causes investors to become pessimistic about the future, it will create an additional negative effect on investment and demand. Accelerator effects may, therefore, also be another potential force reducing investments.

New-structuralists emphasise the working capital needs of firms, the credit supply mechanism in developing countries and the potential fall in aggregate demand due to liberalisation. New structuralists stress that firms in developing countries often have to resort to unofficial markets for their financing needs. Berthelemy and Varoudakis (1996c:25) argue that these considerations raise the possibility that financial liberalisation can lead to intermediated finance being substituted for informal finance. The authors also add that as the informal sector is not subject to the costs generated by reserve requirements and as it has an advantage in terms of risk monitoring for local markets, it may be more efficient in the financing of short term projects than the formal intermediation sector.

Conversely, financial liberalisation can leave the doors open for government intervention: Levine (1996b:162) lists the activities of financial intermediaries

¹³ Yet, Bandiera et al (1999:4) states the characteristics of long term effect of settled competitive liberalised financial system on savings will be positive: Improved saving opportunities including higher deposit interest rates; a wider range of savings media with improved risk-return characteristics and more banks and more bank branches as well as other financial intermediaries.

that potentially create a positive role for government intervention in financial markets: Firstly, the fear of contagion, i.e. the fear that the failure of one intermediary will cause other intermediaries to fail. Another role stems from externalities in monitoring financial institutions and appraising and monitoring their activities. Stiglitz et.al. (1999:3) also note that governments have always acted to control financial intermediation with a view to limiting the concentration of wealth and monopoly power, protecting the general public from unexpected losses and preserving financial stability.

Microeconomic criticisms of financial liberalisation emphasise failures in financial markets mainly due to informational asymmetries¹⁴. Recent studies on the implications of informational asymmetries in credit markets have shown that financial constraints play an important role on the spending (on factor outputs) behaviour of firms in developed financial markets¹⁵.

Experience suggests that financial liberalisation can promote growth as well as distort it. However, it is also known that financial repression can restrict economic growth. There is theoretical and empirical evidence for both points of view. Fry concludes that (1997:768) to be successful financial liberalisation, must be accompanied by fiscal reform to ensure that government debt will not explode in the aftermath of liberalisation. The current debate seem to revolve around the question as to which policies will successfully transform a repressed economy into a more liberal one.

Despite the pros and cons both developing and developed countries have introduced and implemented policies aimed at financial liberalisation. Apart from the policies themselves, political and social commitment also shapes the eventual outcome. These sort of considerations make it very clear that no one uniform approach to financial liberalisation is appropriate. In due course, the policies solely depend on specific country specifications. However, if politicians and bureaucrats adopt the wrong strategies the consequences can have far reaching detrimental effects on the financial sector and the wider economy.

¹⁴ See Stiglitz (1989) and Stiglitz (1993)

¹⁵ See Gertler (1988) and Bermanke (1993) for surveys of this literature. See Gertler on a discussion of the relevance of this literature of financial liberalisation of developing countries.

2.2 Financial Structure

One aspect of the literature¹⁶ extensively focuses on the impact of the organisation of the financial sector. The argument is that there are relative advantages of bank based systems over market based ones and visa-versa. In general, banks play a leading role in mobilising savings, allocating capital, overseeing the investment decisions of corporate managers and providing risk management vehicles. However, securities markets can share centre stage with banks in market-based systems (Demirguc-Kunt and Levine (1999:1).

The functions and organisation of a financial system play a crucial role in determining the development of the sector¹⁷. Financial structure is defined to include the various institutions, the technology, and the rules of the game that define how financial activity is organised and controlled (Stulz, 2000:5).

Hussein and Demetriades (1996:6) develop this argument by noting that there are three problems that financial systems have to overcome: information asymmetries, principal/agent relationships and uncertainty. By promoting longer time horizons, encouraging financial stability and fostering a framework for the implementation of successful economic policies, bank-based systems are generally regarded as more successful than market –based ones.

The bank-based system, which is mostly associated with Germany and Japan, involves more government regulation and intervention and is more centralised than the securities based system. Proponents of the bank-based system argue that it allows banks to acquire rapid and reliable information at lower costs through close and direct relationships with its customers. The large number of bank investors, also suggest the bank based systems are better able to provide cross-sectional risk sharing and thus a better hedge than market based systems, in the form of insurance against liquidity shocks.

¹⁶ This section will capture a brief flavour of the topic. See Merton (1991), Levine (1997 and 2000), West (1998), Knight (1998), Demirguc-Kunt and Levine (1996 and 1999), Beck and Levine (2000), Stulz(2000) for more detailed discussion of the topic.

¹⁷ Merton (1991) states that financial system provides (1) a payment system¹⁷; (2) a mechanism for pooling funds (3) a way to transfer resources across space and time; (4) a way to manage uncertainty and control risk; (5) price information to allow the economy to implement a decentralised allocation of investment; (6) a way to deal with the asymmetric – information problems that arise when one party to a financial transaction has information that the other party does not have.

Conversely, Beck and Levine (2000:2) identify a number of criticisms of the bank based systems: (1) Excessively powerful banks may hinder the ability of new, innovative firms to obtain external financing. The bank's market power thus reduces the incentives of firms to undertake profitable projects (2) Bankers tend to be ineffective corporate controllers due to their insider status. That is, bankers might collude with managers against other creditors and minority shareholders and so reduce the effectiveness of corporate control (3) Banks might continue financing firms even for projects with negative returns. Accordingly, the failure of bank-based systems potentially emanates from a number of considerations.

The securities or market-based system corresponds to the United States of America (US) and to a certain extent England. It represents the traditional market approach in terms of assisting risk sharing opportunities. That is, the information about firm performance is publicised and the efficient allocation of funds is brought about via liquidity and corporate control (Levine, 1997:720; West, 1998:3). This approach focuses on the risk sharing abilities of systems (Diamond and Dyvbig, 1983; Arrow, 1964). Despite the fact that the US approach seems better in terms of risk sharing, it does not have the ability to provide insurance against liquidity shocks. West (1998:3) reasons that this is due to the fact that the US system can not distinguish between those investors with genuine liquidity needs from those trying to make arbitrage profits.

Hussein and Demetriades (1996:6) note that the securities market-based system is more short-term and this introduces financial fragility. Moreover, the mismatch between debt commitments and income flows introduces the possibility for speculation.

West (1998:1) notes that in essence, the debate between the two systems boils down to whether governments should play as greater role in averting market failure. He concludes that with Fry on the one extreme and Stiglitz on the other, it can be argued that the type of financial system best suited for particular developing countries, depends upon the available institutional framework and the stage of development. More precisely, while a more decentralised, market driven system can be beneficial to a developing country, in the absence of

strong institutional structures, market failure is a greater concern and full liberalisation should be entered cautiously.

Contrary to these arguments, Beck and Levine (2000:1) argue that the financial structure does not matter. They find that industries grow faster in economies with higher levels of financial development and with better protection for external investors. In other words, while overall financial development matters, financial structure per se offers little additional benefit. Furthermore, Levine (2000) also shows that financial structure is not a positive sign of growth.

Support for this argument also comes from Demirguc-Kunt and Levine (1999:1) who argue that both Germany and Japan (bank-based systems), and the US and England (Market-based systems) have similar long term growth rates. Accordingly, the claim is that financial structures do not matter that much. The logic is that the availability and quality of financial services is more important than who provides them. In this respect, these academics do not reject the bank-based versus market-based debate. Rather the emphasis is placed on the legal background and the legal codes that protect outside investors. Emphasis is, similarly, placed on legal systems that enforce such codes, support financial systems that facilitate external finance and the financing of new firms (Beck and Levine, 2000:4). Levine (2000:6) notes that the cross-country evidence is very supportive of the legal based views of finance and growth.

2.3 Financial Development and Economic Growth

Does a well-developed financial market expedite growth, or does economic growth generate the demand for financial services? This seemingly chicken-and-egg question has concerned economists for years. On the whole, there is general agreement among economists that financial development and economic growth are related, but a disagreement exists on the direction of causation.

Accordingly, the relationship between financial development and economic growth has remained a topical issue in development economics since the pioneering work of Joseph Schumpeter (1911). Since Schumpeter, who argued that services provided by financial intermediaries (mobilising savings, evaluating projects, managing risk, monitoring managers and facilitating transactions) are

essential for technological innovation and economic growth, the relation has been studied at both theoretical and empirical levels.

There is now a substantial amount of theoretical and, to a certain extent, empirical literature which focuses on the possible casual influence of financial development on long term economic growth. Within this literature, three distinct and successive approaches can be identified: First, finance does not matter in economic growth. The thought behind this belief was that the economy was dominated by government who directed credit schemes and implemented import substitution policies in conjunction with discretionary official controls on the interest and foreign exchange rates. (Sak, 1995:8).

The second approach, which underpins financial liberalisation efforts through out the world, emphasises the importance of financial markets and their structure on economic growth. However, the reliance on perfect markets undermines the wide spread application of this theory. Financial Repression Analysis (FRA) is an integral part and the main assumption of this approach is that the markets will adjust automatically. However, as proposed by Shiller (1989) and Schleifer-Summers (1990), prices in asset markets may not reflect real values as they can reveal the intrinsic value of the projects they are based upon. Secondly, there is the issue of overshooting asset prices within the framework of foreign exchange markets, (Dornbusch, 1976; Sak, 1995:15).

A more realistic third approach shares the same theoretical framework of the second approach but omits the perfect market assumption. This approach has formed the basis for public policy in the financial liberalisation process¹⁸. This stems from the fact that, if the prices in financial markets are wrong due to structural factors, the FRA objectives regarding economic growth can not be met.¹⁹

In terms of empirical work, Goldsmith (1969) and McKinnon (1973) identified a close link between financial development and economic growth for a limited number of countries. While the main emphasis in Goldsmith (1969) is the impact of financial development on the efficiency of investment, McKinnon

¹⁸ See Sak (1995)

¹⁹ This study will attempt to unearth the relation between financial development and economic growth in Turkey from the standing point of *McKinnon-Shaw* as well.

(1973) and Shaw (1973) focus on the role played by financial development in increasing savings and hence investment (Leigh, 1995:25).

Moreover, Bagehot (1962) and Cameron (1966) provide hypothetical examples and experiential models of when the financial system affects economic growth. Building on these seminal contributions, Gelb (1989), Ghani (1992), King and Levine (1993a) and De Gregorio and Guidotti (1995) show that measures of banking development are strongly correlated with economic growth in a broad cross section of countries. According to this vein of research, an efficient financial system is critical for sustained economic growth (Levine and Zervos, 1996:326).

In contrast, the role of the financial system in economic growth in Stern's (1989) survey of developing economies is not considered. It is not even listed in the omitted variables. Equally, a collection of essays by pioneers of development economics, do not describe the role of the financial system in economic growth (Meier and Seers, 1984). It is clear that, the financial system plays an inconsequential role in economic development according to these economists. Additionally, Lucas (1988) argues that economists frequently exaggerate the role of financial factors in economic development. Dornbusch and Reynoso also note that financial factors are important only when financial instability becomes a dominant force in the economy (1989:204)²⁰.

The relationship between financial development and economic growth has received a new source of inspiration with the emergence of the endogenous growth literature. The models within this literature have studied the role of financial factors in an attempt to analyse formally the interactions between financial markets and economic growth. Such theoretical models include inter alia, Greenwood and Jovanovic (1990)²¹, Bencivenga and Smith (1991)²²,

²⁰ Robinson stated that "financial sector follows growth" (1952:86). At an extreme point, Lucas almost rejects the impact of finance on growth by stating that "growth is mainly due to technological progress", leaving little role for finance.

²¹ In Greenwood and Jovanovic (1990), the role of financial institutions is to collect and analyse information in order to channel investible funds to activities that yield the highest return. They established an endogenous relationship between financial development and economic growth. The intuition behind their result is that activities performed by financial intermediaries involve costs. Since the process of the growth stimulates higher participation in financial markets, it therefore facilitates the creation and expansion of financial institutions. Conversely, financial markets by collecting and analysing information from potential investors, encourage investment projects to be undertaken more efficiently and thus enhance economic growth (Leigh, 1995:27-8).

²² In Bencivenga and Smith's (1991) overlapping generations model (OLG), private market participants in financial markets face uncertainty about their future liquidity needs. Agents in this model can save in the form of liquid asset, which is safe but has low productivity. In the model, financial development increases economic growth not by increasing

Levine (1991) and Rubini and Sala-i-Martin (1992). These new growth models emphasise how the creation and growth of financial institutions leads to a positive relationship between financial development and economic growth. In contrast to the McKinnon-Shaw (1973) model and in line with Goldsmith (1969), the new endogenous models tend to emphasise the effect of financial development on the efficiency of investment rather than its effect on volume. An attractive feature of the new growth models, therefore, is that they provide a framework in which financial development can affect short-run as well as long-run growth (Leigh, 1995:25).

2.4 Arguments

As already stated, there are two lines of argument concerning the positive effect of financial development on economic growth. The main difference between these two schools of thought is whether financial development results in economic growth by increasing efficiency as suggested by Goldsmith or by increasing the level of saving and investment as advocated by McKinnon-Shaw school.

2.4.1 Efficiency Effect: Goldsmith Type of Reasoning

Goldsmith (1969) states that the correlation between financial development and economic growth reflects a two-way causal relationship and that financial markets enhance growth by raising the efficiency of investments (Pagano 1993:620). Goldsmith used the value of financial intermediary assets divided by GNP to gauge financial development under the assumption that the size of the financial system is positively correlated with the provision and quality of financial services. Accordingly, he found (1) a rough correlation between economic and financial development if periods consisting of several decades are considered (2) indications in the few countries for which data was available that periods of rapid economic growth have been accompanied, though not without exception,

the overall savings rate but by channelling savings into activities with high productivity while enabling individuals to reduce the risk associate with their liquidity needs. Although agents face uncertainty over their liquidity needs, banks face a predictable demand for liquidity and can therefore allocate investment more efficiently. Bencivenga and Smith (1991) argue that in the absence of financial intermediaries, agents in this economy may be forced to liquidate their investment when liquidity needs arise. However, the emergence of financial intermediaries prevent unnecessary liquidations of firm capital. More significantly, their model shows that with financial development, economic growth increases even when the aggregate savings rate is reduced. The rationale for this result is due to the dominant effect that financial development has on the efficiency of investment (Leigh, 1995:28).

by above-average rates of financial development (Goldsmith 1969:48) (Levine 1997:703-4).

Levine (1997:704) criticises this study by noting that (1) observations were limited to 35 countries (2) systematic control for other factors was absent (3) it did not examine whether financial development is associated with productivity growth and capital accumulation, (4) the size of financial intermediaries may not accurately measure the financial system and finally (5) the close association between the size of the financial system and economic growth does not identify the direction of causality.

Accordingly new studies have been undertaken by numerous scholars in order to address the above mentioned weaknesses and the best known is the study of King and Levine (1993a)²³.

King & Levine (1993a) focus on the relationship between financial development and economic growth by analysing 80 countries over the period 1960-1989. After controlling for other factors relating to long-term economic growth, they found that financial intermediary development is strongly linked to growth and that the pre-determined component of financial development is a good predictor of future economic growth.

Ram (1999: 2-3), however, suggests that the empirical evidence is at best uncertain and that it indicates the lack of a significant positive association between financial development and economic growth. His critiques mostly concentrate on methodology rather than the theory, however, he notes a weak negative co-variation in the data between financial development and growth of real GDP per capita²⁴. He also observes that the individual-country correlational pattern is in contrast to the large, positive and significant correlation seen in inter-country data. Moreover, multiple regression estimates of simple growth equations from individual-country data indicate the same pattern as the

²³ In addition Gelb (1989), Rauloini and Sala-i-Martin (1992), Easterly (1993), review of Pagano (1993) and Razi (1994), address the same weaknesses (Levine 1997:709).

²⁴ Like the study of King and Levine (1993), he has taken the period of 1960-89 for 95 countries for which data available. He used the variable of King and Levine as well which was DEPTH (ratio of liquid liabilities to GDP) and finds that out of the entire set of 95 countries, the correlations are positive in 39 cases, of which nine show statistical significance at the conventional five per cent level. The correlations are negative in the remaining 56 cases, and 16 of these are significant at the five per cent level. The mean of the 95 correlation coefficients is -0.06. The preponderance of evidence thus suggests a negligible or weakly negative association between economic growth and a prime proxy for financial development.

bivariate correlations. Finally, in multiple regression estimates from the cross-country averaged data (when the parametric structure is permitted to vary across three subgroups), a huge structural heterogeneity is observed, and the indication again is that of a weak negative parameter for the financial-development variable in most cases. Ram, therefore, suggests that it would be better to look at the covariation between financial development and economic growth in each country.

Ram also criticises the study of King and Levine (1993a) by noting that the correlation of the average value of the DEPTH variable (liquid liabilities of Banks divided by GDP) and the average annual rate of growth of GDP per capita for all 95 countries was 0.33. This is statistically significant and thus presents a contrast with the mean of -0.06 for the individual-country correlations. In Ram's study, cross-country correlation in the sample is quite similar to King and Levine's (1993a: 723). Given the predominant individual-country scenarios, Ram concludes that the sizeable, positive and highly significant cross-country correlation is probably reflecting something other than the 'effect' of DEPTH on growth (Ram, 1999:4).

In addition to Ram, Hussein and Demetriades (1996:2) also suggest that King and Levine's (1993a) approach is based on a fragile statistical basis. They argue that both the cross section data and the financial indicators are poor guides to the direction of causation²⁵.

2.4.2 Volume Effect: McKinnon-Shaw Type of Reasoning

The McKinnon and Shaw (1973) model states that financial intermediaries raise the absolute level of savings and investments rather than, as proposed by Goldsmith, the efficiency of investments. In their model, banks allocate credit not according to the expected productivity of the investment projects but according to the transaction cost and perceived risk of default (Fry 1997:755).

Consequently, Fry (1997:755) summarises the common elements of the McKinnon-Shaw model as follows: (1) a savings function that responds positively to both the real rate of interest on deposits and the real rate of growth in output (2) an investment function that responds negatively to the effective

²⁵ See the methodology section in the Overview chapter for a detailed critique of these authors.

real loan rate of interest and positively to the growth rate (3) an administratively fixed nominal interest rate that holds the real rate below the equilibrium level and (4) inefficient non-price rationing of loanable funds.

The arguments of Shaw and McKinnon started a whole new line of research studying the relationship between interest rate liberalisation and financial intermediation on the one hand, and financial intermediation, growth and inflation on the other. There are other researchers in this area who believe that a close association exists between interest rates and the growth of the broad money supply M2, the proxy used for financial intermediation²⁶. In the McKinnon and Shaw analysis, the government's fixing of interest rates at below-market levels (interest rate repression), would have four main effects on the economy. It would (1) Reduce the volume of loanable funds (by lowering the interest rate paid to suppliers); (2) Reduce the amount of loans; (3) Lowers the efficiency of credit use and (4) Generate a cross subsidy to those involved with direct credit (McKinnon 1973:76, Shaw 1973:77-8 and Caprio and Hanson, 1999:9, see Caprio and Hanson (1999) for a detailed discussion).

Hence, according to the McKinnon-Shaw (1973) model, the level of financial development should be closely related to the prevailing level of real interest rates. Within this framework, positive real interest rates stimulate financial savings and financial intermediation, which increases the availability of credit to the private sector. In turn, this stimulates investment, which leads to growth. More recent models also argue that positive real interest rates make the allocation of investable funds more efficient, thereby providing an additional channel through which financial development can positively influence growth (De Gregorio and Guidotti, 1994).

It was, therefore, presumed that financial liberalisation would (1) drive real interest rates up and thus increase the flow of savings, (2) this flow would enter the financial system (financial deepening), (3) the financial system would channel this flow to fixed capital investments and (4) the investment projects financed by the liberalised markets would be on average more productive compared to the previous regime of repression. Accordingly, the performance of

²⁶ See Lanyi and Saracoglu (1993), Fry (1988) and Gelb (1989)

the economy would improve. Gokce (1993:59) also adds to this argument by observing that low interest rates cause capital flight and, therefore, reduce savings for domestic investment. He also observes that if interest rates were liberated, investment would shift from low profitability self-financed investments to high productivity investments intermediated by the financial sector with better access to information.

However, there are some factors that can influence the relationship between real interest rates and private sector investment in developing economies. For example, the positive impact of a rise in real interest rates on domestic credit as suggested by the McKinnon-Shaw (1973) model, could be offset by a portfolio shift from capital goods to monetary assets. Similarly, this positive impact on credit availability could increase the demand of the public sector for credit extended by the domestic banking system thereby limiting funds available to the private sector (Leigh, 1995:69).

The literature on policy credibility provides even more fundamental weakness of the McKinnon-Shaw model. For example, high real interest rates may reflect the public's expectations of lower inflation or more generally a lack of credibility of economic policies. High real interest rates may also reflect the fragility of the financial structure and the poor regulatory environment, as in the transition economies of Eastern Europe. Thus a large risk premium may cause excessively high real interest rates in such economies (Leigh, 1995:70).

From an empirical standpoint, Fry (1989) finds evidence of a strong relationship between real interest rates and financial savings. He also affirms that the positive effect of real interest rates on growth does not come through its effect on the volume of investment. More recent econometric evidence documents a non-linear relationship between real interest rates and economic growth (Fry:1993 and Roubini and Sala-i-Martin (1992)). These studies emphasise the positive effects of real interest rates on economic growth in periods of high interest rates but find no significant relationship during periods of moderate levels of real interest rates. Indeed, Fry (1993) supports an inverted U-curve relationship between real interest rates and economic growth (Leigh, 1995:70).

All these considerations suggest that real interest rates are not likely to be as strong at indicating the level of financial development in an economy as the

McKinnon-Shaw model would suggest. More generally, the impact of real interest rates on growth cannot be easily interpreted as a measure of the effect of financial development on growth.

In essence, McKinnon and Shaw (1973) provide a neo-classical approach to the effects of government intervention in financial markets. Governments intervene in domestic financial markets by introducing taxes or interest rate controls, or manipulating foreign exchange rates or via directed credit allocation programmes (this is customarily called financial repression). McKinnon argues in his later articles that the real rate of growth and the real size of the financial system relative to non-financial measures are greatly reduced as a result of financial repression (1989:29). Similarly, Shaw goes further and notes that 'in all cases this strategy has stopped or gravely retarded the development process' (Shaw, 1973:3; Fry, 1997:755, West, 1998:1). West (1998: 1-2) summarises this approach of McKinnon and Shaw by noting that they predict 'inefficient non-price rationing of loanable funds' (allocated by banks according to transaction costs, perceived risk of default and even political pressure) and a fixed nominal interest rate that holds the real rate below its equilibrium level (McKinnon, 1973:71-7; Shaw, 1973:84; Fry, 1997:755).

Not all academics believe that government intervention is unfavourable, Joseph Stiglitz (1993) advocates 'prudential regulation and supervision' and notes that 'financial markets are markedly different from other markets and that failures are likely to be more pervasive in these markets. Consequently, there exist forms of government intervention that will make these markets function better and also improve the performance of the economy (1993:20). Yet, Fry (1997), argues that financial repression is a particularly damaging quasi-tax from the perspective of economic growth and claims that such repression would only be appropriate over a very small range of real interest rates.

West (1998) also makes a critical re-assessment of the above mentioned approaches to the role of the state in financial markets and notes that the state is not prohibited or restricted in economic theory, but instead acts as a tool to enhance the economic stability and solvency of financial institutions. He adds that Stiglitz emphasises the regulation of financial institutions as well as directing credit, as the key means by which states can influence development.

Actually, this is a response to the McKinnon-Shaw financial repression argument, since, Stiglitz holds the view that financial repression theory often fails to distinguish between credit markets and other markets and ignores capital allocation and the efficiencies created in certain repressions. Thus, repression and government intervention cover a much larger 'range of issues' than Fry and McKinnon-Shaw are willing to recognise (Fry, 1997:760; Stiglitz, 1993:39; West 1998:2).

2.5 Methodologies

Economic development is a complex and multifaceted concept and no single measure will adequately capture economic growth or financial development.

The empirical literature on financial development and economic growth uses two different econometric methodologies: Cross-country regression, popularised by Barro (1991) and time series regression (Arestis and Demetriades, 1997:784). The first examines a variety of macroeconomic variables to examine the relationship between financial development and economic growth among a number of countries and the latter method focuses on the time series analysis of a specific country.

Both methods have strengths and weaknesses. In general, cross country analysis suffers from measurement, statistical and conceptual problems while time series analysis has problems associated with controlling other variables which affect economic growth.

2.5.1 Approaches

In the literature, most of the leading researchers have used the growth-regression framework. In this model, the average growth rate in per capita output in different countries is regressed on a set of variables while controlling for initial conditions, country characteristics and measures of financial market development.

Filer et.al. (1999:1) note that there are a number of problems associated with these studies. Primarily these problems relate to the issue of causality and cross country heterogeneity in factors such as savings rates that are potentially a cause of higher economic growth and greater financial sector development. In order to overcome such problems King and Levine (1993b) used only initial

values of financial variables and Harris (1997) implemented the instrumental variables techniques. In addition, Demirguc-Kunt and Maksimovic (1996) and Rajan and Zingales (1998) used cross-industry variations in growth that are supposed to be immune from country specific factors.

In cross-country analysis, there are some methodological drawbacks which need to be highlighted. In terms of measurement, country officials sometimes define, collect and measure variables inconsistently across countries. In addition, it is constantly proposed that there are discrepancies between the measures and reality.

In terms of statistical problems, the basic assumption in regression analysis, that the observations are drawn from the same population, does not always hold where there are different countries involved. Indeed, it is a fact that in many instances the countries are so different that separate examination is the best method of analysis. The Arestis and Demetriades' (1997:771) study shows that the over simplified nature of the results obtained from cross-country regressions may not accurately reflect individual country circumstances such as the institutional structure of the financial system, the policy regime and the degree of effective governance etc. They conclude by noting that "whilst we do not disagree with King and Levine that financial development and growth are robustly correlated (1997:785) ...the "average" country for which cross country regressions must, presumably, relate to may well not exist" (1997:796-7). Similarly, Lucas (1988:4) also supports the idea that country-case analysis can be more fruitful than a cross-country approach in analysing financial development.

With conceptual problems and issues, the critiques appear to be more severe. In particular, the fact that in the long term, countries change economic policies, experience different economic cycles and political change, is simply overlooked. Thus, aggregation may cloud important events and differences across countries. In addition, causality is another important problem of cross-country regressions. Hence, coefficients should not be viewed as indicators that predict the magnitude of change in growth following a particular policy reform. Instead, the coefficient estimates and the associated t-statistics should be used to

evaluate the strength of the partial correlation between stock market development and economic growth (Levine and Zervos, (1996:325).

On that account, the cross-country approach has statistical, methodological and conceptual disadvantages. Consequently conclusions, which underestimate these problems, may result in a sub-standard study. Despite this fragile statistical basis, however, the cross-country approach seems to be the only option available for examining and making international comparisons. Levine (1997) recognises this problem when he states that economists still need to develop an analytical basis for making comparisons of financial structures in different countries.

2.5.2 Measures

The measures used to link financial development and economic growth differ from study to study. King and Levine (1993b), for example, use fairly traditional measures of financial development and economic growth. The traditional practice (Goldsmith (1969) and McKinnon – Shaw (1973)) is to use the size of the formal financial intermediary sector i.e. financial depth, liquid liabilities relative to economic activity (GDP), to measure the development of the financial sector. The basic assumption behind this approach is that the size of financial intermediation is positively related to the provision of financial services. These measures are used by most of the scholars and there is considerable evidence to validate their use. In addition to financial depth, King and Levine (1993a) used the importance of deposit banks (relative to Central Banks in allocating domestic credit); asset distribution (ascertained by two measures: i) credit issued to non financial private firms divided by total credit and ii) credit issued to non financial private firms divided by GDP) as measures of financial development. For economic growth, King and Levine used per capita growth rate of physical capital and the ratio of investment to GDP, however, they did not consider the differences in financial structures, economic policies, and legal systems which can exist between different countries.

The problem of analysis is not only confined to the issue of identifying and defining appropriate measures. The initial level of economic performance and that of the financial sector also plays a crucial role in the process as well. However, this is not taken into consideration in the empirical studies.

Berthelemy and Varoudakis (1996), in recognising the importance of the initial levels of the economic development, show that educational and financial development is a pre-condition for economic growth. In their study, they state that the development of the financial sector might initiate an economic growth process only after the accumulation of human capital has passed a certain minimum threshold, thereby ensuring a minimal return on productive investments and intermediation activities. Their study also shows that the countries starting with a smaller financial sector tend to experience faster economic growth. Some countries, however, despite reasonable levels of education, have been restricted to a relatively low standard of living due to the absence of a sufficiently developed financial services sector.

Demirguc-Kunt and Levine (1996b) show that at low levels of economic development, commercial banks are the dominant financial institutions. They show that under these circumstances the assets of the Central Banks decrease when levels of income increase. In contrast, the assets of commercial banks greatly increase as countries become more wealthy. The same conclusion applies to assets of non-bank financial institutions, credit issued to the private sector, financial debt and stock market capitalisation (1996b: 227).

While assessing the relationship between financial development and economic growth, empirical studies have also employed various monetary aggregates. (McKinnon (1973), King and Levine (1993b), Berthelemy and Varoudakis (1996)). One rationale for this method of proxying financial development is that, a monetized economy reflects a highly developed capital market. Therefore, a high degree of monetisation should, *ceteris paribus*, go hand in hand with greater levels of financial development.

However a key limitation of employing monetary aggregates as a proxy for financial development can be seen by examining the main functions of financial markets. Fama and Macbeth (1973) point out that financial markets channel funds to those requiring credit and liquidity. As discussed previously, one important aspect of financial development is thought to be related to investment and growth and is closely linked to the ability of financial markets to allocate credit and liquid aggregate such as M1 or M2 (De Gregorio and Guidotti,

1994:12). However, a monetary aggregate with a high currency component is not necessarily a good indicator of financial development in an economy.

In addition to monetary aggregates, influential studies have also typically used the ratio of private sector domestic credit to Gross Domestic Product as a proxy for the degree of financial development (see especially De Greogorio and Guidotti (1994) and King and Levine (1993b)). This measure corresponds to credit granted to the private sector by the banking system, but excludes credit to the public sector. It therefore indicates in a general way the level of financial intermediation in terms of channelling funds to private market participants. Moreover, if financial sector interactions with the private sector are indicative of increased productivity, the ratio should be indicative of greater degrees of financial development. Higher values of this ratio, for example, indicate more credit to the private sector as a share of GDP and consequently may reflect the level and efficiency of investment and hence growth.

However, De Greogorio and Guidotti (1994) and King and Levine (1993a) admit that the credit variables employed by them only measure the degree of financial development that occurs through the banking system. In that sense, it may be a weaker indicator of financial development in economies where significant portions of financial intermediation occurs outside the banking system.

This small section shows that there is not a consensus on the appropriate variables to be employed in assessing the relationship between financial development and economic growth. Nevertheless, there are some measures which almost all leading scholars use in their studies. There is, however, a belief that, instead of assessing the impact of the entire financial system on economic growth, it is better to assess the effect of disaggregated parts on growth.

2.5.3 Some Concluding Remarks

Schumpeter's original argument was based on the fact that banks are important for an economy because they determine the allocation of a society's savings. His theory built on the impact of banks on productivity, growth and technological change and Diamond (1986), Williamson (1987), Greenwood and Jovanovic (1990) and King and Levine (1993a) subsequently supplied extensive

documentation on this theory. In a recent study, Beck et al (1999:5), for example, show that banks exert a strong causal impact on real per capita growth and per capita productivity growth. They find that higher levels of banking sector development produce faster rates of economic growth and total factor productivity growth.

The measures used to link financial development and economic growth differ from study to study and rather significantly, different measures of financial sector development are conducive to different conclusions. Most of these measures assess the impact and importance of the banking sector on financial development. It is important, however, that the measures of financial development take into account the special circumstances of individual countries and address the research questions.

Both of the main theories discussed in this chapter have pros and cons and their validity mostly depends on the policies and the methods of implementations of the countries concerned. It would be misleading to conclude that one is better than the other. Nevertheless, there is a consensus that most countries focus on the volume of investment rather than efficiency in the first steps towards a liberalisation programme.

2.6 Stock Markets: A New Source of Growth

Many developing countries liberalised their financial systems and implemented wide-ranging reforms by making them more market-oriented. Not surprisingly, due to these financial reforms, the ensuing growth of the stock markets also shaped the financial development of these countries.

Numerous studies have suggested that developed financial intermediaries lead or assist the macroeconomic development of countries and most academics incorporate bank-based systems into their models. However the boom in equities and the emergent capital flow, has focussed the attention of scholars on stock markets. Accordingly, during the last decade, especially the second half, stock markets began to be analysed in detail. The main reason seems to be that stock market capitalisation values are significant and there was also a realisation that stock markets are an integral part of financial development. King and Levine argue that as economies develop, self financed capital

investment first gives way to bank-intermediated debt finance and later to the emergence of equity markets (King and Levine 1993c:525).

Stock market liberalisation is the process where foreign investors are allowed to buy and sell shares in a country's stock market by the official bodies. This must be considered within the framework of capital account liberalisation. It is assumed that, in the first instance, such a step will reduce the cost of equity. This is due to three reasons: First, stock market liberalisation will increase net capital flows which will reduce the risk-free rate of the country. Second, it will also facilitate risk sharing between foreign and domestic investors and finally, increased capital flows will also increase stock market liquidity (Henry 2000b: 3). Henry (2000a:1-3) shows that, on average, countries experience large, temporary increases in the growth rate of real private investment in the aftermath of stock market liberalisation.

A well functioning stock market is likely to assist economic growth by increasing savings, increasing the efficiency of investment resources and by a better utilisation of the existing resources. All of these points are associated with the concept of efficiency²⁷. This is because, a well functioning stock market is likely to implement a more efficient pricing process by rewarding well-managed profitable firms and valuing their shares higher than unprofitable ones. Leigh (1997:5) notes that the efficiency of share prices has two components: fundamental valuation and information arbitrage. Fundamental valuation refers to the idea that aggregate share prices generally reflect the state of the economy, whereas the latter concept recognises that all available information is disseminated throughout the market and incorporated in share prices.

A recent study also found that there is 1) evidence that stock markets, especially in more developed economies, incorporate expected future growth into current prices, a result that is consistent with efficient market hypotheses; 2) a strong relationship between stock market activity and future economic growth for the low and lower-middle income countries but not in higher income

²⁷ A stock market is said to be efficient if it fully and correctly reflects all relevant information in determining share prices (Leigh 1997:10). Efficient market hypothesis (EMH) asserts that prices should reflect the information contained in the historical sequence of prices. This statement will lead us to the random walk model, which generally defines the nominal return on stock market as follows:

$SR_t = (P_{t+1} - P_t + D_t) / P_t$ where P_t is the price per share of stock at time t , $(P_{t+1} - P_t)$ represents total capital gains and D_t is the dividend owned.

countries with more developed alternative financial mechanisms; and 3) increased equity market activity has no impact on growth in developing economies where the lack of a proper institutional framework (as evidenced by excessive corruption or government interference in financial markets) hampers the ability of these markets to function (Filer et.al., 1999:9-10)

The literature suggests four ways in which stock markets affect the economic growth of a country: liquidity, risk diversification (international integration), monitoring firms for information and lastly incentives to control corporations (Demirguc-Kunt and Levine, 1996a:291 and Levine, 1997).

Liquidity²⁸ is one way that stock markets can affect economic growth. The reasoning behind this is that long-term flows of capital are needed for high return projects whereas investors have shorter time perspectives. In due course, liquid stock markets bridge these "time" differences. However, the "optimal level of liquidity" is also important as discussed by Bencivanga and Smith (1991) who show that greater liquidity, by reducing uncertainty, may reduce savings rates sufficiently to decelerate economic growth (Levine and Zervos 1996:327). In addition, a more developed equity market may provide liquidity that lowers the cost of the foreign capital that is essential for development, especially in low income countries that cannot generate sufficient domestic savings (WIDER (1990), Bencivenga et. al. (1996), and Neusser and Kugler (1998)) (Filer et.al., 1999:9-10)

Risk diversification is another means by which stock market development can lead to economic growth. Saint Paul (1992), Devereux and Smith (1994) and Obstfeld (1994) show that stock markets provide a vehicle for diversifying risk. This is due to investments being moved into higher return and relatively risky projects in order to divert risk. Moreover, the role of equity markets in providing portfolio diversification enables individual firms to engage in specialized production, with resulting efficiency gains (Acemoglu and Zilibotti (1997)). (Filer et.al., 1999:10). However, it must be mentioned that reducing risk can also reduce saving rates and result in slow growth. (Levine and Zervos 1996:327).

²⁸ In the most general way, Liquidity can be defined as the ability of trading equity easily.

Grossman and Stiglitz (1980), Kyle (1984) and Holmstrom and Tirole (1993) put forward the idea that stock markets promote the acquisition of information about firms. Levine and Zervos (1996) note that in larger and more liquid markets, it will be easier for an investor who has information to trade and profit at posted prices before it becomes common knowledge in the market. This motivates investors to research and monitor firms. With regard to information, Filer et.al., (1999:10) also draw attention to the ability of equity markets to generate information about the innovative activity of entrepreneurs (King and Levine (1993c) or the aggregate state of technology (Greenwood and Jovanovic (1990)).

Another potential benefit of a developed market is that diverse equity ownership creates political stability, which, in turn, can promote economic growth (Filer et.al., 1999:10). Similarly, Atje and Jovanovic (1993:636) state that stock market development affects the level and growth rate of economic activity. However, they failed to find a similar effect with bank lending. This suggests that, countries who are not developing their stock market as quickly as they can are holding up their economic development.

In terms of empirical evidence, Demirguc-Kunt and Levine (1996a:313) find that stock market size and liquidity are positively correlated with all of the indicators of financial intermediary development. Secondly, they find that volatility is significantly negatively correlated with all the indicators of financial intermediary development. Hence, they conclude that countries with well developed financial intermediaries, i.e. large bank and large insurance companies and pension funds etc. tend to have less volatile stock markets. They also show that countries with internationally integrated markets tend to have larger financial system and banks.

Demirguc-Kunt and Levine (1996a:292) conclude that large stock markets are more liquid, less volatile and more internationally integrated than smaller markets. Moreover, they show that countries with strong information and disclosure laws, internationally accepted accounting standards and unrestricted international capital flows tend to have larger and more liquid markets. Conversely, countries with markets concentrated in a few stocks tend to have smaller, less liquid and less internationally integrated markets.

Levine and Zervos (1996:323) validate the above arguments by stating that there is a strong correlation between overall stock market development and long-run economic growth by using stock market indexes combining market size, trading and integration, whilst controlling for initial and other factors that may affect economic growth.

The critiques against the positive effect of the development of stock markets on economic growth have two foundations: The first is the belief that stock markets in the developing world are not much different from "casinos". Their negative impact is more important than their positive one. The second and more plausible critique is that, as corporate investment is not exclusively financed by the issuance of equities, they are less important (Mayer 1988).

Levine also emphasises that future researchers must focus on both stock market and bank based systems, as they have a combined impact on economic growth. However, Singh (1997:771) suggests that even a stock market based approach will contradict the predictions of most economic models and therefore, surprise not only the McKinnon-Shaw (1973) School but other economists too. He concludes that the establishment of stock markets are unlikely to help in achieving quicker industrialisation and faster long term economic growth in most developing countries. This is due to several reasons: First the inherent volatility and arbitrariness of stock market pricing under developing countries conditions make it a poor guide to efficient investment; Second, the relationship between stock markets and currency markets deepens macroeconomic stability when faced with economic shocks; Third, the group-banking system in developing countries is likely to be undermined by the stock market (Singh 1997:779-80). Consequently, despite Levine advocating the idea of combining a stock market approach with a bank one, Singh rejects the idea, and therefore the findings of Levine.

Other critiques can be summarised as follow: Mayer (1988) states that even large stock markets are unimportant sources of corporate finance. Stiglitz (1994) argues that stock market liquidity will not enhance incentives for acquiring information about firms or exerting corporate governance. Deveroux and Smith (1994) emphasise that greater risk sharing through internationally integrated stock markets can actually reduce savings rates and slow economic

growth. The analyses of Shleifer and Summers (1990) suggest that stock market development hinders economic growth by easing counterproductive corporate take-overs. (Levine and Zervos 1996, 323).

Consequently, Henry (2000a:4) highlights the following three reasons which explain the negative effects of stock market liberalisation: Firstly, it might increase net capital flows which could reduce the risk free rate. Secondly, increased risk sharing (with foreigners - since they also purchase domestic shares) could reduce the equity premium and thirdly, as shown by Levine and Zervos (1998b), increased capital inflows may also increase stock market liquidity, thereby reducing the equity premium.

2.6.1 Measures for Stock Market Development

The literature relating to the measurement of the development of the banking sector consists of a number of different studies, which use different measures.

In order to analyse the relationship between stock market development and economic growth, the measures for both variables have to be identified. Unfortunately, there are no accepted measures for both markets. However, markets size, liquidity, international integration, and per capita income, are the measures typically used.

2.6.1.1 Market Capitalisation

Stock Market Size or the Capitalisation Ratio is calculated as the market value of listed shares divided by GDP.

The reason for choosing market capitalisation as a measurement of development is that it is positively correlated with the ability to mobilise capital and diversify risk. Moreover, the number of listed companies can also be used as a control variable for market capitalisation (Demirguc-Kunt and Levine, 1996a:295).

2.6.1.2 Liquidity

The second measurement -liquidity is defined as total value traded / GDP. This ratio measures the organised trading of equities as a share of national output. However, as noted by Demirguc-Kunt and Levine (1996a:295) a comprehensive measure of liquidity must also include all the costs of trading such as time costs,

settlement periods and the uncertainty of finding a counterparty. However, as the trading cost at ISE-EM (Istanbul Stock Exchange) is 0.002% of the volume of trade and because finding a counterparty is not a problem, these difficulties can be disregarded.

Liquidity is also measured by the value of total shares traded divided by market capitalisation (turnover ratio). A high turnover ratio is often used as an indicator of low transaction costs. Moreover, this ratio also measures the value of trading relative to the size of the stock market. Demirguc-Kunt and Levine (1996a) summarise this by noting that a small liquid market will have a higher turnover ratio but a small total value traded / GDP ratio. However, like the previous ratio, this also does not capture the trading costs (Demirguc-Kunt and Levine, 1999:9).

Another justification comes from Filer et.al. (1999:2) for using the turnover ratio as a measure of stock market development. They argue that it overcomes the reverse causality effect because higher prices in anticipation of greater economic growth affect both the numerator and the denominator of the ratio. The logic behind this argument is that the forward-looking nature of stock prices could be driving any causality between the stock market and growth. In other words, current stock prices should reflect the present discounted value of future profits.

2.6.1.3 Concentration

Concentration is also an issue particularly in developing countries. It is defined as the domination of the market by a few companies in terms of volume of trade. To measure concentration, the share of market capitalisation accounted for by the ten largest stocks is typically computed (Demirguc-Kunt and Levine, 1996a: 298)

Despite their recent rapid development, even the most advanced emerging markets are not yet mature. Typically, the markets concentrate on a few stocks, which account for a considerable part of the total market capitalisations. In the markets where few stocks dominate, the markets' indicators can be difficult to identify.

2.6.1.4 Volatility

Volatility is another measure of stock market development. It is defined as a twelve month rolling standard deviation based on market returns²⁹. In its simplest form, less volatility reflects greater stock market development (Demirguc-Kunt and Levine, 1996a: 298). As noted previously, higher volatility is detrimental. This is due to a number of reasons: (1) It can undermine the financial system as a whole; (2) It makes share prices much less useful as guides to resource allocation; (3) It discourages risk-taking by savers and investors and raises the cost of capital for corporations; (4) It may also stop risk-averse firms from raising funds or (5) Even from seeking a listing on the stock market (Singh, 1997:776).

2.6.1.5 Institutional Development

The markets do not need to be integrated with the World markets to develop but, the countries which are most integrated are regarded as more developed.

Demirguc-Kunt and Levine (1996a: 299-300) use seven regulatory-institutional indicators in order to analyse institutional development. They look at the publishing of price-earnings information, accounting standards, quality of investor protection laws, existence of Securities and Exchange Commissions, restrictions on dividend and capital repatriation by foreign investors and domestic investments by foreigners. The average of all the above indicators forms the basis for regulatory and institutional development (Demirguc-Kunt and Levine, 1996a: 300).

Even though, this measure is a useful tool for international comparisons, it may not be appropriate in this research. Nevertheless, it will be noteworthy to analyse the institutional development of ISE-EM descriptively.

2.7 Conclusion

The aim of economic growth dominates the agenda of most countries. It is a fact that one way or another the combinations of economic, political and social policy objectives increase the welfare of nations. Consequently, practitioners

²⁹ Calculating the volatility is the subject of Ph.D. thesis. Hence, it will be one of the main obstacle and contribution of this paper to investigate the ways of calculating volatility at ISE.

and academics spend considerable time in attempting to determine the best policies/sources of growth.

Not surprisingly, the 20th Century has witnessed numerous theories covering the impact that different variables and policy options have on economic growth. It was during the beginning of the 1970s that economic growth caught the attention of scholars. Despite the fact that the pioneer studies date back to the early 20th century, the literature has flourished in the last 30 years. Since then, the different aspects of financial development and economic growth together with the policy implications and the associated theories have developed considerably. Nevertheless, the debate requires further investigation to fully understand the relationship between financial development and economic growth.

The cross-country analysis tried to depict the financial sector as a whole and most corner stone studies concentrate on the general variables and measures of bank based systems. On the other hand, the effect of stock market development is analysed in more detail by using specific measures. In this sense, stock market development and its effect is analysed more rigorously than the financial sector.

Unfortunately, it is not only the variables and measures but also the methodologies that need further examination. Both cross-country and country-specific analysis have drawbacks, however, leading scholars, like Levine, promote the idea of combining bank with stock market approaches for a specific country in order to unearth the real combination of relationships.

2.8 The Turkish Endeavour

Within the confines of these discussions on financial development and economic growth, Turkey is a deviant country to examine with its liberalisation efforts in the 1980s and a number of crises in the 1990s, most recently in November 2000 and February 2001³⁰. In fact, there was almost no doubt that at the turn of the century the Turkish economy was in need of an urgent stabilization in order to halt a treacherous process of high and volatile inflation,

³⁰ For a detailed summary see Akyuz, Y., Boratav, K., The making of Turkish financial crisis, UNCTAD paper, 2002

unsustainable public debt accumulation, and increasing financial fragility, resulting from irresponsible policies and lack of fiscal discipline that had been endemic under various governments since the liberalisation attempt began in 1980.

Given the fact that Turkish financial sector was predominantly a “bank-based system” and dominated by larger banking groups, a weakly regulated banking sector is costly notably in the context of transitional financial systems. Political and institutional forces play an important role in explaining the inability to implement proper banking sector regulations over lengthy periods of time.

In addition, the difficulties arose largely due to structural problems and fragilities on many fronts, most notably in public finances. Such that, the banking sector was heavily dependent for its earnings on high-yielding T-bills associated with rapid inflation, and was thus highly vulnerable to disinflation while government’s increasing crowding out of the private sector resulting in an exploding debt and debt burden for the Treasury. Many of the imbalances and fragilities that characterised the current state of the Turkish economy had their origins in the policies pursued in the previous two decades.

Recent Turkish crises have a number of features common to crises in emerging markets that implemented exchange-rate-based stabilization programs. Such programs typically use the exchange rate as a credible anchor for inflationary expectations, often leading to currency appreciations and relying on capital inflows attracted by arbitrage opportunities to finance growing external deficits. The consequent build-up of external financial vulnerability eventually gives rise to expectations of sharp currency depreciations and a rapid exit of capital, resulting in overshooting of the exchange rate in the opposite direction and hikes in interest rates. Through such a boom-bust financial cycle, some countries (e.g. Mexico, Brazil and Russia) have succeeded in overcoming their chronic price instability and avoiding a return of rapid inflation, despite the collapse of their currencies and the external adjustment necessitated by the crisis. The Turkish program initially followed a similar path, but ran into difficulties at a much earlier stage of the disinflation process, forcing policy-makers to abandon the peg and setting of a sharp economic downturn in the context of a high inflation (Akyuz and Borotav, 2000).

Turkish experience, hence, can be a unique attempt when the preparation, the specific needs of liberalization efforts, the structure and the actual development of the financial sector were taken into account. Since, the previous 3 crises had similar reasons, an analysis of the Turkish financial development and economic growth can be interesting to look at.

Consequently, the main objective of this research is to analyse this attempt in detail and further investigate why it has failed. In doing so, we will look at the overall reasons and financial sector specific ones. In addition, we will investigate whether the existence of the McKinnon-Shaw type of reasoning existed in Turkish case or not, rather in a descriptive way as well. Findings of other empirical studies will be brought into the analysis in order to provide a full picture of the consequences of Turkey's financial liberalisation. The rest of the study organised as follows: we will analyse the broader picture of Turkish financial sector in the following chapter followed by the analysis of the banking sector and the results of the financial liberalisation attempt. The concluding section will serve for two main objectives: a summary of findings and topics for future researches.

CHAPTER III

TURKISH FINANCIAL DEVELOPMENT

3.1 Turkish Financial Markets³¹

The economic history of Turkey in the second half of this century is a sad story of chronic macro economic imbalances. Since 1950, Turkey has experienced periodic balance of payment crises every decade with steadily rising inflation. Nearly every decade has ended with a major stand by agreement with the IMF, including the most recent one in December 1999.

The legacy of the 1979 crisis, however, was deeper than the previous ones. By the end of the 1970s, Turks were experiencing shortages of many basic foods

³¹ This section is based a number of recent articles published by leading Turkish academicians most notably Gultekin et al (2000)

and the harsh winter of 1979 saw many households without heating oil. For ordinary citizens, after several years of an improved standard of living, Turkey became an economy of shortages while political violence was growing in the streets³².

In the midst of this upheaval, Turkey has implemented a series of new policies and entered a new era that will permanently change its structure. These policies were ultimately blamed for the subsequent financial crisis, especially, those in the 1990s. Nevertheless, it is a fact that the Turkish financial markets have undergone massive restructuring and evolution since the 1980 stabilization and reform programme³³.

Previously, the system was depressed by excessive regulation, and was dominated by commercial banks with poor product portfolios. A comprehensive list of the elements of "financial depression" includes, interest rate ceilings, subsidised credit allocations to designated industries, exorbitant taxation rates, high reserve and liquidity ratios, intertwined ownership relationships between financial institutions and non-financial corporations, poor asset portfolios of financial institutions, restrictions on the operations of foreign financial institutions and the international transactions of domestic banks, underdeveloped capital markets and over-reliance on bank financing, and finally, the government's excessive resort to deficit financing through the financial markets. However, none of these distortions were peculiar to the Turkish financial markets. They were rather common consequences of economic policies implemented in emerging countries over a long period of time spanning the second half of the 1960s and the entire 1970s. These policies put the entire financial system and its monetary resources at the disposal of the political authorities to facilitate economic development, until they were

³² For a detailed analysis of macroeconomic issues in Turkey, see Arıcanlı and Rodrik (1990), OECD (1999); for an analysis of macroeconomic imbalance and economic crises, see Mariano, Gültekin, Özmucur and Tayyeb (1999)

³³ Until 1980, the Turkish financial system developed under an umbrella of monetary and regulatory policies aimed at supporting the state orchestrated development strategy. Particularly after the early 1960s, the commercial bank dominated financial system became an instrument of planned industrialization policies and operated under a framework characterized by controlled interest rates, directed credit programs, high reserve requirements, and other restrictions on financial intermediation, as well as restricted entry. While these financial and regulatory policies were not exclusive to Turkey and contributed to its industrialization, they had their costs on the banking system's competitiveness and efficiency³³. Interest rate controls led to non-price competition in the form of branch network building by banks already in the system. This situation and restrictive entry policies, coupled with the exit of significant number of banks between 1960-80, gave rise to concentrated market dominated by public and private banks owned by industrial groups with excessively large branch networks and high overhead costs. In retrospect, it is generally thought that the combination of these factors created an uncompetitive market structure and an inefficient banking system.

challenged by the economists of the Stanford school. The most notable contribution came from McKinnon and Shaw, who developed a version of neo-classical financial theory, applicable to emerging countries. They argued that the removal of "financial depression" and a movement towards "financial deepening" would accelerate economic development by increasing savings, and that this would lead to a more efficient resource allocation system. The limitations of external financing faced by the emerging countries at the end of 1970s, created an intensifying need to mobilize internal resources. Since then, policy recommendations made by the supranational institutions such as the I.M.F. and the World Bank have focused heavily on financial liberalization.

Turkish governments postponed the implementation of these new policy recommendations until the end of 1979. However, when the new government was inaugurated in November 1979, the necessity for a structural adjustment programme was inevitable. Increasingly uneasy creditors of Turkey had recognized that the short-term adjustment programmes, necessary to remedy balance of payments problems, were not adequate for longer-term stability. All of these factors and conditions combined to mark the beginning of Turkey's transition programmes. The backbone of the programme covering the financial system was embedded in the covenants of the Structural Adjustment Loans provided by the World Bank. A three-tranche loan, a more detailed approach to the structure of the financial markets, and the reforms implemented by the Turkish governments, lay the foundations for the current structure of the Turkish financial system.

Until the 1980 transition, intermediation in the financial system was carried out by private and state-owned commercial and development banks. Although the emphasis on the development of the capital markets dates back to the 1980 liberalization programme, the central role of the banking system in the allocations of funds has gradually shifted towards the capital markets only as recently as the early 1990s. The introduction of the capital markets law in 1982, and the establishment of the Capital Markets Board and the Istanbul Stock Exchange were milestones in the emergence of modern Turkish financial markets. In the spirit of universal banking, capital market operations and banking services are not strictly separated in the Turkish financial system. Most

commercial banks are major players in the money and capital markets. However, brokers licensed to operate in the capital markets are not allowed to engage in traditional commercial banking activities, such as, lending and trade finance.

Structurally, the Turkish financial system has not had private social security institutions, such as private pension funds, as major fund suppliers to the system. Instead, state owned social security institutions have supplied the wholesale funds to the system. However, these funds were appropriated by the government, through compulsory placements in government securities. These institutions have increasingly been subject to political manipulation, and in less than a decade have been marginalized as major fund suppliers to the financial system. In many developed economies, insurance companies have formed another significant part of the financial system. However, this segment of the system has, similarly, never played a significant role in the Turkish financial system. This has been partly attributed to the excessive regulation of the industry which has recently been deregulated to allow product diversification and efficient funds management. The absence of major institutional fund suppliers in the financial systems means that households and corporations act as the major fund suppliers. Moreover the significance of the households or the personal sector has become more obvious, as the corporate sector is in aggregate deficit.

Like many other market economies, surplus funds are demanded by individuals, corporations and the government. The most notable characteristic of the Turkish financial markets is the dominance of the government as a deficit entity. Never ending budget deficits and the inadequacy of tax revenues means that Domestic and external borrowing is the only sensible alternatives to printing money. Given the structural restrictions on external borrowing, frequent resort to the domestic money and capital markets has become inevitable. Therefore, crowding-out is prevalent and, other deficit entities have been at a significant disadvantage compared to the government in raising finance. The dominance of the government in the debt markets leaves the corporations with only a limited number of options to finance their deficits: internally generated funds, short term commercial credits and equity financing. However, the banks have become

increasingly reluctant to extend loans to corporations because government financing is a lucrative business with low risk. The recent surge in initial public offerings and primary equity issues is generally attributed to this phenomena (Gultekin et al 2000).

Interest rate ceilings imposed by the regulatory authorities during the 1970s were the basis of negative real interest rates in the economy. This regulation resulted in economic distortion, had numerous adverse implications for savings behaviour of households and allocated funds to corporations at negative real costs³⁴. However the negative real rates of interest on bank deposits finally turned positive in 1982. This dramatic switch in interest rates along with high intermediation costs and reserve requirements triggered an increase in credit costs. Consequently a number of financial institutions went bankrupt and the monetary authorities loosened their tight control over the financial system. In the following period of 1983-1986, the Central Bank smoothly guided the markets, and real rates of interest fluctuated within a narrow percentage band.

In the aftermath of the 1987 elections, the government continued to deregulate and implement its liberalisation policies. As a first step, the Central Bank's control over interest rates was removed. However, this deregulatory move led to intense competition based on the interest rates offered for demand and time deposits. This destabilised the system and the Central Bank intervened and imposed interest rate ceilings. The implications of this era of liberalization were increasing real interest rates and high interest bearing loans to the corporate sector in the period 1989-1990. In the following period, banks stayed away from interest rate based competition, and moved toward indexing deposit and loan rates on the expected rate of inflation. Today, interest rates in the banking system are largely driven by the dynamics of the government debt markets.

The Turkish experience provides other valuable lessons, by demonstrating the possible dramatic consequences of a hasty and unprepared attempt at liberalisation. The economy has experienced a number of serious crises in the financial markets showing that a stable financial market still does not exist even after 20 years. The "bankers crisis" in 1981-1982 was the first example. The

³⁴ This has skewed the capital structure of the Turkish firms towards excessive use of leverage, which caused significant problems in 1980s as the real interest rates turned out to be positive.

oligopolistic structure in the financial sector led the government to use bankers and small banks to drive the interest rates up. The lack of supervision attracted many "entrepreneurs" and substantial amounts of financial savings were deposited with these entrepreneurs. The lack of adequate real placement opportunities for funds soon forced them to enter into a Ponzi scheme³⁵ which increasingly raised interest rates to attract fresh funds into the system. The bankers operated in a sort of regulatory vacuum and by the time the authorities became aware of the severity of the situation, it was too late to take effective action. Moreover the measures which were eventually taken only accelerated the crisis³⁶ (Sak, 1995:7)³⁷³⁸.

Recently, the liquidity crisis of late 2000 and the current financial crash emphasised the fact that there are serious problems with Turkey's attempt at financial liberalisation. However, it is not easy to identify all of the reasons for failure. Nevertheless, the main points can be identified and these will form the basis of the following sections and chapters.

3.2 Macroeconomic Factors: Persistent Fiscal Imbalances and Financial Opening

Turkey started the 1980s with a stabilization-cum-liberalization experiment under a military rule in response to a deep debt and balance-of-payments crisis beginning in late 1970s. Turkey also entered 1980 with a stabilisation program from the IMF after one of its worst balance of payment crises. The crisis, according to the consensus, reflects the limits of a development policy based on import substitution and it also reflects some strategic policy errors. The immediate objective of the programme was to stabilise the economy by improving the balance of payments and containing inflation.

The stabilisation programme, announced on January 24, 1980, was primarily a response to the foreign exchange crisis of the late 1970s. However, it included

³⁵ Ponzi schemes are a type of illegal pyramid scheme named for Charles Ponzi, who duped thousands of New England residents into investing in a postage stamp speculation scheme back in the 1920s. In this system, the money from new investors is used to pay off earlier investors until the whole scheme collapses.

³⁶ This crisis will be addressed in more detail in the coming sections.

³⁷ Studies by Akyuz (1990), Atiyas (1990), Inselbag and Gultekin (1988), which covered the period until the mid 1980s, are some of earlier attempts to assess the results of liberalisation. Atiyas and Ersel and Ozturk (1993) and Atiyas (1990) also consider the micro level effects of the post 1980 financial policies.

³⁸ Most recently, Turkey had witnessed further financial crisis at the end of 2000 and in February 2001 when the interest rates soared to 16500 and 3700% respectively. These issues will be addressed in the coming chapters.

measures that made it more of a structural adjustment programme, aiming at bringing about a major structural change in the economy that emphasised market forces in the determination of prices and the allocation of resources.

The military coup of September 1980 provided an excellent environment for the implementation of the programme, because the military government was supportive of the measure. The leading figure behind the programme, Turgut Ozal, was nominated as the Deputy Prime Minister and kept that position until July 1982 when he resigned during the last phase of the so-called bankers' crisis³⁹.

In addition to short term stabilisation measures like tight monetary control, fiscal policies to curb inflation and devaluation to reduce the current account deficit, the January 1980 package included the liberalisation of imports, incentives to encourage exports, a hike in interest rate ceilings, limitations on public sector investment for infrastructure projects, privatisation and increasing the institutional efficiency of the public sector.

Later the package was expanded, incorporating a broader agenda of financial liberalisation (liberalisation of interest rates and the introduction of a number of new financial instruments and markets) and the liberalisation of capital movements. On the financial side, "deepening" increased in the form of both bank deposits and the stock of securities issued relative to GDP. However, bank credits/GNP did not increase. In addition, the medium and long-term credits extended by the banking system declined substantially.

The dominance of the State in key industries and banking, as well as in pricing and the resource allocation processes, including foreign exchange rates and imports policy, was reduced and the economy was opened-up and export oriented growth became the key policy objective. Since then, much has been achieved. The overvalued Turkish Lira was devalued in 1980 and Turkey has maintained a committed to a flexible exchange rate policy ever since. In fact, the exchange rate was devalued more than the rate of inflation to maintain export competitiveness. Another important feature of trade reform was an

³⁹ Free elections in November 1983 and December 1987 were won by Ozal's Motherland Party which maintained the same paradigm. The government changed in October 1991 elections but the main lines of the paradigm continued. In short, the January 1980 programme brought about a major break in the economical paradigm that prevailed in the 1980s and continued since then.

aggressive drive to promote exports by generous export promotion schemes. These included tax rebates, preferential export credits, and import duty exemptions for imported intermediary goods for exports. The last element of trade reform was the liberalisation of the import regime. The highly restrictive and complex import regime was gradually eased and duties were lowered.

Turkey's decisive implementation of these liberalisation policies changed the structure of her economy. Exports grew from less than US\$2.9 billion in 1980 to US\$10 billion in 1987 and to more than US\$30 billion in the mid-1990s. The successful performance of exports under the regime of aggressive real devaluations of the lira lasted until 1988. By then the government had shifted its priorities to control the rate of inflation by allowing the real appreciation of the lira. Another important development in 1989 was the further liberalisation of the capital account, which was fully liberalised the following year. Changing the economic policies in this way had a significant impact on external balances. However, the important thing to note is that by 1989 Turkey had a liberalised and open economy and a rapidly growing private sector. While Turkey successfully liberalised its foreign trade regime, removed price ceilings and other distortions on goods and services, and deregulated its financial sector, economic stability has still not been attained.

By 1999, Turkey was in the process of implementing a major stabilisation programme and there are indications that this programme is being perceived as more credible than the others. However, mostly for political reasons, this initially successful programme turned out to be one of the worst financial crises that Turkey has encountered. Since the early 1980s to date, the source of the problem has been fiscal deficits, which have ultimately reflected Turkey's inability to deal with the underlying causes of poor public finance.

The failure to control fiscal deficits has been a major factor behind the volatile economic environment. The inflation rate ranged between more than 100 percent in 1980 and 34.6 percent in 1986 and by 1990 it was around 60 percent. As Table 3.1 shows, output growth has also been volatile with periods of rapid growth followed by sharp contractions. As the Turkish lira devalued, foreign exchange deposits became increasingly important and represented about 50 percent of M2 by late 1980s. The 1980 programme aimed to reduce

the fiscal deficits by increasing tax revenues while reducing public spending and transfers to public entities.

Initially, there was an improvement in the fiscal position. Tax rates were reduced while enforcement and the widening of the tax base was increased. Despite this initial success, the public sector deficit followed a path similar to that of the previous decades. In 1987, public sector deficits resumed its secular climb until 1993 when public sector borrowing requirement (PSBR) reached an all time high of 12% of GDP (see Table 3.1). There were times, especially after 1994 when Turkey managed to improve its fiscal balances but these were never sustained. As a result, the fiscal dynamics generally drove monetary and exchange rate policy and set the key parameters for the evolution and functioning of the financial markets (Gultekin et al 2000).

The capital account was opened in 1989 under these unstable conditions. While the officially declared objective was to further integrate with international markets, it appears that the easing of financing constraints on high levels of public expenditure may have been the overriding consideration (Aslan and Celasun, 1996). An open capital account, which requires sound monetary and exchange rate policies for sustainability, further complicated macroeconomic management. Financial opening not only strengthened the links between domestic and foreign interest rates, but also because of the persistent lack of fiscal discipline, generated a large risk premium on Turkish lira assets, particularly on government paper. As shown by Celasun, Denizer, and He (1999), the differential between interest rates in Turkey and abroad was a major factor explaining capital inflows⁴⁰. Monetary and exchange rate policies also encouraged foreign borrowing. While there were two distinct periods, they had the same effect on the financial sector's portfolio decisions. In the first period, starting in 1989, the real exchange rate policy that Turkey had followed since 1984 to support exports was abandoned. This change, coupled with inflows of

⁴⁰ This is one of the main reason of the current crisis.

Table 3.1: Main Economic Indicators: 1980-1998

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Real GNP growth rate	-2.8	4.8	3.1	4.2	7.1	4.3	6.8	9.8	1.5	1.6	9.4	0.3	6.4	8.1	-6.1	8.0	7.1	8.3	3.8
Inflation rate (1)	110.2	36.6	29.9	31.4	48.4	45.0	34.6	38.9	73.7	63.3	60.3	66.0	70.1	66.1	106.3	88.0	80.4	85.8	84.6
Current account balance*	-4.9	-2.7	-1.4	-3.1	-2.4	-1.5	-1.9	-0.9	1.8	0.9	-1.7	0.2	-0.6	-3.5	2.0	-1.4	-1.3	-1.4	-1.3
Total PSBR*	8.8	4.0	3.5	4.9	5.4	3.6	3.7	6.1	4.8	5.3	7.4	10.2	10.6	12.0	7.9	5.2	9.0	9.5	8.6
Consolidated Budget*																			
PSBR	2.9	0.4	1.6	1.3	4.6	2.6	3.1	3.4	3.1	3.5	3.4	5.3	5.4	6.3	3.9	3.7	8.5	7.6	7.2
Expenditures	20.3	18.9	15.1	18.7	17.1	15.3	16.7	17.4	16.6	16.9	17.3	20.5	20.1	24.3	23.1	21.8	26.3	27.2	29.1
Interest payments	0.6	0.9	0.8	1.5	20.0	1.9	2.6	3.0	3.9	3.6	3.5	3.8	3.7	5.8	7.7	7.3	10.0	7.7	11.5
Foreign	0.2	0.4	0.5	0.9	1.2	1.2	1.3	1.3	1.4	1.4	1.1	1.1	0.9	1.2	1.7	1.3	1.1	1.0	1.0
Domestic	0.4	0.5	0.3	0.6	0.8	0.7	1.3	1.7	2.4	2.2	2.4	2.7	2.8	4.6	6.0	6.1	8.9	6.7	10.5
Primary budget balance	-2.6	-0.6	-0.7	-0.7	-2.4	-0.3	-0.1	-0.4	0.9	0.3	0.2	-1.5	-0.6	-0.9	3.8	3.3	1.7	0.1	4.6
Domestic debt stock*	13.6	12.4	12.6	22.8	20.9	19.7	20.5	23.0	22.0	18.2	14.4	14.8	17.6	17.9	20.6	17.3	21.0	21.4	21.9
Foreign debt stock*	24.0	22.8	27.1	30.2	34.3	37.7	42.1	46.0	44.8	38.4	32.2	33.2	34.6	37.0	50.1	52.8	58.5	61.6	59.3
Treasury average bill rate (%) (2)	28.0	30.6	33.3	32.0	51.0	50.7	51.8	49.1	66.6	59.1	52.3	85.9	94.7	85.8	159.5	132.5	111.8	118.9	116.3
Real interest rate on savings accc	-75.3	35.6	65.0	34.3	-6.9	21.7	37.6	32.8	13.7	-7.0	-1.5	10.0	5.8	12.8	-10.0	4.8	16.5	12.4	11.9
Real appreciation of \$	17.8	24.6	7.2	7.3	13.3	-2.9	-4.6	-12.5	-6.9	-15.4	-37.5	-5.8	-5.5	-5.6	63.6	-34.0	-24.0	-1.2	-13.2
Net capital inflow*	1.0	1.2	0.4	1.4	0.1	1.6	2.8	2.2	-1.1	0.7	2.7	-1.6	2.3	4.9	-3.2	2.7	4.7	4.3	0.4

Notes:

(1) Inflation rate is measured by change in Consumer Price Index

(2) 1980-1985 figures are obtained from Aiyas and Ersel (1991), 1985-1998 figures are obtained from CBoT. The rates for 1985-1998 are 3 month T-bills annually compounded

*: Percent share in GNP

PSBR: Public sector borrowing requirement

Sources: Treasury of Turkey, State Institute of Statistics; Denizler, Guttekin & Guttekin (2000)

capital, led to a rapid real appreciation of the currency¹. Another aspect of this episode of currency appreciation was the particular way exchange rate policy was implemented. While competitive real exchange rate policy was abandoned, the Central Bank used a managed float approach and the exchange rate became an implicit nominal anchor. This inevitably fuelled real appreciation, already boosted by capital inflows, and the lira became overvalued by as much as 30 percent by 1993, which made foreign borrowing a profitable short term strategy.

By 1994, these fundamental economic policies and the fiscal stance in the economy were deteriorating rapidly. As the required fiscal discipline necessary to complement the use of exchange rate policy as a nominal anchor was ignored, monetary and fiscal policies presented an unsustainable policy mix. The PSBR further deteriorated from 6 percent of GDP to 12 percent in 1993, and this fact coupled with the Government's fundamental policy error of attempting to control interest rates, triggered a major crisis in early 1994². The currency depreciated by almost 50 percent, GDP contracted by 6 percent, and three small banks, who had extremely large net foreign exchange positions, were closed. The financial system's instability was contained when deposit insurance was increased to 100 percent. The real appreciation of the currency had provided both the commercial banks and others with incentives to borrow abroad. This was consequently reflected in the bank's balance sheets. Turkish bank's liabilities to non-residents have grown from being negligible in the early 1980s to 13% of total liabilities by 1993 and 16% by 1999.

The post-crisis period since 1994 has also been characterised by stop-go stabilisation policies and improvements in fiscal accounts, but the lack of a credible programme has seriously undermined attempts at economic recovery.

¹ In 1989, the Central Bank and the Treasury announced a protocol to limit the Central Bank of the Treasury financing up to 15% of the annual budget appropriations, which was the legal limit. The idea behind the protocol was to force the political authority to limit the magnetisation of the public sector deficits. Domestic borrowing became an increasingly important source of financing for the Treasury, which was then constrained in international debt markets then. Under the new policy of appreciating exchange rate, commercial banks found it extremely attractive to finance the Treasury with the short-term foreign debt.

² Despite all warnings, the Ciller government delayed a stabilisation programme until the local elections in March 1994. This delay was a serious policy mistake. The delay was coupled with a series of other policy mistakes that, in the first quarter of 1994, triggered the fourth economic crisis of Turkish economic history. The Central Bank tried in vain to slow the capital flight by increasing the overnight interbank rates to over 1000% during February and March. By the end of March, the Central Bank ran out of reserves. Following a slim margin of victory at the nation-wide elections for municipalities, government announced a stabilisation programme and stand-by agreement with the IMF on April 5, 1994.

Under these conditions, the Central Bank's primary concern has been the stability of the financial markets and the current account rather than the rate of inflation. It began to target the real exchange rate and devalued the currency more or less in line with past inflation. By operating this type of policy, the Central Bank in essence validated past inflation, which in turn became the expected inflation rate for the next period. This in turn implied a predictable depreciation path for the currency and encouraged banks and the private sector to borrow abroad and invest in high yield securities. Consequently, foreign capital inflows increased, reaching about 4.4 percent of GDP and this made financing of the deficits easier. While real exchange rate targeting policy brought a degree of stability into domestic financial markets, it rendered the economy without a nominal anchor. Despite the fact that fiscal accounts have improved since 1993 and there have been primary surpluses, the lack of a credible programme has forced the Central Bank to maintain its real exchange rate policy because economic stability was perceived to be too fragile. The result was a very high rate of inflation, which averaged around 90 percent between 1995-1998.

Another result was the effect on interest rates, which in turn made borrowing abroad attractive. Since this policy was being implemented without a credible programme, markets factored a large risk premium into domestic interest rates. At times the rates demanded by markets to roll over debt was as high as 40 percent in real terms. Hence, from a macroeconomic point of view, Turkey's particular monetary and foreign exchange rate policy mix created ever growing debts, initially driven by high deficits and later by high interest rates, which needed to be financed. With small domestic financial markets, for example, M2/GDP is only 17 percent without foreign exchange deposits and 32 percent with them, external financing was crucial. For both the financial and private sectors, the incentives were relatively straightforward: borrow as much as possible either at home or abroad and lend to the Treasury.

The Central Bank helped the Treasury in two ways. First, it funded commercial banks in the open market and provided them with enough liquidity to absorb treasury securities. As the size of domestic markets limited Treasury borrowing, the Central Bank encouraged banks to borrow abroad and foreign borrowing

ratios were accordingly relaxed. As noted by the OECD (1999), the government and the financial sector became interdependent. Incentives arising from this distorted macroeconomic environment have determined the composition and performance of bank portfolios, the evolution of capital markets, as well as the portfolios of the corporate sector. By the end of the 1990s, the sole function of the financial system in Turkey was virtually reduced to transferring funds from the domestic and international markets to the Treasury.

3.3 Financial Liberalisation and the Evolution of the System ³

3.3.1 Financial Policies and Reforms

The Turkish financial system before the 1980s represents a textbook case of a financially repressed structure. Interest rates had been set by the state since the 1940s and had been seldomly changed. Because of rising inflation during the 1970s, real interest rates had become increasingly negative; deposit rates, for example, were almost minus 40 percent in early 1980. At the same time disintermediation became a serious issue. The M2/ GDP ratio declined from 29 percent of GDP in 1970 to 19 percent in 1980. Preferential credit to priority sectors also increased over time and it was almost 75 percent of total bank credit by 1979.

During the 1970s, capital markets were not developed and there was a very limited set of financial instruments. Banks were the dominant institutions in the financial markets and the corporate sector relied almost exclusively on bank credit. Central Bank credit was an important source of public sector financing.

There were severe restrictions on the holding of foreign assets. Financial markets were protected from foreign competition as a natural extension of the prevailing regime of import substitution. When the liberalisation of the system began after the 1980 economic crisis, it consisted of four main themes, namely interest rate deregulation, development of money and foreign exchange markets, development in capital markets, and banking sector reforms. The first three will be discussed in this section.

³ There are a number of detailed studies on the development of the financial system of the post 1980 era in Turkey. These articles were written by Akyuz (1990), Atiyas (1990), Atiyas and Ersel (1992), Cosan and Ersel (1986), Sak (1995) and further developed by Gultekin et al (2000).

3.3.2 Interest Rates

Interest rate deregulation began in July 1980. The stabilisation programme announced on January 24th included primarily a hike in the interest rates. The interest rates were liberalised to a large extent as of July 1980 which can be considered as the first act of liberalisation. The interest rate ceilings on non-preferential credit were totally abolished. However, a certain percentage of credit interest payments had still to be deposited in the Interest Rate Differential Fund which was used to compensate for the low interest rates on the preferential credits mainly extended by the development banks. For deposits, the ceiling on household saving deposits were abolished and interest on commercial and public deposits were set at zero (Sak, 1995:11).

The initial reaction of the largest banks to interest rate liberalisation was to reach a consensus interest rate for deposit rates by a so called "gentlemen's agreement", in a way, colluding among themselves with the hope that the rest of the system would follow. According to this agreement, the deposit rates were kept nominally low and also negative in real terms⁴. This first started as a secret agreement but it later became public. However, the smaller banks did not follow this lead and entered into fierce competition with the larger banks. To attract deposits these small banks issued large amounts of discounted newly introduced commercial deposits (CDs) to brokers, who then sold them to the public at much higher interest rates. Brokers who were unregulated also issued their own promissory notes, bought and sold corporate bonds and lent heavily to those without bank financing. The situation eventually turned into a Ponzi scheme as the payment of interest on CDs to the public depended on the sale of new CDs. Inevitably, the system collapsed after the largest broker closed its business in Turkey and moved abroad⁵. The result was a financial crisis and the liabilities of five banks were taken over by the government. It was estimated that the cost of this crisis was about 2.5 percent of GDP in 1982. The result was that interest rates began to be regulated by the Government. The Central Bank moved in to set the rates and prevent the leading banks from exploiting their

⁴ The interest rates on 6-month deposits remained at 15% at a time when the annual inflation rate was around 100%.

⁵ High and rising interest rates soon put the banks and bankers under liquidity problems and most of the small bankers collapsed towards the end of 1981. The crisis culminated later, in the mid-1981, in the collapse of the largest banker (Kastelli). The so-called bankers crisis caused the loss of the confidence in the financial system.

market power; it also periodically adjusted interest rates to maintain positive rates in real terms. This policy lasted until 1988, emphasising the fact that, interest rate liberalisation was not an immediate success once the ceilings were abolished. It took nearly eight years, towards the late 1980s, for short-term interest rates to be determined by the market at which time the Treasury debt markets were well established. This episode also reflected the poor regulatory state of the financial markets in Turkey and the importance of sequencing reforms. There was no regulatory structure to oversee the players in the market when reform began and the risky behaviour of banks and brokers could not, therefore, be controlled. One major outcome of the crisis was the establishment of an explicit deposit insurance scheme for banks in 1993. This scheme was funded by premiums paid by the commercial banks and offered a limited insurance for depositors (Gultekin et al, 2000).

The cost of the crisis was high especially in terms of the resources used to bailout depositors. The behaviour of the bankers left a legacy of mistrust and the exclusion of non-bank institutions from the later development of the money markets, led to banks dominating the money markets.

3.3.3 Money and Foreign Exchange Markets

Development of the money and foreign exchange markets was a priority for the Central Bank if it was to conduct the new monetary policy.

In due course, one of the key elements of the January 1980 stabilisation programme was a major devaluation of the Turkish Lira. Adjustments to the exchange rate for inflation differentials continued throughout 1980 and the first half of 1981. In May 1981, the policy of maintaining a target for the real effective exchange rate was institutionalised and the began setting and announcing nominal rates on a daily basis. With the easing of the foreign exchange crisis and the elimination of payments arrears, most of the multiple currency practices, introduced in the 1970s, were phased out in the first three years of the stabilisation programme (Sak, 1995:17).

In addition to the Central Bank setting daily exchange rates they also allowed banks to fix their own rates within a specific band. In 1984, banks were allowed

to accept foreign exchange deposits and in the following year they were allowed to set their own exchange rates.

As already mentioned, the capital account was fully opened in 1990. The consequences of the liberalisation of the exchange rate regime were high levels of currency substitution and changes in the bank's asset and liability structure, which weakened the stability of the system. The Central Bank introduced the inter-bank money market to facilitate the asset-liability management of banks in 1986 and the following year it commenced open market operations. The idea behind these initiatives was to cut down on Central Bank's direct financing of the Treasury. The development of government debt markets was expected to provide proper tools for the debt management of the Treasury and for the conduct of the money markets while allowing interest rates to signal the relative scarcity of funds⁶.

3.3.4 Capital Markets

The lessons from the financial crisis of 1982 were not lost on the policy makers. In addition to inexperience, the lack of an institutional structure to enforce the existing legislation for the regulation of the capital markets was one of the crucial reasons for the inability of the authorities to crack down on the behaviour of the brokerage houses. The response of the government was to speed up the formation of the Capital Market Board which was given responsibility for the regulation, supervision and development of capital markets.

The Capital Market Board was active in building the legal and the institutional infrastructure for the capital markets in Turkey and the Istanbul Stock exchange was consequently opened in 1986. Once the interest rate restrictions on corporate bonds by the Central Bank were eliminated in 1987, new instruments, such as commercial paper, were introduced and others were revived. Mutual funds, for example, were recognised by the authorities for the first time in 1987, but commercial banks had the exclusive right to establish them until 1992⁷.

⁶ Another important objective was to increase private savings by re-establishing a pricing mechanism for flow funds. There is considerable debate in the financial development literature about the role of interest rates in mobilising the domestic savings. See Goldsmith (1969), McKinnon (1973)..

⁷ Commercial banks were also allowed to be the custodians and managers of their own funds.

The Ozal government was eager to develop the capital markets. They introduced new instruments to encourage the public to save with financial assets. An extra budgetary fund, the Mass Housing and Public Participation Fund was created to finance housing development and public infrastructure projects were financed by direct borrowing from the public⁸. The fund introduced long-term revenue bonds, called Revenue Sharing Certificates, secured against the income generated from the infrastructure projects. The idea behind this new instrument was to shift the portfolio composition of households from gold to financial instruments and eventually to pave the way for the privatisation programme of the government⁹.

3.3.4.1 Capital Markets and the Corporate Sector

One of the basic tenants of financial economics is that the efficient allocation of plant, equipment and working capital depends on the efficiency with which financial capital is distributed across firms. The amount of funds a firm seeks to raise in the financial markets depends to a large extent on the return on investment and on the firm's cost of financial capital. If the cost of capital is too high, aggregate investment will be insufficient, and the economic growth of the country will be jeopardised. If the relative capital costs of firms are mispriced, the distribution of funds and consequently real investments across firms will be similarly distorted. As the cost of capital for a firm depends on the price it receives for its newly issued securities it follows that the efficient allocation of funds will be achieved only if the primary market for financial capital operates efficiently.

For the primary market to operate efficiently and properly value securities it requires an efficient secondary market. Marketability of a security in essence turns illiquid investments in a firm's assets into liquid portfolio holdings. With a secondary market, any investor who buys shares when they are issued is free to sell those shares in the market, at the market determined price. Any investor

⁸ Revenue sharing certificates were an innovative instrument at first. They were used to finance incomplete public investment projects, predominantly dams for electricity generation. The incremental return on a one or two year investment to complete a dam is extremely high. The other objective was to introduce non-interest bearing instruments to those who believed usury was illegal in Islam. Eventually, however, this instrument was so abused that the Public Participation Fund became a major burden on the budget.

⁹ According to an extensive survey of household saving behaviour by Eser (1999), Turkish households have the following portfolio (stock) of assets: 86% real estate; 2.3% securities; and 1% gold. They allocate their current savings into: 35% foreign exchange; 29% gold; 12% bank deposits; securities 10%; and 9% real estate.

who did not purchase shares when they were originally issued is free to buy them subsequently in the secondary market. In this respect potentially short term investments of individuals are turned into long-term investments in real assets.

Marketable securities fetch higher prices in the primary markets and effectively reduce the cost of capital. In addition, market determined valuation is informationally efficient and reflects the market's assessment of managerial performance. In this respect it is a forward-looking measure of performance. Many countries, including Turkey, invested heavily in the development of equity markets to allow firms to have access to risk capital.

3.3.4.1.1 Primary Markets

The outstanding securities issued by the non-financial and financial corporations in Turkey and registered with the Capital Market Board (CMB) are presented in Table 3.2. A modest amount of \$409 million was issued in 1986. The share of corporate bonds was higher than the equity offered by the firms at this time. However, by 1987, the dollar amount of securities issued by the firms had doubled.

Although the equity offerings increased, bond and commercial paper offerings were the principal instruments used by companies to raise funds in the capital markets in the early years. However from 1990, the equity issues increased significantly while corporate bond issuances declined. In aggregate, the amount of securities issued by companies increased each year from 1986-1993.

Asset Backed Securities (ABS) were introduced to the market in 1992 for the first time. The introduction of ABS had a significant impact on the market. It became the preferred method of raising funds, especially for the banks. In 1993, securities issued in the primary market reached a record of \$6.6 billion. This level was mainly fuelled by the issuance of \$4.8 billion of ABS and corporate bond issues declined significantly from 1993 onwards. In 1999, there were no bonds issued by the corporate sector. Similarly, commercial paper also declined and became non-existent by 1998. ABS issues declined significantly during this period as well. With the introduction of new regulations by CMB, the primary ABS market ceased to exist in 1999. As ABS declined, equity offerings

increased to an all time high. ABS was popular in the first instance because they were exempt from bank reserves, however, when this advantage was lost, they disappeared. Mutual Funds' Participation Certificates (MFPC) were first issued in 1990. Although the mutual funds technically started operating in 1986 with the opening of the Istanbul Stock Exchange (ISE), under the new Capital Market Law of 1984, there were no MFPC offerings in the primary market. The MFPC issues also coincided with the liberalisation of financial markets. The total market value of all the government and corporate outstanding securities in the financial capital market are presented in Table 3.3. The share of private securities accounted for 39% of the \$14.181 billion outstanding securities and Government securities accounted for the remaining 61% in 1990. In 1991, the share of Government securities declined 56% and the following year reached 69%. From 1993 onwards, the share of Government securities significantly increased and reached a record level of 87% in 1996. As of 1999, Government bonds account for 84% of the \$60.468 billion securities outstanding in the market.

In general, the fixed income securities markets are larger than the equity markets in developed capital markets. However, in the case of the Turkish capital market the relative size of fixed income securities is disproportionately high. It is dominated by government securities and by the end of 1990s, it accounted for almost 100 percent of government securities.

Table 3.4 reports the trading volume in the Istanbul Stock Exchange (ISE), the most important secondary market in Turkey¹⁰. In terms of dollar volume it is clear that Government securities dominate. In contrast the share of corporate securities by trading volume in 1990 was only 17 percent. Moreover, it declined to 15 percent in 1991, 11 percent in 1992, and to less than 5 percent in 1996. By 2000 the share of corporate securities traded by volume in the secondary market was less than 4 percent of the total. Although the total fixed income securities outstanding were in excess of equity securities, trading volume of equities were substantially higher than the trading volume of fixed income securities.

¹⁰ There is no reliable data for fixed income securities, corporate and government, prior to 1990.

Table 3.2: Primary Security Issues Registered With the Capital Market Board (USD mn)

Years	Shares	te Bonds	Commerc ial papers	ABS	Sharing Cert	Bank Bills	Funds' Part.Cert1	Estate Cert	Mutual Funds' Part.	Total
1986	152	166			1	90				409
1987	219	371	65		1	89				745
1988	256	148	190			167				761
1989	458	285	219		1	46				1,009
1990	1,576	293	83		2	127	328			2,407
1991	1,066	195	160		4	174	16			1,615
1992	775	116	147	2,110	9	112	13			3,282
1993	873	65	110	4,811		218	488			6,565
1994	1,266	17	5	1,426		68	74			2,856
1995	1,124	41	34	2,494	7	28	93			3,821
1996	1,261	15	36	514		29	110	33		1,999
1997	2,022	10	15	152		66	227		12	2,502
1998	2,682	10		42			506			3,239

Notes:

1. Mutual Fund Participation Certificates are reported at market values after 1998

Source: capital Markets Board

Table 3.3 Outstanding Securities in Turkish Financial Markets (In USD billion)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Public	1.71	1.81	1.86	1.78	2.47	3.28	4.63	6.31	5.91	7.31	9.74	10.72	19.64	24.67	19.12	26.30	35.11
Treasury Bills		0.90	1.24	0.47	0.82	0.96	1.19	2.22	1.76	1.65	2.11	4.39	6.14	5.87	10.25	13.81	18.83
Government Bonds	1.71	1.81	1.24	1.79	1.37	1.93	2.24	2.80	3.45	5.14	7.21	5.92	12.58	17.34	7.84	11.20	15.41
Other		0.00	0.00	0.00	0.00	0.39	1.20	1.17	0.70	0.52	0.42	0.43	0.90	1.46	1.04	1.30	0.87
Private		0.91	1.24	1.34	1.10	1.16	1.64	2.45	2.67	3.77	6.17	8.27	8.82	10.19	4.40	6.47	3.20
Stocks		0.91	1.24	0.89	1.10	0.96	1.20	1.87	2.18	3.16	5.56	7.75	7.15	6.49	3.68	4.90	2.99
Asset Backed Securities		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.31	3.33	0.67	1.46	0.10
Other		0.00	0.62	0.45	0.27	0.19	0.15	0.58	0.49	0.61	0.61	0.53	0.36	0.36	0.05	0.11	0.11
TOTAL	1.71	2.72	3.10	3.12	3.57	4.44	6.27	8.76	8.58	11.08	15.91	18.99	28.46	34.86	23.52	32.77	38.31

Table 3.4: Trading Volume of the Istanbul Stock Exchange (USD mn)

Years	Private Sector Securities			Public Sector Securities				TOTAL	
	Shares	ASB	Others 1	Total	Govt Bonds	T-Bills	Others 2		Total
1986	13		-	13	-	-	-	13	
1987	118		-	118	-	-	-	118	
1988	115		-	115	-	-	-	115	
1989	773		-	773	-	-	-	773	
1990	6,195		1,487	7,682	23,712	12,295	1,042	37,050	44,732
1991	8,583		3,140	11,723	34,114	31,627	1,146	66,888	78,611
1992	8,217	432	1,875	10,523	30,405	54,772	3,541	88,818	99,341
1993	23,315	2,908	818	27,040	59,974	93,706	4,462	158,142	185,183
1994	21,968	3,496	1,451	26,915	56,581	117,240	6,975	180,795	207,710
1995	51,990	3,615	2,933	58,537	100,269	324,685	3,557	428,511	487,048
1996	37,510	2,947	2,196	42,653	159,063	705,777	5,442	870,283	912,936
1997	60,074		1,317	61,391	565,639	600,697	746	1,167,082	1,228,473
1998	69,647		296	69,943	423,114	655,825	234	1,079,172	1,149,115
1999	58,930		73	59,003	798,291	422,892		1,221,183	1,280,186

Notes:

1999 figures are as of August 30, 1999

1. Includes Corporate Bonds, Commercial papers and Bank Bills and Ban Guaranteed Bills

2. Includes Revenue Sharing Certificates, Housing Certificates, FX Indexed Bonds

Source: Capital Markets Board and Istanbul Stock Exchange

In Table 3.5, the portfolio composition of mutual funds¹ is shown. A-Type mutual funds started in 1994. These funds were required to have at least 25 percent of their investments in equities. In return, they were given significant tax advantages. The law was intended to help the deepening of the equity market and alleviate the significant crowding out caused by government bonds. There were no restrictions on investments of other mutual funds. Equities constituted approximately 36 percent of the Type-A mutual funds holdings. With the

¹ Data before 1990 is not available

exception of the last two years, their investment in Government bonds has been less than 1 percent and Treasury bills accounted for the rest of their portfolio. With the entry of Repo and Reverse Repo activities into the secondary markets in 1997, the proportion of treasuries significantly declined. Accordingly in 1999, reverse repo's accounted for 48 percent of their portfolio, equities accounted for 38 percent, and government bonds (9.45%) and treasuries (4.6%) accounted for the remainder.

Type-B mutual funds' portfolios revealed that they were primarily investing in government bonds and T-bills. The exception was 1993 when investments in equities accounted for 18 percent of their portfolio. Corporate bonds accounted for 19 percent of their portfolios in 1990 and 1991. However, the proportion of corporate bonds declined very rapidly to insignificant levels during the next two years.

Table 3.5: Portfolio Composition (USD mn)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Private Sector Securities										
Shares	4,946	6,366	5,743	4,931	2,843	3,761	3,950	4,441	6,012	9,735
Corporate Bonds	475	322	195	115	37	40	25	22	22	17
Commercial papers	71	108	88	83	5	26	27	11		
ASB			1,056	2,530	519	1,122	75	64	23	7
Others ¹	35	101	13	91	3	17	28	13		
Total	5,514	6,888	7,094	7,749	3,407	4,966	4,106	4,551	6,057	9,759
% of Total	39	44	31	29	18	20	13	13	14	16
Public Sector Securities										
Government Bonds	6,423	4,863	10,097	13,122	6,060	8,601	11,628	17,440	18,399	38,754
T-Bills	1,868	3,598	4,938	4,460	7,919	10,609	14,212	11,599	18,619	11,407
Revenue Sharing Certificates	273	20			530	209	41			
FX Indexed Bills	102	328	729	1,099	1,053	367	127			
Privatisation Bond						420	491	720	562	548
Total	8,667	8,808	15,764	16,680	15,563	20,207	26,501	29,759	37,580	50,709
% of Total	61	56	69	71	82	80	87	87	86	84
Total Outstanding	14,181	15,696	22,858	26,429	18,970	25,173	30,607	34,310	43,639	60,468

1999 figures are as of August 30, 1999

1. Consist of Bank bills and bank guaranteed bills, real estate certificates and profit and loss certificates.

Source: Gultekin et al (2000)

Similarly, government bonds accounted for almost 60% of the portfolios in 1990 but this proportion declined to 43 percent the following year and subsequently declined as they were replaced with treasury bills. Accordingly, treasuries accounted for 90% and 96% of their portfolio in 1994 and 1996. As such, their portfolio consisted of very short-term government securities. From 1997 onwards, reverse repo displaced investments in treasuries and government bonds. Shifts in the mutual fund portfolios showed the agility of these funds to respond to tax incentives. Differential taxes also resulted in distortions which lead to generous arbitrage opportunities.

The number of mutual funds increased over the years. However, a close examination of the detailed transactions filed with CMB and the records of ISE reveal that three mutual funds and seven investment funds account for more than 20 percent of the trading volume in the market¹.

3.3.4.1.2 Secondary Markets

The Istanbul Stock Exchange (ISE) is the principal secondary market in Turkey. Although the stock exchange pre-dates the Republic, it only started orderly operations in 1986. In Table 3.6, we report on the main indicators of the ISE.

The number of companies listed in the ISE rapidly increased from 350 in 1986 to 730 by 1989 while the number of companies with shares trading on the market decreased slightly from 80 to 76 firms over the same period². After the liberalisation of the capital account in 1989, a significant increase in the number of companies entering the market occurred. The number of companies listed increased to 916 and the companies with shares trading on the market jumped to 110 with the addition of 33 companies that went public in 1990. The number of companies listed reached 1,284 in 1993 while 160 companies' were actively trading on the ISE.

Following the economic crisis of 1994 the number of listed companies rapidly declined as the public companies were "crowded out" of the debt market and

¹ Most investment funds are owned by banks. It is possible for a mutual fund to finance government securities in a group bank indirectly via reverse repos with differential taxes and reserve requirements

² Listed companies include all companies with public debt and equity. Listing requirements and procedures are published by ISE periodically under the title "Halka Arz ve Borsa'da İşlem Gorme." Companies must sell at least 15 percent of the shares to the public to be classified as a public company. Current regulations do not require share registration. There is no data series on the profile of share ownership. In addition, there are no provisions for minority rights at this point.

Table3.6: Main Indicators of Stock Market and ISE

Years	Number of Companies				Securities Issued (USD mn)			Market Capitalisation (USD mn)	Trading Volume (USD mn)	Number of Shares Traded	Avr Daily Trading Volume (USD mn)	Avr Daily Traded Shares	Number of Traded Contracts (x1,000)	ISE Index (Jan 86=100)
	Listed	Traded	IPO	De-listed	IPO	Capital Increase	Debt Instruments							
1986	350	80				32	257	938	13	3	0	0		132
1987	414	82				118	526	3,125	116	15	0	0		385
1988	556	79				218	506	1,128	115	32	0	0	112	120
1989	730	76				393	551	6,756	773	236	3	1	247	561
1990	916	110	35	1	761	742	503	18,737	5,854	1,537	24	6	766	643
1991	1092	134	24		69	1,436	532	15,564	8,502	4,531	34	18	1,446	502
1992	1238	145	13	2	71	918	2,509	9,922	8,567	10,285	34	41	1,682	273
1993	1284	160	17	2	122	579	5,189	37,824	21,770	35,249	88	143	2,815	833
1994	1204	176	25	9	176	982	1,508	21,785	23,203	100,062	92	396	5,085	413
1995	922	205	30	1	233	886	2,602	20,782	52,357	306,254	209	1,220	11,667	383
1996	788	228	25	2	165	608	592	30,797	37,737	390,924	153	1,583	12,447	534
1997	743	258	31	1	429	920	242	61,879	58,104	919,784	231	3,650	17,059	982
1998	686	277	20	1	358	1,253	52	33,975	70,396	2,242,531	284	9,042	21,577	484
1999	265	285	10	2	223	NA	NA	114,271	58,930	4,242,890	269	20,798	19,920	982

1999 figures are as of November 30, 1999

Source: ISE

many of them failed the listing requirements. Consequently, at the end of 1999 there were 285 companies listed but only 256 were trading in the market. Between 1990 and the end of 1999 a total of 223 companies went public and 20 companies' had their shares de-listed from the exchange.

Table 3.6 also reports on the nominal value of share issues, capital increases, debt issues, market value of initial public offerings (IPO's), and the market capitalisation of ISE companies. In terms of market capitalisation ISE is one of the leading emerging stock exchange markets since 1990, IPO's have accounted for 18.9 percent of the value of share issues in the market and capital increases have accounted for 66 percent (for the whole period the ratio was 66.3 percent). Despite the crowding-out effect of the public sector, corporations raised \$11.4 billion in net equity capital and \$16.5 in debt capital on the ISE. This is an impressive result, despite the fact that the numbers are dwarfed by treasury securities.

Trading volume in public companies increased from \$13 million in 1986 to \$70.4 billion in 1998. The turnover rapidly increased, especially after the opening of the capital account. For example, the turnover ratio rose from 11 percent in 1986 to 210% in 1998¹. The turnover ratio is used as a measure of market liquidity and based on this ratio ISE is one of the most liquid markets in the world. By comparison liquidity in the NYSE increased from 54% to 113% during the same period. However, greater liquidity has also led to excess volatility. A closer examination reveals that the largest 10 companies – about 54% of the market by capitalisation- accounted for more than half of the dollar and share volume. One, therefore, should perhaps exercise care in interpreting specific measures for emerging markets.

3.4 Performance of the Financial System: Reforms and Financial Structure

By 1986, Turkey had a stock exchange, brokerage houses, a legal framework for the securities markets, and regulatory agencies to supervise the system. Accounting standards were improved to conform to internationally accepted standards, though there still is room for further improvement. Auditing standards

¹ Turnover ratio dropped to 53% as of November 1999. The data are not complete for the year. The market was closed for a week after the August earthquake

were introduced and required for companies with publicly issued securities². By the end of the decade, Turkey seemed to have laid the foundations for financial markets with basic institutions and a regulatory structure. Current institutions in the Turkish financial system and their total asset sizes can be seen in Table 3.7.

Table 3.7: Turkish Financial Sector at a Glance

	Number of Institutions	Total Assets	Major Players	Regulator
BANKING	36 Turkish 18 Foreign 5 State-Owned 12 Development 7 Turkish - 3 Foreign - 2 State	USD122 bn	*Ziraat Bank *Halk Bank * Is Bank *Yapi Kredi Bank *Guaranty Bank *Akbank *Pamukbank	CBOT/Ministry of Treasury to hand over to new Independent Banking Regulation and Supervision Agency (BRSA)
INSURANCE	60 Companies (17 life and 43 non-life) - 46 Private - 11 Foreign - 3 State	Total premiums in 1997: USD1.8 bn Total assets of insurance companies: USD3.5 bn	Millie Reassurance (all insurers obliged to reinsure a fixed percentage with them)	Insurance Supervisory Office (Ministry of Treasury)
EQUITY MARKET	Istanbul Stock Exchange has about 300 listed companies	Market Cap of USD48 bn (1998); free float is about 20% of market cap	Foreign portfolio investment accounts for large demand in equity market (more than 50% of equity in early 1998)	Capital Markets Board
INVESTMENT COMPANIES / BROKERAGES	141 intermediaries authorized to trade on ISE 116 brokerages, 55 commercial banks, and 12 investment banks authorized to trade in the bonds and bills market.	Daily trading volume ranges from USD300 mn to USD1 bn	Is Investment Ata Invest Global Investment Garanti Investment	Capital Markets Board
MUTUAL FUNDS / INVESTMENT TRUSTS	198 mutual funds (as of beginning of 1999) including - 97 Type A funds (25% of assets invested in Turkish equity with some tax advantages) - 101 Type B funds (less restrictive and 80% of total market net asset value) - 17 Investment Trusts (all Type A) - 5 Reites	Total net asset value of mutual funds is USD1.2 bn		Capital Markets Board
LEASING / FACTORING	70 leasing companies (in 1997) 85 factoring companies (in 1998)	Volume of leasing transactions is USD2.5 bn Factoring turnover was USD3.3 bn in 1997		Ministry of Treasury
PENSIONS	3 State controlled social security funds (PAYG) Limited private pension funds	Yapi Kredi Faktoring Is Faktoring	Not applicable	Ministry of Employment and Social Security, Capital Markets Board

The banking sector clearly dominates the system. The insurance sector is one of the least developed sectors compared to similar developing countries. Mutual

² In a survey conducted by the Capital Market Board, 45% of the firms surveyed had used external auditors without any legal requirement. See Erkan and Temir (1998)

funds and pensions are also small players in the system. The equity market, mutual funds, leasing/factoring sectors were all created by the financial reforms of the 1980s. These reforms have had an impact on the banking sector as well. Entry of foreign banks was encouraged during this period and Table 3.7 shows that the financial landscape has an institutional diversity comparable to middle-income countries. The Commercial code allows corporations to issue debt instruments up to a certain proportion of their equity capital. Corporations, in effect, were not allowed to issue debt until they were allowed to revalue their assets in 1983.

Traditional measures of financial deepening are provided in Table 3.8 for the 1980-1998 period.

Financial development is often expressed in terms of the relative size of financial assets to GNP. Table 3.8 shows that there was a significant deepening during this period. Financial assets to GNP tripled from 23.1% in 1980 to 63.7% in 1998. The composition of this financial deepening, however, reveals some structural problems. The financial deepening and the evolution of the system, were severely distorted by the massive fiscal imbalances of the public sector. The M1/GNP ratio, a financial deepening measure used for developing countries, dropped from 13.9% to 4.79% but M2/GNP rose modestly from 17.4% to 21.34%. M2Y/GNP, where the money supply measure include foreign exchange deposits, rose from 20.2% to 37.8%, this was because of currency substitution that took place after residents were allowed to have foreign exchange deposits. These ratios are lower than countries with similar income per capita level. The results clearly indicate the impact of rising and volatile inflation throughout this period on the demand for the national currency.

The ratio of financial assets to GNP rose from 23.1% in 1980 to 63.7% in 1998 and currency in circulation declined from 4.1% to 2.1% during the same period. Total deposits rose from 14.1% of GNP to 35.8%. Nearly all of this increase came from the increase in foreign exchange deposits. The ratio of outstanding securities to GNP also rose from 4.9% to 25.8%. Most of this increase came from public sector securities, predominantly treasury bills and bonds. The ratio of public securities to GNP was 3.6% in 1980 and reached 22.3% in 1998. The share of private securities rose from 1.3% to 3.6%, mostly from the appreciation

Table 3.8: Indicators of Financial Deepening

A. Stocks of Financial Assets as percent of GNP

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
1. CURRENCY IN CIRCULATION	4.1	3.5	3.9	3.9	3.3	2.9	2.5	2.9	2.7	3.0	2.9	2.8	2.8	2.6	2.6	2.4	2.4	2.2	2.1
2. TOTAL DEPOSITS	14.1	18.8	22.3	22.1	22.5	22.6	27.8	29.3	27.1	25.2	22.1	24.9	25.2	22.5	29.9	30.2	36.2	37.1	35.8
Saving Deposits	6.5	10.4	12.8	12.6	13.7	13.7	12.7	11.0	10.7	10.8	8.8	9.6	8.6	6.3	8.5	8.8	11.6	10.9	11.2
Other	7.6	8.4	9.5	9.5	8.8	8.9	9.8	10.9	9.1	8.3	7.8	7.2	7.1	6.3	6.0	5.4	7.1	7.5	7.3
FX Deposits	0.0	0.0	0.0	0.0	0.0	0.0	5.3	7.4	7.3	6.1	5.5	8.2	9.6	9.9	1.5	16.0	17.5	18.7	17.2
3. TOTAL SECURITIES	4.9	4.5	5.3	5.1	5.9	6.5	8.2	9.9	9.5	10.2	10.4	12.5	17.7	19.2	18.0	19.1	22.0	239.0	25.8
Public Securities	3.6	3.1	3.2	3.0	4.0	4.7	6.1	7.1	6.5	6.7	6.4	7.0	12.2	13.6	14.6	15.3	19.0	20.7	22.3
Treasury Bills	0.9	1.1	1.4	0.4	1.5	1.4	1.6	2.6	2.0	1.5	1.4	2.9	3.8	3.2	7.8	8.0	10.2	8.1	11.0
Government Bonds	2.7	2.0	1.7	2.6	2.4	2.9	3.0	3.2	3.8	4.7	4.7	3.9	7.8	9.5	6.0	6.5	8.3	12.1	10.9
Other	.....	.....	.....	.....	0.0	0.4	1.5	1.4	0.8	0.5	0.3	0.3	0.6	0.8	0.8	0.8	0.5	0.5	0.3
Private Securities	1.3	1.4	2.1	2.1	1.9	1.7	1.8	2.8	3.0	3.5	4.0	5.4	5.5	5.6	3.4	3.8	1.7	3.2	3.6
Stocks	0.8	0.8	1.7	1.7	1.6	1.5	1.6	2.2	2.4	2.9	3.6	5.1	4.5	3.6	2.8	2.8	1.6	3.1	3.6
Asset Backed Securities	.....	.....	.....	.....	.....	.....	0.0	.....	.....	.....	.....	.....	0.8	1.8	0.5	0.9	0.1	0.0	0.0
Other	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.0	0.1	0.1	0.0	0.0
TOTAL	23.1	26.8	31.5	31.1	31.7	31.9	38.6	42.2	39.2	38.3	35.4	40.2	45.7	44.2	50.5	51.7	60.6	63.2	63.7

Notes:

(1) Inflation rate is measured by change in Consumer Price Index

(2) 1980-1985 figures are obtained from Atiyas and Ersel (1991), 1985-1998 figures are obtained from CBoT. The rates for 1985-1998 are 3 month T-bills annually compounded

* Percent share in GNP

PSBR: Public sector borrowing requirement

Sources: Treasury of Turkey; State Institute of Statistics; Denizir, Gultekin & Gultekin (2000)

B. Financial Deepening Ratios

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
M1/GNP	13.9	12.7	13.3	15.0	11	9.7	10.3	11.5	8.8	8.5	7.9	7.4	7.1	6.5	5.9	4.9	6.0	5.4	4.8
M2/GNP	17.4	21.3	25.2	25.0	24.8	24.2	23.8	23.5	21.1	20.5	18.0	18.5	17.3	14.1	16.2	16.0	19.5	19.3	21.3
M2Y/GNP	20.2	26.7	25.9	28.6	28.0	28.2	30.5	32.6	30.3	27.8	24.7	27.4	27.8	24.5	31.7	31.8	37.4	38.0	37.8

of share prices on the Istanbul Stock Exchange. This reflected the fact that the legal and institutional infrastructure for the private securities market was completed in 1986 with the opening of the Istanbul Stock Exchange. The first public offering was conducted in 1988 with the sale of the state's shares in a small telecommunication equipment firm.

Until 1991, the growth rate of outstanding private securities was faster than government bonds. As the public sector deficits got larger, government bonds began to dominate the financial system. We can observe that the relative percentage size of outstanding issues of government debt market to private sector securities was around 58.8%/41.2% to 56.5%/43.5% between the years of 1984 to 1991.

This ratio climbed to 86.1%/13.9% in 1998. Table 3.9 shows the severity of the distortions in the new issues market. Offerings of public securities dominated the financial markets. The relative size of government bond issuances was 94.1/5.9 in 1982. This ratio improved to 76.9/23.1 in 1990 and rose to 94.9/5.1 in 1998. With the newly established stock exchange and tax incentives, the private sector began to issue debt and equity instruments during 1987-1991.

The privatisation programme, while not successful in itself, nevertheless, had a positive effect. The privatisation programme trained a cadre of investment bankers who were familiar with the underwriting process. Initially Corporations took advantage of the changes in the commercial code and tax rules and began to issue rights offerings. Public offerings of common stock became a permanent feature of the securities markets after 1988. By 1998, although the volume of shares increased to historically high levels, their relative share compared to government bonds declined. The Corporate bond issues virtually came to a halt after 1991. Asset backed securities, which were introduced in 1992 to increase the diversity of securities with the amendments to the Capital Market Law, were the largest newly issued securities during 1992 to 1995. By 1998, however, government bonds comprised 94.5% of all new security issues. Common stock issues were 4.6% of new issues and Mutual funds issues comprised 0.4 percentage of the new securities.

Two facts are evident from these observations: Public sector financing requirements created severe distortions in the financial system. The financial

Table 3.9: Primary issues

A. Sales Volume in Trillion TL

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Public Sector			0.3	0.3	1	2	3.3	6	9	17	21	46	150	330	841	1,686	4,625	6,260	14,254
Treasury Bills			0.3	0.1	0.5	1.2	1.8	4	6	8	8	34	76	179	639	1,299	3,464	3,074	9,546
Government Bonds			0.1	0.2	0.2	0.7	1.3	2	4	9	12	12	74	151	203	367	1,161	3,186	4,708
Private Sector			0	0	0.1	0.1	0.2	0.7	1	2	6	7	23	72	85	175	159	377	766
Shares			0	0	0.1	0.1	0.1	0.2	0	1	4	4	5	10	38	51	102	306	697
Bonds			0	0	0	0	0.1	0.3	0	1	1	1	1	1	0	2	1	1	3
Bank Bills			-	-	-	-	-	0.1	0	0	0	1	1	2	2	1	2	10	0
Corporate Papers			-	-	-	-	-	0.1	0	0	0	1	1	1	0	2	3	2	0
Profit & Loss Sharing Cert.			-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
Mutual Fund Part. Cert.			-	-	-	-	-	0	0	0	1	0	0	5	2	4	9	34	56
Asset Backed Securities			-	-	-	-	-	-	-	-	-	-	14	53	42	114	42	23	11
TOTAL			0.3	0.3	1.1	2.2	3.5	6.7	10	19	27	53	172	402	926	1,840	4,785	6,637	15,021

Source: Treasury of Turkey

B. Primary issues as a percentage of total

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Public Sector			94.1	84.9	93.1	94	93.6	89.8	88.7	87.8	76.9	87.2	86.9	82.1	90.9	90.5	96.7	94.3	94.9
Treasury Bills			76.6	23.9	44.7	56.3	51	59.2	50.8	40.3	31.1	65.3	44.1	44.6	69	70.6	72.4	46.3	63.6
Government Bonds			17.6	61	18	31.2	36.2	30.6	37.9	47.5	45.8	21.9	42.8	37.5	21.9	19.9	24.3	48	31.3
Private Sector			5.9	15.1	6.9	6	6.4	10.2	11.3	12.2	23.1	12.8	13.1	17.9	9.1	9.5	3.3	5.7	5.1
Shares			2.7	10.6	5.8	4.5	2.9	2.8	3.6	5.1	15.1	8.5	3.1	2.4	4.1	2.8	2.1	4.6	4.6
Bonds			3.2	4.6	1.1	1.5	2.1	4.8	2.1	3.2	2.8	1.6	0.6	0.2	0.1	0.1	0	0	0
Bank Bills			-	-	-	-	-	1.1	2.4	0.5	1.2	1.4	0.4	0.6	0.2	0.1	0	0.1	0
Corporate Papers			-	-	-	-	-	0.8	2.7	2.5	0.8	1.3	0.6	0.3	0	0.1	0.1	0	0
Profit & Loss Sharing Cert.			-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0
Mutual Fund Part. Cert.			-	-	-	-	-	0.7	0.5	0.9	3.1	0.1	0.1	1.3	0.2	0.2	0.2	0.5	0.4
Asset Backed Securities			-	-	-	-	-	-	-	-	-	-	8.4	13.1	4.6	6.2	0.9	0.3	0.1
TOTAL			100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Treasury of Turkey

Table 3.10: Yields and Return (%)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
YIELDS																			
Savings Deposits ¹	26.5	50	50	42.5	45	55	48	52	83.9	58.8	59.4	72.7	74.2	74.7	95.6	92.3	93.8	96.6	94.8
Government Bonds ²	29	34	34	31.8	43	50.6	51	47	62.4	52.2	48.2	-	-	85	137	108	115	111	106
Treasury Bills ³	28	30.6	33.3	32	51	50.7	51.8	49.1	66.6	59.1	52.3	85.9	94.7	85.8	159.5	132.5	111.8	118.9	118.3
RETURNS																			
Shares ⁴	12	30.4	79.9	110.2	-5.2	46.8	86.5	293.9	-44.4	493.1	46.8	34.2	-8.4	416.5	31.8	46.8	143.8	253.6	-24.7
Nominal Appreciation of US Dollar ⁵	128	61.2	37.1	38.7	61.7	42.1	30	26.4	66.8	47.9	22.8	60.2	64.6	60.5	169.9	54	78	87	71.4
Foreign Exchange Deposits - US Dollar ⁶	-	-	-	-	-	40.4	41.5	44.5	89.2	51.7	34.7	-	73.2	79.3	68.5	181.4	61.6	88.9	100.7
Inflation rate ⁷	110.2	36.6	29.9	31.4	48.4	45	34.6	38.9	73.7	63.3	60.3	66	70.1	66.1	106.3	68	80.4	85.8	84.6
REALIZED REAL RETURNS																			
Real Return of Treasury Bills	-73.9	-16	11	1.9	5.3	12.4	48.3	25.6	-9.5	-6.6	-13.1	29.7	34.6	29.4	49.6	50	38.6	38.1	37
Real Appreciation of US Dollar	17.8	24.6	7.2	7.3	13.3	-2.9	-4.6	-12.5	-6.9	-15.4	-37.5	-5.8	-5.5	-5.6	63.6	-34	-2.4	1.2	-13.2
Return on Shares in US Dollar ⁸	-	-	-	-	-	-	-	257.9	-42.8	13.4	242.5	-39.8	-36.6	64.7	-25.1	26.1	-6	58.2	-7.2

Source: Central Bank of Turkey, Istanbul Stock Exchange

Notes:

1. One year maturity

2. 1980-1990 figures are obtained from Atiyas Ersel (1991), 1990-1998 figures are obtained from Central bank of Turkey

3. 1980-1995 figures are obtained from Atiyas Ersel (1991), 1995-1998 figures are obtained from Central bank of Turkey. The rates between 1985-1998 are 3 month T-Bills annually compounded

4. Shares in Istanbul Stock Exchange, figures from Treasury of Turkey

5. Exchange rate data obtained from Central bank of Turkey

6. Weighted foreign exchange deposit interest rates obtained from Central Bank of Turkey

7. Inflation rate is measured by change in Consumer Price Index

8. Figures are obtained from Istanbul Stock Exchange (1986:100)

system channelled a significant part of funds available for the Turkish economy into the Treasury. The Tax treatment of treasury securities made them difficult to compete with. Table 3.10, which shows the yields and rates of returns on a set of instruments in Turkey reveals that real rates on government bonds were very high¹.

The second observation is about the role of banks in the intermediation process. After the 1982 crisis, the banks became the favoured institutions². Only banks were allowed to be primary dealers in the government bond market. They were also able to underwrite and trade securities, establish and operate mutual funds exclusively until 1992, and to engage in insurance business. Banks became truly universal institutions dominating every aspect of financial activity in the country. They were the prime beneficiaries of the deepening and expansion of the financial system. Effectively, the financial and banking systems have become synonymous in Turkey. They have become sophisticated users of financial technology and products in both domestic and international markets. Likewise they became users of modern information technology delivery channels and upgraded human skills substantially after the financial reforms³.

3.5 Microeconomic Factors: Regulatory and Supervisory Issues

The institutional development of the regulatory and supervisory system did not go hand in hand with the deregulation of the financial sector. The initial reforms in 1980 were launched with minimal regulatory and supervisory capacity and it was only after the crisis of 1982, that serious efforts were made to improve the regulations. The overall system gradually improved but the financial sector functioned with fundamental deficiencies in the regulatory framework. In particular, a combination of a highly generous deposit insurance scheme, the

¹ Tax on government bonds was raised to 10% in 1994.... There are tax advantages for banks as well. Taxes due to interest income from government bonds is payable the next tax year, allowing banks to postpone tax payments for a year. In a high inflationary environment, the effective tax rate is much lower.

² The Central Bank took the leadership in the development of the money markets. The Central Bank was a member of the Banks Association and the governor of the Central Bank was the president of the association until 1994. The relationship between the banks and the Central Bank was reminiscent of a pretentiously exclusive club. As is often the case with such clubs, there is a strong discrimination against the non-members. While the non-bank institutions were smaller in capitalisation than banks, they could have grown if they were allowed in as primary dealers.

³ There was a strong support for financial development from the international organisations. The World Bank provided Financial Sector Adjustment Loans during the early 1980s with a significant component of technical assistance for the Central Bank and the Treasury to strengthen their regulatory functions. OECD also provided funding for the Capital Market Board for technical assistance. An international banking school was established in Istanbul for training. Banks upgraded their own training programmes

bias towards keeping failing banks in the system, and political intervention, deterred prudent behaviour and market discipline.

As could be expected, deficiencies in the regulatory regime have been interacting with the sort of macroeconomic factors considered earlier and these have contributed to the vulnerability of the economy. We will next discuss some of the essential factors affecting incentives, both in banking and capital markets, and point out how they affected the financial structure.

The first point to focus on is the deposit insurance scheme. Explicit deposit insurance was introduced in Turkey in 1983. It was set up following the Kastelli crisis of 1982 and the bail out of depositors during that crisis is a good example of implicit deposit insurance. Following the financial crisis, the liabilities of five banks were taken over by the government, at an estimated cost of about 2.5 percent of GDP in 1982. In the following years until 1994 the system did not encounter serious problems, at least on the surface. However, after the liberalisation of the capital account the banks were able to raise finance from abroad and some engaged in risky strategies, especially the smaller banks that lacked domestic branch networks. In pursuing such strategies, they were clearly encouraged by the monetary and exchange rate policies that the Government had been following and built up large open foreign exchange positions. The proceeds were either invested in government securities or issued as loans to the private sector at high real interest rates with longer maturities. It was estimated that in early 1994, the banking system had open positions which totalled some 120 percent of their capital. The banks did not hedge these positions and when the TL was devalued in early 1994, their capital positions became negative and three banks failed and were closed⁴.

The extent of this instability was such that even large and well-capitalised banks came under pressure. Calm could only be restored when the deposit insurance coverage was extended to 100 percent of deposits. While the authorities did not

⁴ It is also important to describe the role of the commercial banking sector after the shift in the exchange rate regime in 1989. The large interest rate differentials between the foreign borrowing rates and the government debt offered tempting profit margins for the banks; consequently, most banks ran unhedged foreign exchange positions. The aggregate unhedged (or open) position of the banking system was \$2.9 billion (48% of the total capital of the banking system) in 1992, and it went up to \$4.6 billion (68% of capital) in 1993. After the economic crisis of 1994, the banking sector reduced its unhedged position to \$.8 billion (18% of capital). This sudden change in banking policy to close their unhedged position was one of the critical reasons for the run on the reserves that started in January 1994 and resulted in the economic crisis of 1994.

initially assume all of the liabilities of the failed banks, later developments made it clear that they eventually did. The Government compensated depositors as stipulated in the 1983 deposit insurance scheme but foreign creditors of the banks were repaid in full by the Treasury. Although the 100 percent insurance policy has so far helped to stabilise conditions in the banking sector, the fact that it stayed in place for a long time and it is still in effect, encouraged risky behaviour. Large banks believed that such a policy was not creating a level playing field, but given the macroeconomic conditions in Turkey, the policy could not be changed. A comparison of bank deposit rates, particularly those paid on foreign exchange deposits is useful and reveals the extent of risky behaviour. In order to reap the benefits of arbitrage opportunities due to the difference between treasury securities and foreign exchange deposit rates, some banks were offering 20-25 percent for dollar deposits.

Another dimension of this moral hazard is related to connected lending and equity holding by banks in industrial firms. Almost all of the private sector banks belong to family owned industrial groups. Banks can extend loans to group companies within limits that were not rigorously enforced and they are allowed to own equity in companies within the same group. While there maybe some merits to the argument that in an unstable environment like the one in Turkey, it makes sense to lend to group companies, it does not necessarily ensure that credit is used in the most productive way. Nor does it prevent banks from abusing the misuse of deposit insurance. In fact, groups that pursued aggressive growth strategies borrowed heavily from their banks and this has been a well-know problem for years. The crucial issue is that regulations were ineffective in controlling this practice. In the case of lending, for example, the limits to affiliates were double that of the banks capital and for equity holders and related third parties they have been 50 percent of bank capital. These exposures are too high by international standards and it was widely reported in the press that these regulations were sometimes exceeded.

The situation is more serious when one considers the equity investments of banks. Consolidated reporting of equity holding is only required if the commercial bank has 51 percent of the shares of a group company or if it owns the majority of the voting power in one of its subsidiaries. However,

consolidation is not necessary if the bank has a minority position. Thus, a bank can hold equity in a number of group companies without the risks being reported properly. The problems that can develop due to the combination of group lending and shareholding can be very serious as experienced by Turkey recently. In 1999, Interbank, a medium sized bank, was taken over by the deposit insurance fund when it became insolvent. It was subsequently revealed that a large part of its portfolio was to its affiliates and the failed bank had substantial shareholding positions in-group companies.

The cost of this banks failure has so far been almost to US\$2 billion. Suffering from the same problem, five more small banks were taken over by the deposit insurance fund in December 1999. The total costs of these failures could exceed US\$5 billion, or 2.5 percent of GDP, which is indicative of the magnitude and seriousness of the problem. Very much related to the incentives issue is the lack of orderly exit mechanisms for poorly performing banks. While banks whose condition is thought to be weak are put under surveillance by the Treasury with the approval of the economy minister, this does not necessarily punish the banks or force them to exit if they do not restructure themselves. In fact, Article 64 of the Banking Law (1985) reads; "on strengthening financial health", the bank in question is exempt from reserve requirements and the minister is authorised "to take all measures" to improve the condition of the bank including tax breaks. Therefore, banks that were put under article 64 do not have any incentive to improve their condition. In fact, over the years, 15 or so banks have always been under its jurisdiction and removal from the list seems to have been a negotiated process rather than a regulatory decision. In fact, with the exception of crises such as in 1982 and 1994, no single bank was closed on the basis that its financial condition was poor or deteriorating. The IMF, in return for the recent stand-by agreement required the closing of five banks that had been operating under Article 64 for 20 years. In this connection, the importance of the political factors must be emphasised. The banking law assigned excessive discretionary powers to the minister in charge and the removal of weak banks from Article 64 to the bankruptcy process is completely dependent on the approval of the minister and the cabinet. In the case of the banks that failed and were taken over in 1998 and 1999, their problems have

been reported and documented extensively by the banking department of the Treasury. Consequently, risk taking behaviour continued and was almost condoned, consequently problems and costs mounted. Given the above analysis, it is not difficult to see how microeconomic incentives may have affected the financial structure. First, moral hazard has been an environmental factor in Turkey for a long while and it is natural to expect it to have altered the risk/return perceptions of banks and corporations.

Those groups who own banks have fewer incentives to use the equity markets. It is less costly to borrow from the group's banks when there is explicit and implicit deposit insurance. Even if the macroeconomic environment was stable, one could argue that systemic moral hazard may encourage firms to use bank financing as opposed to equity financing. The regulatory system in Turkey failed to establish an effective supervision of lending and equity holding in group companies. Furthermore, it failed to force the exit of weak banks from the system. Such regulatory failure has probably had a negative impact on capital market development as well. Even if there were no moral hazard, regulatory failure would again encourage bank financing because the large conglomerates in Turkey all have banks in their holdings.

CHAPTER IV

THE TURKISH BANKING SYSTEM

4.1 A General Summary

As mentioned earlier, prior to 1980, the Turkish economy was structured as a planned economy. The state agencies played an important role in economic decision making through the government's economic development plans, which dictated strategies for sources of finance and their use. The state had a majority share in almost all areas of economic activity. Consequently prices and interest rates were controlled by the state.

During the late 1970's, the Turkish economy was in the midst of a serious foreign exchange crisis. When inflation climbed to an exceptionally high level,

economic activity stopped due to a lack of foreign currency. Despite the fact that the public sector deficit exceeded 8 percent of GNP, interest rates remained unrealistically low in nominal terms and became negative in real terms due to planned economic regulation which meant that interest rates and exchange rates were determined by the state. Financial markets remained rather small while financial institutions were financially weak and inefficient. The markets were uncompetitive and were not subjected to international banking rules and competition.

The macroeconomic situation in Turkey changed very dramatically after the announcement of the economic stabilization and structural adjustment programmes in 1980. These programmes gave priority to economic growth based on export promotion and to structural reforms including deregulation and liberalization of the financial markets. The programmes eliminated quantitative and price controls and put emphasis on a free market approach, relying on the price mechanism.

Negative real interest rates, barriers to business entry, high intermediation costs, absence of modern financial instruments coupled with quantitative controls on bank balance sheet characterized the financial system prior to the reforms. The financial sector reforms attempted to increase savings and improve the allocational and operational efficiency of the financial system, which was mainly dominated by banks. As capital market instruments were barely existent, the promotion of capital markets emerged as a major objective. The Capital Market Board was established and the Istanbul Stock Exchange was reopened.

In order to strengthen the banking system, substantial changes were made to the Banking Law in 1985. It introduced new requirements regarding capital and problem loans, improved accounting and reporting standards and deposit insurance. Meanwhile, external auditing became mandatory for banks. Finally, there was an important move towards the lifting of the regulatory barriers restricting entry into the banking system which increased the number of banks operating in the market, partly through the establishment of new banks, and partly through the arrival of foreign banks into the market.

Meanwhile, new institutions and reforms were introduced into the system such as the establishment of the TL interbank market and the sale of government bonds by tender. In addition, Turkish residents were allowed to hold foreign exchange deposit accounts, thus attracting unrecorded foreign currency denominated assets to the financial markets. A short time after the reopening of Istanbul Stock Exchange, a secondary market for fixed income securities was set up. The Central Bank started open market operations in 1987. In the following year, the foreign exchange market was established and controls on interest rates were abolished. The year 1989 was milestone for the economy when foreign exchange trading and capital movements were fully liberated. Turkish residents were allowed to invest in foreign securities and to hold foreign currency accounts abroad while non-residents were permitted to invest freely in the Turkish financial markets. The Turkish Lira became convertible with no restrictions on international capital flow. In 1992, an electronic fund transfer system and the Turkish Interbank Clearing system became operational. Enhanced economic performance obtained during the stabilization programme enabled the Central Bank to introduce a monetary programme in 1990 to further ensure price stability and provide long-term predictability.

The economy registered high growth rates during 1981 to 1990 when GNP increased from USD 63 billion to USD 150 billion. Income per capita, in the meantime, increased from USD 1,570 to USD 2,715. The share of industry in GNP increased by 7 percentage points while services remained fairly stable. Foreign trade volume and other external economic relations expanded dramatically. Exports followed a consistent growth path with the promotion of direct tax rebates and other incentives but the abolition of quotas and cuts in tariffs, coupled with high real growth caused a rapid increase in imports. Consequently, the trade deficit widened substantially. However, net invisible revenues and tourism revenues increased dramatically and prevented the current account deficit from growing further. Turkey easily financed its growing current account deficit and built up its foreign currency reserves. Liberalization of capital movements and the growing financial markets had positive impacts on capital inflow. Capital flows, albeit mainly short term funds amounted to USD 10 billion in 1999, increasing from USD 0.7 billion in the early 1980s.

The ratio of domestic savings to GNP was up to 6 percentage points in 1999 compared to the 1980's. Public sector savings improved until 1990 when the public sector deficit to GNP ratio went down to 6 percent from 9 percent in the previous year. All of these changes made a positive contribution to the reorganization and development of the financial sector. Institutional developments and changes in the legislation enabled financial institutions to offer new products. As Table 4.1 indicates, the ratio of M2R (M1+TL time deposits + repos) to GNP increased to 31 percent in 1999 from 15 percent in 1980 and of M2YR (M2+fx deposits) increased to 52 percent from 15 percent.

Table 4.1: Selected Indicators of Financial Sector

		1980	1990	1999
M2R	As per. of GNP	15	17	31
M2YR	As per. of GNP	15	22	52
PSBR/Chg in M2R	Percent	149	131	96
PSBR/Chg in M2YR	Percent	149	131	56
G.securities/M2R	Percent	23	41	85

Source: Turkish Banking Association annual reports

However, chronic inflation remained the major problem in the economy. After declining sharply in the early 1980's, inflation followed an upward trend. This threatened the stability of the economy and had a negative impact on the growth of the financial markets. Political instability and a lack of political determination made the financial reforms incomplete and caused public sector borrowing to widen. Rising inflation together with a growing demand for finance from the public sector brought serious pressure to bear on the financial sector. Interest rates increased while maturities became shorter. In order to ease pressure on domestic resources, both the private and public sectors preferred external borrowing which enabled the governments to sustain domestic demand-led growth at the expense of rising inflation, a widening deficit in the balance of payments and further macroeconomic imbalance. Meanwhile, the

government also borrowed from the Central Bank to finance the public sector deficit.

Macroeconomic instabilities accelerated currency substitution which led to a shrinkage in the financial sector in TL terms, which also put upward pressure on interest rates and shortened maturity structures. The government's objective of lowering interest rates despite worsening inflation and accelerating foreign currency demand compounded by a widening current account deficit, led to a severe crisis in the financial sector in the first quarter of 1994. TL depreciated rapidly, the average rate of inflation increased dramatically, interest rates soared and domestic demand contracted. By the end of 1994, the rate of inflation reached 121 percent, TL depreciated by 170 percent against the USD, interest rates on government securities increased to 190 percent and GNP declined by 26% in USD terms. The Current account was in surplus but capital outflows amounted to USD 4 billion.

The crisis affected the banking system due to a shortage of foreign currency and the heavy investment in government securities. The total assets of banks fell by 28 percent and shareholders' equity declined by 35 percent. During the crisis, there was a substantial withdrawal of deposits from banks due to the panic created by a sharp depreciation of TL and a hike in interest rates. The Government stopped three small sized banks from continuing banking activities and introduced full guarantees to all deposit holders.

The Turkish economy recovered quickly from the crisis of 1994. In the following years, GNP grew in excess of the long-term growth rate of 5 percent while the annual rate of inflation came down to 86 percent, albeit higher than the level before the crisis but significantly less than the peak of 121 percent. The public sector deficit however continued to remain high and put upward pressure on interest rates. One of the main policy changes was the money creation activities of the Central Bank because the Parliament brought a limit on the Bank's direct lending to the government. This had a positive impact on inflationary expectations and encouraged higher demand for TL.

Capital inflows eased the pressures on domestic interest rates and helped the Central Bank to increase liquidity. The foreign currency reserves of the Bank also grew rapidly. In the meantime, TL depreciation was kept in line with the

inflation rate, which led to exports growing faster than imports. It is important to note that, Turkey signed a customs agreement with the EU in 1996. Rapid and steady growth from 1994 onwards had a positive impact on the financial system. However, because there were no dramatic changes in the economic environment, banks continued to widen their currency positions and mismatch maturities. Turkish banks, therefore, continued to operate in a very risky environment and take high risks in order to make profits.

4.2 Features of the Turkish Banking System

The Turkish banking system has traditionally occupied an important position in the financial sector. Therefore, reforms during the 1980's led to substantial changes in both the financial sector and banking system. The Turkish banking system grew very sharply after the 1980's. Table 4.2 shows that the total assets of all banks were USD 132.6 billion in September 1999 compared to USD18.6 billion in 1980 and USD 6 billion in 1970. At the same time, total assets to GNP ratio increased from 43 percent in 1970 to 80 percent in 1980.

Table 4.2: Total Assets of Banking System (USD billion)

	1970	1980	1990	Sept. 1999
Commercial banks	5.2	18.5	52.0	62.0
State-owned banks	3.0	8.0	26.0	5.0
Privately owned banks	2.0	8.0	25.0	36.0
Banks under the Fund*				3.0
Foreign banks	0.2	0.5	1.0	18.0
Inv. and dev. Banks	1.0	2.0	5.0	12.0
Total	6.2	18.5	57.0	74.0
Total (as per. of GNP)	44.0	31.0	43.0	80.0

Source: Turkish Banking Association annual reports

(*) These banks are under Banking Sector Auditing and Regulation Board management after failing to comply with accounting/financial regulations

The restructuring of the economy and the liberal policies supported by legislative changes together with deregulation of the financial system, led to stable and rapid growth in the economy and a rise in the demand for financial services and foreign trade. The reforms also led to an increase in the level of competition in the financial services sector.

Banks gradually adapted themselves to the new conditions and responded to increased levels of competition and deregulation by offering new services and products. Faced with intense competition from foreign banks coming into Turkey in the early 1980s, domestic banks accelerated the modernization of their activities by switching from manual methods to fully computerized systems. Similarly, highly qualified personnel were employed in order to extend the scope of professional services beyond the traditional markets, thereby, enabling them to increase efficiency and diversify their product range. Credit cards and consumer finance expanded quickly and banks simultaneously engaged in capital market transactions thus reducing dependence on interest earning assets.

During this period bank balance sheets were transformed. More selective lending and realistic provisioning policies together with economic expansion helped most banks to reduce their portfolio risks. Meanwhile, profitability ratios improved as a result of investments high yielding government securities. The bank's also increased their involvement in leasing, factoring, and trading in gold. Diversity of activity also encompassed foreign trade activities which increased in line with the increase in foreign trade. Similarly the sources of finance from abroad grew substantially following the liberalization of capital funds. The latter helped banks to grow rapidly and facilitated a reduction in the cost of financing. However, the increase in currency substitution also increased the banks share of foreign currency liabilities and adversely affected their foreign currency positions.

Turkish banks can be classified into two major groups: commercial banks and investment and development banks. By ownership, each group can be put into three subcategories: private-owned, state-owned and foreign banks. Commercial banks operate as universal banks providing traditional depository and lending services, financing foreign trade activities and sustaining capital market services as well as investment banking activities.

Privately owned commercial banks include large commercial banks with nationwide branches and a comprehensive range of services, and small sized banks who concentrate their main activities in the major cities. Recently, however, some small sized banks have tried to increase their share of deposits by

expanding of their branches. Many of the private banks, irrespective of size, are owned by wealthy families and /or industrial groups.

There are four large state-owned commercial banks, who have responsibility for subsidizing some industrial sectors such as agriculture, construction and small-medium size enterprises etc. Although small in number, the state-owned commercial banks occupy a substantial position in the banking system with 45 percent of the total assets. The state-owned banks which are heavily involved in quasi-fiscal activities are not sufficiently reimbursed by the government and, therefore, have low levels of liquidity.

Foreign banks usually operate either with a main branch in Turkey. They are large (13 banks) in number but small in terms of market size with an asset share of only 5 percent. They face the same regulations as domestic banks, and can provide all kinds of banking services but they cannot take deposits.

The 1980 reforms led to a number of important changes in the banking sector. At the aggregate level the size of the banking sector has increased. As shown in Table 4.3, bank assets in relation to GDP have more than doubled, increasing from around 29 percent in 1980 to 64 percent in 1998. Banks are, therefore, still the most important intermediaries in the country.

Public banks still have an important presence in the financial sector. Although their numbers had declined from 8 to 5 by 1998, and their asset share declined by 44 percent, their assets still account for more than one third of the sectors assets. The largest bank is also state owned. These banks support a variety of subsidised lending programmes that in essence are "preferential credits". The continued presence and importance of public banks has been a serious shortcoming of the reform process which aimed to reduce the role of the state in financial markets. Government still uses the state banks to bypass the budgetary process and dictates which sectors will receive "favoured status".

The influx of new banks into Turkey and the freeing of interest rates, resulted in a change in the market share of bank deposits. In general, large banks lost some of their market share and medium sized banks gained. However, the top banks between 1980 and 1998 have kept their dominant positions and despite

Table 4.3: Evolution and Structure of the Banking Sector In Turkey

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total Assets / GNP	28.9	33.8	39.5	42.4	42.5	41.4	46.7	52.5	48.7	44.3	39.8	43.7	47.5	46.6	47.2	50.3	57.5	60	64.7
State Banks	14.3	15.4	18.1	20.5	20.7	19.8	21.9	24.3	23.5	22.8	19.9	20.7	23.1	19.8	20.9	20.5	23.4	21.9	23.7
Private Banks	13.8	17.3	20.1	20.2	19.9	20.1	22.9	26.5	23.3	20	18.4	21.4	22.5	24.8	24.7	28.3	32.2	35.1	38
Foreign Banks	0.9	1.1	1.3	1.7	1.9	1.6	1.9	1.7	1.9	1.5	1.5	1.6	1.9	2	1.6	1.6	1.8	3	3
Total Loans / GNP	15	17.3	17.7	18.2	14.7	16.4	19.6	21.9	18.4	17.2	19.7	17.9	18.4	18.7	17.5	20.6	24.2	25	23.8
State Banks	8	9	8.2	8.6	6.8	7.9	9.5	11.5	10.1	9.4	9.1	8.8	8.9	7.7	7.7	9.1	9.4	9.4	7.6
Private Banks	6.7	8	9.1	9.1	7.4	7.9	9.5	9.7	7.7	7.2	9.8	8.4	8.9	10.4	9.4	11.1	14.3	14.8	15.5
Foreign Banks	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.4	0.4	0.5	0.7	0.8
Total Deposits / GNP	15.2	20.3	24	24.4	26.1	28.2	30.9	32.1	29.7	26.2	24	25.9	27.3	25.6	32.2	30.2	36.2	37.1	35.8
State Banks	5.2	6.5	8.9	9.9	10.9	11.8	12.6	12.8	12.9	12.8	11.6	12	13.8	11.9	14.4	13.1	16	14.8	14.6
Private Banks	9.6	13.3	14.6	14	14.5	15.6	17.2	18.2	15.6	12.6	11.7	13.4	13.1	13.3	17.2	16.3	19.4	21	20.3
Foreign Banks	0.4	0.5	0.5	0.6	0.8	0.8	1.1	1.1	1.1	0.8	0.6	0.5	0.5	0.4	0.6	0.8	0.9	1.3	1
FX Deposits / GNP	0	0	0.2	0.2	2.3	3.3	5	7.5	7.3	6.1	5.7	8.4	10.1	10.5	16.7	16	17.5	18.7	17.2
State Banks	0	0	0.1	0	0.7	1.2	1.9	2.6	2.6	2.3	2.1	3	3.8	3.8	5.7	5.2	4.8	4.5	3.7
Private Banks	0	0	0.1	0.1	1.4	1.8	2.9	4.6	4.4	3.6	3.4	5.2	6.1	6.6	10.6	12.2	12.7	13.5	13
Foreign Banks	0	0	0	0	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.0	0.1
Bank Credit to Private Sector / GNP	12.1	14.4	15.4	15.7	13.2	13.7	16.5	17.4	14.3	13.4	13.9	13.7	15.2	15.6	13	16.3	20.2	23.7	20.1

Source: Banking Association of Turkey

declines in concentration ratios competition seems to have made less of an impact than expected (Aydogan 1993, Denizer 1997).

One of the most important results of the reforms in the sector has been the improvement in human capital and information technology. The entry of foreign banks has been particularly useful in this regard and the number of well-trained personnel has increased. The Turkish banking sector currently employs approximately 165,000 personnel. Turkish banks have also invested in new technologies and this has been a major expense item over recent years. However, this has enabled banks to engage in derivative instruments and by 1998, Turkish banks were among the most sophisticated in the region.

Table 4.4: Number of Banks Operating In Turkey

	1970	1980	1990	Dec.1999
Commercial banks	44	40	46	59
State-owned banks	12	12	8	5
Private banks	27	24	25	36
Foreign banks	5	4	23	18
Inv. & Dev. Banks	2	3	10	12
Total	46	43	66	71

Source: Turkish Banking Association annual reports

There are 71 banks, (see Table 4.4) in Turkey and the total number of branches was 7,476 in 1999. Almost 85 percent of these branches were opened before 1980. However a modest increase continued until 1989 when expansion virtually stopped. After 1994, there has once again been a noticeable increase in branches as small sized banks began to widen their market share, leading to a decline in concentration.

Concentration in the banking system is still high but it has followed a downward trend recently. The state-owned banks, for example, have a high share of the market. There are 2 state-owned banks among the top five in terms of total assets and 5 in the top ten. As measured by total assets the ten largest banks represent 66 percent of total assets, 72 percent of total deposits and 66 percent of total loans. However, following the restructuring efforts to reduce the size of the states involvement in the economy, the share of state-owned banks by total assets has declined. However, the state owned banks share of total deposits has increased.

Deposits are the main source of total assets: 67 percent of the liabilities of commercial banks are composed of deposits. About 75 percent of bank deposits have three-month maturities and half are denominated in foreign currency. Since April 1994, savings deposits have been under the deposit guarantee scheme. A no risk sensitive premium which is 0.25 percent of insured deposits is paid on a quarterly basis and all banks collecting deposits are obliged to have their deposits insured.

The high level of domestic interest rates and tax distortions induced banks to borrow from abroad to finance both loans and government securities. Repos reported in off balance sheet activities have also been an important source of liquidity for banks over recent years. Much of the repos have maturities of less than one-week. The increase in short term repos business offering high returns, is mainly due to the quasi-fiscal burden on liabilities and investors' preferences for short term instruments. Shareholders equity, including revaluation funds and net current yearly income has stabilized at around 10 percent of total assets. Regulation, which is largely based on the BIS requirements, obliges banks to maintain a minimum reserve asset ratio of 8 percent in terms of equity to total weighted assets. As can be seen in Table 4.5, in the case of mainly state-owned banks, free working capital remained fairly low due to heavy investment in fixed assets.

Half of the banking sectors liabilities are in foreign currency because of the emphasis on currency substitution and foreign borrowing. Likewise, half of total assets are denominated in foreign currency either in cash with foreign banks, securities exported by foreign countries or foreign currency loans. Banks also hold large amounts of government securities which provide liquidity via repos etc. Loans, of which around 50 percent are foreign denominated, comprise the majority of total assets, but their share does fluctuate and in 1998, for example, they comprised only 38 percent of total assets. Non-performing loans to total loans is about 7 percent at the present time.

Table 4.5: Selected Balance Sheet Items of Banking System
(As of Sept. 1999 USD billion)

	TL	Fx	Total
Assets			
Liquid asset	21.8	24.6	46.4
Marketable sec.	14.3	8.0	22.3
Loans	20.6	20.8	41.3
Tangible assets	9.1	1.8	10.9
Others	32.1	2.0	34.1
Total	83.6	49.1	132.6
Liabilities			
Deposits	45.1	42.7	87.8
Non- deposit funds	4.6	16.0	20.6
Others	10.8	2.5	13.3
Shareholders' equity	7.4	0.1	7.5
Current year profits	3.4		3.4
Total	71.3	61.3	132.6

Source: Turkish Banking Association annual reports

Banks have valuable fixed assets and equity on their balance sheet and both items are recorded at book value. In 1987, they were allowed to revalue participations, fixed assets and benefit from tax exemptions, provided revaluation funds are added to capital. Notwithstanding the revaluation, there has always been a discrepancy between the actual market value and the book value of equity and fixed assets which has resulted in hidden assets in the balance sheets. The ratio of equity to total assets has remained fairly stable over the last decade, at around 10 percent. The maturity mismatch between bank assets and liabilities is also significant. Assets have typically about 6 to 9 months maturity while liabilities have an average of only 3 months. The main reason behind this mismatch is largely attributable to investments in government securities.

As the short position in foreign currency has been profitable in recent years, banks have taken excessive currency risks and invested in TL. According to earlier legislation, the foreign exchange positions of banks was high, at 50 percent of the capital base. The ratio was later lowered to 20 percent and in

September 1999, the foreign currency position amounted to USD 12 billion, i.e. 9 percent of total assets¹.

Commercial bank profitability continued to improve following the financial reforms, however, it was dependent on fluctuations in the economy and is generally regarded as insufficient when risks and inflation are taken into account. Profitability levels in State owned banks, however, deteriorated due to rising real interest rates, high quasi-fiscal taxes and relatively poorer performance. State-owned banks also tend to be less profitable than their commercial competitors because of their social missions. Indeed, the "average" return on bank assets during the period of 1990-98 was 3 percent compared to 1.2 percent for state-owned banks.

There have been two important developments recently: i) The move to expand operations abroad by opening branch offices or establishing correspondent banks or joint ventures, ii) Rapid growth in off-balance sheet business relative to on balance sheet business due largely to repos, interest rate and foreign currency transactions.

The new banking law in 1999 also needs to be examined. The Undersecretariat of the Treasury, the Central Bank and the Capital Market Board has three main regulatory bodies in the financial sector. The Treasury is responsible for regulation and on site supervision while the banks are responsible for off-site supervision. However, the new Banking Law made the Banking Regulation and the Auditing Institution the regulatory body for the Turkish banking sector.

The rehabilitation of the banking sector was at the top of the agenda for the coalition government that took office in June 1999. The long-awaited new Banking Law was approved by Parliament in June 1999. This new Law aimed to strengthen the banking sector and to improve the levels of supervision in line with international norms by establishing the Banking Regulation and Auditing Institution, which had administrative and financial autonomy. The Board, which is the decision making body of the Institution, consists of seven members and

¹ It is worth mentioning at this stage that these foreign currency short positions were one of the reasons that has deepened the financial crisis in Turkey, one in November 2000 and the other in March 2001. Basically, the real interest between the devaluation of TRL and yields of the government securities was the locomotive of this easy-earned money. However, a financial crisis in emerging markets and a domestic one sparked by a row between the prime minister and the president, forced Turkey to abandon the peg system and let foreign currencies, most importantly USD to free float in the market. In one month, the TRL devalued by 50% and unearthed the weakness of the Turkish banking sector and financial sector. At the time of writing, Turkey was trying to recover from this crisis with a substantial assistance from World Bank.

has been recognized as the sole authority to license (and withdraw the license) of banks, and to decide on the takeover of failing banks by the Savings Deposits Insurance Fund (SDIF).

The new Law is based upon the principles for bank supervision as designed by the Basle Committee. In addition to the minimum amount of capital required for new banks, all banks have to comply with a risk-weighted capital adequacy ratio derived from the Bank of International Settlements (BIS) model².

4.3 Performance of Commercial Banks: Profitability and Efficiency

Available data suggests that since reforms began in 1980, the profitability of the banks has improved. Standard bank profit measures such as return on assets (ROA) and return on equity (ROE) are indicative of this as shown in Table 4.6³.

Even when account is taken of the high rate of inflation in Turkey, the banks are still making positive real profits. However, as mentioned previously, the exception has been the State banks. State banks deliver subsidised credits to certain sectors of the economy and often charge interest rates below their funding costs. Consequently their profitability suffers and they are not fully compensated for this subsidised lending. State banks also carry large amounts of non-performing loans which totalled about US\$12 billion in 1998, i.e. almost 5 percent of Turkey's GDP.

As always, efficiency is harder to measure. Simple measures such as overhead expenses to total assets indicate that the Turkish banking system has high expenses. In 1997, overhead expenses were about 6 percent of total assets, which is high compared to OECD countries. On the other hand, compared to other emerging market economies such as Brazil and Argentina, the Turkish ratios are not out of line. More detailed econometric studies, however, found that efficiency in the system (production efficiency) increased after the reforms (Zaim, 1997).

One other factor that needs to be mentioned is that both the reserve and liquidity requirements have been consistently high in Turkey. During most of the

² While these were being written, Turkey was rocked with an other financial and banking crisis. The interest rates soared up to 6200% while the stock market lost 40% in two days' trading.

³ Profitability data must be treated with caution. Inflation accounting is not required in Turkey and there are problems with the definition of non-performing loans

Table 4.6: Structure of the Commercial Banking Sector in Turkey

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total Assets	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
State Banks	49.3	45.4	45.8	48.4	48.8	47.7	46.9	46.3	48.3	51.4	49.9	47.4	48.7	42.4	44.3	40.7	40.7	36.5	36.7
Private Banks	47.6	51.3	50.9	47.6	46.8	48.4	49	50.5	47.8	45.2	46.3	49	47.4	53.3	52.3	56.2	56.1	58.5	58.7
Foreign Banks	3.1	3.3	3.3	4	4.4	3.8	4	3.3	3.9	3.4	3.8	3.6	3.9	4.3	3.4	3.1	3.2	5	4.6
Total Deposits	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
State Banks	34	32.2	37.3	40.4	41.6	41.9	40.8	39.9	43.5	48.7	48.6	46.1	50.4	46.5	44.6	43.3	44.1	39.9	40.7
Private Banks	63.7	65.4	60.8	57.3	55.4	55.3	55.6	56.6	52.7	48.2	49	51.8	47.8	51.9	53.4	54	53.4	56.7	56.6
Foreign Banks	2.3	2.4	1.9	2.3	3.1	2.7	3.6	3.5	3.8	3.1	2.4	2.1	1.8	1.7	1.9	2.7	2.5	3.4	2.7
Total Loans	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
State Banks	53.4	51.9	46.4	47.2	46.1	48	48.3	52.6	54.7	54.6	46.3	49.3	48.3	41.2	44.3	44.1	38.9	37.7	31.9
Private Banks	44.4	46.1	51.3	50.1	50.4	48.2	48.7	44.5	41.8	41.7	50.1	46.8	48.2	55.6	53.6	53.8	59.1	69.3	64.9
Foreign Banks	2.2	1.9	2.2	2.8	3.5	3.8	3	2.9	3.4	3.7	3.6	3.9	3.5	3.3	2.1	2.1	1.9	3	3.2

Bank Profitability (RoA)¹

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Banks	0.72	0.17	1.41	0.51	2.21	1.93	1.65	1.01	2.92	1.28	0.39	-1.31	-0.58	1.51	0.57	0.2	0.7	0.6	0.7
Private Banks	1.06	1.34	0.68	1.75	3.4	2.95	1.4	2.51	3.87	2.61	3.59	3.49	2.54	2.89	3.1	4.9	4.6	3.8	2.7
Foreign Banks	4.02	0.43	4.91	8.4	9.27	9.36	8.2	7.04	6.07	5.27	3.65	4.94	4.61	4.71	5.56	6.4	5.5	5.7	6

Notes:

1. Nominal profits defined as net income on average assets

Bank Profitability (RoE)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
State Banks	12.2	5.6	24.5	10.2	36.5	33.4	32.4	25.4	40.4	36.8	33.4	11.9	49.8	57.9	-1.2	4	22.1	17.9	20
Private Banks	25.75	35.4	15.2	21.2	39.6	53.4	7.2	16.2	46.4	21.8	42	47.3	40.6	56.5	53.7	77.3	80	69.6	70.8
Foreign Banks	21.3	12.4	21.8	47.4	61.4	66.5	62.4	65.2	64.2	48.45	46.6	83.1	101.8	73.9	171.1	93	78.8	98.5	106.7

Source: Banking Association of Turkey

1980's the required reserve ratios averaged about 16 percent and it was not until 1997 that they were gradually reduced to about 6 percent on TL deposits and 11 percent on FX deposits. However, liquidity requirements, which could be held in the form of treasury securities, were increased from 15 to 30 percent during the 1980s as budget deficits grew. After the mid-1990s, these requirements were reduced and in 1997, this ratio was reduced to 8 percent. High reserve requirements had the effect of encouraging repo transactions at the expense of deposits, as these were exempt from the reserve and liquidity requirements. Tax treatment of deposit interest income also had a distortionary effect. Interest income from deposits is taxable whereas repo income is not. Hence, there has been a bias towards repos as an alternative to deposits, especially in the last couple of years.

4.4 Resource Mobilisation and Allocation:

The analysis of the banking sector so far suggests that reforms enabled banks to compete and mobilise funds domestically and internationally. We also indicated that because of these reforms, banks developed their human capital base by attracting more qualified personnel, and their operations became more sophisticated. Given these positive developments, we now focus on the most important issue: resource mobilisation and allocation. We consider this below and discuss the implications for the financial structure.

4.4.1 Resource Mobilisation

Banks mobilise resources by issuing liabilities and it is, therefore, important to consider post reform changes in bank liabilities, since the reforms, both on and off the balance sheet. The first thing to note is that deregulation allowed banks to move from non-price competition, i.e. the establishment of large branch networks and other forms of non-price related customer service, to price competition. While, as explained in the previous section, interest rate deregulation could not be fully achieved until 1989, the interest rate policy followed by the Central Bank gave banks a large degree of freedom to determine their own rates. Consequently, banks were able to attract new deposits which increased accordingly. As shown in Table 4.6, total deposits doubled from 14 percent of GDP in 1986 to 35.8 percent in 1998. In terms of the balance sheet, the deposit to total liabilities ratio also increased from 49 percent

to about 65 percent. Also, there has been a marked change in the composition of deposits. FX deposits steadily increased and by 1998, half of total deposits were in foreign currencies. This was a direct result of the macroeconomic factors discussed earlier and is indicative of the lack of confidence in the Turkish currency. While deposits almost doubled, relative to GDP, in comparison to other countries, Turkey's ratio is low which suggests there is still more to be achieved in this aspect of financial development. During this period deposit maturities also shortened. In the 1990s most deposits (both foreign exchange and local currency deposits) shifted to 1-3 months maturities, reflecting the liquidity preference of the public given the volatile environment. The next largest change was the amount of foreign liabilities booked to non-residents. From being almost negligible in 1980, they increased to almost 14 percent in 1994.

As shown in Table 4.7, banks increased their capital base from 1986 to 1990 and since then it has remained fairly constant. Once again, however, there are important differences between state and private banks. While capital relative to total liabilities declined in state banks, it increased for both the private and foreign banks.

Off-balance sheet business has also become increasingly important for Turkish banks. In fact, it has grown faster than the on balance sheet business and by 1998 it had reached about US\$105 billion, almost as large as the sectors on balance sheet business. The off balance sheet items comprised guarantees and warranties, foreign exchange and interest rate derivatives and repos. However not all of this off-balance sheet business creates resources that can be used for investment. For example, guarantees and warranties, which are the largest item, only generate fee income and they can create losses for the banks if their guarantees are called upon. In most cases, guarantees were in respect of large industrial groups' borrowings and amounted to USD 29 billion in 1997. Repos on the other hand enable banks to collect funds either from the public or corporations, that can be invested elsewhere. Due to reserve requirement exemptions and tax advantages, as explained, above repos became good substitutes for deposits and have accordingly grown very rapidly in recent years, from USD8 billion to almost USD25 billion in 1998. It is estimated that

Table 4.7: Structure of Liabilities According to Bank Groups (%)

	1959-64	1965-70	1971-75	1976-80	1981-85	1986-90	1991-98
Overall Banking Sector							
Deposits	41.1	38.7	51.7	47.5	58.1	58.1	61.3
Non-Deposit Funds	3.9	8.9	9.3	7.7	12.9	18.7	17.9
Other Liabilities	38.8	41.6	30.5	39.8	20.5	14.3	11.8
Shareholders' Equity + Income	16.2	10.9	8.6	4.9	8.5	9	9
Private Banks							
Deposits	76.5	77.3	83.5	70.2	75.8	69.3	64.4
Non-Deposit Funds	0	0	0	0	7.7	9.5	14.8
Other Liabilities	15.8	17.3	12.1	26.6	10.3	11.7	10
Shareholders' Equity + Income	7.7	5.4	4.5	3.2	6.1	9.5	10.8
State-Owned Banks							
Deposits	28.3	31.2	43	39.5	50.6	58.3	70.1
Non-Deposit Funds	3.6	1.7	0.5	0.4	11.8	18.3	12.4
Other Liabilities	47.3	52.8	44.6	54	28.7	15.9	11.4
Shareholders' Equity + Income	20.9	14.2	11.9	6.1	8.9	7.6	6
Foreign Banks							
Deposits	53	55.7	67.1	46.5	40.7	56	34.7
Non-Deposit Funds	0	0	0	0	22.4	13.5	27.6
Other Liabilities	40.1	38.7	28.5	49.5	26.8	19.2	14.8
Shareholders' Equity + Income	7	5.6	4.4	4	10.1	11.3	12.4
Development and Investment Banks							
Deposits	0.6	0.9	0.6	2.3	0.5	0	0
Non-Deposit Funds	59.4	45.4	60.3	57.8	50.7	69.1	68.9
Other Liabilities	29.7	43.3	30	32.7	28.2	17.9	19.9
Shareholders' Equity + Income	10.3	10.4	9.1	7.2	20.7	12.9	11.2

Source: Banking Association of Turkey

USD15 billion of this was used for investing in treasury securities. Once again this development is closely related to the macro environment and indicates the public preference for short-term liquid assets when they invest in the Turkish Lira assets. It is also possible for Turkish banks to sell foreign exchange for future delivery. The available data shows FX and interest rate derivatives transactions increased from virtually zero in the late 1980's to about US\$32 billion at the end of 1997.

4.4.2 Resource Allocation

Banks allocate their funds in a variety of ways as discussed above, for example, by investing in loans, government securities, other financial institutions, fixed assets, private companies, and the acquisition of assets abroad. In an undistorted system, resources should flow to the productive sectors, which yield the highest returns. Table 4.8 provides some basic data from bank balance sheets since 1980. A number of interesting facts clearly stand out. The first is that the lending activity of banks has declined over the years. In 1980, about half of bank assets were made up of loans; but by 1998, this percentage had declined to about 40 percent. As already indicated state banks distribute credits to privileged sectors, such as, agriculture and small businesses and these sort of credits accounted for more than 20 percent of total bank lending. If the data is adjusted for this privileged lending then bank credit as a percentage of assets would be about 34 percent, a level which has been fairly consistent for a number of years.

The distribution of credits suggests that more than 80 percent of bank loans were used for working capital or pre-export needs. The maturity structure of loans also confirms that most loans financed trade and activities of a short-term nature. The maturities of loans, like deposits, are typically less than one year and this reduces the risks for banks, but deprives businesses of funds for fixed investment. Available data suggest that bank loans for fixed investment could be as low as 5 percent of total lending. Among the classified assets of the Turkish banks, securities are the next largest item on the balance sheet after loans. Data shows that this asset, which is mostly made up of government paper, has steadily increased since 1984 and by 1998 it was almost 10 percent of total bank assets. If off-balance sheet government and other securities were

Table 4.8: Asset Structure According to Bank Groups (%)

	1959-64	1965-70	1971-75	1976-80	1981-85	1986-90	1991-98
Overall Banking Sector							
Liquid Assets	22.5	19.8	24.3	29.5	31.8	36.3	36.7
Credits	47.9	53.9	55.9	55	46.5	44.1	42
Tangible Assets	14	10.7	8.9	5.5	5.2	7.9	7.6
Other Assets	15.6	15.6	11	10	16.4	11.7	13.7
Private Banks							
Liquid Assets	45	42.8	41.7	45.7	41	44.2	41.4
Credits	38.4	44.8	48.7	45.7	43.5	38.3	40.7
Tangible Assets	9	7.1	5.5	4.4	5.9	8.1	7.1
Other Assets	7.7	5.4	4	4.1	9.6	9.4	11
State-Owned Banks							
Liquid Assets	12.4	12.6	17.2	20.7	26.4	32.1	32.4
Credits	51.6	51.9	50.4	53.1	45.3	46.1	40.6
Tangible Assets	17.9	16.6	14.3	8.5	5.4	8.1	9
Other Assets	18.1	18.9	18.1	17.8	23.1	13.7	18
Foreign Banks							
Liquid Assets	49.2	40.7	38.2	47.2	42	48.4	51.8
Credits	43.3	46.6	51.6	38.7	31.4	38.5	27
Tangible Assets	2.4	3.3	3.3	2.3	2.1	3	3.5
Other Assets	5.1	9.4	7	11.9	24.4	10.2	7.3
Development and Investment Banks							
Liquid Assets	8.6	3.1	2.4	2.3	2.3	12.5	17.4
Credits	63	77	90.8	83.6	83.6	66.8	64.7
Tangible Assets	4.6	0.6	1.1	1.3	1.3	7.6	5.3
Other Assets	23.7	19.3	5.8	12.7	12.7	13.2	12.6

Source: Banking Association of Turkey

added to the total then slightly more than 20 percent of assets would be in securities. Inter-bank deposits also increased during the 1980s and 1990s. In 1980, less than 1 percent of assets were classified as due from banks but by 1998 this percentage was more than 10 percent. It is also worthwhile noting that the foreign assets of the banking sector increased during 1980 –1997 and until 1997 they exceeded foreign liabilities.

The analysis of the resource mobilisation and allocation process clearly shows the effects of the macroeconomic environment and the regulatory changes discussed earlier. Concerning resource mobilisation two observations need to be made. First, the analysis suggests that after the reforms banks significantly improved their capabilities to raise resources. By 1998, banks, in relation to their balance sheets and GDP had more resources than in the pre-1980 period and in this sense reforms were successful. However, the deposit and non-deposit sources that banks mobilised have been very short term and maturity transformation by the sector has been limited.

With respect to resource allocation, it is clear from the analysis that the poor economic environment and the regulatory framework limited the effect of the reforms. Bank portfolios shifted from lending to the corporate sector to the financing of the government. Liquid asset shares, interbank deposits and treasury securities, have increased while the share of loans to total assets declined. By 1998, banks were holding about 90 percent of the debt of the government and 70 percent of domestic debt. This is an indication of the extent and magnitude of the crowding-out of the private sector. This also influenced the financial structure in general in so much as it altered the composition of the stock of financial assets and deterred the private sector from investing in alternative assets.

4.5 Conclusions

The last attempt of the Turkish government to deflate the economy started in early 1998. The publication of the authorities' Memorandum of Economic Policies, under the Staff Monitored Programme, in July 1998 provided a positive boost to the deflationary efforts of the government. The new government has embarked on a strong program designed to free Turkey from high inflationary pressures and restore macroeconomic balance within a period of three years.

This programme which aimed at reducing inflation to a single figure, rests on three main pillars: fiscal adjustment, structural reforms, and a firm exchange rate policy supported by an incomes policy. Within the context of the structural reform agenda, important initial steps were taken to change banking regulation and to strengthen the financial structure of the banking sector.

The experiences of Turkey suggest that financial liberalisation without macroeconomic stabilisation and a proper regulatory structure does not necessarily lead to an efficient allocation of resources. Financial liberalisation and the development of the financial markets are not themselves responsible for the distortions described so far. Markets respond to the incentive structure, whether they are distorted or not. The public sector in Turkey embarked upon the financial reforms with the intention of paving the way for more efficient allocation of resources in the economy. However, because it was unable to establish fiscal discipline, it ended up creating serious distortions and this resulted in a misallocation of resources. Ironically a larger and more capable financial system accentuated the impact of the distortions.

Another finding was that following the reforms there was further financial deepening, albeit less than other countries comparable to Turkey. Gultekin et al (2000) found that there were improvements in the resource mobilisation capacity of the banking sector. The level of both deposit and non-deposit sources in bank balance sheets and GDP all increased. External borrowing became increasingly important but resource allocation did not improve. Bank loans to total assets stagnated in the 1980s and declined in the 1990s. Bank portfolios shifted towards liquid government securities and most lending was short term, which meant that banks were financing short term-activities. The major reason for this was the attractiveness of government securities issued to finance the deficits. From a macroeconomic point of view, banks and the private sector had significant incentives to lend to the government.

In addition there were major regulatory problems. The regulatory structure could not enforce existing banking laws but there was explicit and implicit support for a bank based system. Following the crisis of 1994, the deposit insurance scheme was raised to 100 percent and this introduced a serious moral hazard problem. Poorly performing and failing banks were kept in the system and this

did not encourage large industrial groups, which owned these banks, to enter the capital markets and raise funds. Industrial groups make up at least half of Turkey's GDP and their ability to finance their activities in the banking sector had a serious impact on the financial structure.

The volatile macroeconomic environment also restricted capital market development. While capitalisation has increased over time and the stock of outstanding securities to GDP showed large increases, government securities dominated the capital markets. Primary issues by corporations have been minimal and capital markets have not been a significant source of funds for the capital sector. By 1988, government bonds accounted for almost 95 percent of all new security issues, while common stock issues was about 5 percent. However, corporate bond issues virtually came to a halt after 1991. Most of the trading on the Istanbul Stock exchange was therefore in government securities. The cost of their financial distortions in the Turkish economy has been high. Capital formation, capital productivity, and output growth have been slower and more volatile than in comparable economies in the last two decades. For a country that needs to catch up with more advanced economies, the current structure diverts resources away from those firms with growth potential. This is most applicable to young and growing firms who have restricted access to credit.

CHAPTER V

RESULTS OF FINANCIAL LIBERALISATION

5.1 The Real Economy

5.1.1 Savings

One major component of the McKinnon-Shaw line of thought is the hypothesis that the flow of savings is positively affected by the real interest rate. This controversial hypothesis opposes the theoretical ambiguity between the net effect of substitution and the income effects arising from a change in the interest rates¹. A Summary of the findings is made by Fry who is one of the major proponents of the McKinnon-Shaw view: "Those investigators looking for

¹ See end of section for a brief discussion of financial liberalisation and its effects (in the Appendix section)

interest sensitivity find it, while those expecting no influence find none. What is agreed, however, is that if the effect exists at all it is relatively small" (1978).

The results of most empirical studies in a number of different developing countries indicates that the effect of real interest rates on savings is insignificant. In addition, in some of these studies, the coefficients on real interest rates are positive, whereas in others they are negative, thereby weakening the stance of the McKinnon-Shaw hypothesis. Some recent examples of these studies include De Melo and Tybout (1986) on Uruguay, Warmanand Thirlwall (1994) on Mexico, Oshikoya (1992) on Kenya, Hanna (1994) on Indonesia, Schmidt Hebbel, Webb and Corsetti (1992) on a cross section of 10 countries, Khatkate (1988) on a cross section of 64 countries and Giovanni (1985) on a cross section of 64 countries².

In an earlier study, Fry (1978) reported, on a pool of seven Asian countries over the period 1962-1972, and claimed that expected real interest rates exert a positive and significant effect on saving. However, Giovannini (1985) questions these results and shows that two observations from Korea (which corresponds to the post liberalisation years of 1967 and 1968) exert an unproportional effect on the coefficients. Moreover, when they are excluded from the sample, the coefficient of real interest rates is no longer significant. Giovannini (1985) also reported on the results of a larger sample which incorporated the same seven countries (including Korea 1967-1968) examined by Fry and found the coefficient to be insignificant and also negative.

What has been the Turkish experience? Table 5.1 provides information on savings in Turkey in the pre- and post-liberalisation periods³. At first sight, Table 5.1 shows that stagnation in private savings (as a ratio of GNP) – which started to fall in the late 1970s economic crises- continued until 1985 when it started to recover. There is a marked jump in the ratio in 1987 from 11.3% to

² There are a number of difficulties associated with the empirical estimation of saving functions. These include different definitions of saving, data availability, different calculation methods of saving in different countries.

³ In 1991, the State Institute of Statistics (SIS) started a new GNP series. Later the series was extended until 1987. In some cases we need a longer GNP series for comparison. The old GNP series reported, in such cases, for the post-1991 period, are calculated by extending the 1990 old-series GNP figure by the growth rates of new series. The old series, in fact, goes until 1993 but after 1990, instead of being computed independently, the GNP figure for 1990 of the old series was raised by the growth rates of the new series. However, the corresponding consumption and savings figures are not calculated by the SIS.

Table 5.1 : Savings (%)

Savings - Data Set	1970-1976	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Domestic Saving Ratio (<i>old GNP series</i>)	21.1	18.0	18.6	15.9	16.2	16.5	18.9	21.9	24.1	26.3	23.4	23.7									
Private Saving Ratio (<i>old GNP series</i>)	13.0	10.6	9.5	7.6	8.4	9.6	9.1	11.3	15.6	17.5	17.1	19.1									
Public Saving Ratio (<i>old GNP series</i>)	7.8	5.4	9.1	8.3	7.8	6.9	9.8	10.6	8.5	8.8	6.3	4.6									
Domestic Saving Ratio (<i>new GNP series</i>)									23.9	27.2	22.1	22.0	21.4	21.6	22.7	23.1	22.1	19.8	21.3	23.1	19.8
Private Saving Ratio (<i>new GNP series</i>)									17.3	20.4	17.2	18.6	20.6	21.9	24.5	24.8	22.1	21.5	20.5	25.0	26.2
Public Saving Ratio (<i>new GNP series</i>)									8.5	6.8	4.9	3.4	0.6	-1.0	-2.7	-1.8	-0.1	-1.7	1.0	-1.9	-6.4

(1) Values are percentage ratio to GNP series. Old GNP series between 1970 and 1987, new GNP series between 1987 and 1999.

(2) Source: State Planning Organisation

15.6%¹. At the turn of the decade, the private savings rate doubled compared to its levels in the first half of the decade and it was also considerably higher than the average rate in 1975-1976. Private savings rates derived from the new GNP series steadily increased from 17% in 1987 to 22% in 1992 and 24.8% in 1994. However, the ratio fell back to 20% in 1997 but then increased to 26.6% in 1999. This variable pattern is supported by the total volume of deposits which increased from 32.4% in 1995 to 54.5% in 1999. It is also interesting to note that during the same period, interest rates declined, suggesting that there is not a positive relationship between savings and interest rates.

The trend for public savings was the opposite to that of private savings. The public sector saving rates remained at relatively high (positive) levels until 1988. The memo item on the new GNP series in Table 5.1 for the post 1990 period shows that after 1988, the public savings rate started to decline, and turned negative in 1992. The ratio then remained negative and peaked at -6.4% in 1999. Consequently, the surplus of savings over investments in the private sector started to finance the public sector deficit². This is a critical issue and will be further discussed later.

Combining private and public savings, domestic savings as a ratio to GNP started to rise after 1986, exceeding the low levels recorded in the first half of the 1980s. The savings rate in 1990 was about 2.5% higher than the average rate in 1970-76. The savings rate corresponding to the new GNP series, which can be seen from the memo item of Graph 5.2, indicates that savings rates fell after 1990, with the exception of 1994 which witnessed a major economic and financial crisis. Between 1994 and 1999, the ratio retained its tendency for moderate decline, increased slightly in 1997 and 1998 but dropped down to the 1996 level in 1999. Overall, therefore, there was a slight increase in the savings rate after liberalisation.

This raises the question as to whether the slight increase in the savings rate after 1980 reflected the financial liberalisation programmes. In other words, does the Turkish experience support the McKinnon-Shaw hypothesis? As it is

¹ In real terms, private saving grew by 45% in 1987. This growth seems to be too high to be explained by the economic situation in 1987 and probably there is a calculation error, although in interviews with authorities they insisted the figure was correct.

² Note that the Turkish data for the private sector includes both households and the corporate sector.

difficult to disentangle the effects of other economic variables on savings, it would be problematic to derive a definitive conclusion from the partial analysis made above. As will be seen later in this section, econometric evidence yields ambiguous conclusions regarding the effect of interest rates on the private savings rate in Turkey in the post-liberalisation period. However, before an exposition of the empirical results, a few points need to be mentioned about the analysis of savings after liberalisation. First of all, liberalisation had already raised real interest rates by the first half of the 1980s but private sector savings actually fell in 1983 and did not surpass the 1979 level until 1987. In addition, 1980 and 1981 were the "banker years" where real interest rates were much higher than the official bank rates. Thus, if it is real interest rates which triggered private saving, there should have been at least some sign of increased saving in the pre-1985 period.

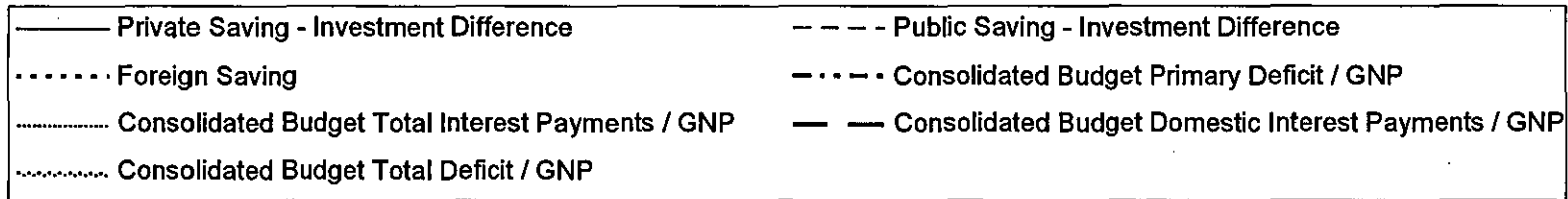
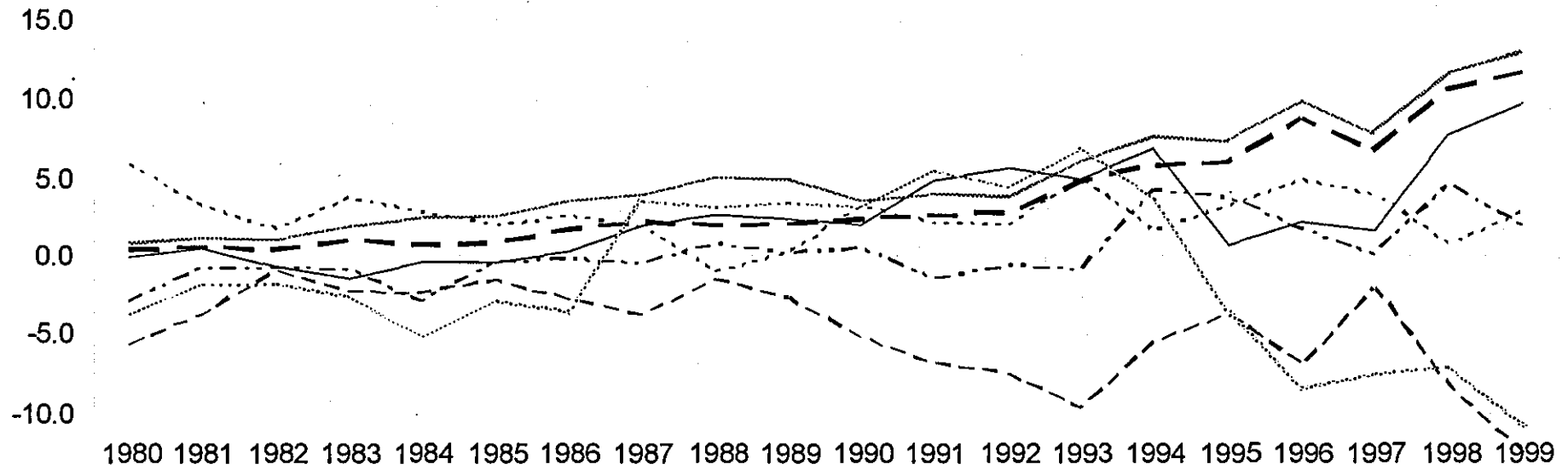
Secondly, the savings rate figures, irrespective of whether they are expressed as a ratio to GNP or private disposable income, are very erratic. In 1987, for example, the official figure for private savings recorded a 45% increase in real terms. This translated into an increase in the private saving rate of 4.3% from 11.3% to 15.6%. The real GNP growth rate that year was only 7% and such an increase is, therefore hard to explain solely in economic terms.

Finally, the increase in the savings rate in the post-1980 period may well be a continuation of the trend that started after 1950. Indeed, the national savings rate had increased from 9.2% in 1950 to 12.7% in 1960 and reached an average value of 21.2% in 1970-76 period.

The econometric evidence presented in studies on savings in Turkey is not conclusive. Onis and Riedel (1993) find a positive and statistically significant relation between savings and the real after tax deposit rate for the period 1965-1986. They use the ratio of real private savings to real private disposable income as the dependent variable.

Fry (1978) found a positive relationship between the real interest rate and national savings for 1957-1977. As an extension of Fry (1978), Rittenberg (1988) regressed the ratio of national savings to GDP on the real deposit rate for 1961-1985. These findings suggest that the effect of the real interest rate on savings is statistically insignificant. However, when dummy variables taking the

Graph 5.2: Private and public sector savings-investment balance



value of 1 (for the post-liberalisation period) are included the coefficient of the real interest rate becomes significant. Rittenberg also found a significant coefficient for the real interest rates for the ratio of private saving to disposable income.

Uygur (1993) found that the interest elasticity coefficient was insignificant. He used national savings and the real after tax deposit rate for the periods 1965-1990, 1969-1990 and 1971-1990. He also found that the ratio of total time deposits to GNP has a negative coefficient and interprets this as a negative wealth effect on savings.

The results of empirical studies on interest elasticity of savings in Turkey, thus, do not provide any definitive conclusions. One point that stands out in these studies however is that the level of income is consistently significant.

5.1.2 Public sector savings behaviour and the interaction with private savings

An important development after liberalisation was the increased public sector borrowing requirement (PSBR). The PSBR/GNP ratio increased from 2.8% in 1986 to 9.7% in 1993. In the 1994 crisis, it dropped back to 5.5% but then increased to 7.0% in 1996 and to 12.6% in 1999.

In order to explain the increase in PSBR we must consider that it is equivalent to the difference between public sector savings (defined as public revenues minus current expenditures minus transfers) and public sector investments. At first glance one would suspect that public investments are responsible for increases in PSBR. However, public sector investments stayed constant at around 10-12% of GNP during the period 1975-1993 (except for two outliers). In addition, investment levels declined to 5.8% of GNP between 1994 and 1999. Hence, it can be concluded that public investments did not play a role in increased PSBR except for the two outlier years of 1986 and 1987.

Financial liberalisation had been an important factor in increasing PSBR via increased borrowing costs¹ which raised current expenditure and reduced public sector savings² (see graph 5.1). In other words, a direct effect of financial

¹ The other major reason was increased personnel expenditures after 1989.

² See Snowden (1996) and Dornbusch and Reynolds (1989) on the possible effects of liberalisation on budget balance.

liberalisation on the public sector balance was to increase its borrowing costs. An inability to increase revenue also kept PSBR growing and effectively turned the situation into a vicious cycle.

The process was accelerated by the monetary programme of the Central Bank which was unofficially implemented in 1989 but officially introduced in 1990. The deterioration in the public sector balance accelerated after 1990 as can be seen in Table 5.3. The programme effectively limited the part of the deficit financed by the Central Bank in an attempt to keep monetary expansion under control. This forced the Treasury to increase its borrowing and pushed up interest rates continuously after 1990. In fact, the initial impact of the monetary programme on total interest payments (and thus the public sector balance) was through increased borrowing costs. However, increased public sector borrowing also began to push up interest rates as seen in Table 5.3³.

The ratio of primary deficit (non-interest deficit) to GNP in the government's consolidated balance sheet (which constitutes about three quarters of public sector revenue and expenditure) was below 1% in the period of 1981-1987 but showed surpluses in 1988-1990. Since 1990 the ratio has shown negative values with the exception of 1994 and 1998. The deterioration in the public sector balance is a sign of the continuing increase in interest payments. The ratio of total interest payments (domestic and external borrowing) to GNP rose from 1.2% in 1981 to 4.8% in 1989. Likewise the ratio was 7.5% in 1994, 9.9% in 1996 and 12.9% in 1999 the ratio of interest expenditures on domestic borrowing to GNP rose from 0.6% in 1981 to 2.1% in 1989. The acceleration came after 1985, the year when the auction system for government securities and the liberalisation programme were introduced. The ratio increased to 1.7% in 1986 and continued increasing throughout the 1990s reflecting increased personal expenditure.

The above discussion centres around the effect financial liberalisation had on the public sector's balance in terms of increased PSBR. An important related question is how was the growing PSBR financed? The earlier discussion on private savings shows that the private sector (household plus the corporate

³ It is worth noting that elections and Gulf War played a further role in the deterioration of the public sector balance in 1991.

Table 5.3 : Interest rates and financial yields

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
DEPOSITS																
3-Month Nominal	NA	45.5	38.7	35.0	49.1	53.5	47.8	62.8	68.6	64.6	87.8	79.5	79.7	83.2	82.9	72.3
3-Month Real	NA	6.7	10.7	-9.8	-9.3	0.6	-2.1	4.5	13.4	6.4	-1.9					
6-Month Nominal	49.3	51.2	44.8	38.1	55.6	56.3	49.8	63.9	69.4	69.3	88.8	83.3	84.6	91.5	86.0	69.0
6-Month Real	3.8	9.4	14.6	-8.6	-6.8	-0.1	-2.8	1.6	9.3	6.0	-7.5					
12-Month Nominal	45.0	50.1	50.6	43.3	70.2	65.8	57.5	66.2	73.8	74.8	102.6	91.3	93.8	96.6	95.5	72.2
12-Month Real	-3.1	4.1	15.6	-7.6	-2.9	0.9	-1.8	-3.1	4.7	2.2	-10.2					
GOVERNMENT PAPER																
3-Month Nominal	NA	NA	43.6	42.8	55.6	49.6	47.6	68.4	74.4	70.7	102.4			NA	86.4	NA
3-Month Real	NA	NA	15.7	-3.2	-3.9	-2.9	-2.3	97.0	19.2	12.1	10.4					
6-Month Nominal	NA	NA	49.6	45.2	57.8	53.0	49.0	69.0	74.0	73.0	113.0			107.7	96.1	86.0
6-Month Real	NA	NA	19.2	-3.1	-5.2	-2.6	-3.4	5.5	13.1	8.9	8.6					
12-Month Nominal	43.0	50.6	51.0	47.0	62.4	58.3	51.9	72.1	75.4	86.4	118.7			118.8	99.4	NA
12-Month Real	-4.5	4.4	15.5	-5.2	-7.3	-3.7	-5.3	0.4	5.7	8.9	-3.0					
CORPORATE BONDS																
12-Month Nominal	NA	NA	55.3	53.7	74.6	72.0	62.0	76.8	80.7	84.9	117.3					
12-Month Real	NA	NA	18.8	-0.9	-0.3	4.7	1.0	3.1	8.8	8.1	-3.6					
ISE ANNUAL RETURNS																
Nominal	NA	NA	70.9	294.0	-44.0	493.0	46.0	34.0	-9.0	416.0	32.0	50.0	140.0	70.0	-20.0	480.0
Real	NA	NA	30.8	154.0	-68.0	260.9	-9.0	-21.8	-45.2	201.6	-41.5	-34.0	62.0	14.0	-80.0	232.0

Shorter maturities will be compounded

Source: Capital Markets Board, The Central Bank, The Treasury

sector) ran a growing surplus of savings over investments after 1985, the de facto start of the liberalisation. Thus the private sector financed the government's growing deficit¹.

The mechanism behind this crowding out phenomenon, was at first, favourable interest rates on government paper with low risk compared to other financial and real assets. In addition to the tax advantages of government paper a number of regulations regarding reserve ratios and liquidity requirements encouraged banks to hold an increased amount of government securities². In general, therefore, the private sector financed the public sector deficit.

5.1.3 Private Investment

From the aggregated private investment figures, it can be concluded that liberalisation did not cause the increase in private investments as suggested by the McKinnon-Shaw hypothesis. The relative stagnation in private sector investments, combined with the relative increase in private savings suggests that the private sector financed the public sector deficit. The ratio of private investments to GNP stayed in the range of 11-13% in the period of 1968-1979. In the 1980-90 period, the investment ratio was on average about 10.9% whereas it was 11.7% in the 1970-76 period (see Table 5.4). The new GNP series show that, on average, the private investments/GNP ratio increased in the period of 1990-94. The average private investments/GNP ratio was 15.7% in 1987-1990 and 17.4% in 1990-1994. The same ratio for the period 1995-1999 was 18.9%, representing a further increase over the 1990-1994 period.

The major reason for the stagnation of private investments between 1980-1994 in spite of increased private savings, was the high real yields on financial assets which reduced the attractiveness of physical investments. Theoretically, the yield on financial assets and physical assets should be equalised after

¹ Snowden (1996) shows, in the context of a simple model, that increases in primary (non-interest) budget deficit and nominal interest have a direct reduction effect on the growth rate of bank lending to the private sector. On the other hand, if the government opts to increase monetisation, than this will likely lead to a rise in the nominal interest rates and thus, again the growth of bank lending to private agents will decrease. Though the model assumes, for simplicity, that the government borrows only from the banks, the main conclusions of the exercise are general to security issues as well.

² The reserve ratios were lowered after 1980 while liquidity ratios were gradually raised. Liquidity requirements forced banks to hold government paper. However, generally speaking banks hold government paper in excess of the requirements due to mentioned high yields on government paper. One source estimated that banks' voluntary holdings of government securities amounted to 13.7% at the end of 1990 and went up as much as 18.5% in 1991 (Akkurt et al 1992). All this shifted the interest expenditure burden from the Central Bank which used to pay interest on bank reserves to the Treasury, of course with an amplification factor.

Table 5.4: Investment

Investment - Data Set	1970-1976	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total Investment Ratio(<i>old GNP series</i>)	21.1	19.7	19.0	18.0	18.8	17.9	20.0	23.1	24.0	24.0	22.3	22.4									
Private Sector Investment (<i>old GNP series</i>)	9.0	9.3	7.9	8.0	8.3	8.2	8.4	9.8	11.2	12.6	12.2	12.7									
Public Sector Investment Ratio(<i>old GNP series</i>)	11.7	10.4	11.0	9.9	10.5	9.7	11.6	13.3	12.8	11.4	10.1	9.7									
Total Investment Ratio(<i>new GNP series</i>)									24.6	26.1	22.5	22.8	23.5	22.8	25.3	24.2	25.3	24.6	25.1	23.8	22.7
Private Sector Investment Ratio(<i>new GNP series</i>)									14.7	17.3	15.0	15.7	16.1	15.5	18.4	18.4	19.8	20.0	20.4	18.4	16.0
Public Sector Investment Ratio(<i>new GNP series</i>)									9.8	8.8	7.5	6.9	7.4	7.3	6.9	4.8	5.5	4.6	5.1	5.4	6.7

(1) Values are percentage ratio to GNP series. Old GNP series between 1970 and 1987, new GNP series between 1987 and 1999.

(2) Source: State Planning

controlling for risk. However, in Turkey's case, the growing borrowing needs of the public sector introduced a wedge between the returns on financial and physical or tangible assets.

In addition to the relatively higher yields in the financial sector, a growing literature base investigates the effect of policy uncertainty and politics on investment. In particular, Conway (1991) and Ozler and Rodrik (1992) show that uncertainty in relative prices has a negative impact on private investment decisions. This may explain why the investment ratio increased in the second half of the 1990s, when there was political stability and economic growth.

5.1.4 The composition of private investments

The post 1980 period witnessed sharp changes in the composition of private investments. The major trend was a decline in two of the three productive sectors (manufacturing, agriculture and mining) and the share of productive investment in total private investment fell from 48.5% in 1981 to 33.6% in 1990.

The share of private manufacturing investments which remained at around 40-44% in the 1970-76 period fell to 33-35% in 1981-86. In the 1986-1989 period, it further to a low of 21.2% in 1989 and in 1990, it recovered and reached 27.5%. The trend in agricultural investment was similar: from a range of 10-12% in 1970-76 and 12-13% in 1981-1985, it then started to fall after 1985 eventually declining to 4.9% in 1990.

The decline in productive sector investments coincided with a rise in housing construction and tourism investment. Housing investment had been around 27-36% of total private investment in 1970-76 and started to rise during the crisis years of 1978 and 1979. (35.9% and 43.8% respectively). In the 1981-1984 period it fell and stayed at around 28%. However after 1984, it started to rise again, reaching 50% in 1989. In the 1990s, it has remained above 40%. The share of tourism investment also went up from 0.8% in 1981 to 6.2% in 1990.

In short, the effect of financial liberalisation on overall private investment relative to GNP was not decisively positive. However, there have been important changes in the composition of private investment, mainly in the form of a reduction in the share of the productive sectors in favour of housing construction and tourism.

5.1.5 Growth performance of the Economy

The growth of the economy in the post liberalisation period, similarly, does not fully support the McKinnon-Shaw hypothesis. It can be seen in Table 5.5 that, excluding the crisis years of 1977-1980 and 1994, the average annual growth rate of the economy in the 1963-1976 period was 6.9%; markedly higher than the average rate during 1981-1993. Relatively lower growth rates in the post – 1980 period compared, to the pre-liberalisation, years are also evident when sub-periods are observed. For example, if we disregard the 1981-1985 period and take 1986 as the fully fledged starting year of liberalisation, the average growth rate during 1986-1993 was lower than that of the 1963-1969 and the 1970-1976 period. However, the period after 1994 is typified by significantly higher growth rates with an average of 6.78%.

Table 5.5 : Interest rates and financial yields

	1963-1969	1970-1976	1977-1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
% Real Growth Rate	6.4	7.4	1.3	4.8	3.1	4.2	7.1	4.3	6.8	8.8	1.5	1.6	9.4	0.3	6.4	8.1	-0.1	8.0	7.1	8.3	3.8	-2.0
	Pre-Liberalisation			Post-Liberalisation																		

5.2 The Financial Markets

5.2.1 Interest rates

The level of deposit interest rates after liberalisation has already been explained. Table 5.5 presents the nominal and ex-post real interest rates for deposits and government paper, together with the returns on the Istanbul Stock Exchange Index. One point that immediately attracts attention is the high borrowing costs of the public sector. Nominal interest rates on government paper has been periodically close to and at times higher than the bank deposit interest rates. Given the relative high risk of deposits and their unfavourable tax treatment, one would expect bank deposit rates be higher than interest rates on government securities.

The wedge between the average interest on corporate bonds and government paper perhaps give a better measure of risk return characteristics. This wedge

gets smaller after 1990 and turns negative in 1993 and 1994, again indicating an irrational risk return structure.

Interest rates on credit increased rapidly after liberalisation in 1980. However, in contrast to deposit interest rates, the government did not intervene in the post liberalisation period. Consequently, the effective nominal costs for bank borrowers was above 80% in the post liberalisation period.

5.2.2 Bank deposits

The share of Foreign Exchange Deposits (FED) to total deposits (including CDs) became increasingly important after 1983. Zaim (1995) found that in considering deposit and credit outputs, financial liberalisation increased technical and allocative efficiency in commercial banking. The ratio for total deposits to GNP increased from 22.2% in 1982 to a peak of 29.3% in 1987. Between 1988 and 1993 it remained above 24.9% except for 1990 and 1993. The ratio averaged 25.3% in the 1982-94 period, some 7% greater than the 1968-77 period when the around was only 18.5%. However, after the crisis in 1994, the ratio soared to average 41.9% for the remainder of the decade.

The main driving force behind this increase was foreign exchange deposits (FED). The ratio of FED to GNP went up from 2.3% in 1984 to 7.4% in 1990 making FED one of the largest components of deposits and also indicating a growing tendency for currency substitution.

Another important development was the increased share of time deposits in total deposits. This was triggered by differences between sight and time deposit interest rates. The share of time deposits in household saving went up from 43% in 1980 and 69% in 1981 to over 80% after 1984. Similarly, the share of the denominated time deposits increased from 27% in 1980 and 47.6% in 1981 to over 60% after 1984.

The overall conclusion is that total deposits in relation to GNP increased by an average of 7% after liberalisation compared to 1970-76. Though this increase cannot be ignored, the ratio is still relatively low. However, liberalisation was instrumental in attracting funds to the banking sector and extending the term structure of deposits.

5.2.3 Credits

The ratio of bank credits (which here includes commercial banks and the Development Finance Institutions –DFIs) to GNP averaged 20.1% during the 1982-1994 period. This represented a 2% increase compared to the 1968-1976 period. Thus after liberalisation, credit supply increased relative to the size of GNP. However this increase was quite small compared to that of total deposits.

Moreover, the ratio of medium and long term credits to GNP showed a drastic fall from above 5% in 1981 –1984 to 2.5% in 1993. About half of the total medium and long term credits were extended by the DFIs which also provided short term working capital credits. Total medium and long term credits extended by the commercial banks was therefore slightly in excess of 1% of GNP.

Bank participations in corporations, which is another kind of term finance, became relatively more important. The ratio of participations to GNP rose from 0.9% in 1982 to 1.1% in 1983 and 1.5 in 1987. The trend however was partially reversed after 1990 and the ratio fell to 0.9% in 1993 and 1994. However, given the decline in medium and long term credits, the relative importance of participations increased.

In general, credit in relation to GNP slightly increased but term finance followed a declining trend throughout the decade. It can thus be concluded that financial liberalisation, so far as bank lending was concerned, did not improve the financing of private investments. Consistent with this conclusion, Atiyas and Ersel (1992) argued that corporate reliance on internal funds did not change after liberalisation.

CHAPTER VI

STOCK MARKET DEVELOPMENT REFLECTIONS ON ISTANBUL STOCK EXCHANGE

6.1 Introduction

One of the most enduring debates in economics is whether financial development causes economic growth or whether it is a consequence of increased economic activity. Historically, economists have focused on banks. Walter Bagehot (1873) and Joseph Schumpeter (1912) emphasize the critical importance of the banking system in economic growth and highlight circumstances when banks can actively spur innovation and future growth by identifying and funding productive investments. In contrast, Robert E. Lucas (1988) states that economists 'badly overstress' the role of the financial system, and Joan Robinson (1952) argues that banks respond passively to economic growth ("where enterprise leads finance follows"). Empirically, Robert G. King and Ross Levine (1993a) show that the level of financial intermediation is a good predictor of long-run rates of economic growth, capital accumulation, and productivity improvements (see Filer et.al., 2000; Levine and Zervos, 2001).

Ever since the pioneering contributions of Gurley and Shaw (1955, 1967), McKinnon (1973) and Shaw (1973), the relationship between financial development and economic growth has been an important topic of debate. Numerous studies have dealt with different aspects of this relationship at both the theoretical and empirical levels. The broadest division of a financial system is between financial intermediaries (banks, insurance companies, and pension funds) and capital markets (bond and stock markets). A large part of an economy's savings is intermediated towards productive investments through financial intermediaries and capital markets. Since the rate of capital accumulation is a fundamental determinant of long-term growth, an efficient financial system is essential for a economic development.

Earlier research emphasized the role of the banking sector in economic growth. In the past decade, however, the stock markets have grown in importance. Recent research has, accordingly, begun to focus on the linkages between the stock markets and economic development. New theoretical work shows how stock market development might boost long-term economic growth, and empirical evidence appears to support this view. For example, Demirguc-Kunt and Levine (1996a), Singh (1997), and Levine and Zervos (1998, 2001) find that stock market development plays an important role in determining future economic growth. The World Bank Economic Review also dedicates its May 1996 issue to the role of stock markets in economic growth.

It is by now widely recognized that a well functioning comprehensive financial system is crucial to economic growth. The question as to what exactly determines stock market development is, therefore, important. However, surprisingly, inadequate amount of academic work has been undertaken in this area.

Traditionally, the view has been taken that indirect finance through financial intermediaries is more important than direct finance through the capital markets, especially in developing countries. Therefore, most existing literature focuses on the contributions of financial intermediaries to economic growth. Numerous empirical tests have shown that a number of financial variables have an important impact on economic growth. However, most of the evidence uses bank-based measures of financial development, such as, the ratio of liquid

liabilities to GDP or the ratio of domestic credit to the private sector divided to GDP etc. Not until recently has emphasis increasingly shifted to stock market indicators, for example, Atje and Jovanovic (1993) test the hypothesis that stock markets have a positive impact on economic growth and performance. They found significant correlations between economic growth and the value of stock market trading relative to GDP for 40 countries over the period 1980-88. Similarly, Levine and Zervos (1996, 1998) and Singh (1997) showed that stock market development is strongly and positively related to long-run economic growth.

In another study, Levine and Zervos (2001) studied the empirical relationship between various measures of stock market development, banking development, and long-run economic growth. They find that, even after controlling for many factors associated with growth, stock market liquidity and banking development are both positively and robustly correlated with contemporaneous and future rates of economic growth, capital accumulation, and productivity growth. "This result is consistent with the view that a greater ability to trade ownership of an economy's productive technologies facilitates efficient resource allocation, physical capital formation, and faster economic growth. Furthermore, since measures of stock market liquidity and banking development both enter the growth regressions significantly, the findings suggest that banks provided different financial services from those provided by stock markets. Thus, to understand the relationship between the financial system and long-run growth more comprehensively, we need theories in which both stock markets and banks arise and develop simultaneously while providing different bundles of financial services to the economy. They find no support for the contentions that stock market liquidity, international capital market integration, or stock return volatility reduce private saving rates or hinder long-run growth" (Levine and Zervos, 2001)

Existing models suggest that stock market development is a multifaceted concept, involving issues of market size, liquidity, volatility, concentration, integration with world capital markets and institutional development¹. Using data on 44 developed and emerging markets from 1986 to 1993, Demirguc-Kunt and

¹ This section has been cited from Valeriano F Garcia and Lin Liu, 2001, Macroeconomic determinants of stock market development, Michigan University

Levine (1996a) found that large stock markets are more liquid, less volatile, and more internationally integrated than smaller markets.

Furthermore, institutionally developed markets with strong information disclosure laws, international accounting standards, and unrestricted capital flows are larger and more liquid. Theory also points out a rich array of channels through which stock markets may be linked to economic growth. For example, Pagano (1993) showed the increased risk-sharing benefits from larger stock markets through market externalities, while Levine (1991) and Bencivenga, Smith, and Starr (1995) showed that stock markets may affect economic activity through the creation of liquidity. Similarly, Devereux and Smith (1994) and Obstfeld (1994) showed that risk diversification through internationally integrated stock markets is another method through which stock markets can affect economic growth. Theorists have also examined stock return volatility. For example, DeLong et.al. (1989) argue that excess volatility in the stock market can hinder investment, and therefore economic growth.

6.2 Stock Market Development and Economic Growth¹

There is an expanding theoretical literature on the links between stock markets and long-run growth, but very little empirical evidence on this subject exists. Levine (1991) and Valerie R. Bencivenga, Bruce D. Smith, and Ross M. Starr (1995) derive models where more liquid stock markets -- markets where it is less expensive to trade equities -- reduce the disincentives to investing in long duration projects because investors can easily sell their stake in the project if they need their savings before the project matures. Enhanced liquidity, therefore, facilitates investment in longer-run, higher-return projects that boost productivity growth. Similarly, Michael B. Devereux and Gregor W. Smith (1994) and Maurice Obstfeld (1994) show that greater international risk-sharing through internationally integrated stock markets induces a portfolio shift from safe, low-return investments to high-return investments, thereby accelerating productivity growth. These liquidity and risk models, however, also imply that greater liquidity and international capital market integration ambiguously affect saving rates. In fact, higher returns and better risk-sharing may induce saving rates to fall enough such that overall growth slows with more liquid and internationally integrated financial markets. Moreover, theoretical debate exists

about whether greater stock market liquidity actually encourages a shift to higher-return projects that stimulate productivity growth. Since more liquidity makes it easier to sell shares, some argue that more liquidity reduces the incentives of shareholders to undertake the costly task of monitoring managers (Andrei Shleifer and Robert W. Vishny 1986; and Amar Bhidé 1993). In turn, weaker corporate governance impedes effective resource allocation and slows productivity growth. Thus, theoretical debate persists over the links between economic growth and the functioning of stock markets (Levine and Zervos, 2001).

The academic literature does not provide a unique concept of stock market development to guide empirical research. Nevertheless, there are some general conditions: the size of the banking system, the amount of credit going to private firms, the size of non-bank financial institutions, and the size of private insurance and pension companies. (Demirgüç-Kunt and Levine 1996. p.291-337; Korojczyk, 1996. p. 267-289).

Broadly speaking, stock exchanges are expected to accelerate economic growth by several possible mechanisms. Among these are:

1. The fact that a more developed equity market may provide liquidity that lowers the cost of the foreign capital essential for development, especially in low-income countries that cannot generate sufficient domestic savings.
2. The role of equity markets in providing proper incentives for managers to make investment decisions that affect firm value over a longer time period than the managers' employment horizons through equity-based compensation schemes.
3. The ability of equity markets to generate information about the innovative activity of entrepreneurs (King and Levine, 1993b) or the aggregate state of technology.
4. The role of equity markets in providing portfolio diversification, enabling individual firms to engage in specialized production, with resulting efficiency gains.

5. The fact that diverse equity ownership creates a constituency for political stability, which, in turn, promotes growth (Filer et al 2000).

As mentioned above, Levine (1991) and Benchivenga, Smith and Starr (1996) emphasize the positive role of liquidity provided by stock exchanges on the size of new real asset investments through common stock financing. Investors are more easily persuaded to invest in common stocks, when there is little doubt on their marketability in stock exchanges. This, in turn, motivates corporations to go to public when they need more finance to invest in capital goods. Although some contrary opinions do exist regarding the impact of liquidity on the volume of savings, arguing that the desire for a higher level of liquidity works against propensity to save (Benchivenga and Smith, 1991), (Japelli and Pagano 1994), such arguments are not well supported by empirical evidence.

In addition, stock prices determined in exchanges, and other publicly available information help investors make better investment decisions. Better investment decisions by investors mean better allocation of funds among corporations and, as a result, a higher rate of economic growth. In efficient capital markets, prices already reflect all available information, and this reduces the need for expensive and painstaking efforts to obtain additional information (Stiglitz 1994).

Stock markets are places where corporate control mechanism is at work. As the economic performance of corporations is reflected in, and measured by, stock prices, corporate managers would try hard to minimize agency problems and to maximize shareholders' wealth. In a market economy the link between corporate profits and economic growth is quite obvious. Stock exchanges are also expected to increase the amount of savings channelled to corporate sector. Some evidence can be found in the work of Greenwood and Jovanovich (1990).

Another important contribution of stock exchanges to economic growth is through global risk diversification opportunities they offer. Saint-Paul (1992), Deveraux and Smith (1994) and Obstfeld (1994) argue quite plausibly that opportunities for risk reduction through global diversification make high-risk-high return domestic and international projects viable, and, consequently, allocate savings between investment opportunities more efficiently. Whether global diversification might reduce the rate of domestic savings (Deveraux and Smith 1994) seems to be a weak argument as it is not convincingly evidenced.

One empirical research investigating causal relationships between stock exchanges and economic growth belongs to Levine and Zervos (1998). Using cross-country data for 47 countries from 1976-93, Levine and Zervos found that stock market liquidity is positively and significantly correlated with current and future rates of economic growth, even after controlling for economic and political factors. They also found that measures of both stock market liquidity and banking development significantly predict future rates of economic growth. They concluded, therefore, that stock markets provide important but crucially different types of financial services compared to banks. One of the financial deepening indicators used in the analysis was the level of development of stock exchange measured by a composite index combining volume, liquidity and diversification indicators. Economic growth indicator selected, on the other hand, was the real growth rate in per capita GDP. Levine and Zervos reported a very strong positive correlation between stock market development and economic growth. The most interesting aspect of this study was the decrease in the statistical significance of other financial deepening variables after stock market development index was included in regression equation. According to the authors this was the proof that stock market development was more influential than other financial deepening indicators on the growth of the economy².

Using data from 44 industrial and developing countries from 1976 to 1993, Demirguc-Kunt and Levine (1996a) investigated the relationships between stock market development and financial intermediary development as well. They found that countries with better-developed stock markets also had better-developed financial intermediaries. Accordingly, they concluded that stock market development goes hand-in-hand with financial intermediary development.

All of these studies face a number of potential problems. In particular, they must deal with issues of causality and unmeasured cross-country heterogeneity in factors such as savings rates that may cause both higher growth rates and greater financial-sector development (see Caselli et. al., 1996).

² As mentioned earlier, devising an indicator for stock market development is not an easy task at all. Ideally, such an indicator should simultaneously reflect liquidity, volume of transactions, informational efficiency, degree of concentration, volatility, depth, legal and institutional and other factors that determine the overall performance of a stock exchange.

A more difficult question arises with respect to whether the forward-looking nature of stock prices could be driving apparent causality between stock markets and growth. Current stock market prices should represent the present discounted value of future profits. In an efficient equity market, future growth rates will, therefore, be reflected in initial prices. This argues for using turnover (sales over market capitalization) as the primary measure of development, thereby purging the spurious causality effect because higher prices in anticipation of greater growth would affect both the numerator and the denominator of the ratio (Filer et al, 2000).

Other studies on this topic include Thornton (1995) who analyzes 22 developing economies with mixed results although for some countries there was evidence that financial deepening promoted growth. Luintel and Khan (1999) study 10 developing economies and find bi-directional causality between financial development and economic growth in all the sample countries. Spears (1991) reports that in the early stages of development financial intermediation induced economic growth. According to the International Federation of Stock Exchanges some exchanges count as turnover only transactions that pass through their trading systems while others include off-market transactions subject to supervision by the market authority. In addition some sources compute turnover as annual sales over market capitalization averaged over the past twelve months, while others use the average of monthly sales to monthly market capitalization. In Sub-Saharan Africa, while Ahmed and Ansari (1998) report similar results for three major South-Asian economies. Demetriades and Hussain (1996) report "very little evidence that finance is a leading sector in the process of economic growth" in a sample of 10 countries, while Neusser and Kugler (1998) report that financial sector is not playing an importance. Finally, Rousseau and Wachtel (2000) analyze 47 economies and report that greater financial sector development leads to increased economic activity (Filer et al, 2000).

In summary, empirical research has suggested a possible connection between stock market development and economic growth, but is far from definitive. Although the relationship postulated is a causal one, most empirical studies have addressed causality obliquely, if at all. Moreover, most studies have not

adequately dealt with the fact that efficient markets should incorporate expected future growth into current period prices (Filer et al 2000).

On the contrary, Filer et al (2000), in their study, find that there is little relationship between stock market activity and future economic growth, especially for the lower income countries in their sample and there is evidence that stock market activity does cause appreciation in currency rates. The results of this research suggest that, while a developed equity market may play several roles in a modern economy, none of these appear to be essential for economic growth. Where such a market does not exist alternative channels appear to be equally effective (or ineffective) in allocating capital in growth promoting ways.

In the light of these discussions, the establishment of Istanbul Stock Exchange (ISE) in 1986, and the large momentum it has gained since then, has provoked considerable academic curiosity about the causal relationships between ISE and the country's economic growth. Nevertheless, the topics tackled and subjects chosen to investigate failed to go in detail, both in terms of content and context. In addition, the stock market performances are only temporary unless there are positive and stable developments in the main economic indicators. In order to get the desired performance from the capital and stock market, it is necessary to stabilise basic economic indicators by reducing inflation and interest rates, and decreasing budget deficits, which were all lacking in Turkish case.

6.3 Turkish Stock Market Development

6.3.1 Some History

The Capital Market Act numbered 2499 was passed in 1981 and marked the birth of Turkey's modern stock exchange. Subsequently, the Capital Market Act was established with the aim of regulating floatation and supervising other stock market operations. Turkey applied an outward-looking economic model after 1980 and introduced measure to increase efficiency of allocation and operation in the financial sector. In the period 1981-1983, priority was given to the control of inflation and the promotion of exports. However, emphasis was placed on deregulation and this resulted in the bankers' crises of 1982. In order to resolve some of the emerging problems, independent external auditors put legislative

arrangements into operation to provide supervision of banks and other intermediaries. In the second period of financial deregulation (1984-1987) institutional arrangements took place. Priority was given to financial markets, rules were fixed, and regulatory and supervisory bodies were defined. The period 1988-1991 was seen as period of "fatigue" (Toprak, 1992. p. 217) and it was recognised that there was a clear need to make new arrangements for the capital markets, which were showing rapid development. A review was accordingly made in the 2499th and the 3797th Acts of 1981 and 1987.

The objectives of these arrangements, which aimed to promote the development of capital markets, can be summarised as follow: The main objective was to provide sufficient funds to finance company investments because of the inadequate resources of banks. Secondly, they aim to encourage the public to take part in the management of some companies by participating in IPOs; Thirdly, to provide less expensive funds through the selling of bonds; another aim was to widen industrial ownership by allowing sales of stocks and shares and so to encourage companies to increase their investment by the funds they raised by these IPOs. For the general risks associated with the markets, these regulations tried to avoid the risks associated with short term money markets. Other aims include providing wider participation of the public in the economic development process through the investment of savings into the securities; to pass legislation in order to protect the rights and benefits of savers, and to ensure the safe and efficient working of the capital market; to allow residents in Turkey to buy and sell stocks, and deposit them in foreign countries irrespective of the foreign exchange rate; to allow Turkish residents to buy/sell securities on the Turkish stock exchange through banks and other intermediaries operating in accordance with the Capital Market Act and finally, to deregulate credits provided from abroad by Turkish nationals, and the opening of foreign deposit accounts by Turkish banks.

6.3.2 Istanbul Stock Exchange (IMKB)

Generally, the exchange of securities in Turkey has taken place at the Istanbul Stock Exchange Market (IMKB) which started operations at the end of January 1986. Turkey is one of ten financial markets classified as 'emerging' by the

International Finance Corporation (IFC) (Demirgüç-Kunt and Maksimovic, 1996). It also stands out as the most rapidly developing market in the World (Demirguc-Kunt and Levine, 1996).

While the number of firms quoted on the stock market was originally 848, the number increased rapidly, and peaked at 1,305 in November 1993, before coming down to 285 at the end of 1999.

The banking sector has a large share of total operations in the IMKB. Banks have an "oppressive" superiority compared to other financial institutions and controlled very large amounts of funds after 1980. The market capitalisation value of the IMKB was TRL 938 million in 1983 but it had increased dramatically to TRL 114,271 million by 1999³.

In terms of securities, the government dominated the market with increasing Treasury bills and bond issuance. The government has increasingly turned towards internal resources as a result of the decline in tax revenues over recent years. The inadequacy of savings to meet government budget deficits has also been responsible for the Government's dominance of the Stock Exchange. Consequently, the share of public sector involvement on the exchange increased. The private sector predominantly sells private securities, common stock, mortgage bonds, participation certificates and various other bonds. While the involvement of the public sector has increased over the last few years, the involvement of the private sector has fallen below 10 %.

In terms of the primary capital market it has been described as "crawling market" up until now. Securities are limited except for public securities. Current shares have been concentrated on a few large firms and the ownership of firms has not spread to the private sector. Public securities comprise the most important part of new shares sold in the market and this has led to "crowding" in the financial markets.

The IMKB is not big enough in terms of capitalisation value to match the World's stock markets but it has performed adequately, particularly, in 1993 and 1997. The most important structural problem, however, has been its high volatility compared to other stock markets.

³ After the 2000 and 2001 crisis in Turkey, half of this level have slid away.

The Istanbul Stock Exchange Market became a member of the FIBV (Federation Internationale Des Bourses De Valuers) in 1992. After one year of preparation, the market became a member of SEC (the United States Securities and Exchange Commission) and was confirmed as an offshore securities market. These developments are important in terms of the IMKB's future potential to develop into an international market.

6.3.3 IMKB and Economic Growth: Empirical Findings

There are two recent pieces of research (Durukan, 1999; and Saltoglu and Gunes, 1999) which analyse the general econometric relationship between stock market development and economic growth in Turkey. Saltoglu and Gunes' (1999) analysis used a Vector Autoregression methodology, which is generally regarded as better and far superior econometric technique than the Ordinary Least Squares used by Durukan.

Saltoglu and Gunes (1999) analyzed the relationship between the IMKB and the money supply (M1, M2 and M2Y), the rate of inflation, the return on Treasury bills, Interbank interest rates, TRL\US Dollar and TRL\ Deutsche Mark foreign exchange rates, the production index, GNP and total exports.

After a detailed analysis their findings were not that surprising: except for the M2Y money supply, they failed to find a statistically significant relationship between the stock market and the other variables. In addition, there are two other results, which are worth mentioning. First of all, they failed to find any support for the argument that IMKB values, capitalization value and trading volume, can be used to predict future growth rates of GNP. More interestingly, they find that the IMKB did not have a statistically significant relationship with the other markets. Hence, their general conclusion was that the IMKB is not an integral part of the domestic economy, let alone the international one. They argued that this is not sui generis to the IMKB and claimed that this finding explains why the Turkish financial and economic policies failed, because the financial system is not effectively transforming and transferring these policies. Secondly, regarding the level of development in the IMKB, they found that the market was much thinner than they had originally thought and also criticized the institutionalisation level of the IMKB. This was also addressed by Durukan

(1999). In essence, they argue that the IMKB is a "daily trading market" with little or no macro or microeconomic.

It is also worth noting that the relationship between the monthly industrial production index of the State Statistical Institution and the IMKB index has been weak. This means that the Istanbul Stock Exchange Market does not reflect developments in the productive sectors. The demand for capital finance which developed in Turkey has been largely directed by demand oriented incentives and a lack of supply oriented incentives has led to periodic surges in the IMKB. This has prevented the market from deepening and has led to speculative increases from time to time, leading to questions of efficiency and volatility of the IMKB.

Another recent study is carried out by Karamustafa and Kucukkale (2002) who investigated whether current economic activities in Turkey have explanatory power over stock returns, or not. In their study, the relationships between share returns and selected macroeconomic variables have been examined for the Turkish case. Monthly data covers the period of 1990- 2001. Selected macroeconomic variables were Money Supply (M1), US Dollar Exchange Rate, Trade Balance, and Industrial Production Index. They have also used monthly stock price indexes of Istanbul Stock Exchange Engel- Granger and Johansen- Juselius co-integration tests and Granger Causality test were used in the study to explain the long-run relations among variables questioned. Their findings illustrated that stock returns is co-integrated with a set of macroeconomic variables by providing a direct long-run equilibrium relation. However, the macroeconomic variables are not the leading indicators for the stock returns, because any causal relation from macroeconomic variables to the stock returns could not determined in sample period. Contrarily, stock returns are the leading indicator for the macroeconomic performance for the Turkish case by supporting emerging market issues (Karamustafa and Kucukkale, 2002).

That is to say share returns can be explained by the changing macroeconomic performance. Obtained VAR results indicate that there are cointegration relations between ISE and the other economical variables. The causality test results, however, show that ISE is not the result variable of current economic activities. Controversially, ISE is cause variable for M1. While the studies made

for developed markets [Fama (1991), Geske and Roll (1983), etc.] determine a relation directed from macroeconomic performance to share returns, the same relation could not be determined for the Turkish case. As indicated in Kwon and Shin (1999), however, share returns cannot be affected by macroeconomic fluctuations in emerging markets of Europe and South Asia. In this respect, the Turkish case can be included in the second group, namely "emerging market". Additionally, it can be said that the shareholders in ISE have completely different investment patterns from the shareholders in developed markets (Karamustafa and Kucukkale, 2002).

6.3.3.1 The issue of efficiency and volatility⁴

The theory of rational or informationally efficient stock markets developed by neoclassical economics has been extensively tested for about a quarter century⁵. Although there has been recent increase in empirical research regarding informational efficiency of emerging stock markets, a quick review of the literature of this field shows that resources seem to be primarily devoted to investigate developed markets. Since emerging markets may offer valuable opportunities for diversification beyond national borders, it has some merit to undertake further research concerning developing markets.

The empirical results of Balaban, Candemir and Kunter (1996) show for the first time that the Turkish stock market is not informationally efficient with respect to daily changes in some monetary variables. Put differently, aggregate stock prices in Turkey do not fully reflect publicly available information employed. In addition, their results are consistent with the previous research findings, which report inefficiency with respect to monthly data (see, for example, Muradoglu and Önkal (1992), and Muradoglu and Metin (1995)).

These results have two major implications. First, investors can at least have a chance to develop profitable trading strategies by using anticipated and unanticipated changes in the information variables as long as the reported inefficiencies remain in the market. In other words, under the theory of financial

4 This section is based on the study by Balaban, E., Candemir, B., Kunter K in 1996 titled "Stock market efficiency in a developing economy: evidence from Turkey", The Central Bank of the Republic of Turkey Research department discussion paper no: 9612

5 For excellent surveys of efficient markets hypothesis from different perspectives, see, among others, Summers (1986), Merton (1987), Ball (1989), Fama (1991) and van Hulle et al. (1993).

interior decorator, it may be possible for investment professionals to construct portfolios in accordance with investors' preferences and tolerance for risk. The same also applies to foreign investors who have already full access to the Turkish stock market. Note that foreign investors hold approximately 25% of total tradable shares in Turkey. It is expected that foreign portfolio holdings as well as direct investments in Turkey increase in the near future. Even though the inefficiencies may die as time passes, new ones emerge in a country with a highly inflationary developing economy. If potential researchers pursue academic success rather than financial success emphasized by Merton (1987), any inefficiencies can be made publicly available as soon as they are detected.

The second implication is that resources in Turkey do not seem to be devoted their best alternatives available. In other words, Turkish stock market has not been successful enough to channel scarce funds into their best productive areas. Thus, allocative efficiency appears to remain unachieved. This may make stock market policies questionable in resource allocation in developing countries. The results Balaban, Candemir and Kunter (1996) can be extended in several ways. Within a nonexhaustive list, a fruitful area of research can be to test whether the reported results are valid for individual stocks and portfolios. Another useful investigation can be subperiod analysis of the findings of the present paper. Finally, different methodology can be employed to check whether the reported inefficiencies are valid.

6.3.3.2 Institutional Development and integration of the IMKB⁶

Istanbul stock exchange is by far the most liquid and largest stock exchange in the Middle East and North Africa and among the top in Eastern Europe. Besides its regional dominance, ISE is also quite volatile. For example, after rising by more than 200% in US dollar terms in 1993, it has lost almost half of its entire value in 1994. Indeed, this was one of the main features of ISE ever since it began trading in 1986. Clearly, assessing volatility of asset returns is an important prelude toward the proper evaluation of regulatory policy changes aiming at restricting and enhancing international capital flows. Volatility considerations also assume significance for determining the cost of capital and

⁶ This section is based on a couple of articles that have investigated this subject recently. Particularly, the study Benkato and Darraat (2000) is quite comprehensive and analysed the integration of ISE with global markets (USA, Japan and the Europe) and existence of spillover effects of these markets on ISE.

for implementing international diversification and hedging strategies (Bekaert and Harvey, 1997). Given the relative importance of the Turkish market in its region and in light of apparently extreme volatile behaviour of ISE, it is important to examine the degree of global integration of the ISE.

The globalisation of the ISE began in August 1989 when the Turkish authorities issued Decree 32 that allows foreign investors to purchase and sell all types of securities in the ISE and repatriate the proceeds in an attempt to deregulate the Turkish market and encourage capital inflows. After analysing the development and integration of the ISE with the global (and matured) markets of the US, the UK, Germany and Japan, Benkato and Darrat (2000) reached several conclusions for ISE:

First, they found that there exists a significant cointegrating relationship binding the ISE with these four markets. This is a quite important proposition to make as it means that although stock prices in the ISE may drift away from those in matured markets temporarily in the short-run, strong equilibrating forces appear to have existed that prevent such a divergence to take place over the long run. Another important conclusion of the Benkato and Darrat study is that the Turkish market became significantly integrated with the global markets particularly in the post-capital market liberalisations period. Therefore, lifting of the capital controls appears to have provided, perhaps as intended by the market regulators, an important propagation mechanism for a more visible and robust linkage of the ISE to more matured markets. Thus, while the ISE may have provided international investors with some gains from portfolio diversification in the 1980s, the lifting of capital controls since the late 1989 appears to have limited such gain.

Thirdly, relative to the matured markets, ISE does exhibit excessive volatility, a characteristic that most emerging markets share. Nevertheless data suggest that ISE has become considerably less volatile in the post-liberalisation period. This conclusion of Benkato and Darrat (2000) is consistent with the Bekaert and Harvey (1997) in the case of emerging markets. By enhancing the linkage of the ISE to more matured and well-established markets, the removal of capital controls appears to have produced positive spillovers that have contributed to overall market stability. In fact, their results ascribe part of the blame for

excessive volatility in the ISE to the East Asian financial crisis of the mid-1997. Finally, and more importantly, volatility in the ISE became significantly linked to volatility in all matured markets only after the relaxation of capital controls. It is interesting to note that they did not find volatility spillovers from matured markets to the ISE before the liberalisation and increased dramatically after the removal of capital controls in Turkey.

6.3.4 Conclusion

According to the available evidence, it can be claimed that the capital market of Turkey is comparatively thin and very sensitive to macroeconomic variables. Thus, due to an unstable macroeconomic environment and the comparatively small volume of transactions, the IMKB has not been an efficient market for channelling extra funds to the industrial sector compared to the banking sector. It can also be claimed that although legislation on the Turkish capital market is similar to international standards, family oriented businesses and structures still dominate in the Turkish corporate sector. The Turkish capital market is also quite weak in managing the relationship between the real and the financial sector within the economy. In Turkish case, it can be argued that stock market development play some role in the development of the economy. However, none of them are essential. In particular, stock market seriously falls short of channelling funds effectively in allocating the capital to promote growth. It also needs to be highlighted that most of the studies of the topic focus on the negative impact of the stock market on the overall development of the economy.

The issue of volatility and efficiency is also important. A number of researches suggest that the Turkish stock markets are volatile. Interestingly enough, a significant portion of these studies associated this characteristic of the Turkish stock market with the short-term perception of the investors, in particular the domestic ones. The period highlighted by these studies is 3-months. In fact, given the fact that the inflation is persistently too high during the period analysed, this is not a surprise. Inflation distorts the whole economic activity dramatically and fuels the uncertainty surrounding the markets. Another reason why stock market investors have a short-term perspective is the fact that the government borrowing had heavily concentrated in the 3-month maturity. In addition, banking credits extended to the private sector have also been

extended by 3-month periods. Financial statements in Turkey are also published quarterly, being another reason for a short-term sight of the investors. Yet, the issue of volatility has not been analysed in greater depths and the reasons have not been specifically chosen as the subject of studies. Such that, the political, ethical and anthropological reasons of volatility have not been addressed or even listed in a number of studies.

Another issue to be vigorously analysed is the relation between stock market and foreign exchange one. The value of Turkish Lira was always at the top of the economic agenda, as well as at the top of the list of issues to be dealt with, for any government since 1983 elections. Without any exception, almost all the programmes implemented depended on the constant flow of foreign investments to Turkey. This topic has been analysed in greater depths. It has been found that the increased stock market activity is accompanied with the appreciation of Turkish Lira. This is of no surprise. Investors, especially foreign investors, have to convert into Turkish Lira in order to invest in Turkish assets. This may lead to the thought that, by increasing the value of Turkish Lira, stock market development in fact can have a strong relation with the development of the overall economy. However, it is interesting to note that these conversations have little to play in the appreciation of Turkish Lira. The main driving force behind this is the performing government T-bill and bond markets.

Turkish stock market has a lot way to go. However, the previous developments are not very encouraging. Nevertheless, when compared with other emerging countries, Turkey offers a much more efficient, developed and regulated market than any other one. The issue of contribution to the Turkish economy, however, remains an open subject yet to be settled among academics, policy makers and market professionals.

CHAPTER VII

RESULTS OF TURKISH FINANCIAL LIBERALISATION: SOME CONCLUSIONS⁷

This study attempts to analyse the relation between financial development and economic growth in Turkey in a descriptive way. It critically assesses the impact of financial liberalization program implemented in Turkey during 1980s and 1990s and investigates its impact on the overall development of the economy. This dissertation argues that while financial restructuring was clearly necessary in Turkey in the 1980s, a more gradualist approach, in which policy-triggered economic changes and the structure of the Turkish economy are factored into policy-making, may have yielded better economic results than direct financial liberalization

The general finding is that the Turkish financial liberalisation attempt did not reach its objectives due to a number of reasons, including political, economical and financial obstacles as well as market infrastructure. On the regulation side,

⁷ This section is in line with the findings of Sak (1995), Gultekin et al (2000), Gunes and Saltoglu (1999)

initial set up of the control mechanisms and the overall regulation of the industry was inefficient while the independent external audit institutions were not very effective. The lack of a compensating mechanism for investor losses made the cost heavy. Besides, there is still a need for ethical institutions to provide effective supervision in the market.

In 1980, faced with a severe economic crisis, the Turkish government adopted a comprehensive economic stabilization and structural adjustment program, a substantial part of which targeted financial restructuring. Based on the McKinnon-Shaw (1973) framework, the program initiated the transition from a regulated to a liberalized financial system.

The premise of the program was that when interest rates are deregulated, deposit and loan rates would increase in a capital scarce market, and the higher returns to deposits would attract more savings into the formal financial sector, increasing the volume of loanable funds to the private sector. Higher availability of credit would then promote the previously quantity-constrained investment, leading to growth in the long-run.

In this study, the behaviour of interest rates, saving, and investment was examined with descriptive analysis between 1980-1998 periods. The results obtained lead to the conclusion that interest rates and savings increase erratically with the implementation of the financial liberalization program.

However, no evidence for positive relationships between interest rates, savings, and investment is found. Moreover, the ultimate goal of higher investment rates is not attained. New financial instruments and markets were introduced, but they failed to present an effective alternative to the existing oligopolistic banking structure. Simultaneous macroeconomic restructuring and financial liberalization resulted in instability and uncertainty in Turkey, while failing to realize the balanced growth objective set in 1980. From the observations, two policy implications emerged. Macroeconomic stability measures need to precede financial restructuring for the latter to be more effective.

The macroeconomic problems that the Turkish economy has faced hindered the liberalization attempts profoundly. These macroeconomic problems include:

- 1) Mismanagement and hence, great fluctuations of the (main) price mechanisms (inflation, interest and exchange rates);
- 2) The persistent growth of uncontrollable public finance, and thus, the high ratio of public debt to the GDP;
- 3) A low domestic savings rate, and the underdeveloped state of financial markets;
- 4) The low productivity in real economy, and dependency on foreign financing.

It has also faced other microeconomic problems such as:

- 5) Banks' needs for liquidity;
- 6) Banks' capital inadequacies;
- 7) The disorganization in the structure of the banking system.

In order to understand the very reasons behind Turkish attempt, all of the aforementioned topics should be analysed in greater depth with their implications on the overall growth performance of the economy.

In fact, the Turkish experience of financial liberalisation has brought about some positive results in the financial sector as well but its impact in the real economic sectors do not justify the changes which have taken place over the last 20 years or so. Following the January 1980 programme of structural changes, Turkey changed its economic perspective and an outward-looking growth model was adopted. However, instead of making changes in the agricultural and industrial sectors, changes were focused on the financial and commercial ones. Accordingly, liberalisation of the foreign exchange market and foreign trade took place without increasing industrial productivity and liberalisation of the money and foreign exchange markets took place without providing monetary stability. Indirect taxation and domestic borrowing were also preferred to internal savings in order to balance the fiscal deficit, and the tax-spending policy failed to adequately distribute income (Degirmen, 2000).

The most important measures of the success of liberalisation are those relating to the real side of the economy. This is reaffirmed by McKinnon and Shaw's concluding point that financial repression constituted an obstacle to higher

growth rates in developing countries. Real performance criteria, such as the growth rate of the Turkish economy, private investments and investments in the manufacturing sector either do not show significant improvement or show negative developments. In particular, growth performance of the Turkish economy declined after liberalisation when compared with the rates achieved between 1950 and 1980.

The behaviour of private investments, which is the primary determinant of the productive capacity of the economy, is not too dissimilar to what happened in Latin American countries, after their financial liberalisation attempts. This, perhaps, indicates that the Turkish experience is not so unique as argued earlier.

Savings have shown some increase but they are subject to the sort of reservations mentioned previously in the text. However, it has been mostly the public sector, not the private sector, which benefited from these increases. The private sector has started to run a surplus of savings over investments and financed the public sector's growing deficit. On the other hand, this growing deficit has been a result of the government's high cost of borrowing, which has been largely due to financial liberalisation. Thus, the financial liberalisation has, in this respect, directly weakened the economy.

The size of the public sector and the consequent crowding out of private industry and commerce prevents the "real economy" from developing to its full potential. The Turkish economy has shown comparatively good growth performance over recent years in spite of its financial problems. However, if this growth is to be maintained or even increased, financial liberalisation must take place in an atmosphere of effective economic reform.

In addition, according to the available evidence, it can be claimed that the capital market of Turkey is comparatively thin and very sensitive to macroeconomic variables. Thus, due to an unstable macroeconomic environment and the comparatively small volume of transactions, the stock market has not been an efficient market for channelling extra funds to the industrial sector compared to the banking sector (Degirmen, 2000).

The increase in financial deepening should also be considered. In particular, not all of the credit which was attributable to increased financial deepening emanated from financial liberalisation. The development of financial and real indicators after 1950 shows that there has been a trend not only of increasing financial deepening but also of increasing saving rates. While the real performance of the economy did not improve significantly, compared to the financial repression period, financial deepening did increase, new financial instruments were introduced and new markets were developed. Accordingly, total financial assets held by households and the private sector increased. Banks continue to dominate but their dominance was to some extent eroded by the new instruments and markets. However, hastily conceived financial liberalisation attempts caused the major economic crises of 1994, 2000 and 2001 which adversely effected the banking and real economic sectors. Despite all the structural and legal measures taken, the domestic banks still dominate the financial system in Turkey. Big businesses and financial intermediaries continued to be the primary consumer of these facilities through the 1980s, as they provided easier access to financial information than small businesses and consumers, and as they are protected by deposit insurance and the lender-of-last-resort.

Even though new financial instruments and financial institutions have been introduced following the financial liberalization program, the banking sector has not been able to provide efficient intermediation. After the liberalization, along with inefficient intermediation of banking sector reasons for the existence and emergence of the relationship between holding groups and the affiliated banks in Turkey were strengthened. The holding groups have financial problems due to high inflation, a negative real interest rate policy maintained by the State, undeveloped capital markets and thus, inadequate self-financing, and the banking sector remains the dominant source of finance.

An important consequence of this structure was the uneven allocation of funds by the banking sector. It was seen that increased financial deepening does not directly lead to increased funds for private investments from the banking sector. In particular, although total bank deposits increased considerably compared to the 1970s, bank credits only increased slightly. Moreover, the medium and long-

term credits extended by banks diminished considerably after liberalisation. Conversely, in the capital market, the public sector crowded out a substantial chunk of funds originating from the private sector. As explained earlier in the thesis, these funds were used to finance the growing public sector deficit, which was caused by increased borrowing costs after liberalisation.

Why Turkish financial liberalisation attempt is not a successful one? We can summarize these points by noting that the reasons behind the slow development of capital markets in Turkey as follow:

- 1) The concentration on bond and share selling
- 2) The inadequacy of the secondary market
- 3) Inadequate savings
- 4) The inefficient allocation of institutional savings inadequate supervision.
- 5) Persistent political and economical instability

In fact, again, all these sub topics also beg further investigation and analysis in order to identify the different aspects of the Turkish attempt. In essence, the supervision issue as well as the subject of inefficiency is far most important that requires a full analysis with advance econometric techniques. In addition, the issue of political and financial instability has to be addressed in detail as well. Since, economic and political instability has taken its toll on the markets in terms of supervision, efficiency, returns, and overall market development. This instability, accompanied with weak managerial capabilities of Turkish statesmen also produced an unbalanced economy with high levels of borrowing requirement for the public sector. As discussed, this had crowded out the private sector investment, causing lasting damage to the economy and financial sector. In addition, due to the high rate of inflation, investors have shown a clear tendency for money market instruments rather than capital market options. This has resulted in a very liquid short-dated product market in the expense of long-term financing being neglected. More importantly, in spite of various legal arrangements and tax incentives, the capital market in Turkey has not reached sufficient efficiency as well.

The Turkish capital market is also quite weak in managing the relationship between the real and the financial sector within the economy. The reason being, these enterprises do not prefer to sell their shares to the public and also prefer to stay domestic. Moreover, there is little fresh money, especially foreign exchange, coming into market producing a relatively small system. As a consequence, stock market investment per capita has also remained very undersized in comparison with developed markets. It can also be claimed that although legislation on the Turkish capital market is similar to international standards, family oriented businesses and structures still dominate the Turkish corporate sector. This resulted in capital markets not experiencing many companies coming in to the market. This also enabled them to stay away the regulatory requirements and control of third parties on their portfolio of companies. Although corporate tax on companies which issue securities to the public have been reduced to 30% from 48% in recent years, the expected increase in shares has not yet taken place. A further analysis of the this domestic topic can identify the problems in debt and may help policy makers to institute new regulations to encourage more involvement by the family run businesses.

Domestic institutional investors traditionally do not invest in capital markets. These institutional investors include social security institutions (pension funds, social insurance institutions, etc.), special pension funds, insurance companies and life insurance, army mutual fund, securities investment partnerships and funds, compulsory savings funds. This caused these investors being less developed in terms of understanding the dynamics and fundamentals of the financial markets. Such that, company accounts and financial performance are less important for domestic investors who tends to make investment decisions by looking at a company's general image. The market is dominated by a small number of institutions and public interest is, therefore, limited. An analysis of the this subject may also identify the very reasons behind domestic savings not allocated among the financial instruments. This issue is also closely related with the risk management and risk appetite, which leads to us the questions of efficiency and supervision.

There are no market-maker institutions in Turkey and this has reduced information efficiency and overall effectiveness. Investment funds which consist of large numbers of investors are not that widespread and are dominated by banks. This has caused a malevolent circle where banks are both investors and fund managers of the same fund, resulting in a thin market with fragile infrastructure. This issue of market making will supply transparency as well as liquidity. By monitoring these market makers, in fact, the law-makers can also control the whole system. This issue has to be tailor-made in line with the needs of Turkish markets. The market makers in the T-bill market, instituted very recently, can be a raw model to further broaden this issue.

Additionally, the privatisation of state owned enterprises with foreign capital has a positive effect on the economy at the beginning of the massive privatisation programme. However, due to a lack of public support it is argued that this effect was not as positive as expected and failed to make a notable impact on the market environment. The inertia of the public mostly stemmed from the belief that a significant number of public servants may lose their jobs in the aftermath of privatisation. While the share among total privatised securities in the developed capital markets is 20% of outstanding issues of the state, the ratio in Turkey is 1%.

Another topic that needs to be explored is whether banks are still important for financing large and small firms listed on the ISE by examining their impact on the growth rate of their sales. If they are important (and if the government can ever have more information than an entire market when it comes to knowing what regulations will impose), whether financial interventions initiated by the government catches up to the market's needs, regarding the institutional economics approach. Since persistently higher inflation and interest rates have been part of the Turkish experience for a long time, the relationship between inflation and regulation is worth looking into, as is exploring the issue of whether regulations influence whether or not money matters to the real economy. Future research might also consider whether privatization of regulatory institutions can be effective, even though market structure may be incompatible with it given the political and economic instabilities of the recent past. This begs the question, is it necessary that after every economic downturn or crisis that the government

should come up with new interventions or regulations, regarding the timing and sequencing of the financial interventions? Alternatively, should the government have a long-run intervention framework and should it apply decrees and regulatory modifications in the short run to keep its long-run target in right track?

The problems of the Turkish financial sector in general, banking sector in particular have been a crucial for the Turkish economy. These problems prevented the economy to steam forward with its full capacity and had adverse affects on the whole economical, political and social chambers of Turkey. Turkey should find a way to provide a sustainable and stable growth in the economy. It should stabilize the markets and increase transparency as well as efficiency and effective supervision. All of these should be above the daily political concerns and should focus the long term outcome and benefits. This will in return serve to a number of different ends for the Republic, including its long-lasting ambition of joining the European Union. However, weak and thin financial and capital markets, ill- set up market infrastructure and acute and quaking financial crisis in every 8-10 years will prove too costly for Turkey going forward.

REFERENCES

- Acemoglu, D. and Zilibotti, F., 1996, Agency costs in the process of development, MIT working paper 96-8.
- Acemoglu, D. and Zilibotti, F., 1997, Was Prometheus unbound by chance? Risk, diversification and growth, *Journal of Political Economy*, 105, 709-751.
- Akkurt et.al (1992), Developments in the Turkish Banking Sector: 1980-1990 in K. Aydogan Akyuz, Yilmaz (1990), *Financial System and Policies in Turkey in the 1980s*
- Arestis, P. and Demetriades, P. O., 1997, Financial development and economic growth: assessing the evidence, *Economic Journal*, 107, 783-799.
- Atiyas, I. and Ersel, H. 1994, The impact of financial reform: The Turkish experience, in *Financial Reform: Theory and Experience*, edited by G. Caprio, Jr., I. Atiyas, and
- Atje, R. and Jovanovic, B., 1993, Stock markets and development, *European Economic Review*, 37, 632-640.
- Aydogan K., 1993, Weak form of efficiency for FX in Turkey, *Yapi Kredi Economic Review*, 4-31-38
- Bagehot, W, 1873 (and 1962), *Lombard Street*, Homewood, IL: Richard D Irwin
- Balaban, E., Candemir, B., Kunter K, 1996, Stock market efficiency in a developing economy: evidence from Turkey, *The Central Bank of the Republic of Turkey Research department discussion paper no: 9612*
- Balaban, E. (1995a), 'Einstein, risk ve gümrük birliđi', *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi*, Vol. 50 (1-2), 77-93.
- Balaban, E. (1995b), 'Day of the week effects: new evidence from an emerging stock market', *Applied Economics Letters*, Vol. 2, pp.139-143.
- Balaban, E. (1995c), 'Informational efficiency of the Istanbul Securities Exchange and some rationale for public regulation', *Institute of European Finance Research Paper in Banking and Finance*, (Bangor, UK: Institute of European Finance).
- Balaban, E. (1995d), 'The Turkish stock market: the term structure of volatility and the month of the year effects', *Institute of European Finance Research Paper in Banking and Finance*, (Bangor, UK: Institute of European Finance).
- Balaban, E., Candemir, H. B. and Kunter, K. (1996) 'İstanbul Menkul Kıymetler Borsası'nda yarı-güçlü etkinlik,' Paper offered second award in 1995 Research Competition by the Capital Markets Board, Ankara, Turkey, 1 March 1996; and in Doç.Dr. Yaman Asikoglu'na Armagan, (Ankara: Capital Markets Board), forthcoming.
- Balaban, E. and Kunter, K. (1996), 'Financial market efficiency in a developing country: the Turkish case', *Discussion Paper No.9611*, (Research Department, The Central Bank of the Republic of Turkey), March.
- Bandiera, O; Caprio G; Honohan P and Schiantarelli F, 1999, Does financial reform raise or reduce savings? World Bank publications: Washington

- Barro, R.J., 1991, Economic growth in a cross section of counties, *Quarterly Journal of Economics*, May, 106, p401-443
- Beck, T and Levine R, 2000, External dependence and industry growth: Does financial structure matter?, *World Bank Publications: Washington*
- Becsi Z, Wang, P and Wynne M A, 1998, Endogenous market structure and financial development, *Federal Reserve Bank of Atlanta Working Paper 98-15*
- Bekaert, G., and Harvey C. R., 1995, Emerging capital markets and economic development, Working paper, Duke University and Stanford University.
- Bencivenga, V. & Smith, B., 1991, Financial intermediation and endogenous growth, *Review of Economic Studies*, April, 58, pp195-209
- Bencivenga, V. R., Smith, B. D. and Starr, R. M., 1995, Transaction costs, technological choice and endogenous growth, *Journal of Economic Theory*, 67, 153-177.
- Bencivenga, V. R., Smith, B. D. and Starr, R. M., 1996, Equity markets, transactions costs and capital accumulation: an illustration, *World Bank Economic Review*, May, 10 (2), 241-265.
- Benkato, O., Darrat A., 2000, On interdependence and volatility spillovers across capital markets: The case of Istanbul Stock Exchange, *ERF 7th Annual conference*, Jordan.
- Berthelemy, Jean-Claude, and Aristomene Varoudakis, 1996, Financial development policy and growth, *OECD Development Center*.
- Berthelmy, J. C. and Varoduakis, A., 1996a, Economic growth, convergence clubs, and the role of financial development, *Oxford Economic Papers*, 48, 300-328.
- Berthelmy, J. C. and Varoudakis, A., 1996b, Thresholds in financial development and economic growth, *The Manchester School (Supplement)*, 70-84.
- Berthelmy, J. C. and Varoudakis, A., 1996c, Models of financial development and economic growth, in Hermes, N and Lensink R eds (1996), *Financial Development and Economic Growth*, Routledge: London.
- Cameron, R., 1966, ed, *Banking in the early stages of development*, New York: Oxford University Press
- Caprio, G and Hanson, A, 1999, The case for liberalisation and some drawbacks, *The World Bank Publications: Washington*
- Celasun, M and Arslan, I., 1996, State owned enterprises and privatisation in Turkey: Policy, performance and reform experience, 1985-1995, (Unpublished; Ankara: Middle East
- Celasun, Oya, Cevdet Denizer, and Dong He (1999), Capital flows, macroeconomic management, and the financial system: Turkey 1989-97, *Policy Research Paper 2141*, The World Bank
- Central Bank of Turkey, Annual Report (Various dates), Ankara.
- Chandavarkar, A., 1992, Of finance and development: Neglected and unsettled questions, *World Development*, January (20) pp132-42

- Cole, D & Slade, B., 1999, Premature liberalisation of government debt markets, World Bank Publications: Washington
- Cosan, F. and Ersel, H. 1986, Turkish financial system: Its evolution and performance 1980-1996, Capital Markets Board, Ankara.
- Degirmen, S., 2000, Financial interventions and the Turkish banking sector, Department of Economics paper, George Mason University
- Demetriades, P. O. and Hussein, K. A., 1996, Does financial development cause economic growth? Time-series evidence from 16 countries, *Journal of Development Economics*, 51, 387-411.
- Demirguc-Kunt, A. and Levine, R., 1996a, Stock market development and financial intermediaries: stylized facts, *World Bank Economic Review*, 10(2), May, 291-321.
- Demirguc-Kunt, A. and Levine, R., 1996b, Stock market, corporate finance and growth: An overview, *World Bank Economic Review*, 10(2), May, 223-239.
- Demirguc-Kunt, A. and Levine, R., 1999, Bank-Based and Market-Based Financial Systems: Cross-Country Comparisons, World Bank Publications.
- Demirguc-Kunt, A. and Maksimovic, V., 1996, Stock market development and financing choices of firms, *World Bank Economic Review*, 10(2), May, 341-369.
- Demirguc-Kunt, A. and Maksimovic, V., 1998, Institutions, financial markets and firm debt, Forthcoming, *Journal of Financial Economics*.
- Demirguc-Kunt, A. and Maksimovic, V., 1998, Law, finance and firm growth, *Journal of Finance*, December, 53 (6), 2107-2137.
- Devereux, M. B. and Smith, G. W., 1994, International risk sharing and economic growth, *International Economic Review*, 35, 535-550.
- Dornbusch, R. and Reynoso A., 1989, Financial factors in economic development, *American Economic Review papers and Proceedings*, 79, 204-9
- Dornbusch, R., 1976, Expectations and exchange rate dynamics, *Journal of Political Economy* 84
- Erkan, N. and Temir B., 1998, Sirketler kesiminin finansman egilimleri anketi sonuclari -1996, Sermaye Piyasasi Kurulu, Ankara.
- Ersel, H, and Ozturk, E., 1993, Liberalisation attempts and the financial structure of Turkish corporations, in *Financial Liberalisation in Turkey*, edited by Yaman Asikoglu and Hasan Ersel, Central Bank of Turkey, Ankara.
- Fama, E. F. & MacBeth, J.D., 1973, Risk, return and equilibrium: Empirical tests, *Journal of Political Economy* (81), 607-636.
- Filer, R; Hanousek J and Campos N, 1999, Do stock markets promote economic growth? Charles University Discussion Paper, Paper no: 1999-13
- Fry, M.J., 1978, Money and capital of financial deepening in economic development? *Journal of Money, Credit and Banking*, Vol 10 464-75
- Fry, M.J., 1995, Money, interest and banking in economic development, 2nd Ed. Baltimore: John Hopkins University Press

- Fry, M.J., 1997, In favour of financial liberalisation, *Economic Journal*, 107 (May), pp754-770
- Galetovic A., 1996, Finance and growth: A Synthesis and Interpretation of the Evidence, *Banco Nazionale del Lavoro Review*, 49 (96) 59-81
- Gelb, A., 1989, Financial policies, growth and efficiency, World Bank PPR Working Paper no 202 June.
- Gertler, M., 1988, Financial structure and aggregate economic activity: An overview, *Journal of Money, Credit and Banking*, August 20, 559-588
- Ghani, E., 1992, How financial markets affect long-run growth: A cross country study, PR working paper, WPS 843, World Bank
- Giovannini, A., 1985, The interest elasticity of savings in developing countries: The existing evidence, *World Development*, 11/7, 601-7
- Goldsmith, R.W., 1969, *Financial structure and development*, New Haven, Yale University Press.
- Greenwood, J & Jovanovic B., 1990, Financial development, growth and distribution of Income, *Journal of Political Economy*, October 98, 1076-110
- Gregorio, J., Guidotti, P.E., 1992, *Financial development and economic growth*, IMF Publications.
- Gregorio, J., Guidotti, P.E., 1995, *Financial development and economic growth*, *World Development*, Vol23 433-48.
- Gultekin, M.N., Gultekin, N.B., Denizer, C., 2000, *Financial development in Turkey*, forthcoming paper.
- Gurley, J & Shaw, E., 1955, Financial aspects of economic development, *American Economic Review*, September, 45 (4), pp 515-538
- Gurley, J.G. and Shaw S.H., 1967, Financial structure and economic development, *Economic Development and Cultural Change*, Vol 15, no 3, April, pp 257-268
- Gürsoy, T., Müslümov, A., 2001, *Stock markets and economic growth: A causality test* Bogaziçi University, Turkey
- Harris, R.D.F. ,1997, *Stock markets and development: A Re-assessment*, *European Economic Review*, vol 41 pp 139-146
- Harvey, C. R., 1995, Predictable risk and returns in emerging markets, *Review of Financial Studies* (8), 773-816.
- Henry, P B, 2000a, *Do stock market liberalisation cause investment booms?*, World Bank Publications: Washington
- Henry, P B, 2000b, *Stock market liberalisation, economic reform and emerging market equity prices*, *Journal of Finance*, 55, 529-564
- Holmstrom B and Tirole, J., 1993, Market liquidity and performance monitoring, *Journal of Political Economy*, 101 (4), 678-709
- IMF (Several years), *Economic outlook*, Washington D.C., IMF Publications
- IMF (Several years), *Emerging stock markets factbook*, Washington D.C., IFC

- IMF (Several years), International financial statistics, Washington D.C., IMF Publications
- Jung, W. S. , 1986, Financial development and economic growth: international evidence, *Economic Development and Cultural Change*, 34, 333-346.
- Karamustafa, O., Kucukkale, Y., 2002, Long run relationships between stock market returns and Macroeconomic performance: evidence from Turkey, 19 Mayıs University, publications
- King, R. G. and Levine, R., 1993a, Finance and growth: Schumpeter might be right, *Quarterly Journal of Economics*, 108, 717-737.
- King, R. G. and Levine, R., 1993b, Financial intermediation and economic development. In C. Mayer and X. Vives (eds.) *Capital markets and financial intermediation*, Cambridge: Cambridge University Press, pp. 156-189.
- King, R. G. and Levine, R., 1993c, Finance, entrepreneurship and growth: theory and evidence, *Journal of Monetary Economics*, 32, 513-542.
- Knight, M., 1998, *Developing countries and the globalization of financial markets*, IMF Publications, July
- Lanyi, A and Saracoglu, R., 1993, The importance of interest rates in developing economies, *Finance and Development*, 20 (2)
- Leigh, P.J., 1995, *Money, Finance and development*, Oxford: Martin Robertson
- Levine, R. , 2000, Bank-Based or Market-Based financial systems: Which is better?, Mimeo
- Levine, R., Zervos, S, 2001, Stock markets, banks and economic growth, World Bank paper
- Levine, R and Zervos, S., 1998b, Capital control liberalisation and stock market development, *World Development*, 26, 1169-1183.
- Levine, R. and Zervos, S., 1996, Stock market development and long-run growth, *World Bank Economic Review*, 10(2), May, 323-339.
- Levine, R. and Zervos, S., 1998, Stock markets, banks, and economic growth, *American Economic Review*, 88, 537-558.
- Levine, R., 1996b, Financial sector policies, pp161-191, in Hermes, N and Lensink R eds (1996), *Financial development and economic growth*, Routledge: London.
- Levine, R., 1991, Stock markets, growth and tax policy, *Journal of Finance*, 46(4), September, 1445-1465.
- Levine, R., 1996, Stock markets: a spur to economic growth, *Finance and Development*, 33(1), March, 7-10.
- Levine, R., 1997, Financial development and economic growth: views and agenda, *Journal of Economic Literature*, 35, 688-726.
- Levine, Ross, 1991, Stock markets, growth, and tax policy, *Journal of Finance* 46 (4): 1445-65.
- Lucas , R.R. 1988, On the mechanics of economic development, *Journal of Monetary Economics*, Vol22

- McKinnon, R.I., 1973, *Money and capital in economic development*, Washington DC: The Brookings Institution
- McKinnon, R.I., 1988, *Financial liberalisation in retrospect: interest rate policies in LDCs*, in *The state of development economics* eds Ranis G and Stultz T.P. Oxford: Basil Blackwell p386-415
- Merton, R. 1995, *A functional perspective of financial intermediation*, *Financial Management*, 24, 23-41
- Merton, M., 1991, *Financial innovations and market volatility*, Blackwell, Cambridge.
- Muradoglu, G. and Metin, K. (1995), 'Efficiency of the Turkish stock exchange with respect to monetary variables: a cointegration analysis', *European Journal of Operational Research*, forthcoming.
- Muradoglu, G. and Önkal, D. (1992), 'Türk hisse senedi piyasasında yari-güçlü etkinlik', *METU Studies in Development*, Vol. 19, pp. 197-207.
- Muradoglu, G. and Ünal, M. (1994), 'Weak form efficiency in the thinly traded Istanbul Securities Exchange', *Middle East Business and Economic Review*, Vol. 6, pp. 37-44.
- Neusser, K and Kugler, M, 1998, *Manufacturing growth and financial development: Evidence from OECD countries*, *Review of Economics and Statistics*, 80, pp638-46
- Obstfeld, M., 1994, *Risk-taking, global diversification, and growth*, *American Economic Review*, 84, 1310-1329.
- Onis, Z, and Riedel, J., 1993, *Economic crises and long-term growth in turkey*, *World Bank Comparative Macroeconomic Studies*, The World Bank, Washington, DC.
- Pagano, M., 1993, *Financial markets and growth: An overview*, *European Economic Review*, April (37) pp613-632
- Patrick, H., 1966, *Financial development and economic growth in underdeveloped countries*, *Economic Devvel. Cult. Change*, January, (14) pp174-89
- Patrick H, 1994, *Comparisons, contrasts and implications*, in Patrick H and Park Y C, eds, *The financial development of japan, korea and taiwan: Growth, repression and liberalization*, Oxford University Press: Oxford
- Rajan, R.G. & Zingales, L., 1998, *Financial dependence and growth*, *American Economic Review*. June 1998,
- Ram, R, 1999, *Financial development and economic growth: Additional evidence*, *The Journal of Development Studies*; London; April
- Roubini, N and Sala-i-Martin, X., 1992, *Financial repression and economic growth*, *Journal of Development Economics*, 39, 5-30
- Sak, G., 1995, *Public Policies Towards financial liberalisation: A general framework and an evolution of the Turkish experience in the 1980s*, Capital Markets Board, Ankara.

- Schumpeter, J., 1911, A theory of economic development, Cambridge: Harvard University Press
- Shaw, E.S., 1973, Financial deepening in economic development, New York: Oxford University Press
- Shiller, R.J., 1989, Market volatility, Cambridge, Mass: The MIT Press
- Shleifer A and Summers, L.H., 1990, The noise trader approach to finance, Journal of Economic Perspectives.
- Singh, A, 1997, Financial liberalisation, stock markets and economic development, The Economic Journal, PP771-782
- Smith, A., 1776 (1937), An Inquiry Into the nature and causes of the wealth of nations, New York: Random House
- State Institute of Statistics, Yearbook, (Various dates), Government of Turkey, Ankara.
- Stiglitz, J, and Weiss, A., 1981, Credit rationing in markets with imperfect information, American Economic Review 71: 1405-26.
- Stiglitz, J. 1993, The role of the state in financial markets in Proceedings of the World Bank Conference on Development Economics, M. Bruno and B. Pleskovic eds, Washington DC: World Bank
- Stiglitz, J., 1989, Financial markets and development, Oxford Review of Economic Policy, Vol.5, No.4, Winter
- Stiglitz, J.E, Caprio, G and Honohan, P., 1999, Financial liberalisation: How far? How fast?, World Bank Working Paper (?)
- Stulz, R, 2000, Does financial structure matter for economic growth? A corporate finance perspective, Financial Structure and Economic Development Conference Papers (February 10-11, 2000), World Bank: Washington, D.C.
- Thornton, J 1996, Financial deepening and economic growth in developing countries, Applied Economics Letter, 3, 255-8
- Uygur, E., 1993, Financial liberalisation and economic performance in Turkey, in Financial liberalisation in Turkey, edited by Yaman Asikoglu and Hasan Ersel, Central Bank of Turkey, Ankara.
- WIDER (World Institute for Development Economics Research), 1990, Foreign Portfolio Investment in Emerging Equity Markets, Helsinki:WIDER
- Yulek, M., 1995, Financial liberalization and the real economy, The Turkish experience, Capital Markets Board Publication: Ankara

FURTHER BIBLIOGRAPHY

- Abaan E.D., 1995, Is the FX market efficient in Turkey?, Central Bank of Turkey Research Paper
- Agenor P. R., Mcdermott J. & Ucer M., 1997, Fiscal imbalances, capital inflows and the real exchange: The case of Turkey, IMF working paper, January
- Akcaoglu, E., 1994, Financial innovation in Turkish banking, Capital Markets Board Publication:Ankara
- Akdogan, H. & Akdogan N., 1995, National or international risk diversification, ODTU Gelistirme Dergisi, Cilt 22 Sayi 4,
- Allen, L., 1997, Capital markets and institutions: A global view, John Wiley and Sons
- H. Ersel (eds), Issues on banking sector and competition in a changing world," Central Bank of Turkey, Ankara.
- Anton, H.,1995, Calculus, Anton Textbooks Inc.
- Aras, G., 1995, Ticari bankalarda kredi portföyünün yönetimi, Capital Markets Board Publication:Ankara
- Arya J.C. & Lardner, R.W., 1989, Mathematical analysis, Prentice Hall
- Asikoglu, Y., 1993, Alternative frameworks of financial liberalisation and financial reform in Turkey in Financial liberalisation in Turkey, edited by Yaman Asikoglu and Hasan Ersel, Central Bank of Turkey, Ankara.
- Aydinli, I, Türk bankacilik sistemi piyasa yapisi, 1991-1994, Capital Markets Board Publication: Ankara
- Aydogan, K and Capoglu, G., 1993, The high spreads and costs of financial intermediation: The Turkish experience 1970-1988, in Financial liberalisation in Turkey, edited by Yaman Asikoglu and Hasan Ersel, Central Bank of Turkey, Ankara. Banks Association of Turkey (1999), Banks in Turkey 1998.
- Balaban E. & Kunter K., 1997, A note on the efficiency of the financial markets in a developing country, Applied Economics Letters, Volume 04, Issue 02
- Bayer, A., 1997, Finance in emerging markets, Issue of Treasury and Risk Management, September.
- Beck, T Loayza N and Levine, R., 1999, Finance and the sources of growth, World Bank Finance, Development Research Group Publications: Washington
- Beck, T., Levine, R. and Loayza, N., 1999, Finance and the sources of growth. World Bank Policy Research Working Paper no. 2057.
- Bekaert, G., 1995, Market Integration and investment barriers in emerging equity markets, World Bank Economic Review 9, 75–107.
- Bekaert, G., and Harvey C. R., 1995, The cost of capital in emerging markets, Working paper, Duke University and Stanford University.
- Bekaert, G., and Harvey C. R., 1997, Emerging equity market volatility, The Journal of Financial Economics, January 43, 29-77;
- Bekaert, G., and Harvey C. R., Erb C, 1997, What matters in emerging equity market investments?, Emerging Markets Quarterly, Summer, pp.1-30;

- Bencivenga, V. R. and Smith, B. D., 1993, Some consequences of credit rationing in an endogenous growth model, *Journal of Economic Dynamics and Control*, 17, 97-122.
- Benhabib, J and Spiegel M.M., 1994, The role of human capital in economic development, Evidence from aggregative cross-country data, *Journal of Monetary Economics*, vol 34
- Berger, A.N., Hunter W.C. and Timme, S.G., 1993, the efficiency of financial institutions: A review of research past, present and future, *Journal of Banking and Finance*
- Blackburn, K. and Hung, V. T. Y., 1998, A theory of growth, financial development and trade. *Economica*, 65, 107-124.
- Bose, N. and Cothren, R., 1996, Equilibrium loan contracts and endogenous growth in the presence of asymmetric information, *Journal of Monetary Economics*, 38, 363-376.
- Boyd, J. and Smith, B. D., 1996, The co-evolution of the real and financial sectors in the growth process, *World Bank Economic Review*, 10, 371-396.
- Bryant, V., 1990, *Introduction to analysis*, Cambridge University Press.
- Buiter, W. H. and Kletzer, K. M., 1995, Capital mobility, fiscal policy, and growth under self-financing of human capital formation, *Canadian Journal of Economics*, 28, S163-S194.
- Castellanos, J., 1999, *Developing government bond markets Financier*, Spring
- Celasun, M and Rodrik, D., 1989, Debt, adjustment, and growth: Turkey, in *Developing country debt and economic performance: Country Studies*, edited by Jeffrey Sachs and Susan Collins, University of Chicago Press.
- Civcir, I., 1996, *An econometric approach to the analysis of the monetary sector and the balance of payments problems in Turkey*. Capital Markets Board Publication:Ankara
- Cole, D & Slade, B., 1991, Reform of financial systems, in *Reforming economic systems in developing countries*, Eds.: Dwight Perkins and Michael Roemer. Cambridge. MA Harvard University Press, pp3-40
- Cosan, F. and Sak G., 1985, The structure of corporate bond market in Turkey, *Capital Market Board, RDD Research Report No: 27..28*
- Cottarelli, C. and Kourelis A, 1994, Financial structure, bank lending rates and the transmission mechanism of monetary policy, *IMF Staff Papers*, December
- Dale, R 1994, *International banking deregulation: The great banking experiment*, Oxford:Blackwell Publishers
- De Gregorio, J., 1996, Borrowing constraints, human capital accumulation and growth, *Journal of Monetary Economics*, 37, 49-71.
- De la Fuente, A., and Marin, J. M., 1996, Innovation, bank monitoring and endogenous financial development, *Journal of Monetary Economics*, 38, 269-301.

- De Long, J. Bradford; Shleifer, Andrei; Summers, Lawrence H. and Waldmann, Robert J., 1989, The size and incidence of the losses from noise trading, *Journal of Finance*, 44 (3), pp. 681-96.
- Demetriades, P. O. and Luintel, K. B., 1996, Financial development, economic growth and banking sector controls: evidence from India, *Economic Journal*, 106, 359-374.
- Dermine, J. 1993, *European banking in the 1990s*, 2nd edition, Oxford:Blackwell Publishers
- Devereux, Michael B., and Gregor W. Smith, 1994, International risk sharing and economic growth, *International Economic Review* 35 (4), pp. 535-50.
- Diamonte, R., Liew, J.M. & Stevens, R.L., 1996, Political risk in emerging and developed markets, *Financial Analysts Journal*.
- Dornbusch, R and Simonsen, M .H., 1989, Inflation stabilisation: The role of incomes policy and of monetisation, pp438-65 abridged in *Exchange rates and Inflation*, Cambridge: MIT Press, 1989
- Elton, E., 1995, *Modern portfolio theory and investment analysis*, John Wiley and Sons.
- Enders, W., 1995, *Applied econometric time series*, New York: John Wiley and Sons
- Erb, C. B., Harvey, C.R. & Tadas, E.V., 1995, Country risk and global equity selection, *Journal of Portfolio Management* 9, Winter, pp74-83.
- Erkan, N., 1997, *Menkul kıymetler piyasalarında sistemik riskler*, Capital Markets Board Publication: Ankara
- Ertuna, O., 1999, *International capital mobility and volatility: The Turkish case*, Preliminary Draft.
- Feldman, R.A. and Kumar S.M., 1995, Emerging equity markets: Growth, benefits and policy concerns, *The World Bank Research Observer*, vol.10, no.2, August 1995, pp. 181-200.
- Ferson, W. E., & Harvey, C.R, 1995, Country risk in asset pricing, Working paper, Duke University.
- Ferson, W. E., & Harvey, C.R., 1994, An exploratory investigation of the fundamental determinants of national equity market returns, in Jeffrey Frankel, ed.: *The internationalization of equity markets*, University of Chicago Press, Chicago, IL, 59–138.
- Garcia, V.F. and Liu, L, *Macroeconomic Determinants of stock market development*, *Journal of Applied Economics*, Vol. II, No. 1 (May 1999), 29-59
- Garcia, Valeriano F., 1986, *A critical inquiry into argentine economic history 1946- 1970*, Garland Publishing Co. New York.
- Garrison, C.B. and Lee, F.Y., 1995, The effect of macroeconomic variables on economic growth rates: A cross -country study, *Journal of Macroeconomics*, Spring
- Gibbons, M. R., 1982, Multivariate tests of financial models: A new approach, *Journal of Financial Economics* 10, 3-27.

- Giovannini, A., 1985, The interest elasticity of savings in developing countries: The existing evidence, *World Development*, 11/7, 601-7
- Goldsmith, R.W., 1969, *Financial structure and development*, New Haven, Yale University Press.
- Green C.J. and Llewellyn D.T., 1991, *Surveys in monetary economics, Vol2: Financial markets and institutions*, Oxford: Basil Blackwell Ltd
- Greenwood, J & Smith, B, 1997, Financial markets in development and the development of financial markets, *Journal of Economic Dynamics and Control*, January (21), pp.145-181
- Gultekin, N. B and Sak, G., 1993, "The role of securities markets in the financial liberalisation proces: An evaluation of the policies and performance of the Turkish experience in the 1980s" in *Financial liberalisation in Turkey*, edited by Yaman Asikoglu and Hasan Ersel, Central Bank of Turkey, Ankara.
- Harvey, C. R. and Guofu Z., 1993, International asset pricing with alternative distributional assumptions, *Journal of Empirical Finance* (1), 107-131.
- Harvey, C. R., 1991, The world price of covariance risk, *Journal of Finance*, 46, 111--157.
- Harvey, C. R., 1993, Portfolio enhancement with emerging markets and conditioning information, in Stijn Claessens, and Sudarshan Gooptu, eds.: *Portfolio investment in developing countries*, (World Bank, Washington), 110--144.
- Harvey, C. R., Bruno H. S. & Guofu Z., 1994, What Determines expected international asset returns?, Working paper, Duke University, Durham, NC.
- Harvey, C., Bekaert, G. & Marcia G.P., 1998, *The Role of capital markets in economic growth*, Catalysts Monograph Series.
- Herbert, W. eds., 1996, *Investing in emerging markets*, MCB University Press.
- Hermes, N and Lensink R eds., 1996, *Financial Development and Economic Growth*, Routledge: London.
- Hoon, L.C. & Papi, L., 1997, An Econometric analysis of determinants of inflation in Turkey, IMF working paper, December
- Izan H.Y., Tan, C.K. & Walsh, D.M., 1998, Correlation structure across emerging and develop markets: Stability and implications for portfolio diversification, University of Western Australia (IMF Publication), January
- Japelli, T. and Pagano, M., 1994, Saving, growth, and liquidity constraints, *Quarterly Journal of Economics*, 108, 83-109.
- Jayaratne, J. and Stahan, P. E. , 1996, The finance-growth nexus: evidence from bank branch deregulation, *Quarterly Journal of Economics*, 111, 639-670.
- Kapici, A.N., 1997, Terms of trade, real, exchange rates and economic fluctuations within a modern business cycle framework, Capital Markets Board Publication: Ankara
- Kargi, N., 1997, *Ekonomik kalkinma tasarruf ve sermaye piyasasi iliskileri; Türkiye örneği*, Capital Markets Board Publication: Ankara

- Khan, A., 1994, Financial development and economic growth, U. of Virginia Mimeo, King,
- Kiyilar, M., 1997, Etkin pazar kurami ve etkin pazar kuraminin imkb'de irdelenmesi- Test edilmesi, Capital Markets Board Publication: Ankara
- Kolb, R.W. & Rodrigues, R., 1997, Financial institutions and markets, Blackwell
- Komendi, R. & Meguire, P., 1985, Macroeconomical determinants of growth, Journal of Monetary Economics, September
- Kondak, N., 1997, The efficient market hypothesis revisited; Some evidence the istanbul stock exchange, Capital Markets Board Publication: Ankara
- Korajczyk, R. A., 1996, A measure of stock market integration for developed and emerging markets, World Bank Economic Review, 10, 267-289.
- Kuczynski, P.P., 1994, Why emerging markets? Columbia Journal of World Business, Summer
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny, 1996, Law and finance, NBER, WP No. 5661.
- Levine, R Loayza N and Beck, T, 1999, Financial intermediation and growth: causality and causes, World Bank Finance, Development Research Group Publications: Washington (forthcoming I the Journal of Monetary Economics)
- Liew, J. M., 1997, Stock returns, inflation, and the volatility of growth in the money supply: Evidence from emerging markets, Working paper, University of Chicago, Chicago, IL.
- Liu, Lin, 1998, Financial development and economic growth: A literature review, Mimeograph. The World Bank, Washington, DC.
- Ma, C.-H. and Smith, B. D., 1996, Credit market imperfections and economic development: theory and evidence, Journal of Development Economics, 48, 351-387.
- Mankiw, N.G., The growth of nations, Brookings Papers on Economic Activity, 1 pp 275-326
- Merton R & Bodie Z, 1995, A conceptual framework for analyzing the financial environment" in the Global financial system: A functional perspective. Eds.: Dwight B. Crane et al. Boston MA: Harvard Business School Press
- Merton, M., 1991, Financial innovations and market volatility, Blackwell, Cambridge.
- Midgley, K. and Burns, R. 1977, The capital markets: Its nature and significance, London: The Macmillan Press Ltd
- Modigliani, F., and Miller, M.H, 1958, The cost of capital, corporation finance, and the theory of investment, American Economic Review, 48 (3): 261-297/
- Mulin, J., 1993, Emerging equity markets in the global economy, Federal Reserve Bank of New York, Summer
- Nas, T. F., and Odekon, M., 1993, The financial effects of liberalisation policies on the Turkish industrial sector in financial liberalisation in Turkey, edited by Yaman Asikoglu and Hasan Ersel, Central Bank of Turkey, Ankara.

- Odedokun, M. O., 1996, Alternative econometric approaches for analysing the role of the financial sector in economic growth: Time-series evidence from LDCs, *Journal of Development Economics*, 50, 119-146.
- Olson, Jr., Mancur, 1996, Big bills left on the sidewalk: Why Some nationals are rich, and others poor, *Journal of Economic Perspectives* 10 (2), Spring.
- Onis, Z, and Ozmucur, S., 1988b, The role of financial system 'n the creation and resolution of macroeconomic crises in Turkey, Department of Economics, Bogazici University, Istanbul.
- Ozcam, M., 1997, An analysis of the macroeconomics factors that determine stock return in Turkey; Capital Markets Board Publication: Ankara
- Ozcam, M., 1999, Turk sermaye piyasalarinin profili: Kriz egilimi acisindan karsilastirmali bir degerlendirme, Sermaye Piyasasi Kurulu Arastirma Raporu.
- Ozer, B., 1999, Price performance of initial public offerings in turkey, Capital Markets Board, Ankara.
- Ozmen, T., 1997, Dünya borsalarinda gözlenen anomaliler ve istanbul menkul kiymetler borsasi üzerine bir deneme, Capital Markets Board Publication: Ankara
- Ozturk, E., 1993, Exchange rate movements, foreign trade deficit and Central Bank policies, Central Bank of Turkey Publications, Ankara
- Pawley, M, Winstone D and Bentley, P., 1994, UK financial institutions and markets, London: The Macmillan Press
- Perotti, E and van Oijen, P, 1999, Privatisation, political risk and stock market development in emerging economies, University of Amsterdam
- R. G. and Levine, R., 1992, Financial indicators and growth in a cross section of countries, World Bank Policy Research Working Paper no. 819.
- Ramanathan, R., 1995, Introductory econometrics with applications, 3rd Edition, Forth Worth, The Dreyden Press
- Saint-Paul, G., 1992, Technological choice, financial markets and economic development, *European Economic Review*, 36, 763-781.
- Shi, S., 1996, Asymmetric information, credit rationing and economic growth, *Canadian Journal of Economics*, 29, 665-687.
- Solnik, B., 1983, The relationship between stock prices and inflationary expectations: The international evidence, *Journal of Finance*, (38), 35-48.
- State Institute of Statistics, Yearbook, (Various dates), Government of Turkey, Ankara.
- Stulz, R., 1981, On the effects of barriers to international investment, *Journal of Finance* (36), 923-934
- Tobin, J., 1965, Money and economic growth, *Econometrica* October, pp 671-84
- Tsiddon, D., 1992, A moral hazard trap to growth, *International Economic Review*, 33, 299-321.

Van Wijnbergen, S., 1993, Credit policy, inflation and growth in a financially repressed economy, *Journal of Development Economics*, 13, 45-65

World Bank, *Emerging stock markets factbook*, (International Finance Corporation, Washington, D.C.).

Yenal, O., 1967, *Development of the financial system in four studies on the economic development of Turkey*, edited by F. C. Shorter, J. F. Kolars, D. A. Rustow, and O. Yenal, Frank Cass and Co. Ltd, London.

Yenal, O., 1999 *Iktisat siyasasi uzerinde incelemeler*, Turkiye Is Bankasi Kultur Yayinlari.

Yilmaz, K., 1998, *Market development and random walk in stock prices: The case of istanbul and korea stock exchanges*, presented at the 10 th Annual PACAP-FMA, Finance Conference, October 26-28, 1998, Kuala Lumpur, Malaysia.

Yuce, A., 2000 , *An examination of an emerging stock exchange: The turkish stock market*, Capital Markets Board Publication:Ankara

Yuce, S., Mugano, S., *Relationship between turkish financial markets*, *European Journal of Finance*, Volume 02 Issue 02.

Yurtlu, I. H. 1999, *Turkish securities market*, Euromoney London; August



