

CROWDING OUT MECHANISM ONGOING IN TURKEY

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF SOCIAL SCIENCES
OF
THE IZMIR UNIVERSITY OF ECONOMICS

BY

147011
147011

GÜL ERTAN

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

IN

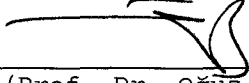
THE GRADUATE SCHOOL OF SOCIAL SCIENCES

JUNE 2004

Approval of the Graduate School of Social Sciences

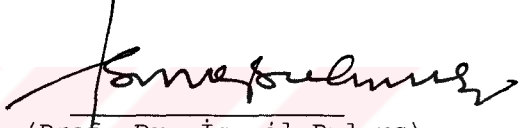

(Prof. Dr. Nejat Tenker)
Director

I certify that this thesis satisfies all the requirements as a thesis
for the degree of Master of Arts.


(Prof. Dr. Oğuz Esen)
Head of Department

This is to certify that we have read this thesis and that in our
opinion it is fully adequate, in scope and quality, as a thesis for
the degree of Master of Arts.

(Title and Name)


(Prof. Dr. İsmail Bulmuş)

Co-Supervisor

Supervisor

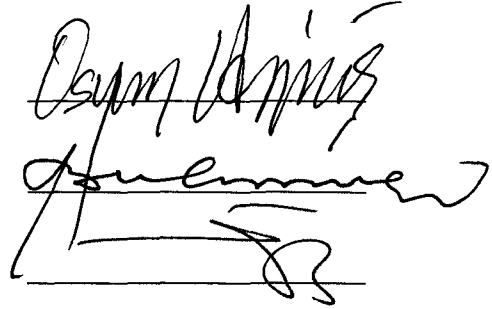
Examining Committee Members

(Title and Name in alphabetical
order of last name)

Prof. Dr. Osman Aydoğuş.....

Prof. Dr. İsmail Bulmuş.....

Prof. Dr. Oğuz Esen.....



To My Parents



TABLE OF CONTENTS

ABSTRACT	i
ÖZET	ii
ACKNOWLEDGEMENTS	iii
CHAPTER 1: INTRODUCTION.....	1
CHAPTER 2: THE FRAMEWORK OF CROWDING OUT THEORY	5
2.1 What is Crowding out?.....	5
2.2 Classification of Crowding out:	7
2.2.1 Short-run and Long –run	7
2.2.2 Direct versus indirect crowding out	8
2.3 Literature Review: The Debate on Crowding out Theory	10
2.3.1 The roots of the Debate	10
2.3.2 More on Crowding out Debate	12
2.3.2.1 Keynesian Case:.....	12
2.3.2.2 Classical Case: Vertical LM Curve.....	13
2.3.2.3 Ultraratioanality by David-Scadding:	14
2.3.2.4 Friedman:	14
2.3.2.5 Blinder – Solow:	16
2.3.2.6 Tobin - Buitert:.....	17
2.3.2.7 Brunner – Meltzer:	17
2.4 Empirical Literature on Crowding out	18
CHAPTER 3: PRIVATE SECTOR: ENGINE OF GROWTH IN TURKEY	21
3.1 Introduction	21
3.2 Turkey’s Need of Growth.....	21
3.3 Nexus between Capital Accumulation and Growth	23
3.4 Investment in Turkey.....	25
3.4.1 The Role of the Public Sector Investment in Turkey	25
3.4.2 The Role of the Foreign Direct Investment in Turkey	27
3.5 Mechanisms for Financing Investment	29
3.5.1 Financial Markets and Their Fundamental Functions	29
3.5.2 The Correlation between Financial Markets and Development	32
3.5.3 Financial Markets in Turkey	34
3.5.3.1 Capital Markets in Turkey	34
3.5.3.2 The Banking Sector in Turkey	37
3.5.3.2.1 Prior to 1980	37
3.5.3.2.2 The Period of 1980-1990	42
3.5.3.2.3 The Period following 1990: A Glance at Crises.....	46
3.5.3.2.4 Current view of the Turkish Banking Sector	57

3.6	Conclusion.....	63
CHAPTER 4: CROWDING OUT PROCESS 65		
4.1	Introduction	65
4.2	Political and Economic Dynamics of Crowding Out Process	66
4.2.1	Dynamics prior to 1980.....	66
4.2.2	Dynamics in Post - 1980:	67
4.2.2.1	The Period between 1983-1991	69
4.2.2.2	The Period of 1991-1994:	80
4.2.2.3	The Period following 1994:	83
4.3	Empirical Framework for The Crowding Out Process.....	90
4.3.1	Data and Methodology	90
4.3.2	The Period of 1989-1993.....	94
4.3.3	The Period of 1994-2003.....	95
CHAPTER 5: CONCLUSION and POLICY IMPLICATIONS 98		
APPENDIX A: TABLES 102		
Table 3.1:	GNI per Capita (\$), GDP and Population growth (%)	102
Table 3.2:	The Real FDI Flows, Share of FDI in GDP and % Share in Emerging Markets.....	103
Table 3.3:	Financial Institutions: Share In Total Assets and in GNP	103
Table 3.4:	Some Selected Financial Indicators as a Share of GNP (%)	104
Table 3.5:	Turkish Banking Sector in the Period of 1980-1990: Share of GNP (%)	104
Table 3.6	Number of Banks and Branches.....	105
Table 3.7:	Turkish Banking Sector (% Share of Total).....	105
Table 3.8:	The Ownership Structure of Private Commercial Banks as of September 2003	106
Table 3.9:	Loans by Type	106
Table 3.10:	The Share of Non-Performing Loans (%)	107
Table 3.11	Maturity Structure of Loans	107
Table 3.12:	Share of Long-Term Loans	108
Table 3.13	Composition of Deposits by Banking Groups	108
Table 3.14	Maturity Structure of Deposits.....	109
Table 3.15	The Share of Securities Portfolio in Total Assets (%)	109
Table 4.1	Some Selected Fiscal Indicators (% of GNP)	110
Table 4.2:	Unit Root Test Results	111
APPENDIX: B 112		
FIGURES 112		
Figure 3.1	Public Sector Investment as a Share of GNP (%).....	112
Figure 3.2	Share of Manufacturing, Energy and Transportation Sectors in Total Public Investment (%).....	112
Figure 3.3	The Distribution of Public Fixed Investments (%).....	113

Figure 3.4 Total Market Capitalization in Dollars	113
Figure 3.5 Distribution of Public and Private Securities (%).....	114
Figure 3.6 Public and Private Securities as a Share of GNP (%).....	114
Figure 4.1: PSBR as a Share of GNP (%).....	115
Figure 4.2: Interest Payments as a Share of GNP (%)	115
Figure 4.3: Domestic Debt Stock as a Share Of GNP (%).....	116
Figure 4.4: Bank Credits and Deposits as a Share of GNP (%).....	116
REFERENCES	117



ABSTRACT

CROWDING OUT MECHANISM ONGING IN TURKEY

Ertan, Gül

June, 2004, 123 pages

This study aims to demonstrate the crowding out process that has been taking place since the mid-1980s, due to the domestic borrowing of the government in Turkey. The structural change in the government's mode of financing the fiscal deficits in terms of issuing government debt instruments welcomed the deprivation of the private sector from its all tools of finance. While Turkish capital markets are dominated by public sector securities, government securities portfolio constitutes the significant portion of total bank assets, where the banking sector has a substantial dominance in loan markets. Thus, financial markets do not play their financial intermediation role of transferring the funds from savers to investors for profitable investment activities. Yet, the private sector is the only opportunity for Turkey to be the engine of growth, where neither foreign direct investment nor public investment has any significant contribution to the capital formation process. In this regard, a linear regression model is used to investigate the crowding out effects of the government domestic borrowing. Variables of interest are private investment, domestic debt stock, public investment and bank loans. The results confirm the view that public borrowing crowds out private investment. Furthermore, no complementarity has been found between private and public investments. As expected, bank loans appeared to be stimulant for private investment. Thus, strict policy measures should be taken to reverse the ongoing process that hinders private sector as well as economic development.

Key Words: crowding out, domestic borrowing, Turkish banking sector, financial markets, economic growth.

ÖZET

TÜRKİYE’DE ÖZEL SEKTÖR YATIRIMLARININ DIŞLANMA SÜRECİ

Ertan, Gül

Haziran 2004, 123 sayfa

Bu çalışma Türkiye’de kamunun iç piyasada borçlanması sonucu, 1980’lerin ortalarından itibaren başlayan özel sektör yatırımlarının dışlanması sürecini incelemeyi amaçlamaktadır. Kamu sektörünün mali açıklarını, iç borçlanma yoluyla finanse etme yönündeki finansman değişikliği, özel sektörün elindeki finansman araçlarından yoksun kalmasına yol açmıştır. Kamu kağıtlarının sermaye piyasalarında mutlak bir üstünlüğü olmasının yanı sıra, kredi piyasalarında hakim olan bankacılık sektörünün toplam aktiflerinin çok önemli bir kısmını hükümet kağıdı portföyü oluşturmaktadır. Dolayısıyla, Türkiye’de finansal piyasalar asıl görevleri olan tasarruf sahipleri ile yatırımcılar arasında aracılık yapma görevinden uzaklaşmışlar ve fonlarını verimli yatırımlara kaydırma işlevini yerine getirememişlerdir. Fakat, hem yabancı sermaye hem de kamu sektörü yatırımlarının sermaye birikimine önemli bir katkıda bulunmadığı, Türkiye’de özel sektörün ekonomik büyümenin itici gücü olduğu görülmekte ve özel sektörün de finansman kaynaklarına ihtiyacı olduğu bilinmektedir. Bu bağlamda, kamu iç borçlanmasının özel sektör yatırımlarını dışlama etkisini ölçmek amacıyla bir lineer regresyon modeli kullanılmıştır. Sonuçlar kamu iç borçlanmasının özel sektör yatırımlarını dışladığını desteklemektedir. Buna ek olarak özel ve kamu sektörü yatırımları arasında herhangi bir tamamlayıcılık ilişkisi bulunmamıştır. Beklenildiği gibi, banka kredilerinin yatırımlar üzerinde olumlu etkisi olduğu gözlenmiştir. Sonuç olarak, özel sektör yatırımlarını ve ekonomik gelişmeyi engelleyen sözkonusu süreci tersine döndürebilmek için çok ciddi tedbirler alınması gerekmektedir.

Anahtar kelimeler: *dışlama etkisi, kamu borçlanması, Türk Bankacılık Sektörü, finansal piyasalar, ekonomik büyüme.*

ACKNOWLEDGEMENTS

I would like to acknowledge many people for helping me during my master's thesis. First and foremost, I would like to thank to my supervisor, Prof. Dr. İsmail Bulmuş for all the support I have received while researching and writing my thesis. I am indebted to him for his academic guidance on this work as well as other areas of academic life, which developed my independent thinking and research skills. I am also very grateful to Prof. Dr. Oguz Esen for his helpful comments and suggestions regarding the organization of the thesis. I also would like to thank him for his understanding and for the comfortable environment he provided us. I would like to thank Asst. Prof. Dr. Ayla Ogus who has helped me a lot in the empirical work and as well as in the grammatical corrections. Also, I am thankful to her because of the perspective she gave me in writing a research paper. I would like to thank to Prof. Dr. Osman Aydogus for his helpful comments and suggestions that he gave in the thesis committee.

I wish to thank, the wonderful colleague İdil Goksel who never hesitated to help me even she is very busy and shared the hard times of thesis writing process on telephone calls. I would like to thank Arzu Şen, who studied with me at school even at weekends until late hours and never hesitated to come besides me every time I called her to comment on my sentences or equations. I extend many thanks to Baris Serkan Kopurlu who bore most of the burden of the department without any hesitation. I am grateful to Harun Kapancioglu who made the formatting of the thesis with his advanced computer skills by spending a lot of time.

Last but not least, I would like to extend my special thanks to Alp Ozguzer, for his support, care and patience.

CHAPTER 1:

INTRODUCTION

When the government goes into the funds market, in which supply of funds is constant, the price of funds the so-called interest rates will increase. Rise in interest rates increases the cost of financing private sector investment. Therefore, government borrowing crowds out private investment. This simple mechanism puts into picture what is going on in financial markets in Turkey. Although the crowding out effect has been debated on the axis of complementarity of the public and private investments in empirical literature, in Turkey crowding out is the outcome of heavy domestic borrowing of the public sector due to the accumulation of high interest payments.

In 1980 Turkey changed its course to a market oriented economy by a stabilization program, in which private sector would play the leading role and the prices would be determined by market forces. In these years supply side economics became well known throughout the world, postulating that lower tax rates would improve private sector incentives, leading to higher employment, productivity, and output in the economy. Influenced by these policies the new government, which took office after the 1983 general election, introduced some policy measures to change the structure of the government's stance in the economy. In this respect, tax revenues were not raised sufficiently to cover populist and unrestrained expenditures in this period. Thus, public sector balances deteriorated, necessitating a source of finance. Since there were some constraints on external borrowing and money financing, borrowing from

domestic markets in terms of issuing interest bearing government debt instruments seemed to be the only source of finance. Thus, the government changed the finance mix to domestic borrowing by a conscious decision. In fact, domestic debt stock did not pose a real threat to the economy until 1994, because the government was able to lower the cost of the domestic debt. A law was enacted that obliged the banks to hold part of their liquid reserves in the form of government securities. Banks had to pay a huge penal interest rate, if they fail to fulfill this obligation. Consequently, the banks were forced to offer low interest rates in the auctions to fulfill their requirement of holding government securities. But after 1994, along with the April 5, 1994 Stabilization Program all the initiative passed into the hands of the banks. Afterwards, the government had to borrow from domestic markets with interest rates that are determined freely by market supply and demand conditions. Interest payments as a share of GNP started to increase, forcing the government to borrow more in order to roll over the growing debt. Thus, the government has been crowding out private resources in order to finance its borrowing needs by the way of banking sector since 1994.

In Turkey private sector has no resort to finance its capital formation where credit markets are dominated by the banking sector, capital markets are underdeveloped and there is no existence of corporate debt markets. The commercial banks most of which belong to leading holdings extend their funds to group companies, leaving other investors without funds. Accordingly, the private sector has been deprived of all its tools of finance. Actually, the private sector is the only opportunity to be the engine of growth where foreign direct

investments constitute the negligible part of the overall investments and the public sector was withdrawn from capital formation process.

The thesis is organized as follows. Chapter 2 outlines the crowding out theory, contains its classification with respect to two aspects and provides a literature review with the emphasis on the debate between the Keynesians and the Classics. It also documents the further debate by analyzing other schools and economists. Empirical work undertaken on the complementarity question will be examined in the empirical literature section by taking into account studies regarding Turkey.

Chapter 3 highlights Turkey's need of growth via using comparative economic and population growth rates of selected countries and emphasizes the role of capital accumulation in growth path by giving attention to two growth theories, one of which is Solow Growth Theory and the other is Endogenous Growth Theory. Next, the past and prospective role of the public and as well as the foreign direct investment is examined. This analysis enables to draw the inference that private sector should be the engine of growth. Then, functions of financial markets in terms of enhancing investment and thereby economic growth are covered. After that, the correlation between financial markets and economic development is investigated. Subsequently, financial markets in Turkey are analyzed by demonstrating that the capital markets are overwhelmingly dominated by public sector securities. And then commercial banks are examined by a detailed overview of the Turkish banking sector developments since the foundation of the Republic with special reference to the

period after 1980. Some key issues with an emphasis on the current view of the banking sector are laid down in the conclusion part of the chapter.

Chapter 4 describes the crowding out process in three sub-periods by giving attention to the dynamics after 1980s. The liberalization program, supply side economics and the government that was formed after the 1983 general election are documented as the main determinants of the period. Cost of government domestic borrowing process is analyzed with giving special reference to liquidity requirements of the banks in terms of keeping public securities before 1994. Subsequently, the high cost of domestic borrowing and crowding out of the private resources in post-1994 period is also documented. Next, a linear regression model is estimated to investigate crowding out effect of the domestic borrowing process by employing quarterly data for two sub-periods, the first one is the period 1989:1-1993:4 and the second is 1994:1-2003:4. Unit root tests of the time series are conducted to check for the stationary. Empirical results appear as expected.

Chapter 5 gives the conclusion and the policy implications.

CHAPTER 2:

THE FRAMEWORK OF CROWDING OUT THEORY

2.1 What is Crowding out?

In 1960s fiscal actions that entail changes in government expenditures and tax programs were dominant policies in economic stabilization efforts. The theoretical rationale behind those measures was the Keynesian multiplier analysis, which asserts that a rise in government expenditures or a decrease in the rate of taxation gives way to repeated rounds of spending by households and firms, resulting in a multiple expansion of total spending. However, total spending of financing the deficit, which alters the amount of government borrowing from the public or the rate of monetary expansion, was not considered (Spencer and Yohe, 1970). Several economists challenge this simple multiplier view on the grounds that it gives little recognition to the financing of government expenditures. They argue that government spending is financed in credit markets where the government is in competition with private borrowers. Once the government enters into the credit market where the supply of funds is constant, demand for loanable funds increases, pushing up the price of funds that is interest rates. Rise in interest rates means a rise in the cost of financing purchases of both physical capital and consumer goods. Thus, government borrowing simply *crowds out* private borrowing, which would have been channeled into private spending instead (Mishkin, 2003).

As can be seen in Figure 2.1, the increase in government expenditures shifts aggregate demand from AD_0 to AD_1 , but the increase in the interest rate that results from deficit financing of the government reduces private investment and consumption demand, so aggregate demand shifts back to AD_2 . This is the case of *partial crowding out* where the financing of government expenditures results in a smaller increase in aggregate demand than would have been due to fiscal expansion. On the other hand, an increase in government spending can be exactly offset by a decline in private spending. This phenomenon is called *complete crowding out*. In this case, government expenditures shift aggregate demand curve to AD_1 , but higher interest rates induced by borrowing reduces private spending shifting the aggregate demand curve back to AD_0 (See Figure 2.1). Hence, partial or complete crowding out reduces the stimulating effects of government spending (Baye and Jansen 1995).

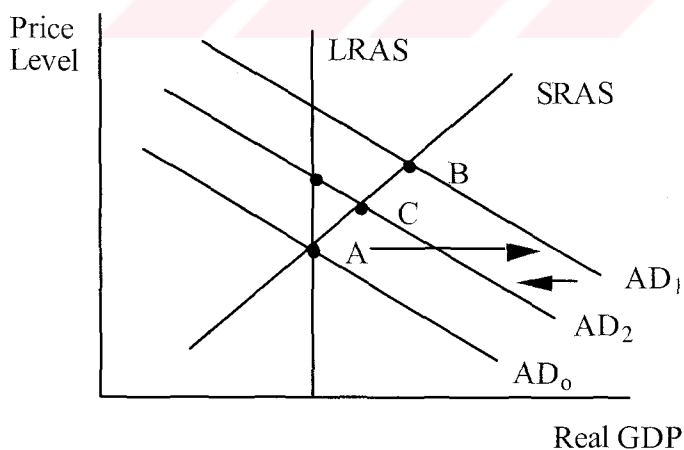


Figure: 2.1

A political debate persists regarding the magnitude of the crowding out phenomenon. While Keynesians who are the advocates of fiscal action believe

that deficit financed fiscal policy is not a reason for crowding out, Monetarists and Classicals argue that crowding out is nearly complete. These issues will be discussed further in the literature review section.

2.2 Classification of Crowding out:

Crowding out is classified with respect to two aspects, one of which is the time frame; the other is the directness of the crowding out. Both of the classifications are explained below.

2.2.1 Short-run and Long –run

Crowding out can be analyzed regarding the impact effect and steady state effect of changes. While short-run measures the immediate reflections (impact effect) of fiscal policy on given values of the short-run exogenous but long-run endogenous variables such as asset stocks and expectations about future, long-run is a measure of steady state effect of changes when aforementioned variables adjusted fully to the change in government action (Buiter, 1977).

While Neo-Keynesians analyzed short-run crowding out, Foley and Sidrauski (1971), Blinder and Solow (1973) and Tobin and Buiter (1976) investigated long-run implications of fiscal policy.¹

2.2.2 Direct versus indirect crowding out

Direct crowding out occurs if government activities affect private sector decision making directly. In other words, this is a case where public sector production uses resources that could have been used by the private sector instead. For instance, government spending on health or education may be reckoned as a substitute for private spending. In the IS-LM framework this situation is reflected by the government activity that is unable to shift the IS curve.

Direct crowding out argument assumes that private sector experiences productivity improvements whereas the public sector does not. Hence, private sector activity is displaced by public sector activity, thereby constraining economic growth. However, this assumption rests on the mutually exclusive substitutability of public and private sector outputs. The extent of substitutability of public consumption or investment for private ones determines the degree of direct crowding out. For example, whether government spending on education, health care can be regarded as a substitute for private spending is an issue of

¹ For more information regarding the short and long-run taxonomy, refer to the table by Buiter (1977) pp.314

debate. Yet, spending on education and health may improve the private sector by making labor more productive. Moreover, the effect of infrastructure investment on private profitability may be treated in a different way. Infrastructure investments undertaken by the government is regarded to reduce the cost of production of the private sector, by this means adding to the profitability of private investment. Hence direct crowding out would appear to be questionable in theory and far reaching in practice.

Indirect crowding out is generated by changes in price and interest rate levels resulting from fiscal policy action. Increase in government spending pushes up the interest rates and cost of finance and thus substitutes private sector investment. In a simple fixed price, closed and underemployment economy model, a vertical LM curve or a horizontal IS curve induces a complete indirect crowding out where government spending is unable to change output level. If the LM curve is upward and the IS curve is downward sloping as conventionally drawn, government spending shifts the IS curve to the right exerting an upward pressure on interest rates. Therefore, the rise in the equilibrium output level engendered by the shift of the IS curve is reduced by the increase in interest rates producing a partial indirect crowding out. In this case, private spending is not crowded out by public spending but by restrictive monetary policy. If the economy is operating where the resources are less than fully utilized, an expansionary monetary policy can bring the economy on its production possibility frontier (Buiter, 1977).

Government not only competes with the private sector in the demand side of the economy for the goods and services but also competes in factor markets and intermediate goods markets for labor and other resources. Thus, crowding out should not be confined to the demand side of the economy (Buiter, 1977).

2.3 Literature Review: The Debate on Crowding out Theory

In this section, the argument between Keynesians and Classical with respect to the crowding out theory will be discussed. Next, the debate will be analyzed further by considering other schools and economists.

2.3.1 The roots of the Debate

A political debate persists regarding the crowding out phenomenon. While Keynesians who are the advocates of fiscal action believe that deficit financed fiscal policy is not a reason for crowding out, Monetarists and Classical argue that crowding out is nearly complete.

In the Keynesian view, since the loanable funds are not fixed, government spending does not crowd out private spending. Keynesian multiplier allows the deficit-financed government spending lead to a rise in output, which will generate the necessary funds.² Nevertheless, Keynesian model allows for a

² For more information see <http://cepa.newschool.edu/het/essays/keynes/deficit.htm>

financial crowding out. Due to the money demand effect as output rises the demand for money rises, increasing interest rates. Owing to the portfolio effect as the supply of bonds increases, liquidity position decreases necessitating a higher interest rate to hold this more illiquid position.

From the Keynesian point of view, the impacts of bond financed fiscal expansion are given in Figure 2.2. An expansionary fiscal policy would shift IS curve to the right implying a horizontal rise from Y_0 to Y_1 . Because of money demand effect, a rise in interest rates would reduce investment reducing the income to Y_2 . On the other hand, due to the portfolio effect of the further supply of bonds would shift the LM curve to the left with a fall in the equilibrium income level to Y_3 . As a result, there is some degree of crowding out whose magnitude depend on the income and interest elasticities of money demand and investment.

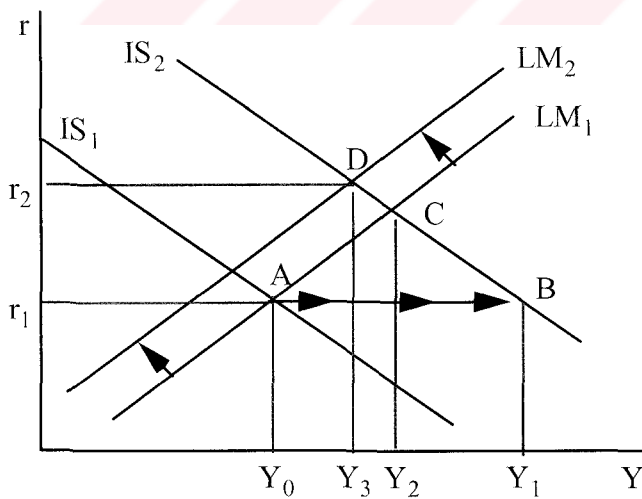


Figure: 2.2

Opposing Keynesians, Monetarists assert that fiscal policy actions, which are not accommodated by money creation, bring on temporary increases in income with no net effect in the long run and thus deficit financing of the government is a resource transfer from the private sector to the public sector. According to them monetary actions put forth a more important influence on economic activity than fiscal actions do.

The crowding out view of Monetarists goes back to Classicals. Before Keynesian revolution, Classical economists including Adam Smith and David Ricardo asserted that deficit financing of government crowds out private spending. Adam Smith, for instance, opposed the transfer of resources from the private sector to the public sector and regard Government labor as unproductive (Spencer and Pohe, 1970).

2.3.2 More on Crowding out Debate

2.3.2.1 Keynesian Case:

Although Keynes was aware of the limitations of the simple multiplier, he did not emphasize them explicitly. According to Keynes, when multiplier analysis is examined from the crowding out point of view, it has two caveats. First, government spending through employing additional men on public works will require a deficit financing policy which may increase the level of interest rates thereby, holding back private investment. Simultaneously, the marginal efficiency of capital goods will diminish as result of increased costs, which

necessitates a fall in the level of interest rates in order to offset it. This limitation can be explained within the conventional IS-LM curve framework.

If the LM curve has a steep slope, an increase in government spending that shifts the IS curve to the right will generate a sharp rise in interest rates and on the opposite, little or no change in output level. Therefore, crowding out of private spending by government spending is extensive when the LM curve is steeply sloped. This is the first limitation mentioned by Keynes that shifted the debate on a quantitative basis involving determination of the slopes of the IS-LM curves.

The second caveat regarding the multiplier analysis is due to the confidence effect of the government program on the liquidity preference and marginal efficiency of capital. If the government spending has the effect of a decline in the liquidity preference the LM curve will shift to the left. The marginal efficiency of the capital will diminish, if the IS curve shifts to the left. As a result, the equilibrium interest rate is well above the initial equilibrium whereas the output level stays almost the same as before (Carlson and Spencer, 1975).

2.3.2.2 Classical Case: Vertical LM Curve

According to the Classicals there should be an increase in the money stock or an increase in the rate at which the money stock turns over called velocity as a requirement for the government spending to stimulate economic activity. Due to the necessity of financing the government spending by issuing bonds or by taxes, private spending will be crowded out, unless money stock increases. Since

the LM curve is vertical, an increase in government spending that is reflected as a rightward shift of the IS curve only increases the interest rates but keeps velocity constant, so unable to stimulate aggregate demand. In this respect, private spending is crowded out by exactly the same amount as that of government spending increase. Consequently, crowding out is complete in both real and nominal terms (Carlson and Spencer, 1975).

2.3.2.3 Ultrarationality by David-Scadding:

According to ultrarationality theory households consider the corporate and government sectors as instruments of their private interests. Since households treat deficits as public investment and consider private and public sectors' investment projects interchangeable, an extra dollar of government spending displaces a dollar of private investment. This displacement effect is referred as the "ex ante crowding out" of private investment by David and Scadding (1974). An increase in government spending financed by borrowing is treated as part of investment, which keeps the IS curve and thereby the interest rate constant. Regarding this theory either bond or tax financed government spending has no effect on aggregate demand as well as on interest rates. Hence, there is both real and nominal crowding out.

2.3.2.4 Friedman:

Although Friedman (1972) did not comment on the crowding out phenomenon explicitly, his views about the issue might be inferred from the paper "Comments on the Critics" written for the purpose of replying to the comments

on his articles. In this article, he stresses that the fundamental difference between Monetarists and Keynesians is not the slope of the LM curve. Thus, he rejects the fact that Monetarist propositions rest on the vertical LM curve.

Friedman (1972) stresses the continuing effects of deficit finance and a fundamental distinction between stocks and flows. He criticizes Keynesian approach to give absolute importance to the first round effects of government spending. Hence, he notes “ this leads it to attach importance primarily to flows of spending rather than to stocks of assets.” Whether first round or ultimate effect has a bigger influence depends on too many factors. However, he accentuated the dominant position of the ultimate effect due to indefinite ongoing circulation of money compared to the first round effect covering at most a two-week period.

Friedman (1972) argues that government spending financed by debt is not conducive for growth due to two factors. First, expected future tax liabilities owing to the increased bond issuance of government will reduce the wealth effects of bond holding. Second, debt supported government spending absorbs the capital stock, which would have been transferred into productive private investment in the future.

Because Friedman (1972) is not clear about the commodity prices, it is hard to differentiate between real and nominal crowding out. However, it is clear that there is little difference between debt and tax financed government spending and both have negligible effect on stimulating aggregate demand.

2.3.2.5 Blinder – Solow:

In order to show the efficacy of the fiscal policy in an economy with underemployed resources, Blinder and Solow (1973) examined the stability properties of the model. They prove that bond-financed fiscal policy is ineffective unless the basic model is stable. They visualized crowding out effect in three levels. First, government spending in productive activities displaces the activities that would otherwise be undertaken by the private sector. Second, deficit financing of the government makes an upward pressure on interest rates reducing private spending. Third, issuance of bonds in order to finance the deficit increases private wealth. Greater wealth leads to both higher consumption and increased demand for money, shifting the IS curve to the right, and the LM curve to the left, respectively. In the long run, the shift of the LM curve wipes out the expansionary effect of the IS curve shift.

Blinder and Solow (1973) explored long-run impact of government spending under two alternative modes of financing. In the first model capital stock is taken as fixed and in the second model it is allowed to vary. They used the conventional IS-LM model holding the price level as fixed and leaving out the banking system. However, they included wealth in both the consumption and the demand for money functions as well as government budget restraint providing for debt interest payments. They found in both models that the economy is stable under bond finance and the fiscal policy is effective. This means that if the monetarists are right in considering fiscal policy ineffective, they must believe in the instability of the system. They concluded that fiscal policy matters. A bond

financed government spending would lead to a greater increase in output than money financed government spending.

2.3.2.6 Tobin - Buiter:

Tobin and Buiter (1976) analyzed whether expansionary fiscal policy has a permanent effect on aggregate demand or only a temporary effect. They constructed a long run equilibrium IS-LM model similar to the model presented by Blinder and Solow (1973). Differently, more explicit structure on the stationary state demand functions for stocks of wealth and capital and some additional ways of modeling fiscal and monetary policy are considered. Supply constraints are assumed away; resources are utilized less than full employment. Like Blinder and Solow (1973), they arrived at the conclusion that an expansionary fiscal policy leads to a higher income when stability conditions are met.

2.3.2.7 Brunner – Meltzer:

Brunner and Meltzer (1972) developed a model that is alternative to IS-LM framework in several ways. First, they employ two asset markets and three prices of which are real assets, financial assets and output. Second, money is a substitute for all existing real assets including bonds, real capital and current expenditure, not only for bonds. Next, a credit market, which is in interaction with the rest of the economy serving as a main link between private sector and

government, is constructed. Furthermore, effects of deficit financing of the government on assets and output are demonstrated explicitly. However, labor market and the role of price expectations are omitted in the model. They find that government expenditures financed by issuing debt is more stimulative than money financing when the balanced budget condition is met in the long run.

2.4 Empirical Literature on Crowding out

There is a vast literature regarding the crowding out effect of private spending by public spending. Empirical research concerning the debate has been done on the axis of crowding in or crowding out of the private investment by public investment. Hence, the question of whether public investment is complement to private investment is replied in a large number of studies.

Impact of government investment on private investment is twofold. On the one hand, public investment is defined to crowd in private investment when increased public investment enhances private investment. Public investment in social and physical infrastructure projects may stimulate the incentive to carry out private investment by raising private and social rates of return. On the other hand public investment leading to large fiscal deficits may crowd out private investment through high interest rates and future tax burden.

While Greene and Villanueva (1984), Serven and Solimano (1991) both in developing countries found a complementary relationship between public and private investment, Oshikoya (1994) in African countries and Blejer and Khan (1984) in his study of developing countries found only public investment in

infrastructure crowds in private investment. Balassa (1988) again in a research of developing countries, Nazmi and Ramirez (1997) in their study of Mexico indicated a crowding out of private investment by public investment. Argimon, Gonzalez-Paramo, Alegre (1997) found that public infrastructure projects crowd in private investment. Ahmed and Miller (1999) examined OECD and developing countries whether there is a crowding in or out. As a result they indicated a negative relationship between public and private investment but a positive one between transport and communication activities undertaken by government and private investment. According to Ghura and Barry (2000) government investment stimulates private investment in Sub-Saharan Africa, whereas it has a negative effect in Asia and Latin America.

Findings indicate that results vary according to the regions; furthermore there are contradictory results even in the same areas. In Turkey, empirical research regarding the crowding in and out effects has been conducted by Metin-Özcan, Voyvoda, and Yeldan (2001) and Ismihan, Metin-Özcan, and Tansel (2002). Metin-Ozcan, Voyvoda, and Yeldan (2001) suggest that as the financing of the fiscal gap shifted to securitization of the domestic debt in 1989, crowding in attributes of the PSBR declined, and crowding out or at best neutral effects of the PSBR on national output has begun. Likewise, Ismihan, Metin-Özcan, and Tansel (2002) assert that after late 1970s the relationship between private and public investment started to break and the crowding-in effect has been reversed after 1980s due to the widening fiscal gap and macroeconomic instability. Thus, they could not find complementarity between public and private investment after 1980s.



CHAPTER 3:

PRIVATE SECTOR: ENGINE OF GROWTH IN TURKEY

3.1 Introduction

In this section, after clarifying the reasons for Turkey's requirement to reach high economic growth rates, the strong relationship between capital accumulations namely investments and economic growth will be addressed by giving two models of growth theories. As it is known that capital accumulation is the outcome of net investment, which is equal to gross investment minus depreciation. Subsequently, development of public sector investment activities as well as foreign direct investments will be analyzed in order to demonstrate that the private sector should play the leading role to stimulate economic growth. Next, the strong correlation between financial markets and private sector investments in terms of achieving the stage of developed countries will be discussed by addressing the intermediary role of financial markets. Lastly, financial system of Turkey, which is dominated by banking sector, will be evaluated by giving emphasis to the banking system.

3.2 Turkey's Need of Growth

According to the Gross National Income (GNI) per capita calculated with purchasing power parity in dollars, Turkey is ranked 98th in 208 countries with

6,300 dollars and ranked 95th with 2,490 dollars with atlas methodology³ in 2002. Turkey is classified as a lower-middle income country according to the classification of the World Bank based on GNI per capita. Lower middle-income group constitutes the countries whose GNI per capita is between \$736 and \$2,935. Turkey's GNI per capita is much below the 15 European Union countries as well as the new members that accessed Union on May 1, 2004. Moreover, Turkey is a crowded country with a population of approximately 70 million. As published in 2004 World Development Indicators by the World Bank, Turkey's population is projected to reach to 81.3 millions at the end of 2015 with an estimated 1.2 percent population growth rate. In the last two decades Turkey's annual average population growth rate was 2 percent, which was above the world average. Thus, this lower middle-income country with high population growth rate must achieve a high economic growth rate in order to prosper.

Table 3.1 shows Gross National Income (GNI) per capita, average annual economic and population growth rates for the 1980-2002 period for some selected countries. Table 3.1 gives some unpleasant statistics for Turkey. In the last twenty years with an annual average growth rate 4.1 percent and population

³ The World Bank uses the Atlas conversion factor to reduce the impact of exchange rate fluctuations in the cross-country comparison of national incomes. For further details see <http://www.worldbank.org/data/aboutdata/working-meth.html>

growth rate of 2 percent Turkey has reached to 2,490 dollars of GNI per capita in 2002. Considering the demographical conditions of Turkey it is clear that this pace of economic growth is not sufficient for Turkey's passing through upper-middle income and then high-income country classifications. For instance United Kingdom, a developed country whose GNI per capita is 25,510 dollars realized a growth rate of 2.9 percent in the last two decades even her population growth rate is very moderate which is equal to 0.2 percent. To give another example, South Korea has managed to rise to the high-income category with 7.1 percent annual average growth rate in the last twenty years. Hungary and Estonia, two fresh members of the EU has reached GNI per capita levels that are nearly twice as much as Turkey's. Although their pace of growth is lower than that of Turkey, their population growth rates are negative. As a consequence, Turkey, a lower- middle-income country with high population growth rate has no chance other than achieving high economic growth rate.

3.3 Nexus between Capital Accumulation and Growth

Both of the growth models that will be briefly analyzed below accept capital accumulation as a key factor for growth.

Solow Growth Model: This model may also be named as neoclassical growth model. In the growth process only the accumulation of capital is determined endogenously. It is assumed that the other factors, population growth, depreciation, and most remarkably technological progress, are assumed to be

exogenous to the growth process. The production function that the model rests on is as follows:

$$Y = F(K, AL)$$

where Y is output, K is capital and AL is the labor force measured in efficiency units, which adds in both the amount of labor and productivity of labor as determined by the available technology. And it is assumed that there are constant returns to scale in the production function. However, according to the critics this model underestimates the role of capital. First, the interpretation of capital is limited to tangible assets and second, the capital should not only include physical plant and machinery but also human capital (Ahn and Hemmings, 2000).

Endogenous Growth Model: In this theory of economic growth, technology is determined endogeneously. Thus, this approach provides a more realistic mechanism for technological progress. According to endogenous growth theory, output varies proportionally with the amount of capital, thus giving rise to constant, rather than diminishing marginal returns to capital in production. The textbook representation of the theory is given as the following:

$$Y = AK$$

where Y is output, K is capital and A is a constant. “K” in this model is not the same as that in Solow model. Capital does not only include physical and human capital but also the accumulation of knowledge.

Thus, the capital accumulation namely investment is the most important factor for economic growth in both of the models. Furthermore, empirical evidence has shown that there is a strong correlation between capital accumulation and growth.⁴

3.4 Investment in Turkey

Investment activities may be undertaken by three ways, one of which is private sector investment, the other is public sector investment and another is foreign direct investment. Below the roles of the public sector and the foreign direct investment activities in overall fixed investments will be analyzed briefly for Turkey.

3.4.1 The Role of the Public Sector Investment in Turkey

Before the foundation of the Turkish Republic, it was stated in the First Economics Congress held in Izmir that the private sector should have played the leading role. After the establishment of the Republic, private sector was supported, but the industrialization drive was led by the state. In 1934 first five-year plan was introduced as part of the statist industrialization strategy, in which public sector took the leading role in infrastructure, mining and manufacturing projects. In 1950s central economic planning was given up and liberalization

⁴ See Delong and Summers (1991), Delong and Summers (1992), Levine and Renelt (1992).

policies were followed in terms of giving more freedom to the private sector. Yet, the liberalization efforts did not last long. The 1961 constitution made social and economic planning a state duty. In this sense, The State Planning Organization was established and given responsibility to prepare long-term and annual plans and to follow up the implementation of the plans. Between 1963 and 1983 a total of four plans were implemented. In these years most of the public sector investments were undertaken in the sectors of energy, transportation and manufacturing. In 1980, a liberalization program aiming at strengthening the role of market mechanism in the overall economy was announced. As the program emphasized the role of the private sector in a liberalized economy, growth rate of public sector investments was below the level of 1.8 percent during the period of 1980-88 (Yeldan, 2001). Moreover, as can be observed in Figure 3.1 the share of manufacturing sector in total public investments has a declining trend. While the share of manufacturing sector was 26.3 percent in 1980, it decreased to 4.5 percent in 1989. Thus, the manufacturing sector was totally withdrawn by the public sector to the private sector. In this era, private sector undertook investment activities in manufacturing and housing sector while the public sector invested in transportation and energy sectors (Yeldan, 2001). As seen in Figure 3.1 transportation and energy sectors constituted more than half of the public sector investments. In Figure 3.2 the development of public sector investment is given. After 1986 the public sector investments go into a declining trend and decreases to 4.9 and 4.2 percents in 1994 and 1995, respectively. Although the ratio increases after 1995, it fluctuates around only 6 percent. Moreover, the Figure

3.3 shows that nearly 40 percent of fixed investments are undertaken by the central government. On the other hand, the share of local administrations that mainly based on infrastructure activities picked up pace after 1990. This rise in the share of local administrations is mostly due to the involvement of the IMF in the consolidated budget expenditures. The share of SEEs in public fixed investments has declined over time and it is only 23.3 percent of the total public investments in 2002.

All the figures indicate that public sector totally withdraws from investing in sectors, which will add to industrialization and growth prospects of the Turkish economy. The Central Government that undertakes most of the public sector investments appropriated only 6.4 percent of its expenditures for investment from the consolidated budget in both 2001 and 2002. Thus, the public sector totally has lost its leading role in stimulating investment and thereby enabling economic growth and development.

3.4.2 The Role of the Foreign Direct Investment in Turkey

In 1980 Turkey changed its course to export oriented growth strategy, which included the promotion of foreign direct investment (FDI). A liberal and flexible foreign investment policy accompanied to the comprehensive liberalization and stabilization program. According to policy makers the Foreign Investment Law No: 6224, which was enacted in 1954 was insufficient to induce the inflows of foreign direct investment in this liberalization era. In this respect, some policy changes have been made in the Foreign Investment Law and amendments

guaranteed the transfer of capital gains, fees, royalties and dividends in order to make the investment environment more efficient and suitable for potential foreign investors. Moreover, sectors that foreign capital operates have been enlarged and free trade zones have been created where foreign capital is allowed to operate without restrictions. In addition, capital liberalization in 1989 was a further development that helps the foreign investors more confident (Kepenek and Yenturk, 2000).

FDI is different from loans to the private sector and portfolio capital flows in that that they have direct equity ownership, enabling foreign investors to bear the risks and avoiding fleeing of capital easily. FDI is expected to stimulate economic growth through increased productivity, human capital accumulation, R&D fixed assets, technology and know-how. Moreover, it may further stimulate economic growth by inducing domestic private investment (Dutz, Ozler and Yilmaz, 2003).

After 1980, Turkey has recorded a significant increase in FDI inflows compared to the earlier periods. Although a progress has been made in attracting FDI flows, Turkey's share in FDI flows among emerging market economies was negligible (See Table 3.2). In addition, total FDI flows to GDP ratio is at very low levels except the year 2001. While FDI/GDP ratio is higher than average in 2001, due to sales revenue of third GSM license, sale of a Savings Deposit and Insurance Fund bank to a foreign bank and finally sale of equity ownership of domestic automotive producer to the foreign partner, the share of FDI flows among emerging market economies is still very low (Arin, 2003). Also, the rise

in FDI/ GDP ratio can be attributed to the drop in GDP due to the crises of 2000 and 2001. According to the World Bank data of 2002, the annual world average of FDI/GDP ratio is 1.2 percent, while this ratio increases to 2.8 percent in developing countries. However, Turkey was able to attract only 0.6 percent of its GDP in 2002.

Consequently, Turkey was unable to attract sufficient amount of FDI inflows, which should be included in export-oriented growth strategy followed since 1980. FDI could not lead to productivity increase or technology transfer that will stimulate economic growth. Macroeconomic instability, high inflation environment and fiscal problems are reckoned as impediments in attracting FDI flows (Dutz, Ozler and Yilmaz, 2003). Thus, FDI does not seem to be engine of growth in Turkey in a foreseeable future.

3.5 Mechanisms for Financing Investment

As drawn in prior section that neither public sector nor FDI is stimulant for economic growth in Turkey. Private sector seems to be the engine of growth for Turkey. Yet, in order to finance its investment activities, the private sector needs financial markets.

3.5.1 Financial Markets and Their Fundamental Functions

Financial markets are the institutions or arrangements that facilitate the purchase and sale of financial assets. Financial markets have the basic function of transferring funds from economic units who have a surplus of funds to those

who have a shortage of funds. Thus, the economic units who do not have a productive use of funds channel these funds to those who have such an opportunity. Hence, lenders have the opportunity to save without investing; on the other hand borrowers may invest in productive areas without depending on their own funds. Economic units who have saved and are ready to lend surplus of their funds are generally households. Investments undertaken by the business firms are generally much more than their savings. Likewise, government's revenues are usually less than its expenditures. Hence, the most important borrowers in the financial markets are business enterprises and governments (Mishkin, 2003).

There are two kinds of finance one of which is *direct finance* where borrowers borrow funds directly from lenders in financial markets. Lenders sell financial instruments to the borrowers, which are claims on the borrower's future income. However, *indirect finance* includes financial intermediaries that stand between lenders and borrowers helping transfer the surplus funds of savers to the borrowers who are in need of funds. Thus, there is no direct relationship between savers and borrowers in indirect finance. Whereas deposits and loans are the financial instruments of indirect finance, treasury bills and bonds, stocks and corporate bonds can be reckoned as instruments of direct finance (Baye and Jansen, 1995).

Financial system affects economic growth by two channels one of which is capital accumulation and the other is technological innovation. Five primary

functions of financial markets may be listed, which foster these channels (Levine, 1997).

- *Mobilization of Savings:* Capital is pooled from different savers to be transferred to multiple investors that would otherwise be restrained from productive investments. Moreover, by mobilization savers have the opportunity to diversify their portfolios.
- *Better management of the trading, hedging, diversifying, and the pooling of risk:* Financial institutions lower the liquidity risk that arises because of uncertainties while converting assets into purchasing power. Furthermore, systemic financial risk is reduced through aggregation and thus is carried by those more willing to bear it.
- *The acquiring of information about investments and allocation of resources:* Financial intermediaries acquire the information regarding the firms, managers, and economic conditions that would be very costly and difficult to obtain by the individual savers. Low information costs induce capital to flow to productive investment opportunities, thereby improving resource allocation.
- *Better corporate control and monitoring of managers:* Financial arrangements among managers and owners of the firm and

creditors – banks, equity, and bondholders – enhances the corporate control that would otherwise hinder mobilization of savings.

- *Facilitate exchange of goods and services:* Financial markets that lower transaction costs enhance specialization, technological innovation and growth.

Consequently, financial markets facilitate mobilization of savings through alternative sources of financial instruments, thereby increasing the availability of finance for more firms at accessible cost as well as ameliorating efficiency of allocation of capital for productive investments (World Bank, 2003). Thus, financial system accelerates capital accumulation and technological innovation enabling economic growth.

3.5.2 The Correlation between Financial Markets and Development

Schumpeter was the first to argue the view in 1911 that banks play an essential role in economic development by affecting the allocation of savings. Hence, according to Schumpeter banks were the key factors to enhance productivity growth and technological change (Beck, Levine, and Loayza, 2000).

King and Levine (1993) have checked whether higher levels of financial development are positively correlated with economic growth by employing data on over 89 countries over the period 1960-89. They used the size of the formal

financial intermediary sector relative to GDP, the importance of banks relative to the Central Bank, the percentage of credit extended to private firms to GDP as indicators of financial development. A strong and robust correlation has been found between aforementioned indicators of financial development and both economic growth, capital accumulation as well as progress in the efficiency of capital allocation. Thus, financial development enhances economic growth both by increasing the rate of capital accumulation and by increasing the efficiency while using this capital. As a result, they concluded that Schumpeter might have been right in his opinion that financial development is vital for technological innovation and economic development.

Demirguc-Kunt and Levine (1996) examined empirically the correlation between the mix of financial intermediaries, markets, and economic development for nearly 50 countries over the period 1970-1993. Their research showed that economically more developed countries have larger financial intermediaries and stock markets, indicating a strong correlation between financial markets and economic growth.

Beck, Levine, and Loayza (2000) aimed to assess the impact of banks on productivity growth, and economic growth over the period of 1960-95. A significantly positive relationship between financial development and both real per capita growth and productivity per capita growth has been found. Therefore, the results of this paper are consistent with the view that development of banks enhances the allocation of savings accelerating total factor productivity growth and thereby stimulating long run economic growth.

3.5.3 Financial Markets in Turkey

In Turkey, financial system is dominated by the banking sector. 92.3 percent of financial system assets belong to the banks (See Table 3.3). Non- bank financial institutions such as insurance companies, private pension and mutual funds, leasing, factoring and venture capital firms account less than 10 percent of total financial system assets and only 6 percent of GNP (See Table 3.3). On the other hand, capital markets are dominated by government securities and corporate debt markets do not exist (World Bank, 2003). Now that an overview of the Turkish financial system is given, capital markets and banking system will be analyzed below.

3.5.3.1 Capital Markets in Turkey

After the banker's crisis of 1982, Capital Market Board was established in order to stimulate the capital markets by setting a regulatory and supervisory framework. In 1986 Istanbul Stock Exchange opened. New instruments such as commercial paper and mutual funds were introduced. Accounting and auditing standards were presented to confirm the international standards. In 1989, regulations regarding the capital mobility of foreign investors, which allowed them to purchase Turkish securities, became effective. Thus, Turkish stock and bond markets were open to foreign investors without any restrictions. By the end of the decade, Turkey seemed to lay down the regulations required for well functioning capital markets (Denizer, Gultekin and Gultekin, 2000). When the Istanbul Stock Exchange (ISE) started its operations in 1986, the number of

corporations with shares traded in the equities market was only 80. Market capitalization rate, which demonstrates the market value of corporations traded at the ISE, was 938 million dollars. As of October 2003, the number of corporations whose shares are traded in the market reached to 285 and the market capitalization reached to 56.4 billion dollars.⁵ While the market capitalization reaches an amount, which is 60 times as much as the amount in 1986, it still accounts for only around 20 percent of GNP. Considering the fact that high equity market capitalization as percent of GNP is an indicator for economic development and prosperity and this ratio in upper income countries is nearly 45 percent⁶, Turkey's low ratio of capitalization indicates that Turkey still does not have a deep and broad capital markets in order to enhance economic growth. Moreover, as can be seen in Figure 3.4 the market capitalization did not follow an even path. For instance, while the market capitalization reached its peak level of 114.2 billion dollars in 1999, it falls to 34.2 billion dollars in 2002, which is the reflection of the unstable macroeconomic environment in Turkey.

The volume of outstanding securities was 5.3 percent when ISE started its operations in 1986 and this volume constituted 7.9 percent of GNP. Since then

⁵ Source: Capital Market Board of Turkey (2003).

⁶ Source: World Bank (Beck, Demirguc-Kunt, and Levine (BDL) database).

the proportion of volume of outstanding securities to GNP increased to 34.6 percent in 1999 and reached its peak in 2001 with 74 percent. As of 2002, the ratio of outstanding securities to GNP is equal to 60 percent. However, the increase in this proportion is not the indicator of financial deepening since public debt securities clearly dominate the securities market. In Figure 3.5 it can be seen that while the proportion of government debt securities made up 76.8 percent of the total securities in 1986, it declined to 56.1 percent in 1991 and afterwards with an increasing path, reached 92 percent in 2002. On the other hand, the proportion of outstanding private securities to total securities increased until 1991 and reached its peak of 43.9 percent. However, since 1991 due to the increased borrowing requirement of the government, the proportion has steadily decreased and fell to the level of 8 percent at the end of 2002. Yet, the percentage of outstanding private securities over GNP remains very little since 1986. Its peak level was only 5.9 percent of GDP, which was probably due to the shrinkage of the Turkish economy after the liquidity crisis in 2001. As of October 2003, only 0.9 percent of securities have been issued by the private sector, indicating the fact that securities market has a miniscule role in transferring funds to the real sector. Significant part of the funds raised by the financial markets has been used by the public sector. Hence, due to its the lack of depth and breadth, the securities market is far away from enhancing real sector's investment and production activities.

3.5.3.2 The Banking Sector in Turkey

In this section, Turkish banking sector will be analyzed in three sub-periods, one of which is prior to 1980 and the other is the period between 1980-90 and another is post 1990. Then, current view of the Turkish banking sector will be analyzed.

3.5.3.2.1 Prior to 1980

In order to understand the structure of the banking sector, its development since the establishment of modern Turkey should be examined. In the prior years of the Republic, foreigners dominated Turkish banking sector and thus a contradiction occurred between national-owned firms and foreign banks (Artun, 1980). In the Izmir Economics Congress that was held in 1923, it was suggested that setting up a national banking system was crucial in order to industrialize. Because of the scarcity of capital and the weakness of the private sector, it was also asserted that public sector should play the leading role for the foundation of the banks (Akguc, 1987). In accordance with the statements of the congress Is Bank, which is the biggest private commercial bank of the Republic, started functioning in 1924 for the purpose of extending loans to industrial and commercial sectors, as well as investing in these sectors (Artun, 1980). Moreover, government provided the initial capital for 4 public banks and supported the establishment of more private banks. Number of national banks reached from 13 in 1923 to 45 in 1932 (Denizer, 1997). Moreover, in 1930 Central Bank of the Republic of Turkey was founded. One year later, it started

its operations as a joint stock company, holding the exclusive privilege of issuing banknotes in Turkey (Keyder, 1997). To sum up, in this period on one hand existing foreign banks carried on their operations as well as new ones were established and on the other hand specialized banks and private commercial banks were founded (Artun, 1980).

After this period, government policies changed substantially due to the Great Depression that affected the whole world and due the weakness of the private sector. In this period, which is the onset of the Second World War, the government switched to state led development strategy and created state enterprises in key industries. Thus, formation of new public banks was vital to enable the government to collect savings and direct them towards state enterprises. Moreover, the fact that most of the small local banks exited from the system due to the worldwide economic crisis enhanced the dominance of public banks in the sector.

However, after the Second World War until 1963, liberalization efforts that reduced the role of the state in the economy were the dominant policies. The banking sector was also affected by these liberal policies. In this era number of banks increased rapidly. Yapi ve Kredi Bankasi, Garanti Bankasi, Akbank, Sekerbank, Pamuk Bank, Demir Bank and T. Sinai Kalkınma Bankasi are the notable private banks that entered the system. Nonetheless, the recession of the economy towards the end of the 1950s led to the failure of many banks. Some of the banks ended their operations and some were liquidated and some were merged so that the number of the banks decreased considerably (Denizer, 1997).

The most notable characteristic of the 1950-61 period has been the organic relationship of major private banks with leading industrial groups. This integration has been initiated with Is Bankasi that has been established with the support of the state and sustained with the establishment of new private banks (Artun, 1980).

In 1960s Turkish banking sector has developed in line with the planned development strategy that increased public sector's role in the allocation and mobilization of resources through directed credit programs and subsidized lending to priority sectors. Thus, the financial system was the instrument of industrialization policy in this era (Denizer, 1997). Whereas the establishment of investment, development and specialized service banks were encouraged in accordance with the industrialization strategy, strong entry barriers deterred formation of commercial banks in this period. 4 new development and specialized service banks were established. On the other hand, 23 banks were either liquidated or merged, reducing the number of banks in the system.

Banking sector's dominant role in financial system and in the same way limited contribution of other financial institutions are worth mentioning in Turkey as observed in most of the less developed countries. Bank deposits constituted more than two thirds of total financial instruments in Turkey. (Onis and Ozmucur, 1988) Due to the dominant role of banks in the financial system, either legal or organizational decisions taken regarding the banking sector exerted strong influence on the financial system and the economy as a whole (Artun, 1980).

The other characteristic of the sector that deserves emphasis particularly after 1970s is its highly concentrated structure. Entry to the system is restricted financially and legally. Although the number of banks was equal to 43 in 1980, only four banks that are Ziraat Bankasi, İis Bankasi, Akbank and Yapi ve Kredi Bankasi controlled about nearly 65 percent of deposits, 60 percent of loans, 57 percent of assets (Onis and Ozmucur 1988). Hence, the Turkish banking sector demonstrated features that particularly belonged to a double monopoly⁷ market since it was controlling both the deposit and loan markets.

The other characteristic that deserves emphasis is the ownership of banks by industrial groups that converts the system into holding banking, which further strengthens the double monopoly structure of the banks. The reasons for this phenomenon are the following. First, by 1963 Turkey initiated a planned development strategy, which was led by dominantly public investments, and partly by private investments mostly in import competing sectors. In line with the development strategy the private sector was supported by the government through high protection rates and incentive schemes for investments (Denizer, 1997). While the public sector could finance investments by monetizing budget deficits and issuing low yield bonds, the private sector had limited recourse to

⁷ A market with only one seller and only one buyer is called double monopoly. Double monopoly power can either be granted to an entity by a law or can be formed without the rule of law as observed in the Turkish Banking Sector (Bulmus,2003).

finance in the absence of capital and money markets. Both stocks and bond markets and life insurance remained undeveloped modes of financing. Pension funds have been a source of finance only for State Economic Enterprises (Inselbag and Gultekin, 1988). Furthermore, due to the restrictions of the currency regime, private sector had no chance to finance their investments by borrowing abroad. Thus, the only way to finance investments was to establish or acquire banks.

Second, according to the Banking Law No: 7129 Article 38, a bank that has an ownership of the 25 percent of a company operating in priority⁸ sectors, has the ability to extend loans without any limit. This exclusive right of offering limitless loans is one of the motivations that led the industrial groups to establish organic relationships with the banks. Consequently, major industrial groups began to acquire the banks and by the mid- 1970s only 11 holding groups possessed almost all major private banks.

Another characteristic of the system was the rapid increase in the number of branches of the banks that are already in the system. Ceilings imposed on interest rates for credits and deposits resulted in the adoption of non-price modes of competition in the form of opening new branches during the phase of 1963-80. Throughout 1970s due to rising inflation, the interest rates became negative

⁸ These priority sectors constitute industry, exports, energy, transportation, mining and public works.

in real terms. Therefore, it became attractive for the same older banks to open new branches in every part of the country and to collect deposits with negligible costs. As mentioned above in the absence of capital markets, savers had no alternative to open deposit accounts besides purchasing gold and land. Because of these factors, the number of branches rose to 5769 in 1980 from 1720 in 1960. However, the number of banks decreased significantly in the same period (Denizer, 1997).

Holding banks transfer the funds that were collected with negative real interest rates to their industrial conglomerates so that the leading groups in Turkey who owned banks had the opportunity to invest in profitable areas. Hence, growth rate of these leading groups' conglomerates far exceeded the growth rate of Turkey, leading to an unequal distribution of income and as well as an unstable development. As a result, as of 1980 the main features of the Turkish banking sector were its highly concentrated market structure with its overbranched and inefficient network.

3.5.3.2.2 The Period of 1980-1990

In 1980 Turkey initiated a stabilization program that aimed to restructure the financial sector characterizing features typical of financial repression. In this regard a wide range of developments have been introduced in order to strengthen the role of market mechanism in the operation of financial markets. Deregulation of interest rates, liberalization of foreign exchange regulations, introduction of capital and money markets with the objective of creating sophisticated markets

were the major measures in this liberalization process. According to Gultekin and Sak (1993) the reform process was comprised of two sets of measures one of which is limiting government intervention to bilateral transactions and the other is establishing collective or competitive markets in the Turkish financial system.

1980-82 period of liberalization process can be described by partial rather than complete interest rate liberalization. Because four major commercial banks fixed their interest rates on bank deposits by making an informal agreement called “gentlemen’s agreement.” However, efforts of the leading banks did not last long. Since the institutional requirement of the deregulated environment were not ready, unregulated brokerage houses offered high interest rates to the public leading to a fierce interest rate competition between large and small banks. The outcome of these developments was a decline in banks’ interest earnings relative to their interest expenses and thus a crisis was under way with the insolvent and illiquid banks. In 1983 the Central Bank fixed the interest rates on deposits again, but much higher than those of pre-1980 period (Akkurt *et al*, 1992). The regulation of the interest rates by the Central Bank continued until 1988 in order to prevent the leading banks to set negative real deposit rates. After this experience, policy makers recognized the necessity of establishing the institutional framework prior to the reform process.

The fundamental change of the post-1980 period namely transition to positive real rates of interest resulted in financial deepening as expected. The ratio of financial assets to GDP increased from 28.3 percent in 1980 to 47.7 percent in 1990 whereas the ratio of M2 money supply to GDP reached to 25.6 percent in

1990 from 21.4 percent in 1980 (See Table 3.4). This increase may be dedicated to the rise in both the volume of bank deposits and their share in GDP. The share of total bank deposits in GDP increased from 15.2 percent in 1980, with a peak in 1987 (32.1 percent) to 24 percent in 1990 (See Table 3.4). The broader monetary aggregate M2Y, which includes foreign exchange deposits, reached higher levels in terms of GNP (Akkurt *et al*, 1992).

While the number of banks increased from 43 in 1980 to 66 in 1990, the number of branches increased slightly, reaching 6540 in 1990, up from 5945 in 1980. The occurrence that a limited increase in the number of branches relative to the notable increase in the number of banks has been an indication of a change in the overbranched structure of the banking sector (Akkurt *et al*, 1992). While the new banks entered into the system, older ones followed an expansionary policy fostering the growth of the banking sector. The ratio of total banks assets to GNP rose to 40 percent in 1990 from 28 percent in 1980, with a peak level of 52.5 percent in 1987 (See Table 3.5). According to Atiyas and Ersel (1994), the diminishing growth trend observed in the sector after 1987 is mainly due to two factors one of which is the new banking law that regulates and supervises the system and the other is the increase in the uncertainty ongoing in the economy.

The entry of foreign banks into the system has accelerated in this period reaching up to 23 in 1990, while it was only 4 in 1980. Nevertheless, the role of foreign banks in the banking system was quite negligible since their share in the total assets was only 3.5 percent in 1990. On the other hand, foreign banks

contributed to the enhancement of financial technology and human capital by their experienced and innovative character (Akkurt *et al*, 1992).

Another interesting point worth mentioning is the rise in the profitability of the sector in the second half of the 1980s. Although transition to positive real interest rates and administrative expenses born while switching to computerization increased the costs of the sector, the profitability increased considerably (Atiyas and Ersel 1994). The increasing trend in the profitability despite high operating costs can be attributed to the double monopoly structure of the sector and resulting high spread between loan rates and deposit rates. Aydogan (1993) argues that except for the strong companies that can be reckoned as potential customers, no firms had any bargaining power against the banks. Thus, those firms were piece takers in the loan market. In fact, they were able to take these high priced loans if only they were qualified enough. Since the market for deposits has been constant because of the underdeveloped capital markets that cannot be substitute for deposits, the spread has gone larger enabling the banks to earn high profits.

Yet, in a country where financial liberalization takes place, it is expected that the share of credits in GNP would increase. After the liberalization, contrary to the expectations the share of credits in GNP did not increase too much despite the significant increase in deposits due to the positive interest rates, meaning banking system failed to convert the deposits into credits (Onis and Ozmucur, 1988).

Finally, in 1989 capital account was opened. While Turkish nationals were permitted to purchase foreign securities and to borrow abroad without government permission, foreigners could buy Turkish securities and could open Turkish Lira accounts convertible into foreign exchange. Since such a policy change necessitated sound monetary and exchange rate policies for a sustainable economy, in the unstable political environment capital account liberalization led to overvaluation of the Turkish Lira due to the capital inflows arising from interest differentials between Turkey and abroad. This process inevitably led to 1994 crisis, the reasons of which will be discussed from the banking side in the next section.

3.5.3.2.3 The Period following 1990: A Glance at Crises

From 1991 until 2003, Turkey was governed by coalition governments, which deteriorated the stability conditions in the economy. Multi-party coalitions only lasted about 3 years on average and thus general elections were almost always on the way. Neither any governing coalition had the ability to achieve sustainable growth nor they had the incentive for it, where any coalition party had no idea concerning the duration of the coalition. A natural byproduct of this unstable environment was the populist policies that could reap their fruits in a very short time horizon, promising returns as votes in the next general election. Distorted development path of the Turkish Banking sector in 1990s should be analyzed in this instability respect.

The main features of the financial environment after capital account liberalization until 1994 were high interest rates, lower depreciation, and heavy internal and external short-term borrowing. In this era, particularly smaller banks engaged in risky strategy of borrowing abroad at lower interest rates and jointly purchasing government securities or extending loans to private sector at higher interest rates with longer maturities. Banks were gaining high returns by this strategy since the Turkish Lira was overvalued due to inflow of foreign capital that seek arbitrage opportunities arising from interest rate differentials. The banks were converting foreign exchange denominated debt into overvalued Turkish Lira and purchasing government securities with high returns, thereby gaining high profits. Thus, the banks were exposed to both maturity and foreign exchange risks. The short positions in the banking system reached to 5 billion dollars in 1993 (Ertugrul and Selcuk, 2001).

Yet, the risks of the banks became apparent when the government switched to a lower interest rate - higher depreciation policy at the end of 1993. In this regard, short maturity Treasury auctions were cancelled. The policy change in financing of the deficit increased the demand of the banking sector for foreign currency due to their open positions, and ignited the conditions for 1994 crisis (Ozatay, 2000). In order to calm the attack on foreign exchange arising from the open positions of the commercial banks, the Central Bank started to sell foreign exchange to commercial banks, and accordingly lost more than half of its international reserves (Ertugrul, Selcuk, 2001). The Turkish Lira was devalued by almost 70 percent by the first quarter of 1994, leading to the fail of three banks whose capital positions turned into negative (Ozatay, 2000). Even panic

spread into the larger banks with stronger capital positions. Thus, the government introduced a temporary 100 percent deposit insurance scheme to calm the panic in financial markets and to avoid the bank runs. Nevertheless, this temporary measure turned out to be a permanent one since no political authority was able to remove this scheme until now.

1994 crisis had devastating effects on the banking sector. Capital positions of the banks severely suffered. While loan extension to the real economy came to a halt, non-performing loans increased (Ertugrul, Selcuk, 2001). However, no lessons were drawn from the 1994 crisis and so, economic environment after 1994 crisis has been characterized by high budget deficits, high inflation, and high interest rates. Government returned to its old financing mechanism of the deficits where borrowing abroad was constrained and Central Bank of the Treasury financing was limited after the stabilization program announced on April 5, 1994.⁹ In capital account openness, all private banks pursued their behavior of taking advantage of arbitrage opportunities in profitable government securities market. Short positions of the banking sector kept increasing after 1994 crisis and contributed significantly to the crisis in 2000.

⁹ This limit was 15 percent of the annual budget appropriations before 1994. This legal limit was put into operation after the announcement of a protocol signed between Treasury and Central Bank in order to limit the monetization of public sector deficits in 1989.

High profitability of the banking sector attracted many leading groups who do not own a bank. Hence, receiving a bank license became the main target for all the groups in Turkey. The other reason under the enthusiasm to acquire bank license was the fact that almost all the private sector banks belonged to industrial groups and these banks extended credits to their group companies. The limits set for lending to affiliates and equity holders are very high compared to international standards and generally banks do not stick to these regulations¹⁰ (Denizer, Gultekin and Gultekin 2000). Yet, the industrial groups who do not own banks are left with limited funds due to heavy government borrowing in the domestic market. Consequently, excess profits of the banking sector on one hand, limited access to funds due to high government borrowing and connected lending of the banks to conglomerates on the other, were the main motives for the groups without banks to acquire bank licenses.

The bank licenses were properly granted by political inspirations without considering the qualifications of the groups to run a bank. During and after 1991 general elections, 6 local banks entered the system without any rational concern.¹¹ Due to the failure of the regulatory system to establish an effective

¹⁰ The limits for lending to affiliates are twice as much as the bank capital and half the bank capital for equity holders and related third parties.

¹¹ The owner of one of the banks that entered the system was brother of President Suleyman Demirel. And this bank failed after 1994 crisis.

supervision on the banking sector, only political consideration played a role in management of the banks or *visa versa*. Board of Sworn Bank Auditors associated with Treasury was authorized to regulate the banking system. However, the regulatory authority lacked the autonomy to take necessary steps for regulation where banks resist these actions by attempting to political interference (Alper and Onis, 2002).

This inactive regulatory environment coupled with full deposit guarantee scheme that had been introduced after 1994 crisis, led to an unfair competition in favor of small and aggressive banks. Troubled banks with inadequate capital bases initiated a price competition against large and prudent banks to attract deposits by offering high interest rates (Akçay, Erzan, and Yolalan, 2001). Moreover, banks abused deposit guarantee by extending credits with exceeding legal limits to group companies, which have undertaken aggressive growth strategies. Due to reckless strategies of group companies, non-performing loans of the banks increased significantly, worsening the health of the sector.

Besides, regulatory authority failed to create an exit mechanism for the weak banks. The undercapitalized banks unable to restructure themselves have been placed under Treasury's surveillance. These banks were given some benefits including tax breaks and exemptions from meeting the reserve requirements. Thus, banks that were put under surveillance had no incentive to rehabilitate themselves as far as the favored conditions considered (Alper and Onis, 2002). In this period, except for the 1994 crisis, no poor performing bank exited from the system until 1999. Accordingly, entry of new banks because of high profits

and absence of exit mechanism increased the number of banks, leading to an unhealthy expansion of the sector.

Although many private banks entered into the sector, public banks maintained their dominant position. The public banks, whose both lending and borrowing process was politicized by successive governments, have created great distortions in the system notably in the aftermath of the 1994 crisis. State banks were able to extend subsidized credits to favored sectors. These subsidized lending programs were used as a rent distribution mechanism by the following governments and jointly served to their populist policies. The lending rates charged by these banks have often been below their funding costs. As a result, the profitability of these banks has been severely suffered. The Treasury as an obligation should compensate duty losses of these banks that have been incurred due to the difference between the funding costs and the lending rates. While the Treasury was reluctant to compensate these losses, poor capitalized public banks financed them by collecting deposits and borrowing from interbank market with high interest rates. This strategy of the state banks artificially increased both interbank and deposit interest rates in the market. Moreover, the public banks' borrowing activity in interbank money market for their daily liquidity needs increased the system's resilience to exogenous shocks.

At the end of 1999, a three-year disinflation program was launched under the guidance of IMF. A new banking law was enacted before the program was launched. The most important element of this law was the establishment of the Banking Regulation and Supervision Agency (BRSA). According to the new

Banks Act BRSA would operate as the key regulatory agency instead of Treasury. In addition, this act laid down procedures and principles regarding the extension of credits, capital adequacy, and minimum capital requirement. Moreover, Saving Deposit Insurance Fund (SDIF) has been founded to take over and restructure failing banks. After the enactment of the Banking Law,¹² five banks were taken under the control of Savings Deposit Insurance Fund.¹³ This new agency's main objectives were to protect the rights of the depositors, to facilitate a healthy environment for the banks to operate efficiently and to ensure efficient functioning of the credit system. BRSA had financial and administrative autonomy, which in a large extent reduced the intervention of the politicians in decision-making process regarding the regulation of the system. As mentioned above, acquiring bank licenses were subject to political consideration. After the formation of BRSA political pressures continued, but they could not manage to operate as they did in the previous periods.

The IMF supported program that was launched in December 1999 aimed at decreasing inflation rates to single digit levels in three year's time and it was based on a pegged exchange rate regime. For the first 18 months pre-announced exchange rates would be replaced by a widening band and ultimately there

¹² The Bank Act Number 4389 was enacted in June 23, 1999 and later modified by the Act of 4491 dated December 17, 1999.

¹³ These banks are Egebank, Yurtbank, Yasarbank, Esbank and Sumerbank.

would be a transition to a flexible exchange rate regime. However, the monetary program imposed a strict limit on net domestic assets and allowed monetary expansion only through increases in net foreign assets. In this regard, Central Bank was powerless to liquidate the financial system and the liquidity in the economy relied only on capital inflows. These monetary limits coupled with no sterilization rule of capital inflows left the Central Bank without any monetary tools to intervene the economy in case of a sudden shock that would occur by the reversed expectations of foreign investors (Yeldan, 2002).

Following the disinflation program, optimistic expectations concerning the stabilization program led to a decline in the interest rates of government securities. Thus, some of the banks engaged in a strategy of purchasing excessive amounts of government securities with an average maturity of 15 months. They financed these purchases by repo funding and interbank loans, 99 percent of whose maturity is 1 day, thereby exposing to the maturity risk. The banks that pursued this strategy made capital gains in such an environment where interest rates on government securities were declining (Alper, 2001).

However, 12 months after the program was launched medium outlook of Turkey turned into negative due to its widening current account deficit and the real appreciation of the Turkish Lira against the pre-announced exchange rate. Thus, the foreign investors with an expectation of sudden devaluation of the Turkish Lira started to leave the government securities market by selling their securities at very low prices. Since resulting capital outflow could not be sterilized by the Central Bank because of the restrictions set on net domestic assets, interest rates

increased sharply. The rise in interest rates decreased the value of government securities. Since Turkey's market risk rose, foreign banks ceased to extend loans to some of the Turkish banks. The banks that are in need of liquidity due to their maturity mismatch began to sell their government bonds, pushing up the interest rates further. Accordingly, Central Bank liquidated the market by purchasing government securities and lending to the banks at the inter-bank market. Hence, Central Bank violated the performance criteria by exceeding the limits set on net domestic assets. Due to the demand of the banks with open positions, the Central bank pumped approximately 4.3 billion dollars to the market and thus faced the threat of international reserves depletion (Akyuz and Boratav 2002). At the end, Central Bank stopped providing liquidity to the market and overnight interest rate reached its peak level. Only after IMF announced that supplementary reserve facility totaling of 7.5 million would be provided to Turkey in several installments, financial markets seemed to be stabilized, the capital outflow reversed and the international reserves turned to its pre-crisis level. However, there was not a sudden decline in the interest rate levels and they never turned to their pre-crisis levels. The fragility of the banking sector and dependency on the short-term capital flows to sustain liquidity and confidence in the market made the path for the liquidity crisis of February 2001. While these weaknesses continued, the maturities of external funds and government securities shortened significantly and interest rates started to rise again. Thus, the sustainability of the domestic debt became doubtful and the banks with large portfolio of government securities were the source of major threat to the economy. Continued appreciation of the currency, rising domestic and interest rates were

some of the indications that raise the threats about the outcome of the ongoing stabilization program (Akyuz and Boratav, 2002). In fact, the political dispute between the President and the Prime Minister was understood as a signal that the program came to an end and the repercussions were very serious. The Central bank sold one-third of its official reserves on the same day. The next day two public banks could not finance their daily liquidity needs in the inter-bank market and canceled their 5 billion foreign exchange buying contracts with the Central Bank since the Central Bank refused to meet the liquidity needs of these state banks. Although the overnight interest rates reached 4000 percent, the flight from the Turkish Lira could not come to an end. While the government faced the threat of depletion of official reserves and loss of control over monetary policy, it was forced to drop the peg and switch to a floating exchange rate regime on February 22, 2001. The Turkish Lira depreciated by 40 percent against the US dollar (Ertugrul and Selcuk, 2001).

As the chaos in financial markets exacerbated, the economic team was changed and the Turkish government and IMF agreed upon a new economic program, which was supported by 8 billion dollars additional credit. Furthermore, the World Bank announced that it would extend the necessary credits to Turkey to support the maintenance of the new program.

The main flaw of the failed program was its failure to diagnose the economic conditions in the country. It discarded the fragility of the banking sector and thereby the liquidity needs of the sector in the absence of the capital inflows. The banking sector that used to earn profitable returns in a high inflation and

high interest rate environment was forced to do real banking without any efforts for overhauling the sector. Thus, fragile banking system faced with a rapid switch to low interest rates and low inflation levels coupled with the impotence of the Central Bank for monetary action contributed to the liquidity crises of November 2000 and February 2001. Although Banks Act of 1999 was a positive initial step for structuring banks, banking sector reform was not the priority issue on the agenda. Hence, some of the banks suffered from huge capital losses, exacerbating vulnerability of the sector.

On May 15, 2001, Banking System Restructuring Program has been announced to eliminate distortions in the banking sector and to adopt regulations for a sound banking system. Four main pillars of the program were announced by BRSA. These were restructuring of the public bank, resolution of the SDIF banks and strengthening of the private banks and finally improving the regulatory and supervisory framework. First, duty losses of the state banks were liquidated, overnight liabilities were eliminated, and their capital position was strengthened. The resulting cost of the structuring process was 14.8 percent of GDP. For the resolution of the SDIF banks, the same steps were taken except open positions of the SDIF banks were reduced instead of eliminating duty losses. In order for the resolution of the SDIF banks, public sources amounting to 11.7 percent of GDP were used. In December 2001, a debt swap operation took place between treasury and private banks. The swap operation gave opportunity to the banks to close their open positions from 8.4 billion dollars to

1.5 billion dollars.¹⁴ However, with the swap operation the Treasury was the party who bore the exchange rate risk.

3.5.3.2.4 Current view of the Turkish Banking Sector

Today, Turkish banking system consists of 50 banks of which 36 are deposit-taking banks and 14 are investment and development banks (See Table 3.6). There has been a rapid decline in the number of banks from 79 in 2000 to 50 in 2004. The decline is mostly due to the merging and closure of the banks that are under SDIF. Similarly, number of branches has declined from 7801 in 2000 to 6052 meaning that nearly two thousand branches of the banks taken over by the SDIF were closed. The decline in the number and branches of the banks is an initial step through a healthy banking system. If it is considered that the total assets of the world's biggest bank is 6.7 times as much as the total assets of the Turkish Banking Sector and Turkish Banks holding 163 billion dollars of total assets is just equal to a medium sized European Bank, over branched and over banked structure of the sector is better understood.

As shown in Table 3.7 around one third of total bank assets are held by the remaining three state banks. One of the state banks, Ziraat Bankasi is still the biggest bank in Turkey in terms of total assets, total deposits, number of branches and number of employees. State banks extend only 17.3 percent of the

¹⁴ Data taken from BRSA.

total loans whereas they collect around 40 percent of total deposits. The ratio of total assets and deposits that are held by the state banks indicate that state banks are still dominant actors in Turkish banking sector. However, the low share of state banks in total loans signifies that deposits are not transferred into parties who are in need of funds in order to undertake profitable investments.

Table 3.7 also indicates that development and investment banks have a negligible effect in the sector. They constitute only 4.3 percent of total assets in the sector. Likewise, foreign banks are still so small players in the system that they hold only 2.9 percent of the total assets.

The so-called holding banking system is still in operation. As seen in Table 3.8 most of the private commercial banks belong to leading industrial groups in Turkey. What is more striking, 99 percent of the shares of MNG Bank belong to a natural person who is the chairman of the executive board of a holding. Only Sekerbank, Turkiye Is Bankasi and Oyakbank have diversified shareholder structure. In addition, Turkiye Ekonomi Bankasi and Turkish Bank belong to groups operating in merely financial activities. Therefore, as regards to total assets 42 percent of the overall Turkish banks and 75 percent of all private commercial banks belong to holding banks. Likewise, 71 percent of the deposits of the private banks and 41 percent of total deposits are collected by holding banks. The dominance of holding banks is more significant as regards to loans since holding banks control nearly 72 percent of the loans extended by private commercial banks and 48 percent of all the total loans extended by the sector. Considering the fact that the remarkable share of bank credits is extended to

group companies, it becomes clearer that why the industrial groups owning banks grow unequally compared to the groups without banks. In fact, these banks have a double monopoly power since they are controlling overwhelming part of deposits as well as loans. They are both the sole purchaser and seller in the market. In fact, considering our banking system as oligopolistic is not sufficient in this context.

Additionally, small and medium enterprises (SMEs)¹⁵, which constitute 99.5 percent of the manufacturing firms in Turkey, accounting for 61.1 percent of employment and 27.3 percent of value added, are able to take only 4 percent of bank credits. Preference of holding banks to give credits to their group companies coupled with the inability of SMEs to give collaterals required by banks led SMEs to be thrown away from the loan market, and thus the only way for them was relying on auto finance. Accordingly, investment in bigger projects and thereby growth opportunities of SMEs are restrained owing to the absence of access to funds.

If the type of loans extended by banks is checked (See Table 3.9), the remarkable increase in the share of consumer loans and credit cards may be

¹⁵ The Undersecretariat of Foreign Trade in Turkey defines small and medium sized companies as those, which have 1-200 employees and fixed capital of less than US\$2 million.

observed. While the share of consumer loans and credit cards were only 10.2 percent in 1998 and 15.7 percent in 2002, this share reached to 23.1 percent in 2003. This considerable increase in the total share of consumer loans and credit cards indicates the preference of banks to extend individual loans. The tendency of banks to give individual loans may be attributed to their risk minimizing strategy of putting the eggs in too many baskets. If the banks give a high amount of investment loan to one firm, they will expose to a high risk of non-performing loans unless the firm pays back. However, in case of individual loans, the risk is much more lower due to the distribution of the same amount of loan to a great number of households. Moreover, the banking sector behaves more prudently while extending loans after the crises of December 2000 and February 2001 that led to an increase in non-performing loans (NPLs). The share of NPLs reached 29.3 percent of the total loans at the end of 2001 (See Table 3.10). The increase in NPLs is due to the reckless behavior of some small and weak banks, which transferred most of their deposits to their group companies that followed aggressive growth strategies. After the February 2001 crisis these banks have been taken over by SDIF and as can be observed from Table 3.10 most of the non-performing loans belong to these SDIF banks. In order for the resolution of NPLs voluntary corporate debt restructuring the so-called Istanbul Approach has been initiated. Because of the loans covered by Istanbul Approach and more prudent behavior of the banks, the share of NPLs of the banking sector decreased to 17.6 percent and 12.7 percent in 2002 and 2003 respectively. This ratio of NPLs is still very high compared to developed countries where the United States has a 1.6 percent, Germany has a 5 percent and Japan has a 7.2

percent NPLs of the banking sector as of end 2002¹⁶. The high ratio of the NPLs in Turkish banking sector demonstrates that the saved funds are not mobilized into productive investment opportunities in Turkey. Moreover, the banks' prudence in extending loans, one of the reasons for the lower NPLs ratio, showed up itself through a rise in consumer credits and credit cards and a decline in investment loans as mentioned above, which further constrains the investment opportunities of Turkey. However, consumer loans and credit cards are the instruments that may be used in order to stimulate demand in developed countries, in which GDP per capita is very high. Turkey, whose GDP per capita is far below those of the developed countries has no luxury to transfer the limited saved funds to households to consume more instead of investing them in productive areas that will stimulate development and growth.

As given in Table 3.11, short-term loans are much higher than medium and long-term loans. As of end September 2003, long-term loans are only 76 percent of short-term loans extended in overall Turkish banking system. Short-term loans extended by the development and investment banks is higher than the long-term loans except for the year 2001, even major objective of those banks is to extend long-term loans to boost investment and thereby growth. Long-term loans exceed short-term loans only in case of state banks and they have also fallen below the level of short-term loans after 2001. High share of long-term

¹⁶ Data taken from BRSA annual report 2003.

loans in state banks compared to the share of other banks is mostly attributed to the specialized loans extended by the state banks. Nonetheless, as can be seen in Table 3.12, the share of state banks in total long-term loans has a significant declining trend, proving the fact that state banks are losing their financial intermediation role. On the other hand, the role of commercial private banks in extending long-term loans with 68 percent seems to be increasing unless the low amount of loans and as well as the low share of long-term loans is considered. However, it is well known that medium and long-term loans are necessary in order to undertake investment. It is certain that the profits of investment projects cannot be reaped in one-year time horizon. Thus, the maturity structure of the banking sector shows that Turkish banks are not able to contribute to economic growth by mobilizing savings to best possible uses. In a high-inflation and unstable macroeconomic environment, banks try to avoid extending long-term loans. Creditors prefer to give long-term loans only in stable environments where future macroeconomic indicators can be predicted with confidence. Otherwise, they start to engage in activities for saving the day. Accordingly, Turkish banking sector's contraction of long-term credits is an expected behavior in Turkey's unstable environment.

A visual inspection through the composition of deposits in Table 3.13 reveals that most of the deposits are held in foreign exchange, indicating a currency substitution. As can be seen in the Table 3.14 short-term deposits, which have maturity less than one year, constitute overwhelming part of total deposits. As of November 2003, approximately 88 percent of total TL and FX deposits have maturity less than 3 months. In Turkey's unstable macroeconomic environment,

savers do not want to take risk by depositing their savings for long maturities. Since short-term deposits are the main funding source of the Turkish banking sector, overwhelming part of the loans extended by Turkish banks is in short-term.

Table 3.15 demonstrates that the share of securities portfolio in total assets has been increasing. While this share was 11.5 percent in 2000, it has increased to 42.8 as of end 2003. If it is considered that more than 90 percent of securities portfolio is made up of government securities, the significance of the borrowing need of the government becomes clearer. As of end 2003, government securities portfolio of the banking sector reaches to 102,276 trillion TL, of which foreign exchange portfolio constitutes one fourth of the total portfolio. Moreover, 35.9 percent of the government securities have less than one-year maturity. Thus, these figures indicate banking sector will continue to be the main lender to the government (Akçay, 2003). Moreover, this combination of the total assets reveals the fact that no lessons were drawn from the severe outcomes of the crises 2000 and 2001. Borrowing needs of the government hinders the banks to play their real role of financial intermediation. The banks will continue to purchase government securities as long as these securities give high rates of return in order to earn more profits (Akçay, 2003).

3.6 Conclusion

In this chapter, it has been asserted that private sector is the only party that is able to stimulate growth. However, a glance at financial markets in Turkey

demonstrates that the private sector is deprived of its resources to undertake investment activities. Capital markets are dominated by government debt securities. Furthermore banking sector, which is dominant in credit markets and accounts more than 90 percent of total financial assets finances the borrowing need of the public sector since more than 40 percent of total bank assets are made up of public securities. In addition considering that there is no corporate debt market, the problem becomes more significant. In the next chapter, the development of the domestic borrowing and thereby crowding out process will be analyzed.



CHAPTER 4:

CROWDING OUT PROCESS

4.1 Introduction

After 1980, Turkey changed its course to a market oriented economy by a stabilization program announced on January 24 1980, in which private sector would have the leading role in the economy and the prices would be determined by market forces. The military government that took power after the coup of September 1980 showed its devotion to the new program by nominating the architect of the program Turgut Ozal as the deputy prime minister. When the country returned to the civilian authority, the Motherland Party with the leadership of Ozal won the elections of November 1983 and December 1987, indicating that the pillars of the program would continue. Although, the government had changed in the October 1991 elections, the new pattern of the program that made a significant change in Turkish economy prevailed without any break (Yulek, 1998). As the economy went through a new course, the size of the fiscal deficit increased and the financing of the deficit changed because of the transformation in the dynamics of the economy, which led to the crowding out of the private resources. Private investment was discouraged although the main aim of the program was to stimulate private sector. In this section, the dynamics that led to the accumulation of domestic debt stock and pushed the economy to the crowding out process will be analyzed in detail.

4.2 Political and Economic Dynamics of Crowding Out Process

4.2.1 Dynamics prior to 1980

During the period between 1963-1979 Turkey implemented an inward-oriented Import Substitution Strategy (ISI) that is characterized by five-year plans and ambitious public investment programs aiming at expanding the domestic production capacity in heavy manufacturing and capital goods (Uygur, 1993). In order to achieve the industrialization targets, the state was investing and producing major intermediates by State Economic Enterprises (SEEs). This investment drive was financed by domestic savings and remittances of the Turkish migrant workers. The gap between savings and investment was not so large that Turkey was able to borrow from abroad easily. However, the ISI strategy came to its limits by 1977 and financing of investments and current account deficit became more difficult due to the fall in workers remittances and real appreciation of Turkish Lira. (Metin-Özcan, Voyvoda, and Yeldan, 2002)

Investment targets were not given up, and so the government was forced to borrow from abroad in short terms or from the Central Bank. The policy linkages between targets of the government and resulting inflation and external debt have been clearly illustrated by Onis and Riedel (1993). Public sector undertook several investment programs, which led to the SEE and as well as budget deficits. Monetizing the deficits led to high inflation rates whereas borrowing from abroad increased external debt stock. Because of high inflation, interest rates turned into negative, discouraging savings and misallocating investments. Moreover, inflation led to the real appreciation of domestic

currency because of the fixed nominal exchange rate, and thereby leading to trade and current account deficits. Thus, external debt accumulated because of both poor saving levels and current account deficit (Onis and Riedel, 1993). Turkey fell into international insolvency in 1978 and ISI strategy came to its end.

Before 1980, domestic borrowing was not a favorable way of financing, which includes issuing of Treasury bonds and bills. The bonds issued by the Treasury had very long maturities and fixed nominal interest rates. Both short-term bills and bonds had interest rates that were below the rate of inflation. Hence, the inflation reduced the attractiveness of domestic debt due to negative interest rates as well as eroded the outstanding stock of debt, which reduced the real value of debt (van Winjbergen, 1992). As given in Table 4.1 the ratio of outstanding domestic debt stock to GDP is at very low levels until 1984 since external borrowing and monetization were the main sources of finance.

4.2.2 Dynamics in Post - 1980:

After 1980, all the earlier policies pursued reversed and Turkey initiated stabilization and liberalization program aiming at commodity trade liberalization and export promotion. Emphasis has been put on a price reform where prices are determined solely by market forces, which reduces the role of the public sector in the economy.

In 1980s, supply side economics became well known throughout the world because of its advocacy by the Reagan administration in America and the

Thatcher administration in England. Supply side policy analysts postulate that lower tax rates would improve private sector incentives, leading to higher employment, productivity, and output in the economy. This school of economic thought advocates that the entrepreneur rather than the government should drive the economy. In this regard, government should stimulate economic growth by removing impediments to the efficient use of the factors of production and thereby allowing market forces to operate freely. In fact, high provisions of taxation especially on personal and corporate income, privatization, and cuts in public spending should be the main pillars of the regulatory government.

Influenced by the policies implemented throughout the world, Turkish administration introduced some policy measures to change the structure of the government's stance in the economy. In this regard, amendments in the structure of the tax system, efforts in privatization of SEEs, transfer of fiscal autonomy from central government to local governments and Extra Budgetary Funds (EBFs) and shift of public investments to infrastructure activities were the significant features of public sector economics in post 1980 era (Kepenek and Yenturk, 2000).

The real public sector deficit and public sector borrowing requirement (PSBR) improved until 1983, but both deteriorated again after 1984. Several factors contributed to the fiscal retrenchment in this period. The adjustment in tax brackets to reduce bracket creep and the decrease in tax rates reduced the direct tax revenues from 11.7 percent of GNP in 1980 to 6.5 percent in 1985. Only after value added tax was introduced, tax revenues began to recover (Rodrik,

1990). However, transfers to state enterprises and low-income groups and exporting firms compensated the increase in tax revenues (Snowden, 1996). In this period, tax rebates were provisioned to export activities, financial intermediation, and financial earnings. Moreover, private firms in payments difficulties were given tax relief (Celasun, 1990). As suggested by Boratav, Yeldan and Kose (1999), the main preference of the government in this period was to alleviate the tax burden on capital incomes and to take no notice of unrecorded private transactions. In addition, EBFs were given more autonomy in collecting tax revenue. EBFs have diverse budgets, which are allocated for special programs. These funds have been exploited for popular and unconstrained expenditures of the government (Celasun, 1990). Consequently, the transparency and comprehensiveness of the budget was totally eliminated with these funds.

Following 1983, borrowing need of the public sector due to the gap between expenditures and revenues led the government to find new sources of finance, which will be discussed in the next section.

4.2.2.1 The Period between 1983-1991

The fiscal deficit had been predominantly financed by external borrowing and monetization until 1983. The Treasury could borrow from the Central Bank up to 15 percent of that year's budget expenditures. This facility was called short-term advances to the Treasury. Short-term advances were provided to the Treasury in order to eliminate the time gaps between revenues and expenditures

of the government. Yet, almost all the governments since 1950 saw short-term advances as a source of finance rather than a mechanism that alleviates the problems rooting from synchronization of budget components. Thus, they used short-term advances up to the limits. Resorting to money financing by way of borrowing from the Central Bank was the major cause of the inflation, with which Turkey has been living since 1950s.

Finance mix changed and interest bearing domestic debt financing increased while monetization decreased in 1983. As suggested by van Winjbergen (1992) financial innovations, decline in required reserve ratios, and increase in foreign exchange deposits contributed to the decline in money financing. While the decline in reserve requirement ratios reduced the demand of the banking system for base money, financial innovations such as introduction of repurchase agreements reduced the demand of businesses for money. Finally, increase in foreign exchange deposits decreased domestic currency deposits, and thereby reduced the individuals demand for money due to currency substitution. Considering the constraints on external borrowing and money financing the only source of finance left was issuing interest bearing domestic debt.

In 1983 when the country returned to the civilian authority, the Motherland Party with the leadership of Ozal gained the majority in the parliament in general elections. Nomination of Ozal as the Prime Minister of the new government indicated that liberalization targets of the country, which was announced in 1980 stabilization program would be on track. Yet, under the Ozal government the country would be in a new path that is the securization of

domestic debt in terms of issuing government instruments in order to finance the fiscal deficits as the borrowing need of the government continued. The first indication of the government's tendency to change the finance mix showed up itself as the issuing of revenue sharing certificates to the public.¹⁷ Revenue sharing certificates, which were unique for Turkey, had no predetermined interest rates. They were public papers, which were linked to revenue creating public works. The holders of these certificates were not provided with the partnership or the right to share the dissolution balances of the certificates (Mandaci and Soydan, 2002).

Turkish workers abroad as well as the households who were able to accumulate wealth aftermath of the urbanization era were the potential lenders to the public sector. Since Muslims constitute 99 percent of the Turkish population, there is a religious segment of the society that strictly adheres to the Islamic rules. As interest rates are forbidden by Islamic rules, this segment of the society neither deposits their savings in the banks, nor purchases interest bearing bonds or bills. Thus, revenue sharing certificates were very appropriate for these savers since they had no predetermined interest rates; instead, they were giving a share to the

¹⁷ Yet, in 1983 just before the general elections Turgut Ozal in a live TV discussion program stated that even the Bosphorus Bridge would be put to sale in line with the privatization targets.

holder by calculating the revenue of the underlying public work.¹⁸ The revenue sharing certificates of the Bosphorus Bridge were first offered to the public in 1984 under the Law for Acceleration of Public Investments. Then, the sharing certificates of Keban and Oyma Pinari dams were issued (Mandaci and Soydan, 2002). These sharing certificates were very successful in attracting the savers, especially the religious ones. Government aware of the attractiveness of the revenue sharing certificates decided to issue domestic interest bearing bonds and bills for the secular segments of the society. In 1984, government issued more bonds and bills than the regular issues. In May 1985, government started to sell securities regularly by public auctions (van Winjbergen, 1992). Because of the difficulties in selling government paper to a large number of savers via the branches of the Central Bank, it was more convenient to sell the government paper directly to the commercial banks. However, commercial banks were not willing to purchase these government instruments since they could direct their funds to more profitable areas.

An amendment has been introduced in 1985, in line with the decision of the government regarding the finance mix. Through the 1985 financial year budget law, the authority to determine “budget right” and “debt authorization” that had

¹⁸ Although it was announced that the shares would be distributed according to the annual revenue of the underlying public entity, they were determined according to the annual interest rates of the Treasury bonds.

been delegated to Turkish Grand National Assembly (TGNA) with the legislation No: 161-163 dated 1982, was transferred to the Ministry responsible for Treasury. Thus, the authority of debt management has been transferred from legislation function to executive function. Until 1985 Budget Law, the governments were allowed to issue domestic debt equal to the difference between the appropriations given by TGNA and the estimated revenues. However, after 1985 financial year budget law, the Treasury was authorized to borrow from domestic markets twice as much as the deficit, which is defined as the difference between appropriation and the estimated revenue. Moreover, while the interest burden was still on the budget, the authority for the implementation of internal state borrowing was delegated to the Treasury (Ekzen, 2003).

All the activities undertaken by the government after 1983 shows that increasing domestic debt finance by issuing government securities was a conscious preference of the authority (Rodrik, 1990; Ozatay, Sak, and Ozturk, 1996; Selcuk and Rantanen, 1996). However, financial markets in Turkey were too shallow to finance public sector deficits in 1985. The ratio of total financial assets to GNP was only 24 percent excluding the share of the Central Bank, whereas the share of government expenditures in GNP was reaching to 35 percent (Ekzen, 2003). Consequently, the conscious decision of the government to borrow from domestic financial markets had no reasonable explanation, but would only frustrate the development of immature financial markets and thereby investment activities and growth in Turkey. Moreover, shifting from zero-cost money finance to domestic debt finance had a high cost since government papers

pay interest rate. Thereafter government would pay the interest rates that had been determined freely by market supply and demand conditions in the economy. In fact, after 1983 deficiency in fiscal balance became apparent when the debt service began to rise. Since fiscal balance was deteriorating, securitizing the domestic debt by issuing financial instruments had picked up pace. Actually, domestic borrowing process accelerated more when commercial banks started to buy public securities in order to keep them as part of their liquidity requirement (Rodrik, 1990).

Commercial banks are required to hold some part of their deposits within the Central bank in terms of legal reserves and some part in form of liquid assets in vault cash. The ratios applicable to legal reserves and liquid assets are set by the Central Bank. Required reserve and liquidity reserve ratios are used as instruments of monetary policy. In 1984, liquidity reserve ratio was 10 percent, whereas the required reserve ratio was 25 percent. In July 1984, the liquidity ratio was set at 15 percent (Keyder, 1997). Hence, legal reserves held within the Central Bank were reaching high amounts. The public sector in need of financing fiscal gaps was eager to use these reserves, but using reserves was equal to money financing. Moreover, by the law No: 1715 dated 1970 the governments had been forbidden to resort to deficit financing by using required reserves. While high amount of legal reserves were held within the Central Bank it was incomprehensible to resort to domestic debt financing by paying interest rates according to the Ozal administration. In fact, an amendment regarding the use of required reserves did not seem to be reasonable due to the involvement of IMF with the macro management of the Turkish economy. However, the related

Central Bank Law neither made an arrangement regarding the composition of liquidity reserves nor the upper limit. Accordingly, the administration developed a solution to reach these unused reserves by changing the composition of the liquid assets. According to a special Communiqué dated 1986, the liquidity ratio was kept at 15 percent again but the composition of the assets held for liquidity reserves were changed. 3 percent of liabilities would be held in the form of first-degree liquid assets such as vault cash and free reserves at the Central Bank and the remaining 12 percent would be held in the form of second-degree liquid assets namely government debt securities (Keyder, 1997). The consequences of this new implementation were twofold. On one hand, banks were able to earn interest from their liquid reserves; on the other government was able to create a new source of financing. Although there was no obligation for the banks to hold second-degree liquid assets, holding government debt instruments was attractive for commercial banks since these securities were interest-bearing risk free assets. Treasury had to issue new debt to roll over the old debt, since public debt instruments had maturities less than one year.

Because of the requirement to roll over the debt, government had to find new sources of finance. The solution was to increase liquidity reserve ratios while decreasing the required reserve ratios. In this way, required reserves that cannot be held in the form of securities would be transferred to liquidity reserves and thereby funds would be directed to the government as a source of finance. Liquidity ratio was raised to 20 percent in July 1987 and was raised further to 23 percent in December of the same year. 5 percent of the requirement would be held as the first-degree liquid asset and 18 percent would be held in the form of

securities. Furthermore, in September 1987 a new amendment has been introduced regarding the vault cash portion of the liquid assets. Only 2 percent of liquid assets would be held as vault cash. The amount of vault cash exceeding this constraint would not be counted as liquid reserves. The aim of this arrangement was to force the banks to purchase government securities. Since then holding government securities became obligatory for banks rather than a voluntary act. Banks had to pay a penal interest rate, which was twice as much as the prevailing discount rate, unless they fail to fulfill this obligation (Keyder, 1997). In Turkish financial history, government paper turned out to be a more valuable asset than paper money for the first time. In any case, the banks would purchase interest paying risk free securities voluntarily, if they had not been forced by the law. Actually, the reason lying under this obligation was the government's willingness to reduce the cost of the domestic debt. As it was certain that the banks would buy government paper, there was no need to predetermine the interest rates. Only the ones who offered the lowest interest rates in the auction¹⁹ would be able to buy the securities. Because other banks offering higher interest rates were not able to purchase public securities, they were exposed to the risk of paying penalty. Thus, in the next auction, they were inclined to offer lower interest rates. Now, the government was able to reduce its

¹⁹ Treasury started to sell securities through auctions on every Wednesday. Interest rates were offered by banks in closed envelopes and the Treasury sold the securities to the ones that had made the lowest bid.

cost of debt due to low interest rates that occasionally fell below the inflation level.

Moreover, the scope of the official reserves has been extended. In this sense, the deposits of municipalities, judicial bodies, and city administrations have been accepted as official deposits. Furthermore, two thirds of the official reserves were to be held in the form of government securities. Thus, the government was borrowing even from its own resources.

By the mid 1980s, the government managed to control the supply side of the domestic debt by exerting high liquidity ratios to the banks. While the pace of the domestic debt supplied by the banks slowed down, government raised the liquidity ratio by a communique. In February 1988, the liquidity ratio was raised to 27 percent and in September, it was raised to 30 percent. The ratio was raised to 35 percent in March 1991 and kept at the same level until 1994. Again 5 percent of requirement was to be held in first-degree liquid assets and the constraint regarding the vault cash prevailed (Keyder, 1997). On the other hand, while the required reserve ratio was 30 percent for sight deposits in 1980, it was reduced to as low as 7.5 percent in 1991.²⁰

²⁰ See Keyder (1997) Table 4.1, Table 4.1a, and Table 4.1b for the list of required reserve ratios and see Table 4.3 and 4.3a for the list of liquidity ratios.

The Central Bank was deprived from its powerful instruments of monetary policy due to the applications regarding the liquidity and reserve ratios. Yet, the required reserve ratio was one of the most effective tools to control liquidity and the volume of credits prior to 1985 (Akkurt *et al*, 1992). Now in order to reduce the liquidity ratio by one percentage point, a huge debt repayment should have been made. Thus, the Central Bank could not affect money supply by changing the liquidity ratio. Similarly, the Central Bank was not able to use required reserve ratio as a monetary policy tool.

The period between 1983 and 1991 marks the beginning of domestic borrowing and thereby the crowding out process. The banks that should have played the intermediary role between savers and investors and direct funds to profitable private investment opportunities financed public sector's growing deficit. While public debt stock to GNP ratio was 3 percent in 1983, it steadily increased and reached to 6.8 percent in 1991. PSBR also increased in this period, reaching from 4.9 percent in 1983 to 12 percent of GNP in 1991 (See Table 4.1). Because of the obligation of the banks to hold part of their deposits in the form of government securities in fulfillment of liquid reserves, liabilities that were available for extending loans reduced. As stated by Akkurt *et al* (1992) banks could lend only 53.5 percent of their deposits because of the compulsory liquidity and reserve requirements as of end March 1991. It can be seen in Figure 4.4 that in this period the volume of credits to ratio GNP fell below the level of total bank deposits to GNP ratio. Medium and long-term credits, which are conducive for big private investment projects, have declined in this period. While the share of medium and long-term credits in GNP was 6.5 percent in

1983, it declined to 2.4 percent in 1991. Considering the fact that the Development and Finance Institutions extended half of the medium and long term credits, the share of medium and long-term credits extended by commercial private banks was only 1 percent of GNP (Yulek, 1998).

Snowden (1996) showed in a simplified model where government borrows only from the banking system that government borrowing simply exerts crowding out pressure on the private sector through the decline in bank credits. The crowding out of private resources are more severe greater the primary budget deficit and higher the nominal interest rates. Because of the obligation of the banks to offer low interest rates to the Treasury in order to be able to purchase government paper and to avoid from paying penal interest rates after 1987, the share of interest payments in consolidated budget as well as in GNP followed a steady path. As seen in Table 4.1 the real interest rates were negative after 1987 except the year 1991. Moreover, primary surplus, which is calculated as government revenue minus all expenditures except debt service payments, is in line with the operational surplus in this period, indicating that interest payments have not exerted a big burden on the budget yet.

The period of 1983-91 marks the onset of crowding out of the private resources by issuing government debt instruments. Henceforth, the process will accelerate as the borrowing requirement of the government increases and the interest rates increase.

4.2.2.2 The Period of 1991-1994:

After 1991 general elections, the government changed. Facing with the growing domestic debt stock of the public sector, the new government inclined to undertake a consolidation with the banks. However, short-term deposits whose average maturity is 2 or 3 months were the main source of government securities held in fulfillment of liquid reserves. The government in order to reduce the burden of domestic borrowing was willing to extend the maturity of the securities to 2 or 3 years. Since there would be a maturity mismatch between the liabilities and the assets of the banks, the banks did not admit the consolidation. Actually, the equities of the banks were not sufficient to bear the burden of such a consolidation. Since the government in power was a coalition lacking the authority to reverse the ongoing process, the solution appeared to avoid resorting domestic debt finance through the channel of liquidity reserves. Accordingly, since 1991 liquidity reserve ratio has never been used as a source of domestic debt finance. As fiscal deficits have grown in a rapid pace, heavy requirement for resorting to domestic debt finance prevailed, yet only the method had changed.

By the end of 1989, liberalization of capital account was totally completed meaning that the economy would be open to all external financial flows including short-term speculative capital movements. In the aftermath of capital account liberalization interest rates on government paper increased and the real exchange rate appreciated by more than 20 percent (Celasun, 1998). As a result, Turkish financial markets became very attractive for foreign financial arbiters

who seek instruments with highest rates of return and earn financial arbitrage gains from interest differentials. When this financial gain was converted back to foreign currency, resulting net arbitrage gain would reach higher amounts due to the real appreciation of the Turkish Lira (Yeldan, 2002). Commercial banks were the main intermediaries between short-term capital flows and government securities giving the highest return in Turkey. While banks borrowed abroad in short-terms, they purchased low risk and high return government debt instruments with longer maturities, raising their short positions. This existing policy provided the banks with high returns.

As seen in Table 4.1 and Figure 4.1 public sector borrowing requirement (PSBR) continuously increased during the period between 1989-93 and reached 12 percent of GNP in 1993. The gap between public sector revenue and expenditures is in line with the primary deficit in the period of 1989-93. Yet, after 1993 PSBR started to increase along with the operational deficit, indicating that interest payments on public debt became a major component of the deficits. While public domestic debt stock to GNP ratio reached 12.8 percent in 1993, the period of 1991-93 saw primary deficits on the consolidated budget. Primary deficit on the consolidated budget deficit can be attributed to the rise in public expenditures in that period. Because of the general elections held in 1991, populist policies such as lags in price increases of SEE products, generous agricultural support policies and improvements in public sector wages contributed to the deterioration of the fiscal deficit. Furthermore, rising defense industry expenditures because of the military operations in the southeastern

region of Turkey worsened the gap between revenues and expenditures (Celasun, 1998).

In the second half of 1993, Turkey witnessed a great deal of policy changes. The president Ozal passed away. The Prime Minister Demirel has been elected as the new president and Ciller became the new Prime Minister. The new prime Minister often stated that the most important policy goal of the government was to lower the domestic public debt stock by cutting the interest rates. In this regard, the government, willing to discard domestic debt finance being a financing tool, cancelled several auctions of short-maturity Treasury securities. Moreover, the government announced that government paper would be subject to an income tax of 5 percent. Meanwhile, the Treasury started to rely on short-term advances from the Central Bank (Ozatay, 2000).

Government's efforts to control interest rates and maturity structure of the domestic debt and declarations regarding the taxation of the Treasury paper coupled with domestic credit expansion of the Central Bank affected the exchange rate and thus depreciated the Turkish Lira. The commercial banks with open positions increased their demand for foreign currency to close their open positions. The Central Bank intervened in the foreign exchange market, losing more than half of its reserves. Overnight rates increased to very high levels. Thus, the policy-makers' willingness to change the finance mix of the domestic debt resulted in a severe crisis. The Turkish economy contracted by 6 percent, the highest level of annual output loss in the history of the Turkish Republic (Ozatay, 2000). As a result, Turkey embarked on a stabilization program on 5

April 1994, which was later supported by an IMF Stand-By. The program envisaged price increases of 70 to 100 percent on SEE goods and a decline in government deficit through one-time taxes on the net assets of the firm, wealth and corporate taxes on the revenue side and real decline in public sector wages and decrease in public investment on the expenditures side. Moreover, a significant structural change has been introduced concerning the application of the liquidity ratio. The liquidity ratio, which was 35 percent in the period of 1991-94, was reduced to 8 percent for TL liabilities and 9 percent for FX liabilities. In addition, all of the reserves would be held in the form of first-degree liquid assets, meaning that the banks were not obliged to hold government debt instruments anymore. Since the short-term capital has fled away and the government's reliance on domestic debt prevailed, the initiative passed into the hands of the private commercial banks in domestic borrowing process. In fact, the interest rates on government securities reached as high as 400 percent in May 1994. Thereafter cost of borrowing from domestic markets in market determined interest rates would be much more expensive for the Treasury.

4.2.2.3 The Period following 1994:

Turkey was required to generate a primary budget surplus for the sustainability of the domestic debt by the IMF Stand-By agreement that was signed after 1994 crisis. Calculated as government revenue minus all expenditures except debt service payments, the so-called primary surplus turns out to be a mechanism that forces the government to cut necessary expenditures, ensuring debt service is

sustained. No precautions other than primary surplus target have been adopted to prevent the accumulation of the domestic debt stock after 1994. PSBR diminished following the 1994 crisis, but reached 8.6 percent of GNP in 1996, turning to its initial trend. In this period political uncertainty took part in deterioration of macroeconomic balances. After the general election of 1995, a coalition government was formed, which stayed in power for only a few months. Then, another coalition party took office in July 1996, which lasted for only one year. Poorly managed social security system and the unrestrained expenditures of extra budgetary funds added to fiscal imbalances. Moreover, wage concessions in public sector, agricultural support policies, and transfers to state banks in order to finance large losses of these banks were the main factors for the budget deficits. The new government's populist policies were no different from those of the prior governments, since all the governments in Turkish history preferred to implement populist policies in order to be elected in the next election. Because all the governments in the period between 1991 and 2003 were two or three party coalitions, they were lacking neither the authority nor the willingness to produce permanent solutions to the ongoing problems in the economy.

The new coalition government formed in 1997 set out an anti-inflation program and requested the IMF to monitor the program for a period of 18 months. This program was a staff-monitored program aiming bringing down the inflation level. However, this program came to its end when the targets for the primary budget balance and public sector deficit were missed. After April 1999 general election a three party coalition government was formed. Since the targets of the

Staff-monitored program were missed, a declaration of the government revealed that a new anti-inflation program supported by the IMF would be introduced. An exchange rate based dis-inflation program was launched in December 1999, which was designed to decrease the high chronic inflation by means of achieving fiscal adjustment and adapting structural reforms for a freely operating competitive market. Policy instruments of the program were the pegged exchange rate and tight monetary policy. Nonetheless, one year after the program had been introduced, Turkey faced November 2000 crisis, necessitating the IMF bailout. Supplementary reserve facility extended by the IMF was not sufficient to calm the big turmoil in financial markets. Consequently, in February 2001 it became clear that the program was not sustainable anymore. Hence, the fixed currency regime was abandoned and the currency was left to free float. In the aftermath of the crisis, the interest rates increased to unprecedented levels, Turkish Lira was depreciated by huge amounts and the economy contracted sharply (Akyuz and Boratav, 2002).

It was announced officially that administrative failures to take necessary steps to correct current account deficit was the reason for the burst of the crises. As mentioned in the prior section, the targets of the program in terms of controlling the expansion of monetary base as well as attaining the primary surplus by keeping the consolidated budget expenditures and revenues within target limits have been achieved (Ertugrul and Yeldan, 2002). In fact, the main problem was the introduction of the program while Turkey had a fragile banking system and as well as deteriorating fiscal balances, indicating that central issue was regarding the structure of the program rather than the implementation of it

(Yeldan, 2002; Akyuz and Boratav, 2002). Following the February 2001 Crisis, the new economic program “Transition to the Strong Economy Program” was announced in May 2001. This program gave emphasis to structural reforms and legal regulations. In this sense, restructuring of the financial sector, strengthening the public finance and maintaining the price stability and increasing the transparency in state activity were the main pillars of the program. This program is still applied by the current one party government, which took office by taking strong majority of the votes in the general election of 2002.

After giving a brief explanation of economic and political conditions of post-1994 era, the evaluation of the fiscal balances and banking sector balances, which leads to the crowding out mechanism, will be given. Deprived of its power in determining the interest rates since 1994, government had to borrow from the domestic markets by paying high interest rates that had been determined in free market conditions. While the interest rates were negative in the period of 1988-90, interest rates started to increase after the cancellation of the obligation of the banks to hold public securities as part of their liquidity reserves. Yet, 1994 marks the breaking point for the interest rates since the real interest rate realized in Treasury auctions was 28.2 percent. Two years after the crisis, the real interest rate that was paid for the Treasury paper was 30.4 percent. Beginning from 1994, interest payments as a share of GNP started to increase. While the share of interest payments in GNP was steady at the level of approximately 2 percent until 1993, it jumped to 6 percent in 1994 and reached to 12.6 percent in 1999 (See Figure 4.2). In 1999, domestic debt stock reached 29.3 percent of GNP and PSBR rose to 15.5 percent of GNP because of the

interest payments on high cost of debt In 2001, the public debt stock reached to 66.3 percent of GNP (See Figure 4.3). As of end 2003 the share of interest payments in GNP is equal to 14.8 percent and domestic debt stock to GNP ratio is equal to 54.5 percent. On the other hand average maturity of borrowing in auctions has declined, indicating that the Treasury will have to borrow again in a very short time horizon in order to roll over its debt. While the average maturity of the government paper was at its lowest point in 2001 with 146.3 days, it has risen to 201 days in 2002 and 265 days in 2003. In fact, average maturity of borrowing in auctions is still less than one year and so the government borrows from domestic markets in short terms. As long as the public sector borrows from the domestic markets in short terms by paying high returns, the main holder of these securities, the banking sector will be reluctant to make real banking.

In Figure 4.4 the development of total bank deposits and loans is given as share of GNP. It can be observed that total bank credits lie below the level of that of total deposits. A rising trend can be observed in total deposits after 1984, while it was steady in prior years. Bank loans; on the other hand have an increasing trend between the years 1994 and 1998 and yet after 1998 it turns to its initial levels. In order to analyze the relationship between bank credits and bank deposits in the period 1994:1 – 2004:1, a linear regression model has been used by employing quarterly data. All data have been deflated by 1987 prices and divided to GNP in 1987 prices. The share of total bank deposits in GNP is regressed on the share of total bank credits in GNP. The following equation is estimated by simple OLS:

$$BL = 0,13 + 0.20 BD$$

(4.63) (3.42)

n=41 $R^2 = 0.23$

where BL denotes total loans extended by banks in 1987 prices and BD refers to total bank deposits in 1987 prices. It can be observed that explanatory variable is significant. According to the estimation results, a one-unit increase in real bank loans leads to 0.2 unit rise in the real bank loans. Bank deposits elasticity of bank loans also has been computed for the maximum, minimum, and average points of bank deposits. The elasticity coefficients are tabulated in the following table where e denotes the deposit elasticity of loans.

e_{\min}	$e_{av.}$	e_{\max}
0.29	0.47	0.56

Between the period 1994 and 2003 loan elasticities move in the range of 0.29 and 0.56. When deposits are at the maximum, a one-percentage increase in bank deposits leads to 0.56 percentage increase in bank loans, whereas a one percentage increase in bank deposits rises bank loans by 0.29 percentage point when deposits are at the minimum. However, in this period average rate of deposits lead to 0.47 percentage point increase in bank loans. All the estimations above show that extraordinary rise in total deposits, which has been observed since 1994, could not be reflected to loans and thus the ratio of total bank loans remained in the level of approximately 20 percent while total bank deposits to GNP ratio exceeded the 60 percent threshold in 2001. The reluctance of banks to

extend loans is due to the high-yielding government securities. As of end 2003, government debt securities constitute 40.9 percent of total bank assets.²¹ Banks directed their funds to the high yielding government debt instruments in order to finance borrowing needs of the public sector. Such a state of affairs indicates that the banks are not playing their real roles in the economy as financial intermediaries. If real rates of return on government debt instruments maintain to be high, banks will prefer to purchase high yielding and risk free government paper instead of extending loans to the private sector by taking risk. In this sense, lowering the borrowing needs of the public sector as well as the real rates of return on government debt instruments are two preconditions to be able to convert rising deposits to loans to the private sector. Otherwise, all sources of investment capital would be directed to government securities and banks would play a role in resource transfer mechanism from the general public –the source of the deposits- and to the government, hindering all the growth and development opportunities of Turkey. In this respect, a sentence cited from the World Bank Country Study (2003) regarding the crowding out of the private resources by the public sector is the last but not the least sentence to emphasize the significance of the ongoing process:

“..... The growth owes much less to the quantitative and qualitative development of broad range of financial products and services,

²¹ Data taken from BRSA annual report 2003.

especially for the private sector, and would almost certainly have been much higher in the absence of the severe crowding out that has taken place, thus constituting a missed opportunity for Turkey to achieve a higher level of development and economic growth.”

4.3 Empirical Framework for The Crowding Out Process

4.3.1 Data and Methodology

As mentioned in the prior sections while the government changed the mode of financing its fiscal deficits from monetization and external borrowing to securitization of domestic debt by issuing government paper, the domestic debt stock started to climb up. Thus, in this section crowding-in and out effects the domestic borrowing process will be investigated by employing quarterly data for the period between 1989-2003. The empirical framework employed in this section involves time series multiple regression model for two sub-periods. For the first sub-period quarterly data from 1989 to 1993 will be employed. First, the relationship between ratio of private investment to GNP and key explanatory variables such as the ratio of public investment to GNP, the ratio of domestic debt stock to GNP and finally the ratio of bank loans to the private sector to GNP has been investigated for the first sub-period of 1989-1993. Since the quarterly data is available for domestic debt stock since 1989, first sub-period is determined by the availability of the data. Next, the same methodology is used with the same variables for the period between 1994-2003. The data used in this

study are all obtained from the Central Bank of Turkey. All the data are taken in 1987 prices and they are divided to real GNP in 1987 prices. All the variables are in logarithms. The dependent variable of the equation is the logarithm of the private investment GNP ratio and is denoted by Log IP. The first explanatory variable considered in the equation is the logarithm of the government investment GNP ratio and is denoted by Log IG. The second explanatory variable is the logarithm of the domestic debt stock to GNP and is demonstrated as Log DB and the last independent variable in the equation is the logarithm of ratio of the bank loans to the private sector to GNP and appears in the equation as Log BL. The detailed definitions and the sources of the data are given in the appendix.

In order to find out a true relationship between variables, empirical work based on time series data should include stationary time series. A particular time series Y_t is said to be stationary if the following conditions are met:

- i. A constant mean: $E(Y_t) = \mu$
- ii. A constant variance: $Var(Y_t) = E(Y_t - \mu)^2 = \delta^2$
- iii. Covariance depending on the distance or lag between the two time periods:

$$\gamma_k = E[(Y_{t-\mu})(Y_{t-k} - \mu)], k=\text{lag.}$$

Briefly, mean, variance and covariance of the stationary time series at various lags should be the same irrespective of the time measured (Gujarati, 1995).

It is essential to measure the stationarity of the time series for the following three reasons:

- i. Regressions involving time series data have the possibility of obtaining significant results and high R^2 although there is no meaningful relationship between the series. In this case, there is a problem of spurious regression. The problem is observed due to a strong trend between two series. In this regard, the stationarity of the series should be investigated.
- ii. Empirical work based on time series data is used for forecasting. However, the forecasting is not valid if the underlying time series are not stationary.
- iii. In a dynamic time series model, time series data used in the model should be stationary in order to conduct ordinary least squares method (OLS).

The stationarity of the time series should be examined in order to find a true relationship between the variables. A time series should be converted to stationary one unless the series is stationary. It is a traditional practice to take differences of a series to correct for nonstationarity. If the differenced series is stationary after taking the first difference, the original series is integrated of order 1, or I (1). If the series are differenced twice and then it becomes stationary, the series is integrated of order 2, or I (2). As a rule, if a time series is differenced d times, and the resulting series is stationary, the series is said to be

integrated of order d, or I (d). If d is equal to 0, the resulting I (0) process represents a stationary time series. However, there are major drawbacks to use the differences of the series while ridding from the nonstationarity. Using the differences, on one hand changes the theoretical meaning of the differenced variable and on the other hand abandons information about the long run trend in that variable (Studenmund, 2001).

The most convenient method to test for stationarity is the Dickey-Fuller Test. Dickey and Fuller (1979) has estimated Dickey Fuller (DF) test in order to find out the order of integration of the series. DF equation including a trend and a constant is the following:

$$\Delta Y_t = a_0 + \gamma Y_{t-1} + a_2 t + \delta_t$$

When DF test is applied, the following null and alternative hypothesis are the used.

$$H_0 : \gamma = 0 \quad Y_t \text{ is not stationary.}$$

$$H_1 : \gamma \neq 0 \quad Y_t \text{ is stationary.}$$

When applying DF test statistic $\tau(\text{tau})$ is used instead of t test, whose critical values are constructed by Dickey based on Monte Carlo simulations.

DF unit root tests are applied for all the variables for the period of 1989-2003. None of the variables rejects the null hypothesis of I(0) at 99 percent critical

level. Test results are provided in Table 4.2. Therefore, unit root test results suggest that all these variables are stationary, which is a pre-condition for a regression analysis.

4.3.2 The Period of 1989-1993

For the sub-period 1989:1-1993:4, the following equation is estimated by using the simple OLS:

$$PI = -0,28 \cdot \text{Log IG}^{-0.17} \cdot \text{Log DB}^{0.08} \cdot \text{Log BL}^{0.60},$$

$$\text{Log PI} = 0.52 - 0.17 \text{Log IG} - 0.08 \text{Log DB} + 0.60 \text{Log BL}$$

(0.41) (0.10) (0.18) (0.20)

$$n=20 \quad R^2 = 0.71 \quad DW = 1.02$$

The values in parentheses are the standard errors. It is observed that R^2 is 0.71, indicating the equation has a high explanatory power. However, none of the variables except the share of bank loans in GNP is significant. Log BL is positively related with the dependent variable Log IP and has an elasticity of 0.6, which shows that 1 percent increase in Log BL increases Log IP by 0.6 percent. However, the share of government investment (Log IG) is negatively related with Log IP having an elasticity of -0.17. Domestic debt stock to GDP Log DB has a positive elasticity of 0.08, indicating a positive relationship between Log IP and Log DB. However, explanatory variables of Log DB and Log IG are not significant. Moreover, as can be seen from the Durbin-Watson statistic the equation has an autocorrelation problem. Thus, autocorrelation correction model (AR1) has been applied to the model in order to remove the autocorrelation. The results of the estimation are presented below:

$$PI / GNP = - 0,31. \text{Log IG}^{-0.18} . \text{Log DB}^{0.09} . \text{Log BL}^{0.60} ,$$

$$\text{Log PI} = 0.48 - 0.18 \text{Log IG} - 0.09 \text{Log DB} + 0.60\text{Log BL}$$

(0.35) (0.07) (0.30) (0.30)

$$n= 20 \quad R^2 = 0.73 \quad DW= 1.55$$

Although AR (1) estimation is conducted to disregard autocorrelation, the variable RHO is found to be insignificant, and thus autocorrelation cannot be removed. Moreover, none of the variables are significant at 1 percent significance level. Only Log BL is found significant at 5 percent significance level. Due to the lack of data prior to 1989, total number of observations is only 20, which may be a factor in the autocorrelation problem. It can be inferred that before 1994, the effects of the debt issuance of the Treasury on the private sector investment was on the way, but the harsh effects had not been felt yet. Therefore, the results suggest that in the period of 1989-1993 crowding out effects of the domestic borrowing process are not significant, but they are giving signals for such kind of a process.

4.3.3 The Period of 1994-2003

For the sub-period 1994:1 2003:4, the following equation is estimated by using the simple OLS:

$$PI / GNP= 0,42. \text{LogIG}^{-0.13} . \text{LogDB}^{-0.33} . \text{LogBL}^{0.51} .$$

$$\text{Log PI} = 2.74 - 0.13 \text{Log IG} - 0.33 \text{Log DB} + 0.51\text{Log BL}$$

(7.80) (-2.72) (-8.05) (7.77)

$$n= 40 \quad R^2 = 0.78 \quad DW= 1.77$$

The model estimation generates an R^2 of 0.78, indicating that the explanatory power of the equation is high. Durbin Watson statistic shows that there is no autocorrelation problem in the model. This equation suggests that the ratio of private investment to GNP is positively affected by bank loans and negatively affected by government investment and domestic debt stock to GNP ratios for the period between 1994:1 and 2003:4 as expected. As can be seen from the standard errors, all variables are significant at 1 percent level.

First, Log IG has an elasticity of -0.13 , which means that a 1 percent increase in the Log IG reduces the private investment GNP ratio by 0.13 percent. Therefore, there is no complementarity between private investment and government investment in Turkey, rather government investment crowds out private investment in the period under study. Second, the elasticity of Log DB is 0.33, indicating that a 1 percent increase in the ratio of government investment to GNP reduces the private investment GNP ratio by 0.33 percent. This negative relationship between public debt and private investment asserts that issuance of bonds and bills by the Treasury in order to finance public sector borrowing requirement decreases the supply of loans available for the private sector, inducing a declining trend in private investment. Third, as expected, the elasticity of the ratio of bank loans to private sector to GNP is positive and quite high with 0.51. This value indicates that 1 percent increase in bank loans ratio stimulates private investment ratio by 0.51 percent. This result is also consistent with the theory since Turkey has a bank based financial system and the private sector still finances its investment activities by bank loans.

These findings are in accordance with the findings of Metin-Ozcan, Voyvoda, and Yeldan (2001) and Ismihan, Metin-Özcan, and Tansel (2002), which has been mentioned in the empirical literature section. Thus, the empirical results confirm the view that there is a crowding out mechanism in Turkey of which detailed overview has been done throughout the chapter.



CHAPTER 5:

CONCLUSION and POLICY IMPLICATIONS

In this thesis, crowding out of private resources by the public sector has been analyzed for Turkey. Yet, this mechanism differs from the theory as well as the empirical crowding out literature in that, government in Turkey does not crowd out private investment via undertaking investment activities, rather heavy domestic borrowing of the public sector leads to crowding out. The method for financing fiscal gaps has been changed by the conscious decision of the government in 1983. First, revenue sharing certificates were offered to the public, next government securities were sold regularly through Treasury auctions. Thus, the public sector has been financing its deficits via domestic markets by issuing interest bearing government debt instruments since mid 1980s.

Until 1994, the growing domestic debt stock was not considered as a major threat to the economy since the government was able to borrow with negative real interest rates. Cheap borrowing of the government had been enabled by a law obligating the banks to hold part of their liquid reserves in the form of government securities. Otherwise, they would have been forced to pay high penalties. Hence, the banks were obliged to offer low interest rates to fulfill their requirement of holding government paper. However, after 1994 crisis the government started to sell securities with market determined interest rates when obligation of the banks to hold government securities was cancelled along with the April 5, 1994 Stabilization Program. Thereafter, borrowing rates increased,

raising the burden of interest payments on consolidated budget and thus necessitated issuing more securities in order to roll over the debt.

Banking sector, which dominates the financial system in Turkey is the main lender to the government in this borrowing process. Commercial banks earn significant profits by purchasing high yielding, risk free government securities without playing their essential role of financial intermediation. Yet, their *fundamental role is to direct the funds of savers to the investors who can transfer these funds to profitable investment opportunities.* As non-bank financial institutions are underdeveloped in Turkey, private sector had no resort other than lending from the banks for their financing requirements. Nonetheless, loans constitute only one fourth of total assets of the banks because of their high government debt securities portfolio. In addition, considering that group banks dominate the Turkish Banking Sector, bank loans are limited for the investors without banks. Thus, domestic borrowing of the government by way of banks crowd out the funds available for private investments.

Crowding out effects of the domestic borrowing process have been investigated in the third chapter by employing quarterly data for two sub-periods, one of which is the period between 1989- 1994 and the other is 1994-2003. For the first sub-period no convincing results have been found. However, significant results have been found for the second sub-period as expected. First, growing debt stock has a negative effect on private investment. Second, a negative relationship between government and private investment has been found, indicating that there is no complementarity between public and private investments after 1994.

Third, bank loans appeared to be extremely stimulant for private investment in the estimated equation. All the results are in line with the explanations presented in the prior sections.

Since neither public nor foreign direct investment offers any opportunity for Turkey's growth and development, only private sector investments can enable this lower-middle income country to pass through the stage of developed countries. Last paragraph of the "Transition to Strong Economy Program", which has been announced after February 2001 crisis and has still been implemented by current one-party government in power, emphasizes the importance of productive private sector and efficient government for a strong economy. Moreover, this government has accepted to adopt the rules of the economic criteria of the European Union the so-called Maastricht Criteria in order to be admitted to the Union. However, no strict provisions are taken to stop growing domestic debt stock and the borrowing needs of the government and thereby the crowding out of the private resources of Turkey. The only precaution required by the IMF is generating a primary surplus in order to enable the sustainability of debt service. Yet, the accumulation of domestic debt stock is not prevented in this way. Meanwhile, according to the real exchange rate index of the Central Bank, the Turkish Lira has appreciated by 45 percent. Considering that one third of domestic debt stock is in foreign exchange denominated debt, domestic debt burden of the public sector will exacerbate when the exchange rates turn to their real levels. The burden of the domestic debt stock on the overall economy will be much heavier despite the primary surplus.

As a result, strict measures should be taken as soon as possible to correct the fiscal balances and to cease the ongoing crowding out process, which is an impediment on Turkey's growth and development path. Turkey is doomed to be in the stage of lower-middle income countries, unless strict and permanent measures are taken by the policy makers.



APPENDIX A: TABLES

Table 3.1: GNI per Capita (\$), GDP and Population growth (%)

Countries	GNI per capita (\$) (2002)	Avg. Annual GDP % Growth (1980-2002)	Population % Growth (1980-2002)
France	22,240	2.1	0.4
Germany	22,740	1.9	0.2
Greece	11,660	1.8	0.3
United Kingdom	25,510	2.9	0.2
Hungary	5,290	1.8	-0.4
Portugal	10,720	3	0.4
Estonia	4,190	2	-0.4
Spain	14,580	3	0.4
Singapore	20,960	6.7	1.1
South Korea	9,930	7.1	1.0
Malaysia	3,540	5.8	2.6
Thailand	2,000	5.4	1.3
Japan	34,010	2.6	0.4
Turkey	2,490	4.1	2.0
China	960	10	1.2
Mexico	5,920	2.1	1.8
Argentina	4,220	1.2	1.2

Source: World Bank

Table 3.2: The Real FDI Flows, Share of FDI in GDP and % Share in Emerging Markets

Years	FDI (in 1987 prices)	FDI / GDP	% Share in Emerging Markets
1993	636	1.1	0.3
1994	608	0.7	0.5
1995	885	0.9	0.5
1996	722	0.6	0.4
1997	805	0.5	0.4
1998	940	0.6	0.5
1999	783	0.4	0.4
2000	982	0.7	0.5
2001	3266	2.2	2.3
2002	1037	0.8	0.6

Source: SPO, IMF

Table 3.3: Financial Institutions: Share In Total Assets and in GNP

	Distribution of Total Assets (%)		Share in GNP (%)	
	2002	June 2003	2002	June 2003
Banks	93	92.3	77.1	68.1
Private Financial Institutions	1.7	1.8	1.4	1.3
Non-bank financial institutions	5.3	5.9	4.4	4.4
Insurance	2.4	2.7	2.0	2.0
Leasing	1.4	1.5	1.1	1.1
Factoring	0.9	1.1	0.8	0.8
Mutual Funds	0.2	0.2	0.1	0.2
Brokers	0.4	0.5	0.4	0.3
Total	100	100	82.8	73.8

Source: Taken from the report of financial markets workshop group presented in Turkish Economics Congress on May 7, 2004.

Table 3.4: Some Selected Financial Indicators as a Share of GNP (%)

	M1	M2	Financial Assets
1980	17.1	21.4	28.3
1981	15.9	26.7	33.5
1982	16.4	31.1	38.8
1983	18.1	30.2	37.6
1984	13.4	30.2	40.1
1985	12.4	31	43.8
1986	13.6	31.3	46.7
1987	14.9	30.4	52.4
1988	11.2	27	48.7
1989	11.7	28.1	51.6
1990	11.2	25.6	47.7

Source: Taken from Akkurt *et al*, 1992

Table 3.5: Turkish Banking Sector in the Period of 1980-1990: Share of GNP (%)

	Total Assets	Total Deposits	Total Loans
1980	28.9	15.2	15.0
1981	33.8	20.3	17.3
1982	39.5	24.0	17.7
1983	42.4	24.4	18.2
1984	42.5	26.1	14.7
1985	41.4	28.2	16.4
1986	46.7	30.9	19.6
1987	52.5	32.1	21.9
1988	48.7	29.7	18.4
1989	44.3	26.2	17.2
1990	39.8	24.0	19.7

Source: Taken from Denizler *et al*, 1999

Table 3.6 Number of Banks and Branches

	Number of Banks				Number of Branches			
	2000	2001	2002	2003	2000	2001	2002	2003
State Banks	4	3	3	3	2,833	2,718	2,088	2,073
Private Banks	29	22	20	18	3,777	3,516	3,683	3,592
SDIF Banks	11	6	2	2	1,076	408	2,03	177
Foreign Banks	17	15	15	13	115	212	206	210
<i>Total of Deposit Banks</i>	61	46	40	36	7,801	6,854	6,180	6,052
Dev. Inv. Banks	18	15	14	14	29	31	36	35
Total	79	61	54	50	7,830	6,885	6,216	6,077

Source: BRSA, annual reports.

Table 3.7: Turkish Banking Sector (% Share of Total)

	Total Assets				Total Credits				Total Deposits			
	2000	2001	2002	2003	2000	2001	2002	2003	2000	2001	2002	2003
State	34.3	32	31.9	33.6	27.5	21	15.5	17.1	39.8	32	35.1	38.4
Private	49.5	56	56.2	56.3	58.1	61	69.5	70.1	45.9	61	58.4	56.8
SDIF	8.3	4	4.4	3.0	6.7	1	2.0	1.2	13.4	5	4.2	2.8
Foreign	3.4	3	3.1	2.9	1.3	3	4.4	4.2	0.9	2	2.2	2.0
Total of Dep.	95.5	96	95.6	95.7	93.6	100	91.4	92.6	100	100	100	100
Dev. Inv.	4.5	4	4.4	4.3	6.4	13	8.6	7.4	-	-	-	-
Total	100	100	100	100	100	100	100	100	100	100	100	100
First five	47.7	56	58.4	59.9	42	49	56.5	54.7	51	55	62.2	62.5
First ten	69	80	80.8	82.2	71	82	77.1	76.3	72	80	86.5	86.8

Source: BRSA, annual reports.

Table 3.8: The Ownership Structure of Private Commercial Banks as of September 2003

Banks	Ownership	Total Assets	Total Loans	Total Deposits
Adabank A.Ş.	Uzan Group	137,149	20,667	50,255
Akbank T.A.Ş.	Sabancı Group	26,774,578	6,809,383	17,164,031
Alternatif Bank A.Ş.	Anadolu Group	1,033,868	380,766	668,935
Anadolubank A.Ş.	Habas Group	1,728,263	461,788	941,124
Denizbank A.Ş.	Zorlu Group	3,506,935	1,281,797	2,559,922
Finans Bank A.Ş.	Fiba Group	5,934,340	2,227,307	3,862,523
Koçbank A.Ş.	Koc Group	6,844,409	2,703,926	4,570,715
MNG Bank A.Ş.	Mehmet Nazif Gunal	175,768	102,516	102,189
Oyak Bank A.Ş.		3,891,365	1,665,184	3,062,638
Şekerbank T.A.Ş.		2,309,777	676,364	1,918,364
Tekfenbank A.Ş.	Tekfen Group	532,792	154,466	340,566
Tekstil Bankası A.Ş.	GSD Group	1,016,722	419,232	626,611
Turkish Bank A.Ş.		303,569	18,104	183,449
Türk Dış Ticaret Bankası A.Ş.	Dogan Group	4,222,421	1,673,306	2,294,777
Türk Ekonomi Bankası A.Ş.		2,589,751	1,075,648	1,713,771
Türkiye Garanti Bankası A.Ş.	Dogus Group	19,758,181	6,113,592	12,968,637
Türkiye İş Bankası A.Ş.		26,899,266	8,237,778	17,334,863
Yapı ve Kredi Bankası A.Ş.	Cukurova Group	19,355,912	7,343,252	13,080,552
Total		127,015,066	40,984,691	83,393,717

Source: Banks Association of Turkey.

Table 3.9: Loans by Type

%	1998	1999	2000	2002	Oct.2003
Discounted Loans	0.8	0.5	0.4	1.0	0.7
Export Loans	26.8	23.4	18.9	19.2	18.8
Export Guaranteed Investment Loans	3.1	2.8	2.2	3.4	2.8
Other Investment Loans	2.4	4.3	3.4	4.5	3.0
Working Capital Loans	1.5	2.2	3.1	16.0	14.0
Specialized Loans	11.0	10.5	8.9	1.5	2.1
Fund based Loans	6.1	8.3	9.2	8.2	7.3
Consumer Loans	5.3	4.9	14.5	6.6	12.2
Credit Cards	4.9	5.8	6.8	9.1	10.9
Other	38.1	37.3	32.6	30.5	28.4
Total	100	100	100	100.0	100.0

Table 3.10: The Share of Non-Performing Loans (%)

%	1998	1999	2000	2001	2002	2003
State	5.6	9.6	11.6	37.3	37.4	29.2
Private	7.3	3.7	6.0	27.6	8.9	7.0
SDIF	49.8	62.4	41.8	67.3	69.4	56.5
Foreign	1.1	2.2	2.6	5.5	4.9	4.4
Development and Investment	3.4	3.1	2.5	10.7	4.0	3.7
Total	7.2	10.5	11.0	29.3	17.6	12.7

Source: BRSA, annual reports.

Table 3.11 Maturity Structure of Loans

	2000			2001		
	TL Trillion		(%)	TL Trillion		(%)
	S-T Loans	L-T Loans	S-T/L-T	S-T Loans	L-T Loans	S-T/L-T
State	3,379	5,841	172	3,244	5,558	171
Private	13,216	5,419	41	14,995	9,994	67
SDIF	1,671	553	33	340	165	49
Foreign	805	160	19	1,080	274	25
Dev. and Inv.	1,707	1,450	84	2,435	2,893	118
Total	20,780	13,424	64	22,096	18,886	85

	2002			Sept. 2003		
	TL Trillion		(%)	TL Trillion		(%)
	S-T Loans	L-T Loans	S-T/L-T	S-T Loans	L-T Loans	S-T/L-T
State	4,215	3,956	94	5,717	4,303	75
Private	18,610	16,621	89	23,227	17,070	73
SDIF	636	369	58	460	281	61
Foreign	1,683	540	32	1,839	529	29
Dev. and Inv.	2,805	3,196	88	3,187	2,921	92
Total	27,950	24,682	88	34,429	25,104	76

Source: BRSA, annual reports.

Table 3.12: Share of Long-Term Loans

%	Share in Total L-T Loans (%)				L-T Loan Share in Overall Loans (%)			
	2000	2001	2002	Sep. 2003	2000	2001	2002	Sep. 2003
State	43.5	29.4	16	17.1	17.1	13.6	7.5	7.2
Private	40.3	52.9	67.3	68	15.8	24.4	31.8	28.7
SDIF	4.1	0.9	1.5	1.2	1.6	0.4	0.7	0.4
Foreign	1.2	1.4	2.2	2.1	0.5	0.7	1.1	0.9
Dev. and Inv.	10.9	15.4	13	11.6	4.2	7	6	5
Total	100	100	100	100	39.2	46.1	46.9	42.2

Source: BRSA, annual reports.

Table 3.13 Composition of Deposits by Banking Groups

Percent (%)	2000		2001		2002		2003	
	TL	FX	TL	FX	TL	FX	TL	FX
State Banks	77.3	22.7	62.8	37.2	63.7	36.3	69.8	30.2
Private Banks	32.3	67.7	29.2	70.8	31.2	68.8	38.1	61.9
Foreign Banks	41.8	58.2	16.5	83.5	16.3	83.7	17.4	82.6
SDIF Banks	47.9	52.1	40.8	59.2	41.6	58.4	48.7	51.3
Total	52.3	47.7	40.7	59.3	42.7	57.3	50.1	49.9

Source: BRSA, annual reports.

Table 3.14 Maturity Structure of Deposits

%	% Share			
	2000	2001	2002	2003 Nov.
TL Deposits (Total)	100	100	100,0	100,0
Up to one Month	21.8	59.6	61.0	46.4
1-3 Months	26.6	31.3	28.3	40.9
3-6 Months	40.8	4.9	6.7	10.4
6-12 Months	9.6	1.3	1.9	2.0
12 Months +	1.1	2.8	2.1	0.4
FX Deposit Accounts (Total)	100	100	100.0	100.0
Up to one Month	14.6	58.6	68.3	66.2
1-3 Months	30.7	27.6	20.5	21.8
3-6 Months	34.4	5.6	4.8	5.5
6-12 Months	8.0	5.7	5.4	5.3
12 Months +	12.2	2.5	1.0	1.2

Source: BRSA, annual reports.

Table 3.15 The Share of Securities Portfolio in Total Assets (%)

%	1999	2000	2001	2002	2003
State	10.7	6.1	56.5	57.9	57.4
Private	20.2	14.9	27.8	33.3	36.2
Foreign	20.2	16.5	23.2	23.4	23.2
Total	17.2	11.5	38.9	40.5	42.8

Source: BRSA, annual reports.

Table 4.1 Some Selected Fiscal Indicators (% of GNP)

	PSBR	Interest payments	Domestic debt stock	Budget Deficit	Real interest rates
1983	4.9	0.6	3.0	-2.24	0.6
1984	5.4	0.8	3.9	-4.42	-3.2
1985	3.6	0.7	4.3	-2.26	3.6
1986	3.7	1.3	4.6	-2.76	14.1
1987	6.1	1.7	5.8	-3.48	6.6
1988	4.8	2.5	5.7	-3.09	-6.3
1989	5.3	2.2	6.3	-3.33	-2.8
1990	7.4	2.4	6.1	-3.11	-4.6
1991	12.0	2.7	6.8	-5.27	8.1
1992	10.6	2.8	10.5	-5.39	9.6
1993	12.0	4.6	12.8	-6.31	13.0
1994	7.9	6.0	13.9	-3.91	28.2
1995	5.0	6.1	14.6	-3.75	14.6
1996	8.6	8.9	18.4	-8.46	30.4
1997	7.7	6.7	20.0	-7.56	11.8
1998	9.4	10.5	21.7	-7.49	10.0
1999	15.5	12.6	29.3	-11.90	7.7
2000	11.8	15.0	29.0	-10.8	5.2
2001	16.4	21.2	66.3	-18.9	6.0
2002	12.8	17.1	54.8	-13.5	8.2
2003	8.7	14.8	54.5	-11.2	4.6

Source: SPO, Undersecretariat of the Treasury. Real interest rates until 1997 have been provided from Ozatay (2000).

Table 4.2: Unit Root Test Results

$$\Delta Y_t = a_0 + \gamma Y_{t-1} + a_2 t + \delta_t$$

Variables	DF Test		Result	Order of Integration
	Without trend ²²	With trend ²³		
LIP	-7.54*	-30.18*	Unit root	I(0)
LIG	-67.78*	-74.69*	Unit root	I(0)
LDB	-14.78*	-15.19*	Unit root	I(0)
LBL	-20.19*	-21.64*	Unit root	I(0)

²² DF regressions include an intercept but not a linear trend.

²³ DF regressions include an intercept and a linear trend.

APPENDIX: B

FIGURES

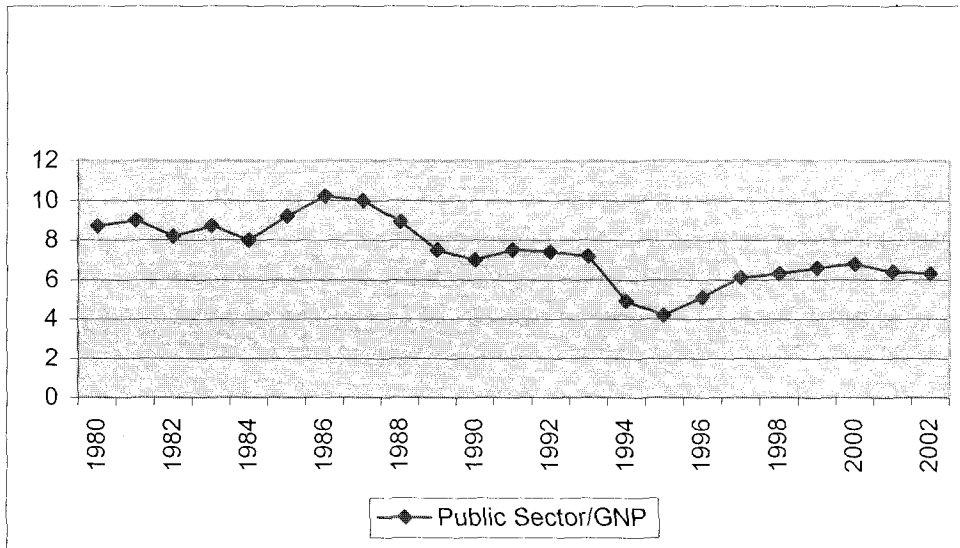


Figure 3.1 Public Sector Investment as a Share of GNP (%)

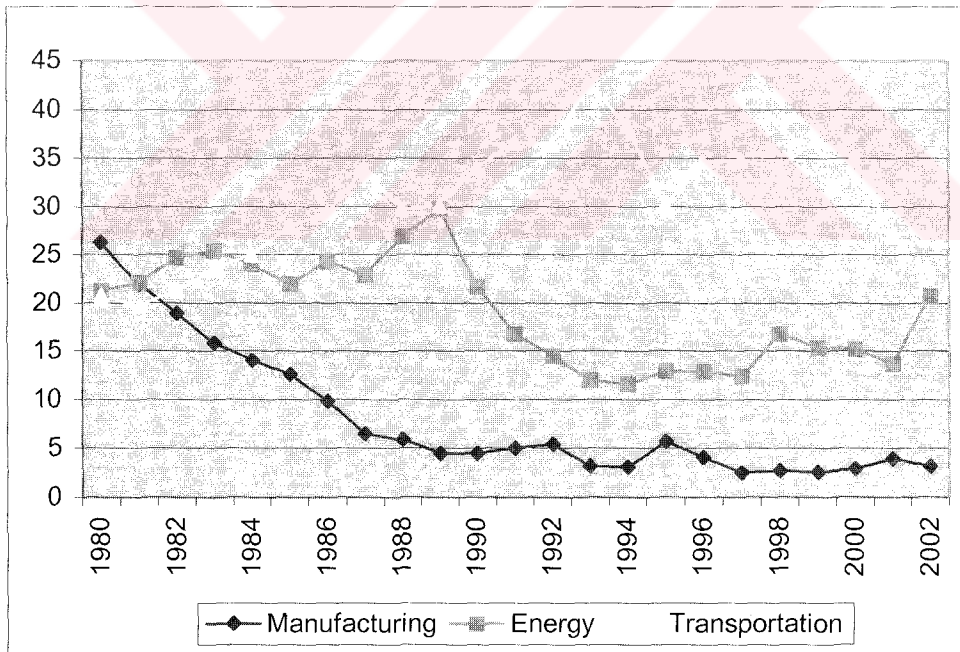


Figure 3.2 Share of Manufacturing, Energy and Transportation Sectors in Total Public Investment (%)

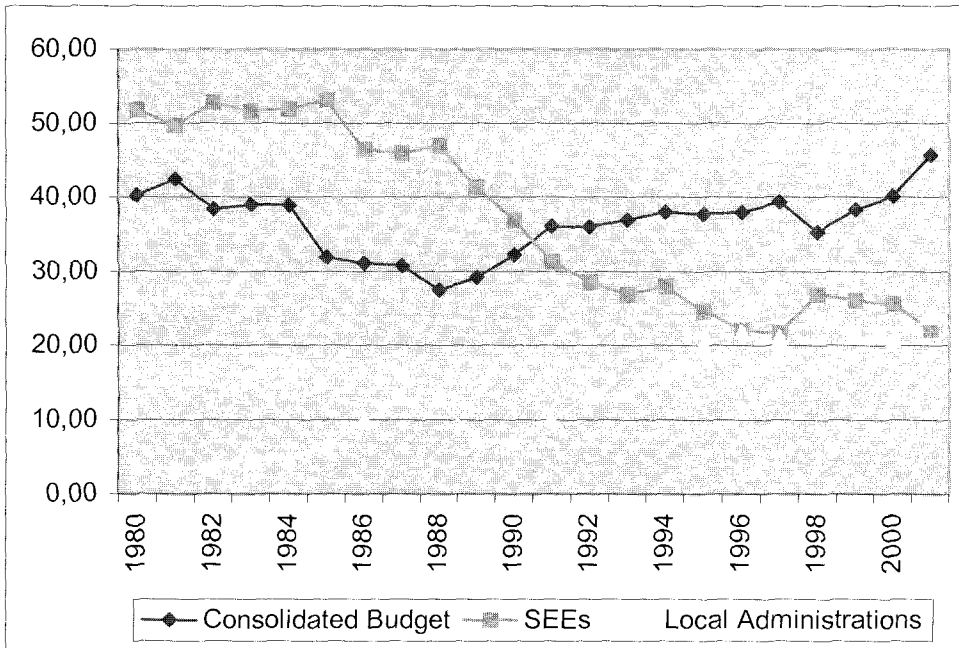


Figure 3.3 The Distribution of Public Fixed Investments (%)

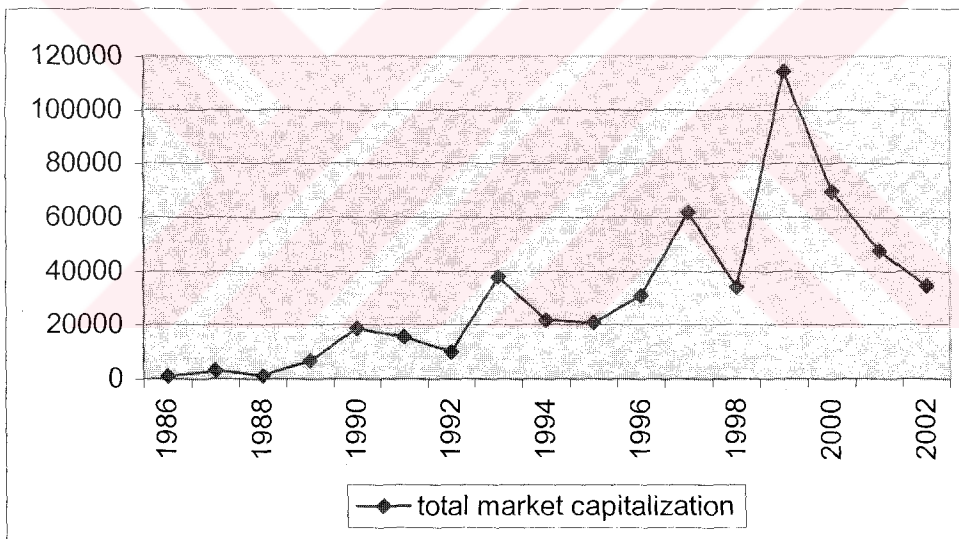


Figure 3.4 Total Market Capitalization in Dollars

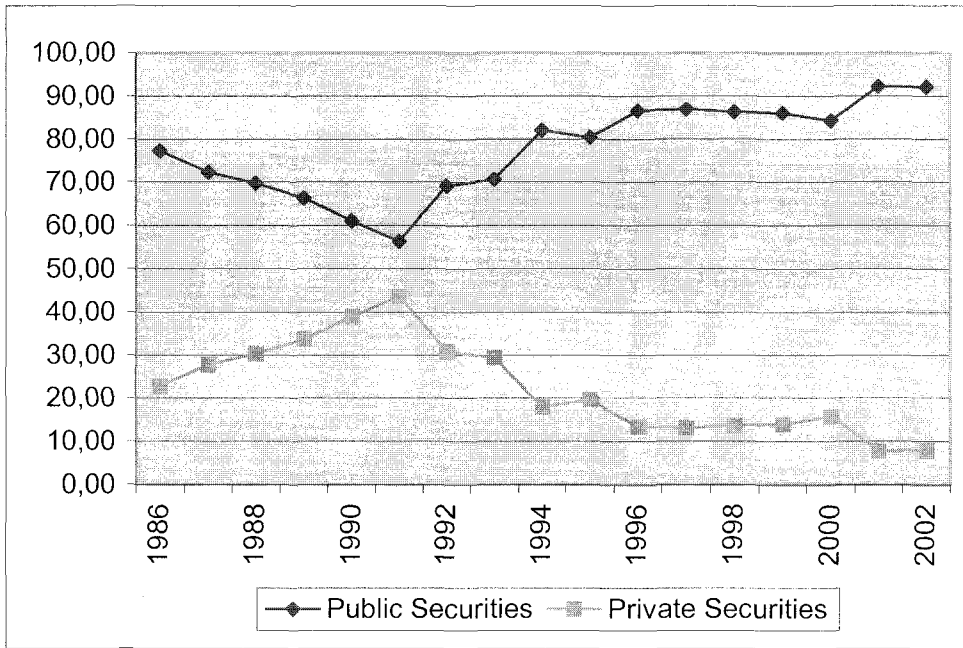


Figure 3.5 Distribution of Public and Private Securities (%)

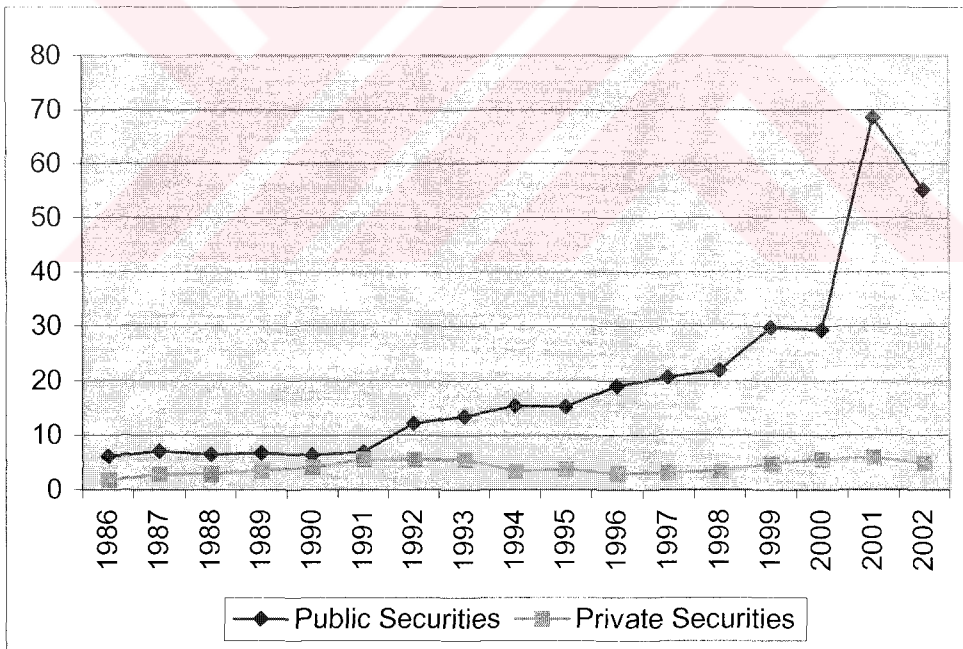


Figure 3.6 Public and Private Securities as a Share of GNP (%)

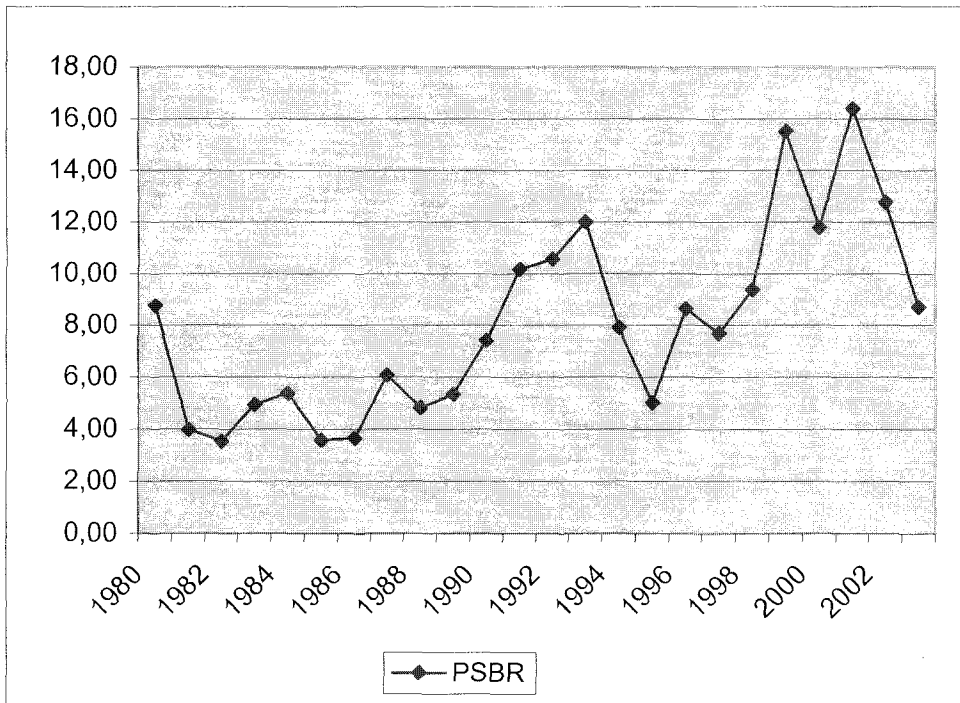


Figure 4.1: PSBR as a Share of GNP (%)

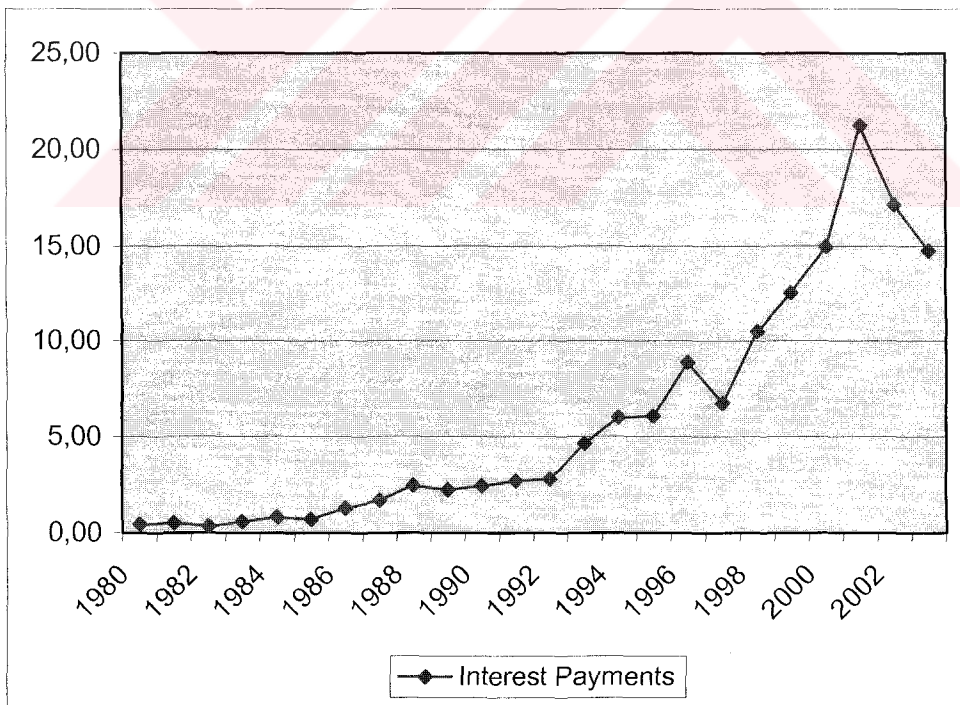


Figure 4.2: Interest Payments as a Share of GNP (%)



Figure 4.3: Domestic Debt Stock as a Share Of GNP (%)

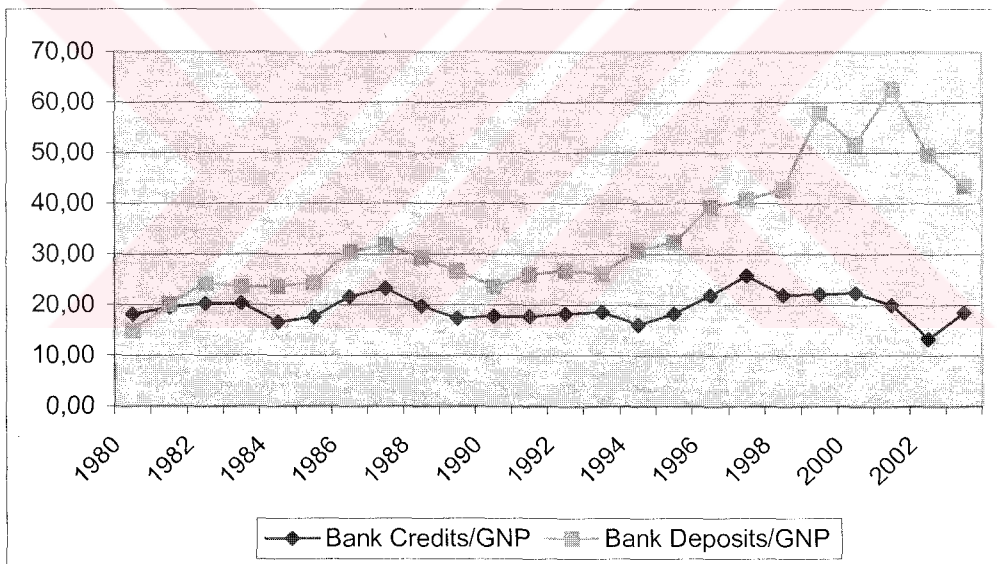


Figure 4.4: Bank Credits and Deposits as a Share of GNP (%)

REFERENCES

- Ahmed H. and S. Miller. 1999. Crowding Out And Crowding-In Effects Of The Components of Government Expenditure. Working papers 1999-02, University of Connecticut, Department of Economics.
- Ahn, S., and P. Hemmings. 2000. Policy influences on economic growth in OECD countries: An evaluation of the evidence. OECD Economics Department Working Papers, No: 246
- Akcay, C., R. Erzan, and R. Yolalan. 2001. An overview of the Turkish Banking Sector. *Bogazici Journal*. Vol. 15. No: 1 pp.13-23.
- Akcay, C. 2003. The Turkish Banking Sector Two Years After the Crisis: A Snapshot of the Sector and Current Risks in Rubin B. and Z. Onis (eds.) *The Turkish Economy In Crisis*. 2003. London: Frank Cass Publishers.
- Akguc, O. 1987. *Turkiye'de Bankacilik. (Banking in Turkey)*. Istanbul: Gercek Yayınevi.
- Akkurt *et al* 1992. Developments in the Turkish Banking Sector: 1980-1990 in K. Aydogan and H. Ersel (eds). *Issues on Banking Sector and Competition in a Changing World*, Central Bank of Turkey, Ankara.
- Akyüz, Y. and K. Boratav. 2002. The Making of the Turkish Crisis. UNCTAD, Geneva.
- Akyuz, Y. 1990. Financial System and Policies in Turkey in the 1980s in Aricanli and Rodrik (eds) *The Political Economy of Turkey*, New York, St. Martin's Press.
- Alper, E. 2001. The Turkish Liquidity Crisis of 2000: What Went Wrong?. *Russian and East European Finance and Trade*, Vol. 37, No. 6, pp. 51-71.
- Alper. E. and Z. Onis. 2002. Soft Budget Constraints, Government Ownership of Banks and Regulatory Failure: The Political Economy of the Turkish Banking System in the Post-Capital Account Liberalization Era in Kutan A., G. Muradoğlu and F. Taşkın (eds.) *Financial Liberalization in Turkey*. New York: M.E. Sharpe (2004, forthcoming).
- Argimon, I., J.M.Gonzalez-Paramo and J.M.R. Alegre. 1997. Does Public Spending Crowd Out Private Investment? Evidence from a Panel of 14

OECD Countries. Banco de Espana, Working Paper, 9523. Madrid: Banco de Espana.

- Arin, T. 2003. Türkiye’de Mali Küreselleşme ve Mali Birikim ile Reel Birikimin Birbirinden Kopması. (Disconnection Between Financial Globalization And Financial Accumulation and Real Accumulation) in Kose., H., F. Senses., and E. Yeldan. (eds) Küresel Düzen: Birikim, Devlet ve Sınıflar (Globalization: Accumulation, State and Class). İstanbul: İletişim Yayıncılık
- Artun, T. 1980. Türkiye’de Bankacılık. (Banking in Turkey). İstanbul: Tekin Yayınevi.
- Atiyas, I., and H. Ersel. 1994. The Impact of Financial Reform: The Turkish Experience, in Caprio, G., Atiyas I., and Hanson J. (eds). *Financial Reform: Theory and Experience*. Cambridge University Press.
- Aydoğan, K., and G. Capoglu 1993. The High Spreads and Costs of Financial Intermediation: The Turkish Experience 1970-1988 in Asikoglu Y. and H. Ersel (eds) *Financial Liberalization in Turkey*. Ankara: Central Bank of Turkey.
- Aydoğan, K. 1993. The Competitive Structure of The Turkish Banking Industry in Asikoglu Y. and H. Ersel. (eds) *Financial Liberalization in Turkey* Ankara. Central Bank of Turkey
- Balassa, B. (1988). Public Finance and Economic Development, PPR Working Paper No.31, World Bank, Washington, D. C.
- Baye. M., and D. Jansen. 1995. Money, Banking and Financial Markets. Boston: Houghton Mifflin.
- Beck, T., R. Levine and N. Loayza. 2000. Finance and the sources of growth, *Journal of Financial Economics* 58, 261-300.
- Bulmus, I. 2003. Mikroiktisat. (Microeconomics). Ankara: Cantekin Matbaasi
- Blejer, Mario I and Khan, Moshin S. 1984 Government Policy and Private Investment in Developing Countries. IMF Staff Papers, Vol. 31
- Blinder A. and R. Solow. 1973. Does Fiscal Policy Matter? *Journal of Public Economics* pp. 319-337

- Blinder, A.S. and R.M. Solow. 1974. Analytic foundations of fiscal policy in A. S. Blinder *et al.* *The economics of public finance*, The Brookings Institution
- Brunner, K., and A. H. Meltzer. 1972. Money, Debt, and Economic Activity. *Journal of Political Economy* 80: 951-977
- Buiter, W. 1977. Crowding out and the effectiveness of Fiscal Policy. *Journal of Public Economics*. 7, pp. 309-28.
- Bulmus, I. 2003. *Mikroiktisat. (Microeconomics)*. Ankara: Cantekin Matbaasi
- Boratav, K., E. Yeldan and A. Köse. 1999 Globalization, Distribution And Social Policy: Turkey: 1980-1998. CEPA and The New School for Social Research, Working Paper Series, No 20. New York, February.
- Carlson, K., and R. Spencer. 1975. Crowding out and its Critics. Federal Reserve Bank of St. Louis
- Celasun, M. 1990. Fiscal Aspects of Adjustment in the 1980s in T. Aricanli and D. Rodrik (eds). *The Political Economy of Turkey: Debt, Adjustment and Stability*, Macmillan: London and New York.
- Celasun, O. 1998. The 1994 Currency Crisis In Turkey. Working papers—International Economics. Trade, capital flows.1913. World Bank
- David P. and L. Scadding. 1974. Private Savings: Ultrarationality, Aggregation and Denison's Law. *Journal of Political Economy*. Vol. 82 (2) pp. 225-49.
- De Long, J.B. and L.H. Summers. 1991. Equipment investment and economic growth. *Quarterly Journal of Economics*. May, pp. 445-502.
- De Long, J.B. and L.H. Summers. 1992. Equipment investment and economic growth: How strong is the nexus? *Brookings Papers on Economic Activity*, 2, pp. 157-211.
- Denizer, C., 1997, The Effects Of Financial Liberalization And New Bank Entry On Market Structure And Competition In Turkey, Policy Research Working Paper No. WPS 1839

- Denizer, C., B. Gultekin, and M. Gultekin. 2000. Distorted Incentives and Financial Structure in Turkey. Financial Structure Conference Papers. Mimeographed. The World Bank Washington, D.C
- Demirguc-Kunt, A. and R. Levine. 1996. Stock Markets, Corporate Finance, And Economic Growth: An Overview. World Bank Economic Review. 10(2) pp.223-239.
- Dutz, M., S. Ozler and K. Yilmaz. 2003. Turkey's Foreign Direct Investment Challenges: Competition, The Rule Of Law, and EU Accession. Mimeo.
- Ekzen. N. 2003. Cumhuriyetin Ortaçağı: Kamu Ekonomisinde Finansman Politikası Olarak İç Borçlanma (1984-1999). (Middle Ages of the Republic: Domestic Borrowing as a Financing Mode of the Public Sector (1984-1999) in Kose. A., F. Senses, and E. Yeldan (eds.) *İktisadi Kalkınma, Kriz ve İstikrar. (Economic Development, Crisis, and Stability)*. Istanbul: İletişim Publishers.
- Enders, W. 1995. Applied Macroeconomic Time Series. John Wiley Sons
- Ertugrul, A. and F. Selcuk 2001 A Brief History of the Turkish Economy, 1990-2000 *Russian and East European Finance and Trade*. Vol. 37, pp. 6-28
- Ertugrul, A., E. Yeldan. 2002. Structural Weakness of the Post 1999 Turkish Dis-inflation Program in Rubin B. and Z. Onis (eds.) *The Turkish Economy In Crisis*. 2003. London: Frank Cass Publishers.
- Foley, D. and M. Sidrauski. 1971. Monetary and Fiscal Policy in a Growing Economy. Macmillan. London.
- Friedman, M. 1972. Comments on the Critics. Journal of Political Economy Vol. 80, and No: 5. pp.906-950
- Greene, J. and Villanueva, D. 1991. Private Investment in Developing Countries: An Empirical Analysis. IMF Staff Papers, Vol.38
- Gujarati, Damodar N. 1995. Basic Econometrics. Mc Graw-Hill
- Gultekin, N. B. and G. Sak 1993. The Role of Securities Markets in the Financial Liberalization Process: An Evaluation of the Policies and Performance of the Turkish Experience in the 1980s in Asikoglu Y. and H. Ersel (eds). *Financial Liberalization in Turkey*. Ankara. Central Bank of Turkey

- Ghura, D., and B. Goodwin. Determinants of Private Investment: A cross-Regional Empirical Investigation. *Applied Economics*. Vol. 32 (14) pp. 1819-29. Taylor and Francis Journals
- Inselbag I. and B. Gultekin. 1988. Financial Markets in Turkey in Nas, T.F. and M. Odekon (eds.). *Liberalization and The Turkish Economy*. New York: Greenwood Press. 1988.
- Ismihan, M., Metin-Özcan, K., and A. Tansel. 2002. Macroeconomic Instability, Capital Accumulation and Growth: The Case of Turkey 1963-1999.
- Kepenek, Y. and N. Yenturk, 2000. Türkiye Ekonomisi (Turkish Economy): İstanbul, Remzi Publishers
- Keyder, N. 1997. Money: Theory, Policy, and Application. Ankara: Middle East Technical University
- King, Robert G. And R. Levine. 1993. Finance and Growth: Schumpeter might be right. *Quarterly Journal of Economics* 108 pp. 717-38.
- Levine, R. Financial Development and Economic Growth: Views and Agenda. 1997. *Journal of Economic Literature*, Vol.35 pp. 688-726
- Levine, R. And D. Renelt. 1992. A sensitivity analysis of cross-country growth regressions. *American Economic Review*, 82 (4), pp. 942-963.
- Mandaci, P and H. Soydan. 2002. Capital Markets in Turkey. Istanbul: Literatur Publishers.
- Metin-Özcan, K., E. Voyvoda, and E. Yeldan. 2001. Dynamics of Macroeconomic Adjustment in a Globalized Developing Economy: Growth, Accumulation and Distribution, Turkey 1969-1998. *Canadian Journal of Development Studies*, 22(1), pp.219-253
- Mishkin S. Frederic. 2003. The Economics of Money, Banking And Financial Markets. Addison Wesley.
- Nazmi, N., and Ramirez, M. 1997, "Public and Private Investment and Economic Growth in Mexico. *Contemporary Economic Policy*.15, pp 65-75.
- OECD Economic Outlook. 2003. Structural Policies and Growth. June.

- Onis, Z., and J. Riedel. 1993. *Economic Crises and Long-Term Growth in Turkey*. World Bank Comparative Macroeconomic Studies, The World Bank, Washington, DC.
- Onis, Z., and S. Ozmucur. 1988. The Role of Financial System in the Creation and Resolution of Macroeconomic Crises in Turkey. Processed, Department of Economics, Bogazici University. Istanbul
- Oshikoya, T.W. 1994. Macroeconomic Determinants of Domestic Private Investment in Africa: An Empirical Analysis. *Economic Development and Cultural Change*. 42 (3) pp.573-596.
- Ozatay F. 2000. The 1994 Currency Crisis in Turkey. *Journal of Policy Reform*, 2000, Vol 3 pp. 327-352.
- Ozatay, F., G. Sak, and E. Oztürk. 1996. Sirketler Kesiminin Finansman Sorunlari ve Alternatif Finansman Kaynaklari. (Financial Problems of The Corporate Sector and Alternative Sources of Finance) TÜSİAD Yayinlari No:TÜSİAD-T/96– 1/192):Istanbul
- Rodrik, D. 1990. Premature Liberalisation, Incomplete Stabilisation: The Ozal Decade in Turkey. Centre for Economic Policy Research, Discussion Paper, No: 03760/ 402 pp. 49.
- Selçuk, F. and A. Rantanen (1996) Türkiye’de Kamu Harcamaları ve İç Borç Stoku Üzerine Gözlemler ve Mali Disiplin Üzerine Öneriler (Observations regarding Government Spending and Domestic Debt Stock and Suggestions For Financial Discipline) Istanbul: TUSIAD Publications
- Serven L., and A. Solimano. Adjustment Policies and Investments Performance in Developing Countries; Theory, Country Experiences, and Policy Implications. Papers 606, World Bank - Country Economics Department
- Snowden, P.N. 1996. Financial Reform In Turkey since 1980: Liberalization without Stabilization”, in Togan, S. and V.N. Balasubramanyam. (eds) 1996. *The Economy of Turkey Since Liberalization*, London: Macmillan Press Ltd.
- Spencer, R. and W. Pohe. 1970. The Crowding out of Private Expenditures by Fiscal Policy Actions. Federal Reserve Bank of St. Louis, pp.12-24.
- Tobin, J., and W. Buiter. 1976. Long run Effects of Fiscal and Monetary Policy in on aggregate demand in J. Stein (ed). *Monetarism*. North Holland. Amsterdam

- Uygur E. 1993. financial Liberalization and Economic Performance in Turkey in Asikoglu Y. and H. Ersel (eds). *Financial Liberalization in Turkey*. Ankara: Central Bank of Turkey
- van Wijnbergen, S. 1992. External Debt, Fiscal Policy and Sustainable Growth In Turkey. Johns Hopkins University Press, Baltimore.
- Yulek, M. 1998. Financial Liberalization and The Real Economy: The Turkish Experience. Capital Markets Board of Turkey : Ankara
- Yeldan. E. 2002. Behind the 2000/2001 Turkish Crisis: Stability, Credibility, And Governance For Whom?. 2002. Paper presented at the IDEAs Conference, Chennai, December, 2002.
- Yeldan, E. 2003. Küreselleşme Sürecinde Türkiye Ekonomisi: Bölüşüm, Birikim ve Büyüme. (The Turkish Economy in globalization process: distribution, accumulationa and growth). Istanbul: İletişim Yayınları
- World Bank Country Study. 2003. Non-Bank Financial Institutions and Capital Markets in Turkey April 2003
- World Bank. 2004. World Development Indicators.