WHY SHOULD TURKEY CONTINUE WITH STRONG FISCAL ADJUSTMENT? LESSONS DERIVED FROM THE PAST

Mediha AĞAR PASLI

NOVEMBER 2006

WHY SHOULD TURKEY CONTINUE WITH STRONG FISCAL ADJUSTMENT? LESSONS DERIVED FROM THE PAST

A THESIS SUBMITTED TO
THE GRADUATE SCHOOL OF ECONOMICS
OF
MIDDLE EAST TECHNICAL UNIVERSITY

BY

Mediha AĞAR PASLI

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR
THE DEGREE OF MASTER OF SCIENCE
IN
ECONOMICS

NOVEMBER 2006

Approval of the Graduate School of (Name of the Graduate School)

_____

(Title and Name)
Director

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

_____

(Title and Name)
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 Science.

_____

(Title and Name)
Supervisor

Examining Committee Members

Assoc. Prof. Erkan Erdil	(METU, ECON)	_____
Assoc. Prof. Nadir Öcal	(METU, ECON)	_____
Assoc. Prof. Abuzer Pınar	(AÜ, SBF, Public Finance)	_____
Assoc. Prof. Selim Çağatay	(Hacettepe, ECON)	_____
Dr. H. Hakan Yılmaz	(METU, ECON)	_____

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name : Mediha AĞAR PASLI

Signature :

ABSTRACT

**WHY SHOULD TURKEY CONTINUE WITH STRONG FISCAL ADJUSTEMENT?
LESSONS DERIVED FROM THE PAST**

AĞAR PASLI, Mediha

M.S., Department of Economics

Supervisor: Associate Prof. Dr. Nadir ÖCAL

November 2006, 87 pages

Turkey managed to produce a strong fiscal adjustment during the period of 1999-2005 with the annual average of close to 5 percent. Moreover, with the help of this tight fiscal stance, Turkey's public debt has been reduced from the peak of 90.5 percent of GNP in 2001 to 55.8 percent in 2005. Although this is a major achievement both in terms of the size and the speed, the challenge for Turkey is now to continue with fiscal adjustment in order to further reduce its public debt level which still poses a sizeable vulnerability risk for the economy. Therefore, in order to provide an answer to the sustainability question, this thesis first aims to (i) measure the fiscal adjustment in Turkey at the general government level during 1999-2005 period, (ii) analyze sources of fiscal adjustment based on the economic classification, institutional breakdown, and cyclical and structural components. After understanding size and sources of adjustment, the reduction in public debt will be decomposed into its parts including the contribution come from primary surplus. This will shed light on whether Turkey could still rely on those factors for further reduction in public debt in the future.

Key words: Fiscal Adjustment, Fiscal Sustainability, Pro-Cyclical Fiscal Stance, Debt Decomposition

ÖZ

TÜRKİYE NEDEN GÜÇLÜ YAPISAL UYUMA DEVAM ETMELİDİR? GEÇMİŞ TECRÜBELERDEN EDİNDİĞİMİZ DERSLER

AĞAR-PASLI, Mediha
Yüksek Lisans, İktisat Bölümü
Tez Yöneticisi: Doçent Dr. Nadir ÖCAL

Kasım 2006, 87 sayfa

Türkiye, 1999-2005 döneminde yıllık ortalama %5 civarindaki faiz dışı fazla ile oldukça önemli bir mali uyumu gerçekleştirmiştir. Bununla bereber, uygulanan sıkı mali politikaların yardımı ile, kamu borç stoku 2001'deki en yüksek seviye olan GSHM'nin %90,5'inden 2005 yılında %55,8'e düşürülmüştür. Bu düşüş, gerek yapısal uyumun boyutu gerekse hızı anlamında ciddi bir başarı da olsa, Türkiye açısından şimdiki sorun ülke ekonomisi için hala kırılganlık riski teşkil eden borç seviyesinin düşürülebilmesi için yapısal uyumun sürdürülmesidir. Sürdürülebilirlik sorusuna cevap verebilmek için, bu tez öncelikle (i) Türkiye'de 1999-2005 döneminde genel devlet düzeyinde gerçekleştirilen yapısal uyumu ölçmeyi ve (ii) yapısal uyumun kaynaklarını ekonomik sınıflandırma, kurumsal dağılım ve yapısal ve büyüme dayalı olarak ayrıştırarak analiz etmeyi hedeflemektedir. Daha sonra, kamu borç stokundaki düşüş yaratılan faiz dışı fazlanın da katkısı dikkate alınarak bileşenlerine ayrılacak ve böylece Turkiye'nin borç stokunu gelecekte daha fazla düşürebilmek için bu faktörlere güvenip güvenemeyeceği sorgulanacaktır.

Anahtar Kelimeler: Yapısal Uyum, Mali Sürdürülebilirlik, Büyümeyle Paralel Mali Durum, Borcun Unsurları

ACKNOWLEDGMENTS

I would like to express my deepest gratitude to my supervisor Associate Prof. Dr. Nadir ÖCAL, for his guidance, advice and comments throughout the preparation of this thesis. Examining committee members Associate Prof. Dr. Abuzer PINAR, Associate Prof. Dr. Erkan ERDİL and Dr. H. Hakan YILMAZ also deserve special thanks for their useful comments and suggestions during the earlier draft of the thesis. I would like to also express my appreciation to Mr. Zafer MUSTAFAOĞLU for sharing his fiscal cyclicality model, and Ms. Pınar BAYDAR for her support in formatting the text. I am grateful to Rodrigo A. CHAVES for his continuous support and encouragement. Without his motivation and encouragement, this thesis would have never been completed.

Last but not least, I would like to thank my father for his moral support which was invaluable for me throughout the preparation of this study.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF BOXES

LIST OF ABBREVIATIONS

CB	:	Central Bank of Turkey
CIT	:	Corporate Income Tax
CoV	:	Coefficient of Variation
CPI	:	Consumer Price Index
DFIF	:	Support Price Stabilization Fund (Destekleme Fiyat İstikrar Fonu)
EBF	:	Extra Budgetary Fund
ERL	:	Economic Reform Loan
EU	:	European Union
FX	:	Foreign Exchange
GFS	:	Government Finance Statistics
GG	:	General Government
GNP	:	Gross National Product
IMF	:	International Monetary Fund
MHF	:	Mass Housing Fund
PER	:	Public Expenditure Review
PEIR	:	Public Expenditure and Institutional Review
PFMC	:	Public Financial Management and Control
PFPSAL	:	Programmatic Public Sector Adjustment Loan
PIT	:	Personal income Tax
PSBR	:	Public Sector Borrowing Requirement
REER	:	Real Effective Exchange Rate
SBA	:	Stand-By Arrangement
SDIF	:	Saving Deposit Insurance Fund
SOEs	:	State Owned Enterprises
SPO	:	State Planning Organization
SSI	:	Social Security Institutions
UI	:	Unemployment Insurance
WB	:	World Bank
WPI	:	Wholesale Price Index

CHAPTER 1
INTRODUCTION

Turkey has been having a high public debt problem since 1999. The high public debt stock built up a result of accumulated and increased public sector deficit. And the main reasons for increased public sector deficit were high interest and exchange rates, recognition of off-balance sheet activities and contingent liabilities like duty losses of state owned enterprises (SOEs) and cost of bank restructuring. These two interrelated issues, high public sector borrowing requirement and public sector debt, became even bigger problems for Turkey with the 2001 crises when the credibility of Government program reduced significantly and it was reflected as an increase in borrowing interest rates.

Generating high level of primary surplus, and therefore strong fiscal adjustment for the public sector became a vital instrument for the Turkish Government macroeconomic stability programs designed as a response to the crises. In these programs, public savings created through strong primary surplus has been used to reduce the ever increasing debt stock.

In any austerity packages, sources of the fiscal adjustment are important because it determines sustainability of adjustment and therefore success of the fiscal consolidation. However, analyzing the sources of fiscal adjustment requires an accurate estimate of the size of the government. Obviously, coverage of public sector does matter when analyzing the fiscal adjustment. As it is the case in many developing countries like Argentina, Brazil, Chile, and Mexico (OECD, 2006), generating internationally accepted and comparable fiscal accounts of the public sector is a major endeavor in Turkey. Although there have been important

achievements in this area, producing consolidated public sector fiscal accounts in some extend still is a major challenge for Turkey.

Although Turkey has created a sizeable fiscal consolidation generated through revenue side measures rather than expenditure cuts, she managed to sustain it since 2001. The reasons behind continued impressive fiscal adjustment and reduction in public debt can be explained by some other factors. These are implementation of structural fiscal measures, implementation of complementary monetary policies and global international market conditions which led to appreciated TL, achievement of strong growth performance, sizeable reduction in inflation and therefore interest rates which eroded TL part of the domestic debt, and higher actual primary surplus than the structural one due to positive cyclicality component. Since some of these components can not be continued in the long run, or guaranteed through public sector policies, sustainability of Turkey's strong fiscal adjustment seems under risk.

The public sector debt stock with the end 2005 level of 71.6 percent of gross national product (GNP) in gross terms still poses a major vulnerability risk for the country with regard to foreign exchange and interest rate shocks. Therefore Turkey needs to continue with strong fiscal adjustment in order to reduce its debt stock to a much mild level. However, given that sustainability of fiscal adjustment will be the main issue for the coming years, the only alternative for Turkey is to improve the quality of fiscal adjustment.

Therefore, this thesis tries to uncover the underlying dynamics of fiscal adjustment in Turkey and the issue of its sustainability with regard to its sources and its contribution to the reduction in debt stock. After presenting a general literature survey in Chapter 2, Chapter 3 will provide a snapshot of the overall macro-economic situation that created basis for the crises and led to Governments to produce strong fiscal adjustment.

In Chapter 4, consolidated fiscal accounts for the general government will be produced to be used as the basis of measuring and analyzing the fiscal adjustment in Turkey. Although there are some earlier studies on the size of the government in Turkey, these are either incomplete in terms of the coverage or not fully in line with the Government Financial Statistics (GFS) manual. The data used here will make additional adjustments and corrections to the data in order to be more consistent with the GFS standards both in terms of the coverage and in terms of the methodology.

Based on the reconstructed data set for the general government, sources of fiscal adjustment will be reviewed in Chapter 5 to understand the risk of its sustainability. Therefore the breakdown of fiscal consolidation will be done first according to economic classification, i.e. revenues/expenditures measures. As stated by many economic studies including Alesina (1996) composition of adjustment is important for the success of the adjustment. Secondly, the institutional breakdown of the adjustment will be calculated to see that the share of institutions contributed to fiscal consolidation. Again this breakdown will be important to determine the sustainability of adjustment. And finally cyclicality of fiscal adjustment will be measured. As it is expected, during the high economic performance with high growth rate, the tax revenues will be higher. Therefore, a positive cyclical component which contributed to the fiscal adjustment creates a big risk for the sustainability of the adjustment when the economy is in downturn.

Since, the main objective of creating a strong primary balance is to reduce public debt stock; Chapter 6 will mainly focus on fiscal sustainability and therefore analyze evolution of public debt. The chapter will try to decompose decrease in public debt in order to clarify the contribution of primary surplus to the debt reduction. The reduction in public debt stock will be decomposed into the following components; (i) primary surplus (ii) growth, (iii) inflation, (iv) revaluation and (v) seigniorage during the 2000-2005 period. Whether Turkey needs to continue with strong primary surplus is very much depend on what

would happen to the contributing factors other than primary surplus. As an illustrative example, two simulations will be carried out. First what is the debt stabilizing primary surplus rate for Turkey, i.e. how much primary surplus is needed to be generated in order to keep public debt at its current level. Second simulation will provide an answer to the question of what the public debt level would have been if Turkey did not have debt reducing factors other than primary surplus.

Although Turkey managed to reduce its debt significantly compared to 2001 level, the current level of public debt is still high since it makes Turkey vulnerable to foreign exchange, growth, and interest rate shocks. Therefore, given that the sustainability of fiscal adjustment is an issue for the coming years, and at the same time Turkey still requires to produce a sizable primary surplus, improving quality of fiscal adjustment seems as an only policy option for the Government in the future. A short summary of the overall findings will be provided in the conclusion chapter.

CHAPTER 2
LITERATURE SURVEY

Strong and sustainable growth with the aim of reducing poverty is one of the major objectives of the emerging economies. Many emerging countries are concerned about their high public debt ratios since high debt and its associated interest burden not only limits government available sources to be spent on more productive area but also crowds out private investment. The high level of debt therefore takes away resources from the development.

As stated in the International Monetary Fund's (IMF) World Economic Outlook 2003, public debt in emerging market economies has risen quite sharply since 1990s and has reached the average of 70 percent.[1] The same study also shows that the increase in public debt has been mainly reflected in an increase in domestic debt spurred by domestic financial liberalization, interest and exchange rate movements, recognition of off-balance sheet and contingent liabilities and cost of bank restructuring. While the share of domestic debt increased, share of external debt reduced from two-thirds to one-half on average. The lower revenue ratios of developing countries --27 percent of gross domestic product (GDP) as apposed to 44 percent in industrial ones -- higher volatility of revenues, and higher interest expenditures as a share of total expenditures and more volatile nature of these expenditures brings the issue of debt sustainability in developing countries (IMF 2003).

[1] In contrast, public debt in transition countries in Europe have been reduced as a result of economic and fiscal reforms implemented while they move towards the EU memberships.

In countries where debt sustainability is a problem, medium term fiscal path needs to be anchored around achieving fiscal sustainability. Therefore, implementing a fiscal policy consistent with "debt stabilizing primary balance" as mentioned by Blanchard (1990) should be the overarching objective of the economic policies of the developing countries.

Once the main objective of the fiscal policy is defined as decreasing public debt stock and achieving sustainable public finance, the tool inevitably becomes incurring primary surplus. The question of why primary surplus is considered important for the objectives of the fiscal policy is replied through three generally accepted theories. In the first theory the burden on the public finance is reduced through primary surplus as reflected in equations (1) and (2) presented below. The financing need of the Treasury for debt roll over is calculated as follows:

Debt Roll-over Requirement (DRR) = Principal Repayment + Interest payment (1)

DRR = Internal and external borrowing + Privatization revenues + Primary surplus/deficit (2)

Equation (2) mainly shows that financial pressure on the treasury borrowing is reduced through primary surplus.

Second theory focuses on the non-discretionary structure of interest rates and therefore interest payments. The interest payments are the burden of the previous periods. Moreover the interest rates are determined by the market, so the public impact on the interest payments is limited and therefore non-discretionary.[2] The real performance of the budget or fiscal stance can better be understood when the interest costs and interest revenues are deducted from the overall expenditures and overall revenues respectively. According to third theory, it is important to generate targeted surplus and/or to implement the relevant measures to reach the

[2] See: Alesina et al (1995)

target since it is an indicator of the level of macro economic credibility of the governments. This is particularly significant for the international finance markets and international institutions in terms of borrower and lender relation. This is in fact a message given to the investors showing the fact that the government that realizes the performance criteria and policies under its liability decisively implements the stabilization program. Therefore the international investors show a more sensitive approach to the fiscal policies of the countries implementing such programs (Salmano, 2001).

Economic researches indicate that on top of debt stability, role of sound fiscal policies is also quite significant in achieving macroeconomic stability if supported by complementary monetary policies, since sound fiscal position is found to be key factor for sustained growth and poverty reduction. Therefore, stabilization programs are expected to result in a medium term sustainable path for growth through the settlement of economic and fiscal problems. The recent studies show that IMF supported stabilization programs are successful in short term macroeconomic stability (IMF, 2003).

The idea behind this argument is that accumulating and mobilizing enough physical and human capital required for the growth can only be achieved through national savings. Since the private savings are generally low in developing countries, the only alternative is to induce public savings through tight fiscal policies that will increase in public sector revenues and reduce less productive expenditures. The public sector should follow the basic rules during the implementation of the growth promoting policies. Accordingly the public sector activities should support the private sector rather than to compete with. Moreover, the tax system and policies should not hinder the economic growth through distorting decision mechanism of the private sector.

Although the net effect of tight fiscal policies on growth is uncertain, until 1990s economists paid more attention to negative Keynesian effects. Keynesian

approach assumes that fiscal consolidation undermines economic growth because it leads to a reduction in aggregate demand either directly through reduction in public consumption or investment, or indirectly reduction in household consumption through higher taxes or lower subsidies. Therefore, it suggests a negative relation between fiscal consolidation and growth.

However, in 1990s many studies supported the idea that fiscal contraction may actually stimulate economic output. Therefore, the terminology of expansionary fiscal policies started to be used in economic literature as contractionary fiscal polices found out to be positively related with growth for some countries in 1990s.

The economic literature presents different theories to explain how fiscal contraction can be expansionary. Other than the conventional crowding-out effect on private investment, and wealth effect on consumption, more attention has been paid to favorable expectation effect and credibility effect. Giavazzi (1990), Blanchard (1990), and Bertole (1993) mention about expectation effect. This theory suggests that reductions in government spending can be expansionary since it will reduce private sector tax expectations. Therefore forward looking consumers and investors may increase their expenditures today if they anticipate tax reduction in the long run due to cuts in today's expenditure and this will offset the negative impact of the fiscal consolidation. This theory implies that the change in expectations could be expansionary when the economies have high debt-to-GNP ratios.

As government debt increases with the fiscal expansion, risk premium which reflects the default risk or increased inflationary risk will reinforce crowding out effects through interest rate. Under a credible commitment to debt reduction through permanent fiscal contraction, private spending can respond positively through lower risk premium. Therefore, a discretionary fiscal policy stance may have a significant credibility effect on interest rates which would stimulate

private investment and consumption. This is one of the main reasons for expansionary fiscal contractions given by Giavazzi (1990).

Other than the above mentioned two effects, the efficiency argument plays an important role in this discussion since it suggests that the total factor productivity of the economy will increase since more resources will be available for the more productive private sector, and the public sector spending should be channeled to growth-inducing areas, such as education, health, and infrastructure. Higher growth will generate more fiscal resources to be spent on growth-inducing expenditures (multiplier effect).

The expansionary fiscal contraction defined as positive impact of fiscal tightening on economic output, has been faced among developed countries, like Denmark and Ireland as illustrated by Giavazzi (1990). Turkey has been cited as a developing country example of expansionary fiscal contractions according to a recent IMF study titled "Fiscal Adjustment for Stability and Growth" (Daniel, 2006). The study lists following features for the successful expansionary fiscal contractions:

- Fiscal consolidation reduces high public debt. With the increased credibility of the government policies the threat of higher taxes, and risk premium on interest falls which stimulate aggregate demand.
- Size and quality of fiscal adjustment determines the success of the consolidation. If the consolidation is coming from the expenditure side; mainly from cutting in transfers and wages are tend to be more associated with better growth.
- The impact of the fiscal adjustment works either through private consumption and investment or through factor productivity.

After understanding the benefit of fiscal adjustment, the question of what drives countries to implement fiscal contraction becomes an important subject. IMF's World Economic Outlook 2003 examines fiscal policy function for a group of emerging market economies. The level of public debt and its unsustainable trend defined as increasing public debt to GNP ratio compared to the previous year found to be as the main driving factor. Key finding of the study is that primary surpluses respond to increasing debt levels, and this response is stronger at high debt levels for industrial countries. However, in emerging market economies, the response of fiscal policy weakens as the debt-to-GDP ratio increases. A recent study undertaken by Abiad (2005) also shows that fiscal effort is a function of the lagged debt stock but it tends to weaken after a debt threshold of 50 percent of GDP is breached. Moreover, fiscal effort is constrained both at very low and high levels of revenue. Also, primary balances rise when economy grows above its potential and in the presence of IMF-supported program.

As seen in Table 1, size and composition of the consolidation play an important role in a successful fiscal contraction. In terms of the composition, the effect of the consolidation is much clearer if it is coming from the spending cut rather than the revenue increase. The real reduction of the public expenditures throughout the program is one of the main indicators of a successful fiscal adjustment. Since interest expenditures are accumulated cost of the public finance deficit of previous periods and not determined by discretionary policies, progress achieved in the primary expenditures reflects achievement of the program measures. In fact many theoretical studies undertaken in the 1990's show that measures against expenditures lie behind a successful fiscal program.

According to the study of Alesina and Perotti (1995), successful fiscal adjustment depends upon the deductions from the transfer payments and personnel payments without a need to raise taxes. Alesina and Perotti analyzed the successful and unsuccessful programs according to their fiscal impulse method and concluded

that the most significant factor for the success of the programs is the level of implementation of the policies that brings expenditure cuts.[3]

Subsequently, Perotti (1998) stated that at least 70 percent of reduction in the budget deficit should be generated through expenditures in order to have a successful fiscal adjustment. Therefore success of the fiscal adjustment in the medium term found to be contingent to the level and strength of the expenditure measures.

In its 2004 study, Von Hagen stated that for European Union (EU) Acceding Countries where fiscal adjustment is defined as an expenditure-based adjustment if more than 50 percent of the reduction in deficit is created from the expenditures. It was found out that 11 out of 19 significant fiscal expansions were due to the increase in expenditures. The study concluded that the weak fiscal discipline was resulted from the insufficient control over the public expenditures in general terms.

In fact many theoretical studies carried out in the 1990's show that measures against expenditures (reduction) lie behind a successful fiscal program. According to the study of Alesina and Perotti (1996) a successful fiscal adjustment depends on the deductions from the transfer payments and personnel payments without a need to increase taxes. In this study, they analyzed 20 OECD countries excluding Turkey between the years 1960 and 1992. The study seeks answers to two questions. The first question is how the change (expenditure deductions, tax increments) observed in the composition of the fiscal adjustment would affect the success of the fiscal adjustment. The second one is what the macroeconomic outcomes are in the successful and unsuccessful fiscal adjustment examples.

[3] Fiscal impulse in the study defined as fiscal adjustment net of cyclical component.

All these studies and others have a common finding about the successful fiscal adjustment. It depends on taking efficient expenditure measures rather than relying on the revenue side improvements. In other words, the countries which limit their expenditures with a sustainable program would be successful in fiscal adjustment.

Like composition of the fiscal adjustment, cyclicality of fiscal adjustment also plays an important role in terms of the success of the adjustment. The ideal fiscal policy should be countercyclical, as neoclassical and Keynesian approach suggest, that means fiscal deficit declining in the upturns adding to aggregate demand, and increasing during the economic contractions. In practice, in many developing countries fiscal policy reflects a pro-cyclical nature. Therefore government spending as a share of GDP goes up in booms and downs in recessions, while deficits increase in economic upturns and decrease in downturns. The Alesina and Tabellini (2005) study which covers 87 countries including Turkey between 1960-1999 period (for Turkey 1987-1997 period) found out that during this period most of the developing countries fiscal stance was pro-cyclical with negative fiscal multiplier which implies that a cyclical boom is associated with a decrease in fiscal surplus. Unlike developing countries, the fiscal stance in OECD countries found out to be counter-cyclical.

The reasons for implementing suboptimal pro-cyclical fiscal position has been listed as financing constraints, lack of appropriate automatic stabilizer and political pressures may not let the governments to implement counter-cyclical fiscal policies. Liquidity constraints could play a role in implementing a countercyclical fiscal polices. During economic contraction periods, the risk premium of the countries often increases because of the reduction in the market confidence which led to intensified borrowing constraints. The difficulties in access to international credit markets supported by increased cost of borrowing makes it impossible to run a countercyclical fiscal polices especially for the developing countries.

Size, structure and composition of the budget in developing countries may add to further difficulties in implementing countercyclical fiscal policies in developing countries. As pointed out by Braun (2000), the larger size of the government in developing countries can explain the difference in the level of cyclicality between the developing and developed countries. Moreover, the level of transfer expenditures and subsidies also plays a role in different patterns of cyclical behaviors of developing and developed countries. Unlike the developed countries, developing countries have few automatic stabilizers built into their budget. This feature of the developing countries' budget structure makes the implementation of countercyclical fiscal policies more difficult compared to developed countries. As stated by Gavin and Perotti (1997) Latin American Countries' transfer and subsidies expenditures are much less than the OECD economies. The share of transfers and subsidies in total government expenditures in developing countries is around 24 percent compared to 42 percent of developed countries.

As stated in a recent study of the OECD "Challenges to Fiscal Adjustment in Latin America Countries", most of the Latin American countries achieved considerable progress in the public finances. This has been essential for macroeconomic sustainability. However, despite the progress, many challenges remain. On expenditure, the overriding challenge is increasing flexibility of the allocation of budget resources, and improving quality of spending. This also requires dealing with developing a cost effective social safety systems to protect vulnerable groups against the negative effects of the macroeconomic volatility, meeting the need for public investment in infrastructure, and dealing with the expenditure rigidities. From the revenue side, the main challenges are tax broadening, reducing reliance on distorting taxes such as the ones on financial transactions, and improving structure of the tax administration. On the public debt management, the main challenge is for governments to keep indebtedness at a sustainable level. The issue in public debt is not only the level of the debt but

also its structure, including currency composition, maturity and indexation mechanism.

The same study presents general trends and stylized facts about fiscal adjustment in Latin America since 1990s, with special reference to Argentina, Brazil, Chile, and Mexico. It emphasizes considerable diversity in the size and scope of government among these countries, as well as in the level of public debt. In most countries, the composition of fiscal adjustment tends towards increasing revenue and compressing public investment rather than reducing current expenditures, which is likely to have an effect on the sustainability of the adjustment over time. Moreover, in these countries, fiscal consolidation shows biasness towards pro-cyclicality which reflects high indebtedness, vulnerability to shocks in bad times and failure to contain expenditures in good times.

As a result, the discussions in the literature suggest that successful fiscal program should give enough emphasize on the expenditure cutting measures since revenue side increases can not be sustainable over the medium term. Moreover, although it is suggested to run counter-cyclical fiscal policies for reducing volatility in the economy, some structural issues in developing countries prevents these countries to implement counter-cyclical fiscal policies. Of course, level of debt, economic performance above the potential growth, and IMF supported programs found out to be triggers for successful fiscal adjustment.

Table 1: Cross-Section Studies of Expansionary Fiscal Contraction

	Sample	Definition of Contraction	Main Evidence	Characteristics
McDermott and Wescott (1996)	20 OECD Countries 1970-1995	Primary structural balance improves by at least 1.5 percentage points of GDP over two years	For successful consolidation, GDP growth rate relative to OECD average: - 0.2% (before), 0.1% (during), 0.7% (after)	Size is important, as composition; expenditure cuts (especially transfers and government wages) more likely to be successful; timing with respect to world business cycle also important
Giavazzi and Pegano (1996)	19 OECD Countries 1970-1992	Any period when primary structural balance moved in a consistent direction, a cumulative 5 percentage point of GDP marks a large consolidation	For large/persistent consolidations, $1 increase in taxes (cuts in transfers) raises private consumption by 15-20 cents in long run	Size and persistence most important; clearer effects for government spending but also for taxes and transfers
Alesina and Perotti (1997)	20 OECD Countries 1960-1994	Primary structural balance improves by at least 1.5 percentage points of GDP in a one year or 1.25 percentage points in two consecutive years	For successful consolidation, GDP growth rate relative to OECD average: - 0.2% (before), 1.1% (during), 0.3% (after)	Composition is curtail, better outcome when consolidation comes from the expenditure side
Giavazzi, Japelli and Pegano (2000)	18 OECD Countries 1970-1996	---	Non Keynesian response by private sector more likely when fiscal impulses are large and persistent	Size and persistence most important, initial fiscal conditions not important. Non-Keynesian effects larger for changes in taxes than spending , and for contraction than expansions

Source: Hemming (2002)

CHAPTER 3

CONDITIONS THAT LEAD TO FISCAL ADJUSTMENT IN TURKEY

Before trying to measure and assess the fiscal adjustment in Turkey, it would be appropriate to understand the underlying conditions which led Turkey to move ahead with fiscal austerity packages and therefore generate strong fiscal adjustment.[4] As pointed out by many economic literatures including Blanchard (1990), if the economy is in emergency i.e. when debt ratio is very high or has risen strongly, fiscal consolidation has a higher probability of success.[5] In this chapter, therefore, macroeconomic reasons which led to 1999 and 2001 crises with a strong emphasis on public sector borrowing requirement (PSBR) will be analyzed.

In its recent history, Turkey faced few economic crises like the ones in 1999 and 2001. As described in the Country Economic Memorandum of 2000 and 2003 of the World Bank (WB), the underlying macroeconomic factors behind these crises were;

- Large fiscal imbalances: As it is reflected in Figure 1, fiscal imbalances coming from unsustainable fiscal policies have driven macroeconomic instability in Turkey. As it was the case in previous crises like 1994, pre-crises periods of 1999 and 2001 are characterized by large public sector borrowing requirements. This has been the reflection of sharp increase in

[4] Fiscal adjustment, fiscal consolidation and fiscal tightening have been used inter-changeably throughout the text.

[5] There are some contradictory findings for the developing countries including Heylen (1998), IMF (2003-1) and Abiad (2005). These studies reflect that primary surplus respond more strongly in developed countries. Fiscal policies in developing countries stop responding to an increase in public debt when debt is above 50 percent of GDP.

public wages, widening of social security deficits and transfer expenditures including transfer to state banks.[6] Lack of attention to the accumulated systemic banking sector risks were also one of the main reasons behind increased fiscal imbalances.

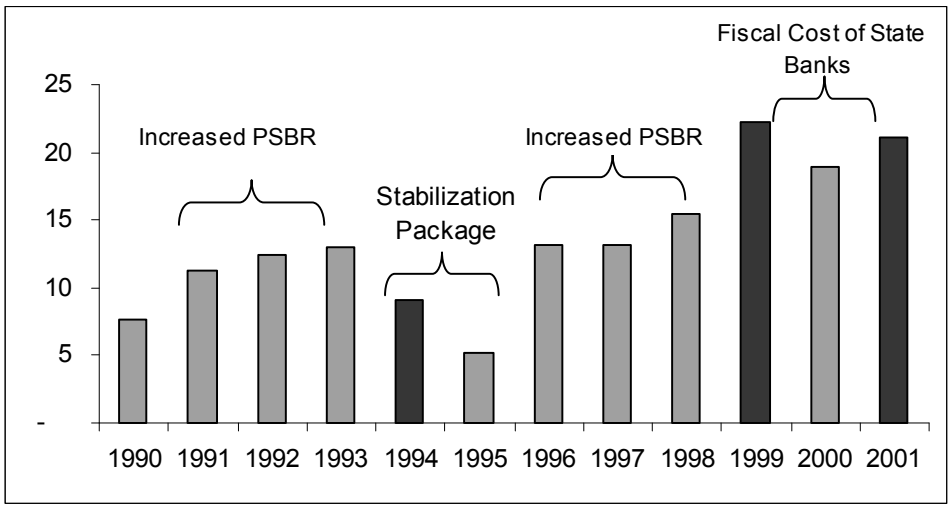

Figure 1: Development of PSBR, % of GNP, 1990-2001

Source: Emil and Yılmaz (2004), and Van Rijckeghem, 2004

- Heavy reliance on domestic borrowing and monetization: Due to large external debt repayments, the government focus converted into more domestic borrowing and monetization. While more reliance on monetization led to inflation, short maturity and high real interest rate increased the domestic debt stock rapidly. As can be seen from the Figure 2, the increase in cash and non-cash debt stock increased considerably after 1999, first reach to 30 percent of GNP from 20 percent and then with an increase in non-cash debt stock more than 30 percentage points in 2001, the domestic debt stock reached to almost 70 percent. Maturity of

[6] Transfer to state banks was either in the form of capital injection or in the form of duty losses.

public debt was also a problem where the public sector was trapped in a short term debt roll over.

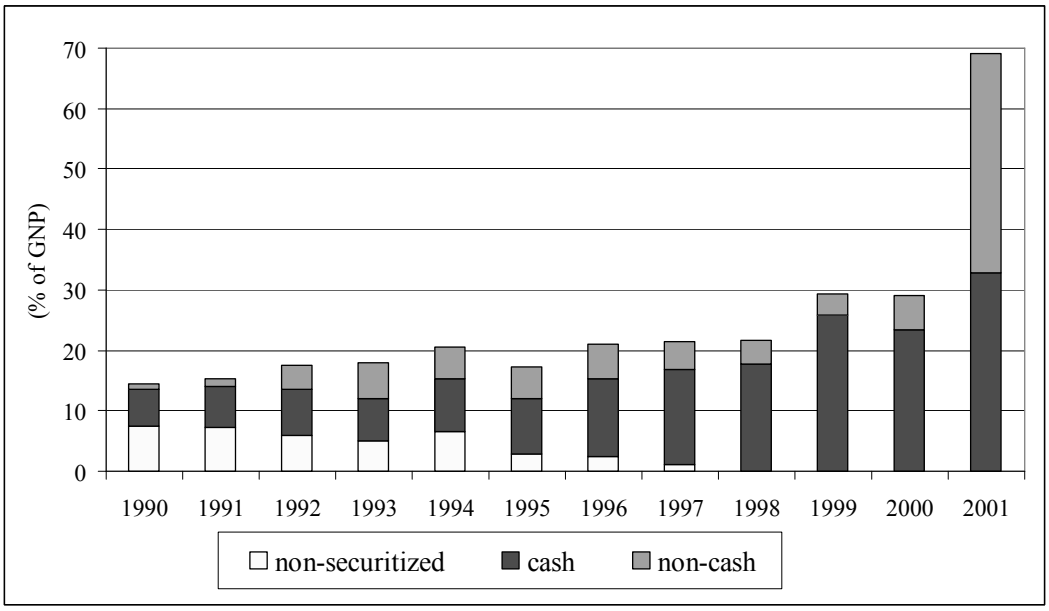

Figure 2: Evolution of Domestic Debt Stock, % of GNP, 1990-2001

Source: Treasury Undersecretariat, Domestic Debt Statistics

- Volatile growth with lower than potential: The Turkey's economy has suffered from volatile growth. As Table 2 reflects while average annual growth rate of GNP has decreased from 4 percent to 3.9 percent between 1980s and 1990s, the standard deviation increased significantly from 3.5 to 5.9. As expected, when 2000 and 2001 data are included volatility becomes even larger. The output gap measured as a ratio of actual output to potential output shows that Turkey has been growing at a rate lower than its potential with the average of 99 percent for the period of 1994-2001 which even decreased to 95.7 percent during the 1999-2003 period.[7]

[7] Turkey's potential output calculation is based on the forthcoming Public Expenditure Review (2006)

Table 2: Volatility of GNP Growth, 1980-2001

	Standard Deviation	Mean	Coefficient of Variation
1980-1989	3.51	4.04	0.87
1990-1999	5.89	3.93	1.50
1990-2001	6.67	3.01	2.22

Source: Own calculation

- Other internal and external factors also contributed negatively: Political instability, natural disasters, and external factors caused the stabilization packages to be short lived and loose its credibility. Early elections, 1999 Marmara earthquake, and Asian crises followed by Russian crises were some of the other factors contributed negatively to the crises.

As a response to 1999 and 2001 economic crises, Turkey initiated consecutive economic programs supported by IMF's Stand-By Arrangements (SBA) and the World Bank's structural adjustment loans. Turkey has signed three consecutive SBAs with the IMF after 1999 crisis.[8] The first one – known as the 17th SBA-- was approved on December 9, 1999 with the total financing of about $19.4 billion including extended fund facility of $7.5 billion.[9] The second one was approved on February 4, 2002 covering 2002-2004 period providing total

[8] SBA is a decision of the IMF by which a member is assured that it will be able to make purchases (drawings) from the Fund's account up to a specified amount and during a specified period of time, usually one to two years, provided that the member observes the terms set out in the supporting arrangement.

[9] Extended Fund Facility is a financing facility under which the IMF supports economic programs that generally run for three years and are aimed at overcoming balance of payments difficulties resulting from macroeconomic and structural problems. Typically, the member's economic program states the general objectives for the three-year period and the specific policies for the first year; policies for subsequent years are spelled out at the time of program reviews.

financing of about $16 billion including $4 billion unused amount from the 1999 SBA.[10] The last SBA approved on May 2005 covering a three year period until May 2008 at the amount of about $10 billion is known as the 19th SBA.[11]

To support the macroeconomic framework set by the IMF's SBAs, the World Bank provided two sets of adjustment lending; Economic Reform Loan (ERL), series of Programmatic Financial and Public Sector Adjustment Loans (PFPSALs) which were supported the structural reform areas that are crucial for the sustainability of the fiscal stance.[12] The total amount of budgetary support provided by these four loans was $ 3,310 million (Table 3). The main structural areas supported under these loans were social security, tax, budget and expenditure management, financial sector, privatization and governance.

Table 3: World Bank Adjustment Lending, 1999-2005

Loan	Date of loan	Closing Date	Loan Amount	Total Disbursement
			(USD million)	
Economic Reform Loan	June 2000	April 2004	760	760
PFPSAL I	July 2001	December 2001	1,100	1,100
PFPSAL II	August 2002	June 2003	1,350	450
PFPSAL III	July 2004	June 2006	1,000	1,000
Total				3,310

Source: World Bank, Client Connection Database.

[10] Around $6 billion had to be used for the repayment of Extended Fund Facilities provided under the previous Fund program. Therefore the net financing from the Fund was around $10 billion.

[11] With the approval of third and the forth review of the new SBA on July 2006, total amount of withdrawal from the Fund reached around $ 3.4 billion.

[12] Structural adjustment loans or now called Development Policy loans provide quick-disbursing assistance to countries with external financing needs, to support structural reforms in a sector or the economy as a whole. They support the policy and institutional changes needed to create an environment conducive to sustained and equitable growth.

1999 disinflation program supported by the Fund became short lived because of the November 2000 liquidity crisis that was resulted in massive loss of reserves of the domestic banks and February 2001 speculative attacks to the TL. The September 11 shock was further exacerbated vulnerability of the economy through increasing financing gap of the country to $10 billion.[13] As a response, Government announced a subsequent enhanced economic program with the IMF covering 2002-2004 period.

The new economic program was mainly based on the four pillars; (i) fiscal adjustment, (ii) financial stabilization, (iii) disinflation, and (iv) structural and institutional public sector reforms.

Since fiscal policy is central to macroeconomic management, it has also been the subject of considerable attention in the course of Article IV surveillance and in the design of IMF-supported programs. Moreover, the fiscal adjustment is often the centerpiece of the program design, with quantified targets included in the key conditionality.[14] Similar to the other country experiences, creating strong fiscal surplus for the entire public sector supported by the structural measures has been one of core element of Turkey's IMF supported economic programs. Therefore, under three different SBAs signed between the IMF and Turkish governments, Turkey committed to produce strong primary surplus for the entire public sector through performance criteria defined on a quarterly basis. In the 18th SBA period (2000-2002) the public sector primary balance target set at the level of not less than 3.7 percent of GNP in 2000.[15] Then the targets for the 2000-2002 period were revised to 5 percent, 5.5 percent and 6.5 percent of GNP, eventually. Since then public sector primary balance program target was kept at 6.5 percent.[16]

[13] IMF, Turkey: Request for a Stand-By Arrangement, Staff Report, July 2002.

[14] IMF (2003-2).

[15] Excluding financial state owned enterprises and earthquake related expenditures.

[16] IMF, various Staff Report and Letter of Intends on Turkey.

Underlying reasons for putting so much emphasis on the primary surplus were:

- Reduce public debt: Turkey's public debt dynamics deteriorated quite sharply after 1998 and reached its peak level of 90.5 percent of GNP (measured in net terms) in 2001. Other than high level of interest payments which was a reflection of lack of confidence to the public policies, high level of fiscal cost of state banks' bailout in 2001 was the main factor contributed to this increase. Therefore, the quickest way to reduce public debt was creating government saving defined as strong primary surplus.

- Decrease inflationary pressure coming from the public sector demand: Since keeping inflation under control was one of the urgent priorities of the Government, the inflationary pressure coming from the public sector needs to be eliminated. Public sector contribution to the inflation was higher than the private sector contribution as measured in the wholesale price index after mid 1998.

The IMF SBAs program and the World Bank adjustment lending played an important anchor role for Turkey to continue with the high level of primary balances and therefore, continue with tight fiscal stance.[17] The diversions from the tight fiscal stance has been supported by additional fiscal measures taken by the Government within the year in order to ensure approval of the Fund's for the SBA's reviews. Moreover, the structural reforms supported by the WB and IMF helped Turkey to take a strong fiscal positions such as, abolishment of the extra budgetary funds (EBFs), elimination of the earmarking revenues, direct and

[17] In the IMF SBA a minimum level of primary balance has been set performance criteria on a quarterly basis. A series of WB adjustment lending, such as Economic Reform Loan, Programmatic Financial and Public Sector Adjustment Loans, most of the core structural fiscal reforms such as tax reforms including administrative side, elimination of extra-budgetary funds, and employment retrenchment in the public sector, public investment rationalization, and enactment of PFMC law.

indirect tax reforms, public investment rationalization. Without these anchors, it would have been impossible for Turkey to go ahead with tight fiscal position during the period under discussion.

In summary, Turkey did not voluntarily choose to generate strong fiscal adjustment, it was the end result of two interrelated factors which forced Turkey to generate fiscal adjustment; severe crises, and the IMF and Bank supported programs. Without these factors, the size and duration of the fiscal adjustment would have been much less and much shorter.

CHAPTER 4

PREREQUSITE FOR MEASURING FISCAL ADJUSTMENT- ESTIMATING SIZE OF THE GOVERNMENT

As pointed out in Chapter 3, persistent fiscal imbalances and fiscal dominance characterized the Turkish economy in the 1990s. This pattern was one of the main factors that contributed to growth volatility, high inflation, and continuous macroeconomic instability. Unsustainable public sector borrowing requirements generated through high level of public debt and interest payments, supported by the structural problems forced Turkey to initiate an ambitious reform program aiming at macroeconomic stability and fundamental restructuring of the economy with the focus of strong fiscal adjustment.

An accurate estimate of the aggregate amounts spent by the public sector is a crucial element in policy design and dialogue. Therefore, in an analysis on fiscal adjustment in Turkey, the starting point is to have an estimate about the size of the government in Turkey. This chapter therefore aims to measure the size of government in Turkey. However, since consolidating the fiscal accounts of the total public sector has been and still is a major challenge, the Chapter will first have a discussion on what should be the appropriate coverage of the Turkish public sector given the internationally accepted definitions, why consolidation of fiscal accounts of different public institutions is still a challenge in Turkey and what were the previous study in this areas, and what is the proposed methodology for consolidating the fiscal accounts of different government institutions.

4.1 Difficulties in Consolidating Public Sector Expenditures and Revenues

Although design of fiscal policy and dialogue requires an accurate estimate of the size of the government, Turkey has been lacking this information until recently. Unfortunately, measuring the size of the Turkish general government as well as public sector (general government plus state owned enterprises) is a challenging endeavor because of the reasons presented in detail in the World Bank's 2001 Public Expenditure and Institutional Review (PEIR 2001), more specifically deficiencies in the coverage of the budget and the classification and consolidation of expenditures.

In order to analyze fiscal adjustment in Turkey, a consolidated set of general government expenditures and revenues needs to be calculated. As pointed out in State Planning Organization's Special Ad Hoc Committee Report on Fiscal Transparency and Public Finance (SACR) (2000) the fragmented budget structure has been undermining fiscal discipline.

> "*Today, public spending in Turkey is distributed among a large number of budget with different structures and funds and enterprises with revolving funds. ... Therefore, the principle of budgetary integrity is undermined and the precise amount of public revenues and expenditures cannot be fully seen because of public revenues and expenditures remaining outside the scope of the consolidated budget."*

Moreover, PEIR 2001 study states that " *While problems of budget coverage is not uncommon in less developed countries, the complexity and pervasiveness of such problems observed in a relatively large and sophisticated economy such as Turkey's increases the significance of these issues for the analysis and interpretation of public spending* ...". The study lists (i) off-budget funds, (ii)

revolving funds, (iii) quasi-fiscal operations, (iv) lack of functional classifications, (v) system of transfers (vi) earmarking, retention and claw-backs as the complications lay behind to produce consolidated public expenditures and revenues.[18]

There has been significant progress since the PEIR 2001, including the (i) progress towards implementation of a new budget classification consistent with the IMF GFS guideline, (ii) inclusion of all foreign financed credit into the general budget, (iii) adoption of GFS consistent legislation on general accounting framework for the general government, (iv) abolishment of most of the budgetary and extra-budgetary funds, (v) elimination of earmarked revenues and special appropriation mechanisms, and (vi) reduction in the number of revolving funds mostly through consolidation.[19] However, estimating the general government expenditures for recent years continues to be difficult because these positive developments will yield results only after the year 2006.

4.1.1 Definitions

Definitions and coverage of the entire government activities is quite important if the aim is to measure the government's transactions to reflect its overall expenditures and revenues. With this overall objective, it is preferred to use the public sector data which is the sum of general government and SOEs, since the detailed fiscal data about the SOEs are not available, and the comparable

[18] Quasi-fiscal operations are policies or actions of the government which generates indirect costs not explicitly recorded in the budget but ultimately have to be paid by the government. Duty losses and Treasury guarantees were examples of the quasi-fiscal operations which are now legislated to be fully integrated to the budget system with the law on Public Debt Management number 4749.

[19] Accrual based accounting system is in place for the consolidated budget institutions since the beginning of 2004. Moreover, with the implementation of the Public Financial management and Control (PFMC) law starting from January 2006, beginning of 2006 all of the general government institutions. For the rest of the general government, the corresponding institutions are working on developing charts of accounts consistent with new framework legislation.

international data are mainly provided in general government definitions, it is decided to use general government data.

Therefore, definition of general government used in this report – in line with the GFS definition-- includes the (i) consolidated budget, (ii) social security institutions (SSI) including unemployment insurance, (iii) a subset of budgetary and extra budgetary funds (EBFs), (iv) local administrations, and (v) off-budget revolving funds created by public entities. (Figure 3)

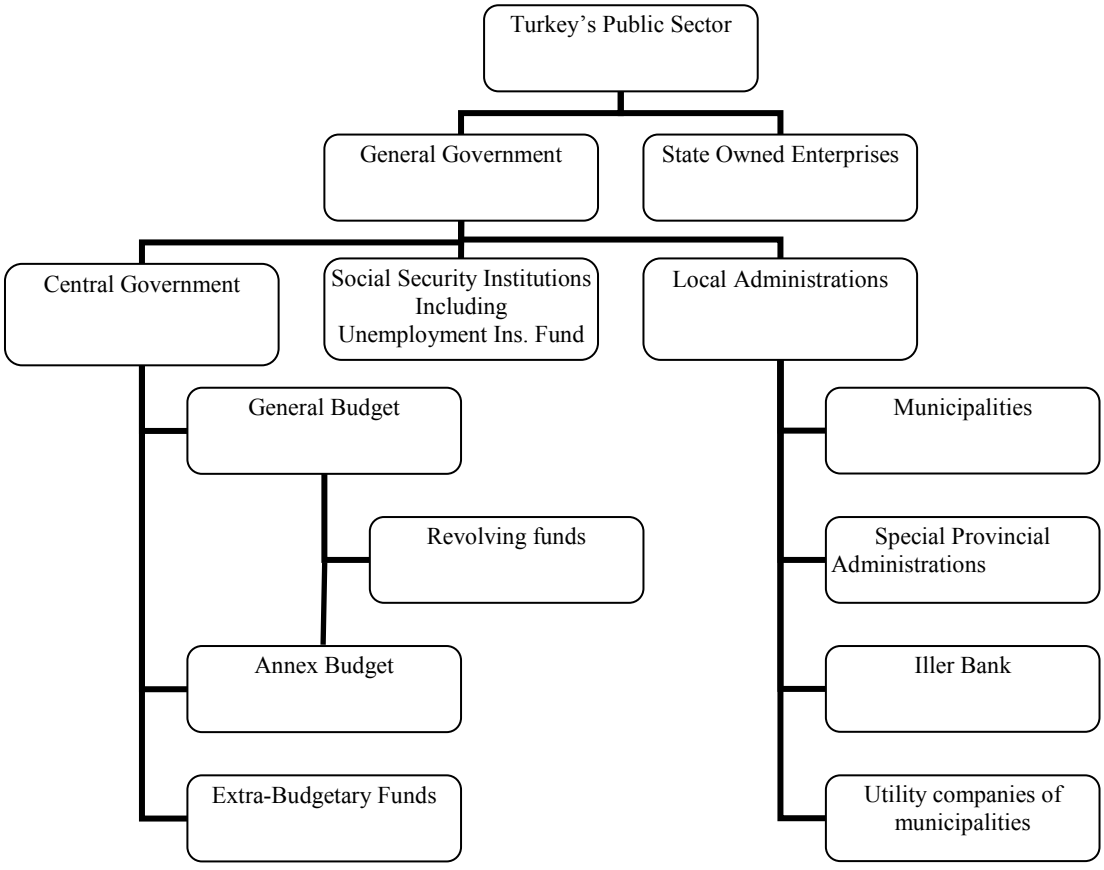

Figure 3: Coverage of Public Sector in Turkey

Source: SPO, and Ministry of Finance

4.1.2 Coverage

Our analysis includes expenditures and revenues of the general government as explained above. Consolidated budget institutions means the sum of general budget and annexed budget institutions of the central government. General budget institutions mainly refer to ministries and annexed budget institutions refer to institutions that have their own funding but still most of their expenditures financed through budgetary allocation. Although full list of these institutions are included in Appendix I, the institutional coverage of this study is as follows;

- Consolidated Budget Institutions: All of the general and annexed budget institutions. As of 2005 the total number of the institutions was 98.
- Social Security Institutions (SSIs): SSK, BagKur, Emekli Sandigi and Unemployment Insurance Funds. The UI was included into the balances since year 2000.
- Extra Budgetary Funds (EBFs): The total number of the funds included in the general government balance decreased from 12 in 1999 to 4 in 2005
- Local Administrations: 3225 municipalities, 81 special provincial administrations, Iller Bank, 16 water and sewerage companies of metropolitan municipalities and 10 natural gas and public transportation companies.
- Revolving Funds: 1,450 (in 2005) enterprises established under the consolidated budget institutions and TRT (Turkish Radio and Television), DG of Dormitory and Student Credits, National Lottery and AOC (Ataturk Forestry Farm).[20]

[20] These four institutions should be classified under special budget institutions. Since special budget institutions are within the general government coverage, these institutions were preferred to be kept within the general government data in order not to loose their expenditures.

With the implementation of the Public Financial Management and Control Law (PFMC) no: 5018 since January 2006, definition as well as the institutional coverage of central government and therefore general government has been changed to be more in line with the international definitions and to expand the scope of central government. Therefore, consolidated budget was replaced with central budget to cover general budget, special budget and regulatory and supervisory institutions budget. However, since the last year covered in this study is 2005, the terminology used here and the coverage are still in the old definitions and coverage and therefore not consistent with the PFMC law.[21]

The data used in this analysis, therefore, does not include the expenditures and revenues of 8 regulatory and supervisory agencies, and 45 out of a total of 50 special budget institutions listed in the PFMC.[22] Moreover, the Central Bank (CB) and other public depository institutions are not covered. The analysis includes, however, the net subsidies and transfers between these institutions and the consolidated budget. Likewise, although revenues and expenditures of the SOEs are not covered in full, their net transaction with the general government institutions are included through transfer and subsidies between SOEs and general government institutions.

4.2 Consolidation Methodology of Fiscal Accounts

The consolidation of general government methodology presents operations of the government on a gross basis. As stated in the PEIR 2001 " … *the consolidation of general government requires careful treatment to ensure that coverage is*

[21] Although the coverage of the central government budget was expanded the total revenues and expenditures of the central government did not changed much compared to the consolidated budget. This is mainly due to the fact that those institutions which were not formally part of the consolidated budget were mostly included in the budget through the transfer from the budget to these institutions.

[22] Special budget institutions refer to 50 public entities established as affiliated or related to a ministry to provide certain public services. These special budget institutions receive revenues and are authorized to spend them. The complete list of these institutions is presented in the Public Financial Management and Control Law.

achieved while at the same time properly attributing revenues and expenditures to the budget of the agency or the unit of government responsible for that activity." Therefore the revenues should be reported only where the funds are generated and with the same logic expenditures should be reported only in the public institutions where the final spending occurred.

In order to eliminate double counting in the consolidation, the transfer payments have to be treated properly. The transfer payments in the public sector of Turkey is quite complex. On one hand transfers to the rest of the public sector is made from consolidated budget, on the other hand transfer from these institutions to the consolidated budget is also made. Therefore for a correct measurement of the public expenditures, transfer from the budget to the rest of general government has been deducted from the consolidated budget figures. And similarly spending made on behalf of the budget and transfer payments o budget have been deducted from the rest of the public sector.[23]

The followings are some examples of the netting out by the different public entities to eliminate double accounting;

- Payments made on behalf of the Treasury (invoiced expenditures and additional reserves) is kept under the consolidated budget expenditures and deducted from the expenditures of the SSIs. Because these are social transfer or social assistance type of expenditures rather than social security payments.
- Transfer to the SSIs and Local Administrations is deducted from the expenditures of the consolidated budget.
- Amount of transfer to the EBFs from the consolidated budget that is reported in the Funds revenue has been deducted from the consolidated budget. The rest kept under the consolidated budget

[23] For a detailed explanation for this netting out, please see annex of the PEIR 2001.

expenditures because these are transfer to the funds that is not covered by the funds' balance.

- Special appropriations have been deducted from current, investment, and transfer expenditures for the period of 1999-2002. This netting off has been done until 2003 because all special appropriations mechanism attached to the Funds abolished in 2003.
- Spending on common retirement from BagKur has been netted of because the same amount of spending is already reported in the SSK's expenditures.
- Current transfers to consolidated budget, EBFs and other funds have been deducted from the expenditures of the Local Governments, and capital transfers have also been netted out from their expenditures.
- Year end profit transfer and monthly gross proceeds from the revolving fund to the consolidated budget has been deducted from the expenditures of the revolving fund as per the data from consolidated budget.

4.3 Previous Studies on Consolidated General Government

After the first attempt to measure the size of the general government in Turkey under the PEIR 2001 which covered the data between 1994 and 1999, there have been three different efforts for estimating the general government expenditures in Turkey. The first one is a State Planning Organization (SPO) study published in "Pre-accession Economic Program – 2003" under the title of "General Government Total Expenditures and Revenues". The study initially covered 1999 – 2003 period. Since then the SPO has been updating and improving the data set on an annual basis under the pre-accession economic program documents. The latest SPO data covers 1999-2005 period under the Pre-accession Economic Program, 2006.[24]

The second attempt to measure the size of the general government was an IMF study titled "Turkey: Sustaining Fiscal Adjustment through Expenditure Reform, May 2004". The period covered in this study was 1999-2003. Since this was a technical assistance provided to Turkey on an ad hoc basis, there has been no update of the study. Although under the Staff Reports and Letter of Intends, the Fund makes available fiscal balance of the public sector calculated based on their fiscal files, the objective of the IMF fiscal files is not to monitor the consolidated public sector revenues and expenditures and but rather to focus on fiscal balance measured through primary surplus. Moreover, the program definition of the primary surplus changes throughout the time based on the agreed adjustments between the Government and the IMF. Therefore, it was not preferred to use the IMF fiscal data.

[24] The general government data of SPO is different from the Public Sector General Balance data produced by the SPO in the annual programs. The purpose of this data set which goes back to 1975 is not to measure the total revenues and expenditures but to measure public sector borrowing requirement. Therefore, some of the sectors like Social Security institutions are presented in net basis, i.e., revenues – expenditures. An explanation on the Public Sector General Balance and its difference between general government data can be reached under 2006 annual program.

The third study is a Ph.D. dissertation done by H. Hakan Yilmaz (2006) titled "Quality Problem in Fiscal Adjustment of Stabilization Programs Implemented in Turkey after 2000." The dissertation covers 1999-2004 period. Yilmaz's (2006) study integrates some of the unreported expenditures mainly health related transactions generated between revolving funds (Ministry of Health) and social security institutions. However, since the overall impact of these adjustments is small – especially in the recent years—and since the details of his data were not available, the thesis did not prefer to use the Yilmaz's data, as well.

Table 4: Comparing WB General Government Estimates with SPO and IMF data, % of GNP, 1999-2003

(% of GNP)	1999	2000	2001	2002	2003
SPO General Government Expenditures with adjustment	47.7	49.3	59.3	51.0	49.9
SPO Primary Expenditures with Adjustments	33.1	32.4	33.9	32.9	33.2
IMF General Government Expenditures with adjustment	48.4	50.2	58.4	50.7	49.6
IMF Primary Expenditures with Adjustments	32.3	32.8	33.0	32.5	32.8
WB General Government Expenditures	47.6	49.6	59.2	50.6	49.5
WB General Government Expenditures	32.4	32.2	33.7	32.5	32.7
Difference between WB and IMF (Total)	(0.8)	(0.6)	0.7	(0.1)	(0.1)
Difference between WB and SPO (Total)	(0.0)	0.3	(0.1)	(0.4)	(0.4)

Source: Agar and Chaves (2004)

Other than these three studies, another attempt to measure the size of the government in Turkey and compare the SPO and IMF fiscal data has been done in the World Bank.[25] In this analysis which covers 1999-2003 period, a new consolidated general government expenditure data has been produced using

[25] Agar, M., Chaves, R. (October 2004), Estimation of the Size of the Government in Turkey, unpublished internal discussion note.

publicly available fiscal data. After understanding the methodological and coverage differences between this new data set and the SPO's and IMF's, a comparison between these three data has been made. The outcome of the analysis as represented in Table 4 shows that after the adjustments in order to eliminate methodological and coverage differences, the general government estimates of SPO and the Fund are materially consistent with the estimates of the study as the differences in these three sets of estimates for any given year are very small.

4.4 Data Used In This Study

Based on the outcome of the previous section, it has been decided that reproducing the consolidated general government data for 1999-2005 would not bring any value added. Therefore, SPO general government data with adjustments preferred to be used for this thesis.

Although the SPO data is in general in line with the GFS methodology defined above, the following adjustments were made to their general government data for the following reasons;

- To eliminate the double counting:

  a. Invoiced payments which are social assistance type of payments made by the Emekli Sandigi through transfers from the consolidated budget were deducted from the social security institutions balance.

  b. Spending on common retirement from BagKur has been netted of in the SSK balance because the same amount of spending is already reported in the BagKur's expenditures.

- To convert cash –based accounting into accrual accounting;

c. Interest payments realized in 2001 but reported in 2002 were deducted from 2002 expenditures and added to 2001.

- To correct misreporting

  d. Accrued interest revenues reported in 2005 has been deducted from consolidated budget revenues.

Appendix II presents a detailed dataset calculated used in this thesis based on the above mentioned definitions, coverage, and methodology.

Since the primary surplus data used in this thesis covers the general government data calculated based on the methodology defined in this chapter, they are not consistent with the IMF program definition primary surplus data for the public sector. The conversion from the consolidated general government primary surplus data used in this study to IMF program definition of public sector primary surplus data are explained in Box 1

Box 1: Conversion From SPO- Adjusted General Government Primary Surplus to IMF's Program Definition of Public Sector Primary Surplus:

The backbone of the Government's Stand–By Arrangements (SBA) with the IMF has been continued and strong fiscal discipline monitored through program definition of the public sector primary balance. A detailed explanation of the program definition primary surplus methodology can be found in the Fiscal Targets annex of the April 2005 SBA.

The program definition public sector primary surplus does not aim to measure the size of the public sector but rather to monitor size of the primary surplus. Therefore the aim is to ensure that the public sector generates sufficient primary surplus for reducing the public debt. Since the performance criteria on the primary surplus is defined as the nominal term, the criteria focused on the size of the surplus not on the sources. Therefore, quality and sustainability of the fiscal adjustment is not one of the main reasons.

The program definition generally does not account the revenues and expenditures that are not continues and regular in nature. There have been changes in the coverage (SOEs coverage has been increased gradually) and treatment of different revenues and expenditures for the primary surplus calculation (interest revenues on tax arrears) since 2000. Some of the adjustments were determined arbitrarily based on the agreement with the Government rather than based on the GFS classification.

The following table explains the conversion between SPO's definition of General Government and the IMF's or program definition of the public sector primary surplus.

Box 1 (continued)

Table 5: Public Sector Primary Surplus; Conversion from the General Government to the IMF Program Definition

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Primary Surplus of General Government (GG)	**0.46**	**4.85**	**5.87**	**4.11**	**5.40**	**6.19**	**6.13**
Adjustment on revenues	(0.09)	(0.13)	(0.69)	(0.95)	0.03	(0.28)	(0.28)
(-) CB profit	0.13	0.18	0.27	1.09	0.00	-	-
(-) Transfer of special revenues	-	-	-	-	-	0.06	-
(-) Dividend revenues from State Banks	-	-	-	-	-	0.26	0.26
(+) Tax arrears interest	-	-	-	0.10	-	-	0.07
(-) Revaluation Difference	-	-	0.50	0.01	0.01	-	-
(-) Minting revenues	-	-	-	-	-	-	0.11
(+) SPSF Repayment	0.03	0.01	0.00	0.00	-	-	-
(+) Interest revenues of SSIs	0.02	0.04	0.07	0.05	0.04	0.03	0.02
Adjustment on expenditures	0.78	0.61	0.12	0.11	(0.20)	(0.14)	0.04
(-) retirement bonus	-	-	-	0.07	-	-	-
(+) Mandatory Savings	0.67	0.49	-	-	-	-	-
(-) Expenditures Due to Privatization	0.00	0.04	0.01	0.01	0.01	0.03	0.03
(+) Privatization Fund Net Lending	0.05	0.10	0.14	0.11	0.06	0.01	0.08
(+) Defense Fund Net Lending	(0.00)	-	(0.01)	0.07	0.02	(0.00)	0.00
(+) MHF Net Lending	(0.00)	0.01	(0.00)	-	-	-	-
(-) Risk Account	-	-	-	-	0.26	0.11	0.04
(+) Interest expenditures of SSIs	0.06	0.05	0.00	-	-	-	-
(+) SSIs expenditure .and interest adjustment	-	-	-	-	-	-	0.02
IMF Program Adjusted GG Primary surplus	(0.41)	4.11	5.05	3.05	5.63	6.04	5.82
SOEs Primary Surplus	(2.07)	(1.54)	0.08	1.13	0.69	1.06	0.70
Program Adjusted public sector primary surplus	(2.48)	2.56	5.13	4.19	6.32	7.10	6.52

Source: SPO, IMF and Own Calculation

CHAPTER 5

FISCAL CONSOLIDATION AT THE GENERAL GOVERNMENT

Since 1999 economic crisis, Turkey has been undertaking an economic program to ensure macroeconomic stability. The economic program was drawing on disinflation and fiscal adjustment policies to restore external imbalances and support sustainable growth. With the support of the IMF arrangements, Turkey generated an impressive fiscal adjustment during 1999-2005 period which helped to reduce high level of public sector debt stock.

Although it is better to have the fiscal consolidation analysis based on the entire public sector, for the reasons explained in Chapter 4 the coverage of this thesis has been restricted into the general government which excludes SOEs. However, for the sake of having an idea about the overall contribution of the SOEs to the primary surplus and therefore to the fiscal adjustment, Table 6 have been prepared based on the IMF primary surplus data which includes the SOEs. As can be seen from the Table 6, total of 8.5 percent of GNP fiscal adjustment has been created for the entire public sector. The primary balance of the public sector has been improved from primary deficit of 1.6 percent of GNP to 6.9 percent of primary surplus between 1999 and 2005.[26] The SOEs contributed one third of the adjustment with 2.8 percentage points improvement in their fiscal balances. The rest generated by the general government institutions.

---

[26] The IMF's Stand-By Arrangement (SBA) program target of 6.5 percent of GNP primary surplus for 2005-2007, includes primary surplus of a subset of SOEs together with the general government. Please note that the resulting estimates of the public sector primary surplus are different from those of the IMF represented in the publicly available staff reports and the Letter of Intends. Most of these differences are the result of different methodological approaches. The Box 1 explains the conversion between the data used in this study and the IMF program definition.

Table 6: Public Sector Fiscal Adjustment in Turkey, % of GNP, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
General government	0.5	4.9	5.9	4.1	5.4	6.2	6.1
SOEs	(2.1)	(1.5)	0.1	1.1	0.7	1.1	0.8
Total public sector primary surplus	(1.6)	3.3	6.0	5.2	6.1	7.2	6.9

Source: SPO, IMF and own calculation

It should be noted however that with the privatization of big and profitable SOEs like TUPRAS (Turkish Petroleum Refinery), PETKIM (Petro-chemical Company), and TELEKOM (Turkish Telecommunication Company), the contribution from the SOEs to the primary surplus is expected to reduce drastically in the coming years starting from 2007.[27]

In the following sections, the size of the fiscal consolidation at the general government level, and the sources of this adjustment will be analyzed according to economic classification, institutional breakdown, and cyclical and structural components. It should however be noted that structural reforms implemented since 2000 have also contributed to the fiscal adjustment. The structural reforms including banking sector, budget and expenditure management, tax policy and tax administration, debt management, public investment rationalizations have added to fiscal discipline. However, the impact of these reforms will not be covered in this thesis because of difficulties in measuring the contribution of these reforms in to the fiscal adjustment.

[27] According to the Staff Report for the First and Second Review, contribution of the SOEs to the primary surplus will drop to 0.6 percent of GNP in 2006.

5.1 Size of the Fiscal Adjustment at General Government

General government was the main source of the improved fiscal position in Turkey during 1999-2005 period. The Government reflected a strong fiscal adjustment measured by change in the borrowing requirement --defined as the difference between total revenues excluding privatization proceeds and total expenditures. Between 1999 and 2005, the public sector borrowing requirement decreased by 11.6 percentage points of GNP (Table 7). This improvement in the borrowing requirement was driven by the increase in the primary surplus (5.7 percentage points) and of decline of interest payments on public debt (4.8 percentage points).

Table 7: Fiscal Adjustment at the General Government, % of GNP, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Total Revenues	34.1	37.8	41.2	39.3	40.1	40.7	41.8
Total Expenditures	47.4	49.1	60.0	52.1	50.3	46.3	43.5
Borrowing Requirement	13.2	11.3	18.8	12.8	10.2	5.7	1.6
Primary Revenues	33.4	37.1	40.1	37.8	38.8	39.1	40.0
Primary Expenditures	33.0	32.2	34.3	33.7	33.4	32.9	33.8
Primary Surplus	0.5	4.9	5.9	4.1	5.4	6.2	6.1

Source: SPO, and Own Calculation

Strong fiscal adjustment reduced gross public debt from 107.5 percent of GNP in 2001 to 71.6 percent in 2005. Reduction in debt stock and increased credibility of the government's macroeconomic program reduced interest rates and therefore interest payments on public debt have declined significantly. The total interest payments of the general government decreased from 14.4 percent of GNP in 1999 to 9.6 percent in 2005 – the reduction is even larger when compared to the peak

level of 25.7 percent of GNP in 2001 (Figure 4). However, the current level of interest payments are still high given that its share to the general government's primary expenditures is still at the level of 28 percent.

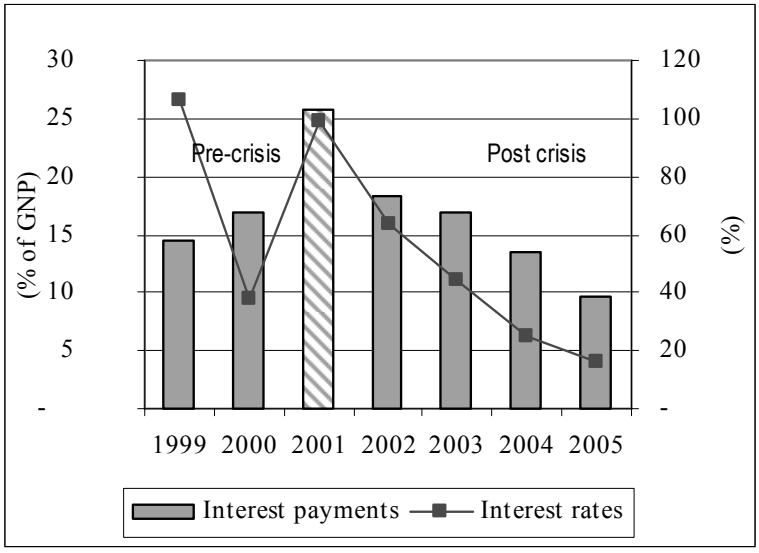

Figure 4: Interest Rates and Interest Payments- General Government, % of GNP, 1999-2005

Source: SPO, and Own Calculation.

Since the decrease in interest expenditures are the result of the policies induced by the government, it is important to analyze the fiscal consolidation calculated by non-interest expenditures and revenues; i.e. primary balance. Turkey's fiscal position reflects significant improvements when measured in terms of progress in primary balance of the General Government (GG), from a negligible primary surplus of 0.5 percent of GDP in 1999 to a surplus of 6.1 percent in 2005. As presented in Figure 5, with the improvement in the primary surplus, the borrowing requirement has been reduced significantly and fall below two percent of GNP.

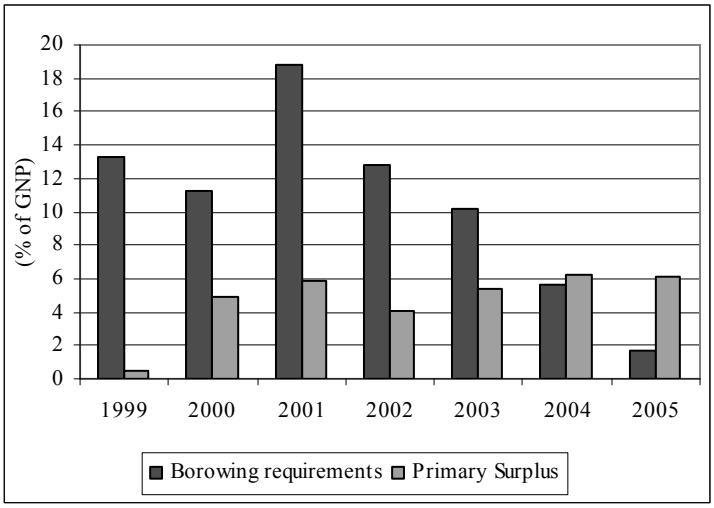

Figure 5: Borrowing Requirement and Primary Surplus of the General Government, % of GNP, 1999-2005

Source: SPO, and own calculation

Although size of the fiscal adjustment is important, composition or sources of the adjustment are quite critical for determining the sustainability of the adjustment. The following sections will therefore analyze the sources of adjustment from three different perspective; economic classification, institutional breakdown and cyclical component.

5.2 Sources of Fiscal Adjustment

5.2.1 Economic Classification

Turkey managed to generate an impressive fiscal adjustment through mainly focusing on measures in revenue side rather than relying on reduction in expenditures. As it can be seen from the Figure 6, fiscal adjustment of general government came from the improvements in the revenue side mainly driven by a

substantial tax effort achieved from 1999 to 2001 and maintained thereafter. Therefore, primary revenues increased to 40 percent of GNP in 2005 from 33.4 percent in 2001. Primary expenditures on the other hand have hovered at around 33-34 percent of GNP, without any reduction during the period. Figure 6 clearly supports this picture.

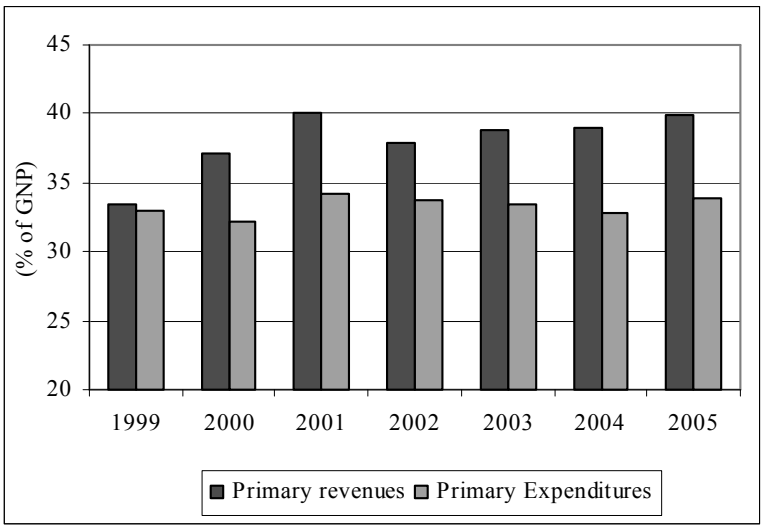

Figure 6: Fiscal Improvement in General Government, % of GNP, 1999-2005

Source: SPO, and own calculation

From the revenue side, the improvements mainly generated by increase in the tax revenues. Three percentage points increase in tax revenues – from 21.5 percent of GNP in 1999 to 25 percent in 2005 -- mostly generated by indirect taxes at the cost of direct taxes. While revenues from indirect taxes increased by 5 percent of GNP, more than 2 percent of this improvement was offset by reduction in direct taxes. Therefore, share of indirect taxes to total tax revenues increased from 53 percent in 1999 to 67 percent in 2005 (Table 8).

Although, the second biggest contribution came from the social funds that is premium revenues of SSIs and unemployment insurance fund, this increase by no means reflects an improvement in the balance of these institutions since increase in their SSIs expenditures was much higher than the improvement in their revenues.

Although total expenditures shows a reduction of close to 5 percentage points between 1999 ad 2005, this reduction was mostly generated by decrease in interest expenditures. Therefore, primary expenditures did not reflect any reduction and stayed almost constant at the general government level. Although investment and capital transfers decreased by 1.3 percentage points, 2 percentage points increase in the current transfers mainly led by increase in social security transfers eliminated the expenditure cut. It should be noted here that the primary expenditures of the general government stayed constant even though primary expenditures of the social security institutions increased around 3.5 percentage points between 2000 and 2005 –2.8 percentage points when measured from 1999. Therefore, composition of fiscal adjustment based on the economic classification raises an issue for sustainability since it is mainly driven by the revenue side measures not from the expenditure side.

Table 8: Revenues and Expenditures of the General Government, % of GNP, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Taxes	21.5	24.2	25.9	22.4	23.8	23.7	24.9
Direct	9.6	9.6	10.6	7.9	7.7	7.3	7.3
Indirect	11.6	14.2	15.0	14.1	15.2	15.8	16.8
Wealth	0.4	0.4	0.3	0.4	0.9	0.6	0.8
Non-Tax Revenues	2.6	3.0	2.5	3.3	3.1	3.1	3.1
Factor Incomes	4.7	4.9	6.3	7.5	6.5	6.9	7.0
Interest revenues	0.7	0.7	1.1	1.4	1.3	1.6	1.9
Social Funds	5.3	5.8	6.4	6.1	6.7	7.0	6.9
Total Revenues	34.1	37.8	41.2	39.3	40.1	40.7	41.8
-Privatization	0.1	1.5	0.9	0.2	0.1	0.4	0.8
Total Revenues	**34.2**	**39.3**	**42.1**	**39.5**	**40.2**	**41.1**	**42.6**
Primary Revenues	**33.4**	**37.1**	**40.1**	**37.8**	**38.8**	**39.1**	**40.0**
Current Expenditures	17.3	16.4	17.4	17.5	17.4	17.5	17.2
of which personnel	10.4	9.4	10.2	9.8	10.0	10.1	8.9
Investment Expenditures	4.4	4.5	4.8	4.6	3.7	3.2	3.8
Fixed Investment	4.4	4.5	4.8	4.6	3.6	3.1	3.8
Change in Stocks	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Transfer Expenditures	25.7	28.2	37.7	29.9	29.3	25.6	22.4
Current Transfers	24.5	26.5	36.5	28.9	28.6	24.9	21.7
of which interest payments	14.4	16.9	25.7	18.3	17.0	13.5	9.6
Capital Transfers	1.3	1.6	1.2	1.1	0.6	0.7	0.7
Total Expenditures	**47.4**	**49.1**	**60.0**	**52.1**	**50.3**	**46.3**	**43.5**
Primary Expenditures	**33.0**	**32.2**	**34.3**	**33.7**	**33.4**	**32.9**	**33.8**
Borrowing Requirement (incl. privatization)	13.2	9.7	17.9	12.6	10.1	5.3	0.8
Borrowing Requirement (excl. privatization)	13.2	11.3	18.8	12.8	10.2	5.7	1.6
Primary Surplus	**0.5**	**4.9**	**5.9**	**4.1**	**5.4**	**6.2**	**6.1**

Source: SPO and own calculation

5.2.2 Institutional Classification:

From the institutional perspective, consolidated budget and EBFs contributed most to fiscal adjustment at the general government level. The consolidated budget (Central government budget, accounting for 57 percent of GG expenditures in 2005) by itself created a fiscal adjustment of more than 6 percent of GNP (Table 9). With the primary surplus of 9.9 percent of GNP, the consolidated budget more than doubled its primary surplus compared to 3.8 percent in 1999. Parallel to the improvement in the general government's fiscal position, the improvement in consolidated budgets fiscal position was mainly driven by the increase in revenues – especially indirect tax revenues. From the expenditure side, more than 60 percent of the fiscal gain was generated by the reduction in the non-personnel current expenditures. Reduction in these expenditures which generated through reducing or postponing maintenance expenditures of the investments can not be sustained in the medium term. The postponed maintenance expenditures will create more investment expenditures in the future.

From the EBFs side, eliminating the extensive off-budget activities through the closure of numerous EBFs and abolishment of the earmarking revenue systems contributed to fiscal consolidation. Abolishment of all budgetary funds, with the exception of Support Price Stabilization Fund (DFIF), and all but five EBFs (Social Solidarity Fund, Defense Fund, Promotion Fund, Saving Deposit insurance Fund, and Privatization Fund) improved the fiscal discipline and brought the deficit of the EBFs to a small surplus in 2005.[28]

[28] The number of EBFs has been reduced in 2000 and 2001, and the related earmarked revenue system was abolished in 2004.

It should be noted that the consolidated budget and the EBFs fiscal adjustment has been impeded by a growing social security deficit, which reached 4.1 percent of GNP in 2005.[29] Therefore, the reduction of the consolidated budget and EBFs has been offset by the deterioration of the primary balance of SSIs. If Turkey did not have problem of increased deficit of the social security institutions, the fiscal adjustment would have been much higher. As an illustration, if Turkey could have managed to keep the primary deficit of SSIs at the 2000 level of 1.9 percent of GNP, fiscal adjustment of the general government would have been close to 8 percent of GNP during 1999-2005, with the primary surplus of the general government of 8.4 percent in 2005. The fiscal situation would have been much better if Turkey had managed to contain the social security deficit after the 1999 reform.

Table 9: Institutional breakdown of General Government Primary Balance, % of GNP, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Consolidated Budget	3.78	6.20	6.30	6.79	9.01	9.26	9.94
SSIs	(3.01)	(1.88)	(2.64)	(3.10)	(3.81)	(3.83)	(4.15)
Local Administrations	0.25	0.45	0.67	0.12	(0.20)	0.13	(0.31)
Revolving funds	0.03	0.10	0.07	0.16	0.29	0.43	0.29
EBFs	(0.59)	(0.28)	0.84	(0.21)	(0.24)	(0.17)	0.02
UI	-	0.27	0.62	0.35	0.36	0.37	0.35
Total Primary Surplus	0.46	4.85	5.87	4.11	5.40	6.19	6.13
Memo Item:							
SOEs	-2.1	-1.5	0.1	1.1	0.7	1.1	0.7

Source: SPO and own calculation

[29] The deficit of the social security institutions does not include payments made on behalf of the consolidated budget since those expenditures are treated as part of the consolidated budget expenditures. Therefore the deficit of 4.1 percent of GDP is consistent with the more commonly used definition, (including payments made on behalf of the consolidated budget) which corresponds to 4.8 percent of GNP in 2005.

5.2.3 Cyclical Component

Another source of fiscal adjustment in Turkey was the strong growth performance in the last few years. As many of the economic literature suggests cyclically adjusted budget balance (or primary balance) need to be analyzed in order to understand the actual fiscal stance of the country. Because, cyclically adjusted budget balance or structural budget balance seeks to measure the fiscal position net of the impact of output effects on the budget. It is obtained by removing cyclical component of the budget from the nominal fiscal balance. The cyclical component depends on two factors; the size of output gap and the output elasticity of the budget.

Therefore, in countries where volatility of growth is high, it would be better to decompose primary surplus into its structural and cyclical component in order to have a better understanding about the fiscal stance. For example, during economic recessions, tax revenues are expected to decrease, whereas transfer expenditures such as unemployment insurance, severance payments and other social protection expenditures are expected to increase. However, with the economic recovery, there will be an increase in tax revenues and a decrease in unemployment benefits and related expenditures. Therefore, in order to analyze the actual fiscal stance, eliminating the cyclical component of the primary surplus is required since structural fiscal stance provides information on the amount of primary surplus generated through the structural measures which can be seen as more sustainable.

As stated by the IMF, the cyclicality of the fiscal adjustment has an impact on the successfulness of the fiscal consolidation. "*Fiscal consolidation (on a cyclically adjusted basis) should ideally begin to kick in as the economy starts the expansionary phase of the business cycle, which would mitigate any*

contractionary first round effects. Similarly, fiscal loosening is most appropriate as the economy enters the contractionary part of the cycle."[30]

The cyclicality of primary surplus and structural budget discussion presented below is based on the findings of the upcoming Public Expenditure Review (PER 2006) Please see Box 2 for the methodology.[31]

Box 2: Methodology for Decomposing Structural and Cyclical Balance

The actual budget balance is the sum of structural budget balances and cyclical component,

$$b = sb^* - cb^{**}$$

b : Actual budget balance (as a ratio of national income)
sb* : Structural budget balance (as a ratio of national income)
cb^{**} : Cyclical budget balance (as a ratio of national income)

The structural budget are calculated from revenues and expenditures adjusted for the deviation of actual output from potential (output gap). The adjustment on the revenues and expenditures are based on the elasticity of revenues and expenditures to economic activity. Therefore the structural budget balance is defined as follows:

$$sb^* = \frac{\sum_i Tax_i^* - GE_i^* + OER}{Y^P}$$

sb* : Structural primary budget balance (as a ratio of national income),

Taxi* : The structural value of tax revenues in category i,

GEi* : The structural value of government primary expenditures in category i,

[30] IMF, Fiscal Affairs Department, (2006)

[31] Girouard, N., and Andre, C. (2005)

Box 2 (continued)

OER : Other primary expenditures and primary revenues which are not affected by the growth cycles,

Y^P : Potential output.

The relationship between structural tax revenues and expenditures and their actual values can be shown as follows:

$$\frac{Tax_i^*}{Tax_i} = \left[\frac{Y^P}{Y}\right]^{\alpha_i}; \frac{GE_i^*}{GE_i} = \left[\frac{Y^P}{Y}\right]^{\beta_i};$$

Tax_i : Actual tax revenues in category i,

GEi : Actual government primary expenditures in category i,

Y : Actual national income,

αi : The output elasticity of category i taxes,

βi : The output elasticity of category i government expenditures.

Tax revenues which show cyclical movements are divided into 4 categories. These categories are personal income tax (PIT), corporate income taxes (CIT) and indirect taxes and social security contribution. The elasticity of indirect taxes is taken as unit elasticity, the elasticity of CIT and PIT are taken as 1.57 and 1.5. Social security contributions were also adjusted for the cycle using an elasticity of 0.82.

On the expenditure side theoretically only unemployment benefits and social security benefits are assumed to be affected by the growth cycles. However, introduction of unemployment benefits in Turkey is a very recent issue and the eligibility conditions to apply for a benefit are quite restrictive. Therefore, unemployment benefits in Turkey do not show a cyclical pattern.

Box 2 (continued)

In this context, while estimating structural balances for the general government, unemployment benefits are not adjusted for the cycle. This leads to the following equation for the calculation of the structural budget balance;

$$sb^{*} = \frac{\sum_{i=1}^{3}\left[\frac{Y^{p}}{Y}\right]^{\alpha_i} Tax_i + (GE + OER)}{Y^{P}}$$

i : Income tax, corporate tax and indirect tax, and social security contributions as a separate tax item while making estimations for the general government.

Based on the methodology defined in Box 2, structural and cyclical components of the general government primary surplus were calculated. As presented in Figure 7, cyclical component of general government primary surplus reflects two different behaviors for 1999-2003 and 2004-2005 sub-periods. During the first period, Turkey faced lower growth measured as output gap (actual GNP/potential GNP) being less than one. Therefore, in this period, cyclical component of primary surplus was negative, as structural primary surplus was higher than actual primary surplus. However, during 2004-2005, significant part of the large primary fiscal adjustment came from historically high strong growth. The contribution of the cycle to the performance of the primary balance has reached 0.9 and 1.8 percent in 2004 and 2005, respectively (Table 10).

The fiscal adjustment picture looks quite different when measured on structural primary balance of the general government compared to actual primary surplus. Total adjustment in the general government measured by the structural primary balance reflects a lower adjustment of 3.1 percent of GNP compared to the adjustment of 5.7 percent including cyclical component. Moreover, although

trend in fiscal balance does not reflect any change during 1999-2003 period when measured in structural balance compared to the actual balance, this picture changes after 2003. While the actual primary balances in 2004 and 2005 reflect an improvement in fiscal tightening compared to the previous years, structural primary balances show loosening in fiscal stance during these years.

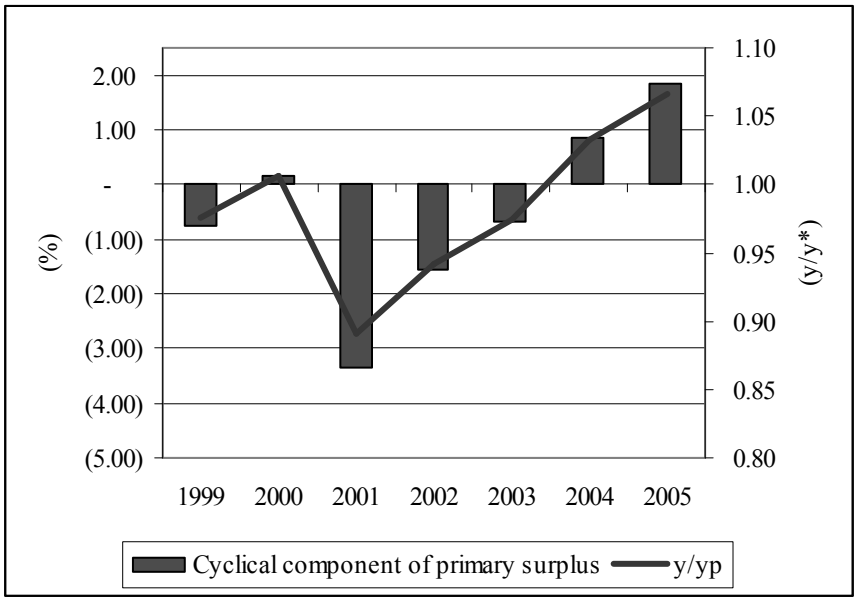

Figure 7: Cyclical Component of Primary Surplus

Source: Forthcoming PER and own calculations

Therefore, the cyclicality of the fiscal stance contributed substantially to the fiscal tightening in Turkey in 2004 and 2005 when the country had a strong growth performance. Without this contribution Turkey's fiscal adjustment would have been lower than it is now. The positive contribution of high growth performance to the fiscal stance indicates that the current fiscal performance can be significantly undermined in case of a slowdown in growth. Therefore, it poses

a risk for its sustainability and therefore continuing with public debt to GNP ratio reduction.

Table 10: General Government Structural and Actual Primary Balance

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Structural Primary Balance	1.2	4.7	9.2	5.7	6.1	5.3	4.3
Actual Primary Balance	0.5	4.9	5.9	4.1	5.4	6.2	6.1
Memo Item							
Y/YP	0.97	1.01	0.89	0.94	0.97	1.03	1.07

Note: Structural budget balances are percent of potential GNP, while actual budget balances are percent of actual GNP.

Source: Forthcoming PER and own Calculation

To sum up, although Turkey created a sizable fiscal adjustment in the last couple of years, the sources of fiscal adjustment raise concerns with regard to its sustainability. While expenditures almost stayed constant through out the period, increase in revenues led by the indirect tax increase was the sources of adjustment. As mentioned by Alesina (1996), composition of fiscal adjustment is important for its success and sustainability. Likewise, the institutional sources of fiscal adjustment which are the consolidated budget and the EBFs add concern of the sustainability of fiscal adjustment. Since, in the consolidated budget, consolidation was mainly driven by the revenue side measures and the expenditure cuts i.e. maintenance expenditures are expected to create an increase in future maintenance or investment expenditures. The EBFs gain was one time off because it is generated through the closure of these institutions. Likewise, positive cyclical component of the primary surplus in the last two years can not be guaranteed since countries are expected to grow at their potential growth rate in the long run.

Although we have some serious concern about the sustainability of fiscal adjustment in Turkey, the importance of continuing with strong fiscal adjustment will be discussed in the following Chapter in the context of debt sustainability.

CHAPTER 6
FISCAL SUSTAINABILITY

One of the main motivations for the Government to produce strong primary surplus was to reduce high public debt. Although public debt dynamics improved considerably since 2001, the current gross public debt level of Turkey – 71.6 percent of GNP--is still high compared to not only new EU members (EU10, below 60 percent of GNP) but also other emerging market economies like Brazil, Philippines, Ukraine, Tunisia, and Mexico (average of 46 percent of GDP in 2003). Therefore, sustainability of high primary balance is required for Turkey given that public debt stock is still high and makes economy vulnerable to foreign exchange and interest rate shocks.

Table 11, provides the evolution of public debt stock based on the strong macroeconomic conditions, which reflects an enormous reduction between 2001 and 2005. However, it is quite important to understand the underlying reasons for reduction of around 30 percentage points in net public debt stock, from 90.5 percent of GNP in 2001 to 55.8 in 2005.[32] The difference between gross and net public debt stock is presented in Box 3.

The borrowing need of any governments can be calculated as the sum of principal payments of public securities and their interest payments. This debt roll over need can only be financed in three ways; new borrowing, privatization revenues, and primary surplus.

[32] Net public debt stock is calculated as gross public debt minus net foreign asset of the central bank and deposits at the central bank.

Table 11: Evolution of Public Debt, 2000-2005

(% of GNP)	2000	2001	2002	2003	2004	2005
Gross Debt Stock	68.2	107.5	93.6	83.4	77.4	71.6
Gross Domestic Debt Stock	43.1	71.1	56.3	56.4	54.5	52.9
Net Debt Stock	57.1	90.5	78.5	70.4	63.5	55.8
Net Domestic Debt Stock	38.0	52.8	46.2	48.3	46.0	47.3

Source: Treasury Undersecretariat

Box 3: Conversion from Public Sector Gross Debt Stock to Net Public Debt Stock

Total Public Sector Gross Debt Stock consists of both external and domestic debt of the public sector. The public sector, in line with the international practice, is composed of central Government and rest of the public sector (non-financial SOEs, local administrations, extra-budgetary funds and autonomous institutions.

Central Bank net assets, public sector deposits and Unemployment Insurance Fund's net assets are deducted from the gross public sector debt to come up with the net public sector debt stock.

Conversion from Gross Public Debt to Net Public Debt

	2005
I- Total Public Sector Debt Stock (Gross)	71.6%
Domestic Debt	52.9%
External Debt	18.7%
II- Central Bank Net Assets	6.3%
Net Foreign Assets	10.2%
Other Asset and Obligations (Net)	-3.8%
III- Public Sector Deposits	5.8%
IV-Unemployment Insurance Fund Net Assets	3.7%
Total Public Sector Net Debt (I-II-III-IV)	55.8%

Source: Treasury Undersecretariat

In the following sections, we will look at the fiscal sustainability from the public debt perspective. It is important to understand the underlying effect which helped Turkey to reduce its net public debt decreased from 90.5 percent of GNP in 2001

to 55.8 in 2005. The underlying factors which contributed to the reduction in debt will shed a light about the future policy options for the government to continue with the public debt reduction. Therefore, reduction in public debt stock will be decomposed into its elements based on the methodology defined in the following section.

6.1 Methodology of Decomposition of Debt Reduction

As defined in Burnside (2005) main building block of fiscal sustainability analysis is the government budget constraint which is an identity in local currency;

Net Issuance of debt ≡ interest payments+ primary balance – seigniorage - growth effect – inflation effect- revaluation effect **(1)**

If we assume constant growth and constant inflation in the long run, net issuance of debt which is the change in debt stock is gross receipt from new issuance minus amortization payments, can be formulated as

$$B_t - B_{t-1} = I_t - X_t - (M_t - M_{t-1}) \quad (2)$$

B_t is the end period nominal debt stock as percent of GNP

I_t is the total interest payment as percent of GNP

X_t is the primary surplus as percent of GNP

M_t is the monetary base as percent of GNP

If we define the equation (2) as a ratio of GNP, where P_t is the GNP deflator and y_t is the real GNP growth, the equation becomes

$$\overline{b_t} - \overline{b}_{t-1} = \overline{i}_t - \overline{x}_t - \overline{\sigma}_t \quad \textbf{(3)}$$

Where

$$\overline{b_t} = \frac{B_t}{P_t y_t}, \quad \overline{i}_t = \frac{I_t}{P_t y_t}, \quad \overline{x_t} = \frac{X_t}{P_t y_t}, \text{ and } \quad \overline{\sigma}_t = \frac{M_t - M_{t-1}}{P_t y_t}.$$

If one divides both sides of equation (3) by $P_t y_t$, the equation (4) can be derived.

$$\overline{b_t} - \frac{P_{t-1} y_{t-1}}{P_t y_t} \overline{b}_{t-1} = \overline{\mathrm{i}}_t - \overline{\mathrm{x}}_t - \overline{\sigma}_t \quad \textbf{(4)}$$

Given that inflation rate is $\prod_t = P_t / P_{t-1} - 1$, an the real growth rate is $g_t = y_t / y_{t-1} - 1$, if we assume zero growth but nonzero inflation, equation (4) becomes

$$\overline{b_t} - \overline{b}_{t-1} = \overline{i}_t - \overline{x}_t - \overline{\sigma}_t - \frac{\prod_t}{1 + \prod_t} \overline{b}_{t-1} \quad \textbf{(5)}$$

where the last component reflects inflation effect.

Similarly, under the assumption of zero inflation and nonzero growth equation (4) becomes

$$\overline{b_t} - \overline{b}_{t-1} = \overline{i}_t - \overline{x}_t - \overline{\sigma}_t - \frac{g_t}{1 + g_t} \overline{b}_{t-1} \quad \textbf{(6)}$$

Again the last component shows growth effect. If we combine (5) and (6) which suggest both growth and inflation rates are nonzero

$$\bar{b}_t - \bar{b}_{t-1} = \bar{i}_t - \bar{x}_t - \bar{\sigma}_t - \frac{\Pi_t}{1+\Pi_t}\bar{b}_{t-1} - \frac{g_t}{1+g_t}\bar{b}_{t-1} \quad \textbf{(7)}$$

As explained in Burnside (2005) the revaluation effect can be derived as follows;

$$\bar{\delta}_t \bar{b}_t^F + \left[\frac{\underline{\delta}_t}{1+z_t} - \frac{\Pi_t}{1+\Pi_t}\right]\bar{b}_{t-1}^F \quad \textbf{(8)}$$

Where $\bar{b}_t^F$ end of period t stock of external debt plus foreign currency denominated domestic debt and $\bar{\delta}_t$ and $\underline{\delta}_t$ are defined as

$$\bar{\delta}_t = \sum_{i=1}^{N} \theta_i \left(S_{it} - S_{\bar{i}t}\right) / S_{it}$$

$$\underline{\delta}_t = \sum_{i=1}^{N} \theta_i \left(S_{\bar{i}t} - S_{it-1}\right) / S_{it-1}.$$

$S_{it}, S_{\bar{i}t}$ and θ_i are end of period exchange rate at the foreign currency i, average period exchange rate at the foreign currency i and average share of currency i in total external debt.

6.2 Decomposition of Change in Public Debt Stock in Turkey

Based on the Table 12, when we look at the debt decreasing components which counteract the increase in debt due to interest payments, the following conclusions about debt dynamics in Turkey can be made.

While historically reducing its public debt Turkey benefited a lot from the revaluation effect. This was mainly because of the high level of real effective exchange rate appreciation. The revaluation effect because of the real effective exchange rate appreciation was as high as 10 percent both in 2002 and 2003. The

high level of appreciation in 2002 and 2003 was mostly a correction to the 2001 high depreciation. After 2003, the global liquidity conditions helped Turkey to continue with the appreciated TL as the excess global liquidity inflowed into emerging markets including Turkey.

Table 12: Decomposition of Change in Debt Stock

(% of GNP)	2000	2001	2002	2003	2004	2005
Domestic debt	38.0	52.8	46.2	48.3	46.0	47.3
External debt	19.1	37.7	32.3	22.1	17.5	8.5
TOTAL debt	57.1	90.5	78.5	70.4	63.5	55.8
Change in debt	-2.9	33.4	-12.0	-8.2	-6.9	-7.6
Debt increasing components	15.8	41.8	18.6	17.8	12.4	8.0
Interest payments	15.8	21.8	16.7	15.9	11.9	8.0
Cost of financial sector bailout 1/	0.0	20.0	1.9	1.9	0.5	0.0
Debt decreasing components	26.2	5.7	30.4	28.0	20.3	16.0
Primary balance 2/	3.3	6.0	5.2	6.1	7.2	6.9
Growth effect	2.4	-3.9	4.6	3.6	5.8	4.3
Inflation effect	13.5	13.2	9.4	5.5	3.2	1.9
Revaluation effect	4.0	-12.6	10.0	11.9	3.1	1.2
Seigniorage	1.5	1.1	1.0	0.9	0.7	0.6
Other items (privatization)	1.6	1.9	0.3	0.1	0.4	1.1
Errors and omissions	7.5	-2.6	-0.2	2.1	0.9	0.4

1/ WB Country Economic Memorandum 2003 and 2006.

2/ Data reflects public sector primary balance

Source: Treasury Undersecretariat and own calculation

Likewise the revaluation effect, the inflationary effect contributed significantly reduction in public debt stock. During 2000-2003 period, the cumulative contribution of inflation into debt reduction was more than 40 percent of GNP. While the contribution of inflation was as high as 13 percent of GNP in 2001, its contribution was reduced to less than 2 percent in 2005. It should be noted that

the high contribution of inflation was because of the high inflation rate in Turkey during the period.

The growth impact, however, as expected reflects a different pattern. Because of the negative growth in 2001 at the level of 9.5 percent, the growth impact, the debt stock increased by almost 4 percent of GNP. With remarkable growth rates since 2002, at the average of 7.8 percent of GNP the contribution of growth to debt reduction has been quite remarkable with the average of 4.5 percent.

From the interest payment side, which has a negative impact on debt reduction, the inflation reduction help Turkey to reduce its interest payments and therefore decrease the debt increasing component as low as 8 percent of GNP in 2005 compared to 21.8 percent in 2001.

6.3 Expectations for Future – Contributing Factors to Change in Public Debt Stock

For the future, contribution of these components, one should expect different pattern for these policy options.

- Since the share of FX linked part of the domestic debt stock reduced dramatically from 42 percent of GNP in 2001 to 15 percent in 2005, the revaluation impact decreased to 3 percent even though TL was still appreciating in 2004. Given the current global market conditions and the weight of the FX linked debt securities, no major contribution should be expected from revaluation.
- Similarly, given that the Government is committed to continue with disinflation program through formal inflation targeting initiated in 2006, the role of inflation in reducing debt would be quite insignificant compared to pre-2004 period.

- Additionally, the reduction trend in public debt stock due to reduction in interest payments can not be a significant one. This is because given that government is not expected to divert from the reform program agreed with the IMF till 2008, the current level of real interest rates should continue. Therefore, since the current level of interest rates as much lower than the historical record levels, the reduction in interest payment can not be as high as before 2005.
- Finally, because of Turkey's high growth volatility, sustainability of high growth is a matter of concern in the short term. Moreover, Turkey's long term growth rate at the level of 4-5 percent, since output growth should converge to potential growth in the long run. Therefore, the growth impact should stay a more moderate level compared to high growth performance during the last few years.

Given all these facts and uncertainties about different factors which contribute to change in debt stock, the government ends up with only one option to continue with reduction in debt stock which is the primary balance. The impact of the primary surplus, as has been the case so far, will be secured as long as Government continues to generate high primary surplus. The primary surplus of 2005 itself was almost enough to compensate the negative impact of the interest payments in 2005.

6.4 Illustrative Cases - Why Turkey Should Continue with Strong Primary Surplus

In order to support why Turkey should continue with strong primary surplus the following two illustrative scenarios has been undertaken.

6.4.1 Case 1- What is required to keep Public Debt/GNP at current level

The first illustrative case aims to support the argument of why Turkey needs to continue with strong fiscal stance for the future. Table 13 shows the required amount of primary surplus different interest rate and growth rate assumptions needed to keep debt to GNP ratio at the current level of 55.8 percent under the assumption that inflation will be at 9 percent and monetary base will stay at 4 percent of GNP.

The outcome of this illustrative case is quite striking. Even if Turkey manages to lower its real interest rate to 6 percent, it should generate 7 percent primary surplus to keep its debt level constant at 55.8 percent if economy contracts by 7 percent. Even though, Turkey continues with 5 percent growth rate, approximately 3 percent of GNP primary surplus is needed to keep the debt to GNP ratio at 2005 level with the real interest rate of 12 percent. This simple exercise only supports the argument that Turkey's debt stock level is still high, therefore very much sensitive to interest rate level.

Table 13: Illustrative Case 1- Required Primary Surplus to keep Debt/GNP at 55.8 % of GNP

Real interest rate (%) Real growth rate (%)	2	4	6	8	10	12
-7	4.9	6.0	7.1	8.2	9.3	10.4
-5	3.6	4.7	5.8	6.9	7.9	9.0
0	0.7	1.7	2.7	3.8	4.8	5.8
5	-2.0	-1.0	0.0	1.0	1.9	2.9
7	-3.0	-2.0	-1.0	-0.1	0.9	1.8

Initial debt (percent of GDP)	55.8
Steady state inflation (%)	9
Monetary base (% of GDP)	4

Source: Own calculation

6.4.2 Case 2 - Debt/GNP without positive factors contributed to debt reduction?

In order to understand why Turkey needs to generate high level of primary surplus, another illustrative projection has been made. The projection aims to calculate what would have been the current level of debt to GNP ratio, if Turkey (i) had grown at the potential growth rate of 4.5 percent since 2002, (ii) did not have real appreciation of TL apart from the ones that is part of the correction of 2001 devaluation, (iii) had a primary surplus equal to structural primary surplus for 2004 and 2005.

Table 14: Illustrative Case 2- Estimated Debt/GNP ratio under revised assumptions

(% of GNP)	2000	2001	2002	2003	2004	2005
Gross Debt Stock	68.2	107.5	93.6	90.6	90.3	88.6
Gross Domestic Debt Stock	43.1	71.1	56.3	56.4	58.2	60.4
Net Debt Stock	57.1	90.5	78.5	77.7	76.4	72.3
Net Domestic Debt Stock	38.0	52.8	46.2	48.3	49.7	54.6
Memo items						
	2000	2001	2002	2003	2004	2005
Nominal Interest Rate (%)	38.0	99.1	63.5	44.1	24.9	16.2
CPI Inflation (%, Dec/Dec)	39.0	68.5	29.7	18.4	9.3	7.7
Real Interest Rate	-9.5	35.5	30.3	30.2	15.4	6.3
Depreciation (Dec/Dec)	24.4	114.3	13.5	**8.4**	**6.1**	**4.6**
REER (Dec/Dec)	13.7	-23.6	10.9	**6.0**	**0.0**	**0.0**
GNP growth rate (%)	6.3	-9.5	**4.5**	**4.5**	**4.5**	**4.5**
Primary Balance (% of GNP)	3.3	6.0	5.2	6.1	**6.3**	**5.1**

Bolded data show change in the indicators

Source: Own calculations

Under this illustrative scenario, based on the revised assumptions the Turkey's debt to GNP level as of end of 2005 would have been 16.5 percentage point higher with the level of 72.3 percent of GNP. Therefore, it can be concluded that the impact of appreciated TL, higher than potential growth as well as higher

primary surplus due to cyclical component reduced debt/GNP ratio more than 16 percentage points. Since sustainability of these factors raises a lot of concerns, in order to continue with reduction in public debt for the, Turkey should pay a lot of attention to the primary surplus. (Table 14)

To conclude, it is clear from the analysis of this Chapter that Turkey does not have any other alternative but to continue with generating high primary surplus. As the two simulations clearly reflect, Turkey needs to create sizable primary surplus in order to reduce its still high debt to GNP ratio at sustainable levels. Although the achievements of the last couple of years are quite impressive in reducing the public debt into more reasonable levels, it is quite clear that most of the contributing factors other than primary surplus can not be generated through policy implementations. Given that the current public debt level is a source of vulnerability for the economy and therefore has to be further reduced, Turkey should continue with strong fiscal adjustment.

CHAPTER 7
CONCLUSION

After 1999 and 2001 crises, Turkey managed to improve its fiscal stance which led to a major progress in its public sector balance and therefore a significant reduction in its public debt. Due to implementation of a new macroeconomic policy framework and structural measures supported by the IMF and the WB, the general government overall balance measured improved from 13.2 percent of GNP in 1999 to 1.6 percent of GNP in 2005. The main reason behind this improvement was continues and high level of fiscal adjustment generated through sizable primary surplus during the entire period.

This thesis aims to understand the sources of this strong fiscal adjustment in Turkey in order to evaluate sustainability of these contributing factors and therefore fiscal adjustments over the medium and the long term. First of all, one point needs to be emphasized; Turkey did not voluntarily choose to generate high primary surplus. The underlying driving factors for Turkey's strong fiscal stance were very much in line with the international experiences. Two interrelated factors forced Turkey to implement tight fiscal policies and therefore generate strong fiscal adjustments; high and unsustainable public debts and presence of an IMF-supported program. After the two crises, net public debt in Turkey increased significantly and reached to 90.5 percent of GNP in 2001. This was mainly a reflection of the large fiscal imbalances coming from unsustainable fiscal policies. As a response the macroeconomic crises, Turkey started implementing a new macroeconomic program supported by three consecutive SBAs with the IMF, and a series of structural adjustment loans from the WB.

As a result, the average annual primary surplus generated by the consolidated general government came out as 5.4 percent of GNP during 2000-2005 period in

spite of the increasing deficit of the social security institutions. The macroeconomic stability program supported by the structural reforms helped Turkey to reduce its net public debt to GNP ratio from 90.5 percent in 2001 to 55.8 percent of GNP in 2005 (in gross terms public debt has been reduced from 107.5 to 71.6 percent during the same period).

As stated in Chapter 4, accurate estimation of size of the government is a crucial element of measuring fiscal adjustment. Estimation of the size of the government relies not only on the accurate fiscal data but also appropriate coverage of the public sector and proper methodology for consolidation. Based on explanations provided in Chapter 4, estimating the size of the government has been and still is a challenging job in Turkey. The consolidated government data calculated in this thesis is one of the few data generated in recent years which cover the entire general government revenues and expenditures generated through GFS 2001 consolidation methodology.

Although the size of fiscal consolidation and reduction in public debt was significant achievements in Turkey, sources of this fiscal adjustment are important to evaluate its sustainability as pointed out in the literature survey presented in the Chapter 2. This thesis analyzed sources of fiscal adjustment from three perspectives; (i) economic classification perspective, (ii) institutional perspective and (iii) cyclicality perspective.

All these three sources of fiscal adjustment raise serious concerns about the sustainability of fiscal adjustment in Turkey as explained in detailed in Chapter 5. As pointed out by the economic literature, the fiscal adjustments generated through expenditure cuts rather than revenue measures found to be more satisfactory. However, fiscal consolidation in Turkey has been generated through increase in revenues—mainly increases in indirect tax revenues, rather than expenditure cut at the general government level. While primary revenues increased to 40 percent of GNP in 2005 with close to 7 percentage points increase

compare to 1999, primary expenditures stated almost constant with hovering around 33-34 percent of GNP during the period.

Likewise, the institutional sources of fiscal adjustment which are the consolidated budget and the EBFs add concern of the sustainability of fiscal adjustment. As it was the case in general government fiscal adjustment, the fiscal consolidation in the consolidated budget was mainly driven by the revenue side measures. From the expenditure side, more than 60 percent of the fiscal gain was generated by the reduction in the non-personnel current expenditures. Reduction in these expenditures which generated through reducing or postponing maintenance expenditures of the investments can not be sustained in the medium term. The postponed maintenance expenditures will create more investment expenditures in the future. From the EBFs side, eliminating the extensive off-budget activities through the closure of all the EBFs but five and abolishment of the earmarking revenue systems contributed to fiscal consolidation. Therefore, the EBFs gain was one time off because it is generated through the closure of these institutions and can not be continued in the future.

The other source of fiscal consolidation in Turkey was the cyclical impact; higher than potential growth in 2004 and 2005 which lead to increase in revenues. Due to historically high volatility of growth in Turkey, one should be concerned with the sustainability of the cyclical component when the growth rate is slowed down or even turned into negative rates.

One of the main motivations for the Governments to produce strong primary surplus was to reduce high public debt and ensure the fiscal sustainability from the public debt perspective. Although public debt dynamics improved considerably since 2001, Turkey's public debt is still high compared to not only new EU members (EU10, below 60 percent of GNP) but also other emerging market economies like Brazil, Philippines, Ukraine, Tunisia, and Mexico (average of 46 percent of GDP in 2003). Therefore, Turkey should still continue

implementing debt reducing policies. Although the achievements of the last couple of years are quite impressive in reducing the public debt into more reasonable levels, it is quite clear that most of the contributing factors other than primary surplus can not be generated through policy implementations and therefore guaranteed in the long-run. Under an illustrative scenario, the contribution of appreciated TL, higher than potential growth and higher primary surplus due to cyclical component into reduction of debt/GNP ratio has been more than 16 percentage points. Therefore without these factors Turkey's public debt to GNP level as of end of 2005 would have been at the level of 72.3 percent of GNP rather than 55.8 percent. Since, the factors other than the primary surplus are either not directly under the government's control like REER, or can not be continued in the long term like high level of growth or reduction in inflation, the only option for the Government is to continue with the strong primary balance in order to reduce public debt to GNP ratio.

A simple illustrative case which support this argument shows that Turkey's debt stabilizing primary surplus – required primary surplus to keep debt/GNP ratio at the level of 2005 (55.8 percent) – would be at significant levels if either Turkey moves into economic downturns with negative growth rates or faces an increase in the real interest rates.

While there are serious concerns on the sustainability of fiscal adjustment due to its composition and sources, Turkey still needs to generate strong fiscal adjustment given that its public debt level is still high and poses vulnerability against external shocks. The dilemma leaves Turkey with one option; improving quality of fiscal adjustment. Quality of fiscal adjustment can be secured through (i) prioritization of expenditures with more focus on the growth stimulating investment expenditures on health, education and partly infrastructure, (ii) implementation of expenditure cuts in the unproductive sectors where marginal productivity of private sector is higher than the public sector or (iii) implementation of structural reforms to eliminate long standing problems that

generating higher deficits of the public sector like social security and universal health insurance reforms.

APPENDICES

APPENDIX A: INSTITUTIONAL COVERAGE

List 1: Consolidated Budget Institutions (As of 2005)

A. General Budget Institutions

1.	Presidency of Republic
2.	Turkish Grand National Assembly
3.	Constitutional Court
4.	Court of Appeal
5.	Court of State
6.	Turkish Court of Account
7.	Prime Ministry
8.	State Planning Organization
9.	Treasury Undersecretariat
10.	Foreign Trade Undersecretariat
11.	Undersecretariat of Customs
12.	State Institute of Statistics
13.	Presidency of Religious Affairs
14.	Ministry of Justice
15.	Ministry of National Defense
16.	Ministry of Interior
17.	General Directorate of Security
18.	General Commandership of Gendarmerie
19.	Commandership of Costal Security
20.	Ministry of Foreign Affairs
21.	Ministry of Finance
22.	Ministry of National Education
23.	Ministry of Public Works and Settlement
24.	General Directorate of Land Registry and Cadastre
25.	Ministry of Health
26.	Ministry of Transport
27.	Undersecretariat of Marine
28.	Ministry of Agriculture and Rural Affairs
29.	Ministry of Labor and Social Security
30.	Ministry of Industry and Trade
31.	Ministry of Energy and Natural Resources
32.	Ministry of Culture and Tourism
33.	Ministry of Environment and Forestry
34.	General Directorate of State Meteorology Affairs

B. Annexed Budget Institutions

1.	General Directorate of Youth and Sport
2.	General Directorate of Foundations
3.	General Directorate for Social Services and Children's Protection Association
4.	General Directorate of highways
5.	General Directorate of Health for Borders and Coasts
6.	General Directorate of Agricultural Reform
7.	General Directorate of Rural Affairs
8.	General Directorate of State Hydraulic works
9.	General Directorate of petroleum Affairs
10.	General Directorate of Forestry
11.	Universities (total of 63)

List 2: Social Security Institutions, 1999-2005

1.	Social Security Institution for Workers (SSK)
2.	Pension Fund for Civil Servants (ES)
3.	Social Security Institution for Craftsmen, Artisans, and Other Self-Employed (BagKur)
4.	Unemployment Insurance Fund 1/

1/ Included in the balance starting from 2000.

List 3: Local Governments, 1999-2005

1	Special provincial Administrations (total number of 81)
2.	Municipalities (total of 3225)
3.	Iller Bank (Bank of Province)
4.	Water and Sewerage Companies of Metropolitan Municipalities (total of 16)
5.	Natural Gas and Public Transportation Companies (10)

List 4: Number of Revolving Funds, 2001-2005

	2001	2002	2003	2004	2005
1- Prime Ministry	9	9	5	4	4
2- Ministry of Finance	7	7	4	1	1
3- Ministry of Agriculture	234	229	202	189	197
4- Ministry of Defense	58	58	58	59	59
5- Ministry of Health	654	181	181	193	216
6- Ministry if Justice	2	2	2	2	2
7- Ministry of Foreign Affairs	1	1	1	1	1
8- Ministry of Interior	2	2	2	2	1
9- Ministry of National Education	1,056	484	484	484	484
10- Ministry of Culture and Tourism	7	7	5	4	4
12- Ministry of Labor and Social Security.	2	2	2	2	2
13- Ministry of Civil Works	29	29	28	28	27
14- Ministry of Forestry and Environment	68	68	69	84	84
16-Ministry of Transportation			1	1	1
Total	2,129	1,079	1,044	1,054	1,083
1- GD of Rural Affairs	32	32	32	31	-
2- GD of Foundations	4	4	4	4	4
3- Social Services	58	57	51	41	38
4- GD of Forestry	271	271	271	247	247
5- State Hydraulic Works	1	1	1	1	1
6- Universities	53	53	53	53	53
7- Higher Education Council		1	1	1	1
Total	419	419	413	378	378
Grand Total	**2,548**	**1,498**	**1,457**	**1,432**	**1,426**

List 5: Extra Budgetary Funds

	1999-2000 1/	2001	2002-2005
1	Support Price Stabilization Fund	Support Price Stabilization Fund	Support Price Stabilization Fund
2	Privatization Fund	Privatization Fund	Privatization Fund
3	Defense Industry Support Fund	Defense Industry Support Fund	Defense Industry Support Fund
4	Social Solidarity Fund	Social Solidarity Fund 1	Social Solidarity Fund
5	Mass Housing Fund	Mass Housing Fund	
6	Revenue Administration Development Fund	Revenue Administration Development Fund	
7	Fuel Price Stabilization Fund	Fuel Price Stabilization Fund	
8	Resource Utilization Fund	Resource Utilization Fund	
9	Special Account 3418 (Education and Health Expenditures	Special Account 3418 (Education and Health Expenditures	
10	Development and Support Fund		
11	Public Participation Fund		
12	Petroleum Search Fund		

List 6: State Owned Enterprises included in the IMF primary surplus, 1999-2005 1/

1	Turkish Hard Coal Company (TTK)
2	Turkish Sugar Factories (TSFAS)
3	State Soil Products Office (TMO)
4	Tobacco and alcoholic Beverages Monopoly (TEKEL)
5	State Railways (TCDD)
6	Natural Gas (BOTAS)
7	Electricity Distribution (TEDAS)
8	Electricity Generation (EUAS)
9	Electricity Trade (TETTAS)
10	Electricity Transmission (TEIAS)
11	Telecommunication Company (TELEKOM)
12	Turkish Airlines (THY)
13	Turkish Petrochemical Company (PETKIM)
14	Machinery and Chemical Company (MKEK)
15	ETI Holding (Mining)
16	Coal Mining Company (TKI)
17	Petroleum Exploration and Extraction (TPAO)
18	Postal Services Company (PTT)
19	Airport Ground Services (DHMI)
20	Tea Company (CAYKUR)
21	Turkish Petroleum Refinery (TUPRAS)
22	Agricultural Enterprises General Directorate (TIGEM)
23	Costal Security Company (KIYEM)
24	Turkish Marine Enterprise (TDI)
25	IGSAS
26	TUGSAS
27	State Supply Office (DMO)

1/ The number of SOEs covered under the SBAs have been eventually increased from 8 to 27 between 1999 and 2005.

APPENDIX B: PRIMARY BALANCE OF GENERAL GOVERNMENT

Appendix B-Table 1: Revenues and Expenditures of the General Government, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Taxes	21.52	24.16	25.92	22.40	23.79	23.66	24.88
Direct	9.60	9.61	10.55	7.86	7.71	7.29	7.34
Indirect	11.55	14.16	15.03	14.12	15.19	15.77	16.77
Wealth	0.37	0.40	0.34	0.42	0.89	0.59	0.77
Non-Tax Revenues	2.59	2.99	2.49	3.27	3.13	3.08	3.07
Factor Incomes	4.75	4.86	6.34	7.50	6.49	6.93	6.96
Of which interest revenues	0.72	0.74	1.06	1.45	1.34	1.64	1.86
Social Funds	5.29	5.79	6.44	6.12	6.69	7.02	6.91
Total Revenues excluding privatization	34.15	37.81	41.19	39.29	40.11	40.69	41.82
Primary Revenues	33.42	37.07	40.12	37.84	38.77	39.05	39.96
Current Expenditures	17.25	16.38	17.43	17.48	17.39	17.53	17.22
of which personnel	10.41	9.45	10.19	9.81	9.96	10.13	8.85
Investment Expenditures	4.42	4.54	4.82	4.65	3.67	3.17	3.83
Fixed Investment	4.39	4.50	4.78	4.61	3.64	3.15	3.81
Change in Stocks	0.03	0.04	0.04	0.04	0.03	0.03	0.02
Transfer Expenditures	25.72	28.16	37.71	29.93	29.26	25.65	22.40
Current Transfers	24.45	26.54	36.49	28.87	28.63	24.90	21.73
of which interest payments	14.43	16.86	25.70	18.32	16.95	13.48	9.62
Capital Transfers	1.27	1.62	1.23	1.05	0.62	0.75	0.67
Total Expenditures	47.39	49.08	59.96	52.05	50.32	46.35	43.45
Primary Expenditures	32.97	32.22	34.25	33.73	33.37	32.86	33.83
Borrowing Requirement	13.24	11.26	18.77	12.77	10.21	5.65	1.63
Primary Surplus	0.46	4.85	5.87	4.11	5.40	6.19	6.13

Source: SPO and own calculation

Appendix B-Table 2: Revenues and Expenditures of the Consolidated Budget, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Taxes	17.64	20.00	21.05	19.85	21.53	21.00	21.98
Direct	7.97	8.09	8.58	6.71	6.82	6.19	6.23
Indirect	9.50	11.67	12.26	12.91	14.17	14.47	15.27
Wealth	0.17	0.24	0.21	0.22	0.53	0.34	0.48
Non-Tax Revenues	1.66	1.95	1.65	2.50	2.38	2.37	2.25
Factor Incomes	1.89	1.65	2.33	3.05	1.89	2.10	2.19
Of which interest revenues	0.49	0.51	0.30	0.57	0.35	0.83	1.11
Social Funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Revenues excluding privatization	21.20	23.61	25.03	25.39	25.80	25.47	26.42
Primary Revenues	20.70	23.10	24.73	24.83	25.45	24.65	25.31
Current Expenditures	11.70	10.82	11.56	11.12	10.80	10.45	10.03
of which personnel	8.83	7.95	8.62	8.40	8.47	8.50	8.20
Investment Expenditures	2.00	2.20	2.72	3.07	2.01	1.77	1.99
Fixed Investment	2.00	2.20	2.72	3.07	2.01	1.77	1.99
Change in Stocks	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transfer Expenditures	16.91	20.15	29.19	21.58	20.06	16.36	12.75
Current Transfers	16.15	19.16	28.24	20.94	19.72	15.97	12.37
of which interest payments	13.69	16.27	25.04	17.72	16.43	13.19	9.40
Capital Transfers	0.76	0.99	0.95	0.64	0.35	0.38	0.38
Total Expenditures	30.61	33.18	43.47	35.76	32.87	28.58	24.77
Primary Expenditures	16.92	16.90	18.43	18.04	16.44	15.38	15.37
Borrowing Requirement	9.42	9.57	18.44	10.37	7.08	3.10	(1.65)
Primary Surplus	3.78	6.20	6.30	6.79	9.01	9.26	9.94

Source: SPO and own calculation

Appendix B-Table 3: Revenues and Expenditures of the Social Security Institutions, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Direct	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indirect	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wealth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-Tax Revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Factor Incomes	0.23	0.43	0.54	0.63	0.58	0.56	0.66
Of which interest revenues	0.02	0.04	0.07	0.05	0.04	0.03	0.02
Social Funds	6.00	6.29	6.81	6.55	7.10	7.36	7.36
Total Revenues excluding privatization	5.52	5.96	6.35	6.37	6.89	7.16	7.16
Primary Revenues	5.50	5.93	6.28	6.32	6.84	7.13	7.14
Current Expenditures	2.77	2.81	3.09	3.39	3.66	3.87	3.78
of which personnel	0.10	0.09	0.09	0.07	0.09	0.09	0.09
Investment Expenditures	0.04	0.04	0.06	0.05	0.03	0.03	0.01
Fixed Investment	0.04	0.04	0.06	0.05	0.03	0.03	0.01
Change in Stocks	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transfer Expenditures	6.48	5.76	6.78	6.80	7.76	7.82	8.35
Current Transfers	6.45	5.78	6.78	6.80	7.76	7.82	8.35
of which interest payments	0.06	0.05	0.00	0.00	0.00	0.00	0.00
Capital Transfers	0.03	(0.02)	0.00	0.00	0.00	0.00	0.00
Total Expenditures	8.57	7.86	8.92	9.43	10.66	10.96	11.28
Primary Expenditures	8.51	7.80	8.92	9.43	10.66	10.96	11.28
Borrowing Requirement	3.06	1.89	2.57	3.05	3.77	3.80	4.12
Primary Surplus	(3.01)	(1.88)	(2.64)	(3.10)	(3.81)	(3.83)	(4.15)

Source: SPO and own calculation

Appendix B-Table 4: Revenues and Expenditures of Local Administrations, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Taxes	2.70	2.88	3.12	2.02	1.94	2.20	2.47
Direct	1.04	0.95	1.26	0.70	0.56	0.64	0.68
Indirect	1.47	1.77	1.73	1.11	1.02	1.30	1.50
Wealth	0.19	0.16	0.13	0.20	0.35	0.26	0.29
Non-Tax Revenues	0.62	0.57	0.70	0.70	0.68	0.64	0.75
Factor Incomes	0.82	0.85	1.05	0.95	0.97	0.90	0.90
Of which interest revenues	0.19	0.16	0.25	0.13	0.12	0.07	0.05
Social Funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Revenues excluding privatization	4.14	4.29	4.87	3.66	3.59	3.74	4.13
Primary Revenues	3.95	4.14	4.62	3.53	3.47	3.67	4.08
Current Expenditures	1.77	1.72	1.81	1.58	1.73	1.78	2.12
of which personnel	1.16	1.05	1.06	0.89	0.96	1.00	0.00
Investment Expenditures	1.62	1.60	1.74	1.45	1.56	1.30	1.75
Fixed Investment	1.61	1.59	1.73	1.44	1.56	1.30	1.75
Change in Stocks	0.01	0.01	0.01	0.00	0.01	0.00	0.00
Transfer Expenditures	0.75	0.78	1.01	0.76	0.73	0.62	0.69
Current Transfers	0.58	0.53	0.77	0.53	0.57	0.43	0.45
of which interest payments	0.43	0.41	0.60	0.39	0.35	0.15	0.17
Capital Transfers	0.17	0.25	0.24	0.24	0.15	0.18	0.24
Total Expenditures	4.13	4.10	4.56	3.79	4.02	3.69	4.56
Primary Expenditures	3.71	3.69	3.95	3.41	3.67	3.54	4.39
Borrowing Requirement	(0.01)	(0.20)	(0.32)	0.14	0.42	(0.05)	0.43
Primary Surplus	0.25	0.45	0.67	0.12	(0.20)	0.13	(0.31)

Source: SPO and own calculation

Appendix B-Table 5: Revenues and Expenditures of Revolving Funds, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Taxes	(0.01)	(0.00)	(0.01)	(0.01)	(0.02)	(0.03)	(0.03)
Direct	(0.01)	(0.00)	(0.01)	(0.01)	(0.02)	(0.03)	(0.03)
Indirect	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wealth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-Tax Revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Factor Incomes	1.66	1.80	2.00	2.22	2.28	2.71	2.57
Of which interest revenues	0.03	0.02	0.03	0.04	0.07	0.06	0.05
Social Funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Revenues excluding privatization	1.65	1.79	1.99	2.21	2.26	2.68	2.53
Primary Revenues	1.63	1.77	1.96	2.17	2.19	2.62	2.49
Current Expenditures	1.36	1.42	1.63	1.76	1.67	1.90	1.92
of which personnel	0.31	0.35	0.41	0.45	0.43	0.53	0.56
Investment Expenditures	0.09	0.12	0.12	0.08	0.07	0.07	0.08
Fixed Investment	0.08	0.09	0.09	0.05	0.05	0.05	0.06
Change in Stocks	0.02	0.03	0.03	0.03	0.02	0.03	0.02
Transfer Expenditures	0.14	0.13	0.15	0.17	0.16	0.22	0.20
Current Transfers	0.07	0.08	0.11	0.11	0.13	0.16	0.20
of which interest payments	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Capital Transfers	0.07	0.05	0.04	0.06	0.03	0.06	0.00
Total Expenditures	1.59	1.68	1.89	2.01	1.90	2.19	2.19
Primary Expenditures	1.59	1.68	1.89	2.01	1.90	2.19	2.19
Borrowing Requirement	(0.06)	(0.12)	(0.10)	(0.20)	(0.36)	(0.48)	(0.34)
Primary Surplus	0.03	0.10	0.07	0.16	0.29	0.43	0.29

Source: SPO and own calculation

Appendix B-Table 6: Revenues and Expenditures of Extra Budgetary Funds, 1999-2005

(% of GNP)	1999	2000	2001	2002	2003	2004	2005
Taxes	1.19	1.29	1.76	0.55	0.35	0.49	0.46
Direct	0.60	0.57	0.71	0.46	0.35	0.49	0.46
Indirect	0.59	0.72	1.04	0.09	(0.00)	(0.00)	(0.00)
Wealth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-Tax Revenues	0.31	0.47	0.14	0.07	0.07	0.08	0.07
Factor Incomes	0.15	0.11	0.01	0.00	0.00	0.00	0.01
Of which interest revenues	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Social Funds	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Revenues excluding privatization	1.64	1.87	1.90	0.62	0.42	0.56	0.54
Primary Revenues	1.64	1.87	1.90	0.62	0.42	0.56	0.54
Current Expenditures	0.38	0.37	0.35	0.44	0.31	0.28	0.22
of which personnel	0.01	0.01	0.01	0.01	0.00	0.00	0.00
Investment Expenditures	0.66	0.57	0.18	0.00	0.00	0.00	0.00
Fixed Investment	0.66	0.57	0.18	0.00	0.00	0.00	0.00
Change in Stocks	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transfer Expenditures	1.44	1.33	0.59	0.60	0.51	0.59	0.36
Current Transfers	1.20	0.99	0.59	0.48	0.42	0.47	0.32
of which interest payments	0.24	0.12	0.06	0.21	0.18	0.14	0.05
Capital Transfers	0.24	0.34	(0.00)	0.12	0.10	0.12	0.04
Total Expenditures	2.48	2.27	1.12	1.04	0.83	0.87	0.58
Primary Expenditures	2.24	2.15	1.06	0.83	0.66	0.73	0.53
Borrowing Requirement	0.84	0.40	(0.78)	0.42	0.41	0.31	0.04
Primary Surplus	**(0.59)**	**(0.28)**	**0.84**	**(0.21)**	**(0.24)**	**(0.17)**	**0.02**

Source: SPO and own calculation

Appendix B-Table 7: Revenues and Expenditures of Unemployment Insurance Fund, 2000-2005

(% of GNP)	2000	2001	2002	2003	2004	2005
Taxes	0.00	0.00	0.00	0.00	0.00	0.00
Direct	0.00	0.00	0.00	0.00	0.00	0.00
Indirect	0.00	0.00	0.00	0.00	0.00	0.00
Wealth	0.00	0.00	0.00	0.00	0.00	0.00
Non-Tax Revenues	0.00	0.00	0.00	0.00	0.00	0.00
Factor Incomes	0.02	0.42	0.66	0.76	0.66	0.62
Of which interest revenues	0.02	0.42	0.65	0.75	0.65	0.62
Social Funds	0.27	0.62	0.37	0.39	0.42	0.41
Total Revenues excluding privatization	0.29	1.05	1.03	1.15	1.08	1.04
Primary Revenues	0.27	0.62	0.37	0.40	0.43	0.41
Current Expenditures	0.00	0.00	0.00	0.01	0.01	0.02
of which personnel	0.00	0.00	0.00	0.00	0.00	0.00
Investment Expenditures	0.00	0.00	0.00	0.00	0.00	0.00
Fixed Investment	0.00	0.00	0.00	0.00	0.00	0.00
Change in Stocks	0.00	0.00	0.00	0.00	0.00	0.00
Transfer Expenditures	0.00	0.00	0.02	0.03	0.04	0.05
Current Transfers	0.00	0.00	0.02	0.03	0.04	0.05
of which interest payments	0.00	0.00	0.00	0.00	0.00	0.00
Capital Transfers	0.00	0.00	0.00	0.00	0.00	0.00
Total Expenditures	0.00	0.00	0.02	0.04	0.06	0.07
Primary Expenditures	0.00	0.00	0.02	0.04	0.06	0.07
Borrowing Requirement	(0.29)	(1.05)	(1.01)	(1.11)	(1.02)	(0.97)
Primary Surplus	0.27	0.62	0.35	0.36	0.37	0.35

Source: SPO and own calculation

REFERENCES

ABIAD, A., and T. Baig (2005), "Underlying Factors Driving Fiscal Effort in emerging Market Economies", IMF Working Paper 05/106.

AĞAR, M., and R. Chaves (2004), "Estimation of the Size of the General Government in Turkey", Unpublished Discussion Note, World Bank.

AKITOBY, B., B. Celements, S. Gupta, and G. Inchauste (2004), " The Cyclical and Long Term Behavior of Government Expenditures in Developing Countries", IMF Working Paper no: 04/202.

ALESINA, A., R. Perotti, F. Giavazzi, and T. Kollintzas (1995), "Fiscal Expansions and Adjustments in OECD Countries", *Economic Policy*, Vol. 10 no: 21, pp. 205-248.

_____, A., and R. Perotti, (1995), "Reducing Budget Deficits", Prepared for the Conference on Growing Government Debt-International Experiences Stockholm May 1995.

_____, A. and R. Perotti (1996), "Fiscal Adjustments in OECD Countries: Composition and Macroeconomic Effects", National Bureau of Economic Research, Working paper no: 5730.

_____, and G. Tabellini (2005), "Why is Fiscal Policy Often Procyclical?", Working Paper 11600, National Bureau of Economic Research.

BERTOLE, G., and A. Drazen (1993), "Trigger Points and Budget Cuts: Explaining the Effects of Fiscal Austerity", *American Economic Review*, Vol. 83 (March), pp. 11-26.

BLANCHARD, O. (1990), "Comment on 'Can Severe Fiscal Contraction be Expansionary?'", *Macroeconomics Annual 1990*, National Bureau of Economic Research, ed. by O. Blanchard and S, Fischer (Cambridge, Massachusetts, MIT press).

BULIR, A., and S. Moon (2003), "Do IMF-Supported Programs Help Make Fiscal adjustment More Durable?", IMF Working Paper no: 03/38, (Washington, IMF).

BURNSIDE, C. (2005), "Some Tools for Fiscal Sustainability", *Fiscal Sustainability in Theory and Practice A Handbook*, Burnside (editor), The World Bank, Washington D.C.

CAPET, S. (2004), "The efficiency of Fiscal Policies: a Survey of the Literature", CEPII Working paper no: 2004-11.

DANIEL, J., J. Davis, M. Fouad, and C. Van Rijckeghem (2006), *Fiscal Adjustment for Stability and Growth*, Fiscal Affairs Department, IMF Pamphlet Series no:55, IMF Washington.

EMIL, F., and H. Yılmaz (2004), *Kamu Borcu Nasıl Oluştu Bu Noktaya Nasıl Gelindi?*, TESEV – Turkish Economic and Social Studies Foundation – Publication.

GIAVAZZI, F., and M. Pagano (1990), "Can Severe Fiscal Contractions be Expansionary? Tales of Small European Countries", *NBER Macroeconomics Annual 1990*, ed. By O. Blanchard and S. Fischer (Cambridge, Massachusetts: MIT Press).

GIROUARD, N., and C. Andre (2005)," Measuring Cyclically Adjusted Budget Balances for OECD Countries", Economics Department Working Papers, No: 434, OECD.

GUPTA, S., B. Celements, E. Baldacci, and C. Mulas-Granados (2002), "Expenditure Composition, Fiscal Adjustment, and Growth in Low-Income Countries, IMF Working Paper 02/77.

_____, E. Baldacci, B. Celements,and E. Tiongson (2003), "What Sustains Fiscal Consolidations in Emerging Market Countries?", IMF Working paper 03/224.

HEMMING, R., M. Kell, and S. Mahfouz (2002), "The Effectiveness of Fiscal Policy in Stimulating Economic Activity – A Review of the Literature", IMF Working Paper no: WP/02/208, IMF.

HEYLEN, F., and G. Everaert (2000), "Success and Failure of Fiscal Consolidation in the OECD: A Multivariate Analysis", *Public Choice,* no: 105, pp 103-124.

HOGAN, V. (2004), "Expansionary Fiscal Contractions? Evidence from Panel Data", *Scand. J. of Economics. no: 106 (4),* pp. 647-659.

IMF, (1999-2006), Various Staff Reports, Letter of Intents, Press Releases, http://www.imf.org/external/country/TUR/.

_____, (2001), *Government Finance Statistics Manual*, Washington.

_____, (2003-1), "Public Debt in Emerging Markey: Is It too High?", *World Economic Outlook Public Debt in Emerging Markets*, Chapter III, pp113-152, IMF, Washington.

_____, (2003-2), *Fiscal Adjustment In IMF-Supported Programs*, Independent Evaluation Office, IMF, Washington D.C..

_____, (2004) Fiscal Affairs Department, "Turkey: Sustaining Fiscal Adjustment through Expenditure Reform", unpublished aide-memoire.

_____, (2006), Fiscal Affairs Department, "*Fiscal Adjustment for Stability and Growth*", Washington D.C., IMF.

McDERMOTT, J., and R. Wescott, 1996, Fiscal Reforms That Work, Economic Issues 4, IMF, Washington.

OECD, (2004), Enhancing Fiscal Policy Design Economics Newsletter, Economics Department, June 2004.

_____, "Fiscal Stance over the Cycle: The Role of Debt, Institutions, and Budget Constraints" OECD Economic Outlook no:74, Chapter 4, OECD.

_____, (2006) *Challenges to Fiscal Adjustment in Latin America – The Cases of Argentina, Brazil, Chile, and Mexico*, ed. by Luiz De Mello, 2006, OECD.

PEROTTI, R., R. Strauch, J. Hagen, (1998), "Sustainability of Public Finances", Centre for Economic Policy Research, Discussion Paper.

PURFIELD, C., (2003), "Fiscal Adjustment in Transition Countries: Evidence from the 1990s" , IMF Working Paper 03/36.

STATE PLANNING ORGANIZATION, 2000, Report Drawn up by Special ad hoc Committee on Restructuring of Public Fiscal Management and Fiscal Transparency, SPO, Ankara.

_____, (2003-2006), Pre-Accession Economic Programs, SPO, Ankara.

SOLMANO, A. (2001), "Can Reforming Global Institutions Help Developing Countries Share More in the Benefits from Globalization?", World Bank

UNDERSECRETARIAT OF TURKISH TREASURY, Public Finance Statistics, http://www.hazine.gov.tr/english/publicfinance.htm

VON HAGEN, J. (2004), "Fiscal Policy Challenges for EU Acceding Countries", Prepared for the ECSA Conference in Vienna.

VAN RIJCKEGHEM, C., (2004), "Evaluation of Public Debt Stock; How Did We Get There?", TESEV publication.

WORLD BANK, (2000), *Turkey Country Economic Memorandum – Structural Reforms for Sustainable Growth*, Report no: 20657-TU.

_____, (2001), *Turkey Public Expenditure and Institutional Review – Reforming Budgetary Institutions for Effective Government,* Report no: 22530-TU.

_____, (2003), *Turkey Country Economic Memorandum – Towards Macroeconomic Stability and Sustained Growth*, Report no: 26301-TU.

_____, (2006), *Turkey Country Economic Memorandum – Promoting Sustained Growth and Convergence with the European Union*, Report no: 33549-TR.

_____, Client Connection Database, https://clientconnection.worldbank.org.

_____, (forthcoming), *Turkey Public Expenditure Review*, forthcoming.

YILMAZ, H. Hakan (2006), *Türkiye'de 2000 Sonrası Dönemde Uygulanan İstikrar Programlarında Mali Uyumda Kalite Sorunu*, Doktora Tezi, Hacettepe Üniversitesi.