February 2000

IMF Staff Country Report No. 00/14

Turkey: Selected Issues and Statistical Appendix

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TURKEY

Selected Issues and Statistical Appendix

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Approved by European I Department

December 14, 1999

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Turkey: Basic Data

Area:	774,815 square kilometers
Population 1998:	63.5 million
Labor force 1998:	22.5 million
GNP per capita 1998:	US$3,051

	1995	1996	1997	1998	1999 1/
Real economy			(Percentage change)		
Real GNP	7.9	7.2	8.2	3.8	-2.1
Domestic demand	12.7	7.6	9.0	0.7	-1.7
CPI (end-of-period)	78.9	79.8	99.1	69.7	64.7 5/
Unemployment rate (in percent)	6.9	6.0	6.4	5.9	...
Gross national savings (in percent of GNP)	21.9	18.9	20.8	23.2	20.0
Gross domestic investment (in percent of GNP)	25.2	23.4	24.6	23.9	22.8
Public finance			(In percent of GNP)		
Consolidated budget balance	-4.0	-8.2	-7.6	-7.1	-12.1
Public sector borrowing requirement	4.8	13.1	13.0	15.8	23.3
Net debt of the public sector	41.3	46.5	42.9	44.5	58.0
Money and credit			(End-year; percentage change)		
Broad liquidity 2/	106.4	113.1	117.6	76.0	82.6
Reserve money 3/	79.2	91.5	100.8	80.3	80.5
Credit to private sector	131.7	120.5	125.8	81.7	58.3
Interest rates			(Year average)		
T-bill rate 4/	125.8	132.4	105.2	115.7	107.7 5/
Overnight money market rate	108.2	115.8	101.4	111.9	109.9 5/
Balance of payments			(In percent of GNP)		
Trade balance	-5.1	-5.7	-8.0	-7.0	-5.8
Current account balance 6/	-0.5	-1.3	-1.4	0.9	-0.5
External debt	43.1	43.2	47.5	50.4	54.7
Of which: short term	9.2	11.1	11.7	13.4	15.4
Reserves (US$ billion, end-of-period)	13,812	17,695	19,575	20,112	24,395 7/
Fund position (as of October 31, 1999)					
Holdings of currency (in percent of quota)				135.5	
Holdings of SDRs (in millions of SDRs)				1.7	
Quota (in millions of SDRs)				964.0	
Exchange rate					
Exchange rate regime		Floating exchange rate			
Rate on November 30, 1999		TL 512,738 per US$			
Real effective rate (1990=100)	85.7	87.7	93.4	101.3	108.5 7/

Sources: Information provided by the Turkish authorities; and Fund staff estimates.

1/ Staff projections.
2/ Includes foreign currency deposits and repos.
3/ Including banks' foreign currency deposits at the central bank.
4/ Simple average across maturities ranging from three months to one year, net of tax.
5/ January-October.
6/ Central bank current account data differ from the national income accounts.
7/ As of September 1999.

I. Inflation as a Fiscal Problem[1]

1. This chapter revisits an age-old question: what is the link between budget deficits and inflation? The issue is particularly relevant for Turkey which, over the past three decades, has suffered from high and accelerating rates of inflation, without ever degenerating into full-blown hyperinflation. During the 1970s, inflation averaged about 20 percent, rising to 40 percent during 1981–87, 65 percent during 1989–93, and 85 percent during 1995–97. In late 1997, inflation reached 100 percent, before the government launched its most recent attempt at disinflation, in early 1998.

2. Over the past few years, the government's large financing requirement (including not only the central government, but also the extrabudgetary funds, the local authorities, the social security institutions, and the financial and nonfinancial state economic enterprises) would have resulted in an exploding debt-GDP ratio were it not for the monetization of these deficits through increasingly higher inflation rates. Large budget deficits are, in turn, the result of both substantially negative primary budget balances and high and rising real interest rates. In a chronic inflationary environment deprived of a monetary anchor, high real interest rates becomes in fact both the cause and the consequence of high inflation, that is, they feed into high inflation and in turn are fed by high inflation and the associated risks. If chronic and high inflation has not degenerated into hyperinflation as it did in most other countries, this is to be credited, at least in part, to the very slow pace at which inflation has eroded the demand for base money—a trait unique to Turkey.

3. Within Turkey there is often the perception that inflation is largely an issue of inertia—and that if inflationary expectations could somehow be broken, the problem would be solved. Undoubtedly, inflationary expectations are now firmly entrenched and any viable disinflation strategy must take them into account. But the fact remains that the weak fiscal position is the underlying cause of inflation in Turkey, and solving the fiscal fundamentals is the first necessary step in achieving disinflation; this is the focus of this chapter.

4. The chapter is organized as follows. Section A sets the stage for the discussion of the link between inflation and public sector deficits by reviewing the evolution of the primary balance of Turkey's public sector, its net debt, real interest rates, and the holdings of base money during the 1990s, since—as explained in Section B—the crucial elements in the nexus inflation/debt dynamic are the primary fiscal balance, real interest rates, and the velocity of base money. The section shows that, despite marked volatility in the different components of the primary balance of the public sector, the balance has been significantly negative throughout the 1990s with the exception of 1995—after a major currency crisis forced adjustment—and 1998, as part of the most recent disinflation attempt. It also shows that the stock of net public debt has doubled during this period in percent of GNP and would have tripled in the absence of inflation. Base money, despite some erosion, is still at 4 percent of GNP by the end of the period. Section B

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[1] Prepared by Rakia Moalla-Fetini.

analyzes the relationship between inflation and budget deficits. It develops a formula for the level of the primary balance needed to stabilize the debt-to-GNP ratio in a low inflation environment. Given certain long-term parameters for output growth and the velocity of base money, the chapter shows that a primary surplus of about 2¼ of GNP is needed to stabilize the debt to GNP ratio at 60 percent for a level of the real interest rate equal to 10 percent.

A. Primary Balance, Net Debt, Real Interest Rates, and Real Balances

5. The public sector in Turkey comprises the central government, a set of funds, municipalities and local governments, three social security institutions, 49 state economic enterprises (SEEs), and the central bank.[2] Focusing on the balance of the central government, at times, underestimates the extent of the deficit of the entire public sector, as was the case in some years, when the deficit of the rest of the components of the public sector was manifold that of the central government. Moreover, the practice has often been to shift certain expenditures between the accounts of the different segments of the public sector, so that an improvement in one account simply becomes reflected in a worsening in another account. Typically this has to do with budgetary transfers from the central budget to the other segments of the public sector, which when squeezed, lead to an improvement in the primary balance of the central budget but worsen that of funds and SEEs.

6. Table 1 below shows that the primary deficit of the public sector during the first four years of the 1990s leading to the 1994 currency crisis exceeded 5 percent of GNP on average, of which 3½ percent of GNP deficit was at the level of the SEEs.[3] After the short-lived adjustment effort in 1995, where a primary surplus of 2 ¾ percent of GNP was achieved, the primary balance moved into a deficit again in 1996, exceeding 2 percent of GNP in 1997. In early 1998, the government launched a three-year adjustment program with the aim of bringing inflation down to single digits by end-2000 from over 90 percent at end-1997. An improvement in the primary balance of the public sector of 2½ percent was achieved in support of the disinflation strategy, taking the balance to a surplus of ½ percent of GNP. In the run-up to the April 1999 elections the stance of fiscal policy was relaxed significantly. This together with the fiscal cost of the devastating earthquake that hit Turkey in midsummer is likely to lead the primary balance of the public sector to swing back into a deficit of about 2¾ percent of GNP.

7. Table 1 adjusts the primary balance of each component of the public sector (as defined by the authorities) by the amount of interest receipts that are recorded in their respective accounts as revenues. This adjustment is needed in order to isolate the "truly" primary position, namely, the

[2] Financial public institutions (four money deposit banks and three investment and development banks) are not formally part of the consolidated public sector in the IMF definition. However, the losses run by the two main public banks—stemming from quasi-fiscal operations that they are performing on behalf of the government—are included in the consolidated public sector account, as discussed in this chapter.

[3] Background data for this chapter are provided in Tables 5–8.

balance of those revenues and expenditures that are not affected by movements in interest rates. Similarly, the primary balance of the central government is also adjusted for profit transfers from the central bank, as these are also dependent to a large extent on interest rate movements.

Table 1: Turkey: Primary Balance of the Public sector

(In percent of GNP)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Primary balance of the public sector	-3.6	-6.2	-7.0	-5.6	-0.2	2.7	-1.2	-2.1	0.5	-2.8
Central government	1.3	-0.6	-1.7	-0.6	3.4	3.4	1.2	-0.2	3.6	0.9
Extrabudgetary funds	-0.6	-1.0	-0.8	-1.5	-1.5	-0.6	-0.2	0.1	0.0	-0.5
Local authorities	-0.1	-0.3	-0.1	-0.6	-0.1	0.0	-0.1	-0.1	-0.4	-0.8
State economic enterprises	-4.2	-4.0	-4.0	-1.9	-0.3	1.3	-0.1	-0.4	-1.1	-1.2
Social sec. inst. & revolving funds	0.0	-0.3	-0.3	-0.6	-0.6	-0.6	-0.2	0.0	-0.4	-0.1
Primary component of unpaid duty losses	0.0	0.0	0.0	-0.3	-1.1	-0.8	-1.9	-1.4	-1.2	-1.2

8. Table 1 shows that the central government budget was not the major culprit in the extremely weak primary balance during 1990–93, and that it has remained in surplus since 1994 (except in 1997). Over the 1990s the combined primary deficit of the local governments and municipalities[4] has been on average equal to 0.3 percent of GNP, as many sources of their financing have been subject to central government control. In 1999 the primary deficit of the local authorities is likely to witness a deterioration (-0.8 percent of GNP) resulting from the large wage increase granted to public sector workers.[5] The primary balance of the social security institutions has also been small, as most of their widening deficit was financed through a budgetary transfer from the central budget.

9. A more important source of deficits was the extrabudgetary funds (EBFs), the SEEs, and the unpaid duty losses of state banks.

[4] There are 80 provinces, 15 large metropolitan municipalities, and 2,827 smaller municipalities.

[5] In early 1999, new two-year contracts were renegotiated with public sector workers, providing for an up-front increase of 39 percent plus three consecutive six monthly adjustments equal for the past six month CPI inflation times 1.05. Due to these contracts, public sector worker wages are expected to increase by more than 20 percent in real terms in 1999.

Extrabudgetary funds

10. In the mid-1980s a proliferation of extrabudgetary funds over which the central government had very little control contributed to a weakening of fiscal discipline.[6] In 1993, a major step to restore fiscal discipline in this area was taken when 62 funds, accounting for an estimated 85 percent of total funds revenues, were integrated into the budget. Since then, all of their earmarked tax revenues are shown as part of nontax revenues of the central budget and a budget allocation is decided every year to cover their current commitments. The funds retained, however, the ability to borrow to finance capital spending. Thirteen funds were left and, still are, outside the budget; of these, only the defense fund and the social solidarity fund are large, while the rest are small funds that are not contributing to the overall deficit of the public sector.[7]

11. In the authorities' and IMF presentation of the public sector balances, 13 funds are covered under the rubric "extrabudgetary funds." Eight are budgetary funds—part of the 62 funds that have been integrated into the budget since 1993.[8] Two are nonbudgetary funds—the defense fund and the social solidarity fund. Two are newly created funds: the health and education tax fund and the petroleum consumption tax fund. The last "fund" is in fact the budget of the privatization authority, an administration that was set up in the mid-1980s to manage the privatization program. These funds account for about 80 percent of all funds revenues and include all those whose activities that could generate a deficit in addition to that of the central government.

12. As can be seen in Table 1, the primary deficit of the extrabudgetary funds has improved since 1993–94, and has been roughly in balance over the last three years.[9]

[6] As part of the austerity measures taken in 1988, a clawback provision on the funds' revenues was introduced, whereby the funds had to transfer a share of their earmarked tax revenues to the central budget. This measure had constrained somewhat the profligacy of funds—as they did not have the ability to borrow other than to finance capital spending—but it did not achieve a major improvement, in the absence of any centralized control on their operations.

[7] These funds include the insurance fund for time deposits, the capital market board fund, the insurance inspection board fund, and the highway traffic insurance fund.

[8] These are the mass housing fund, the public participation fund, the price stabilization fund, the revenue administration improvement fund, the support and price stabilization fund, the resource utilization and support fund, the oil exploration fund, and the fuel price stabilization fund.

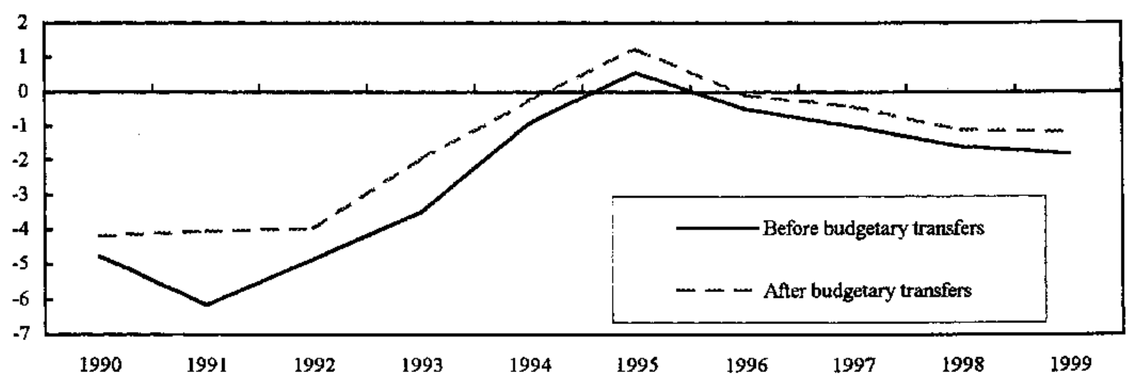
[9] Two adjustments are made to the authorities' measurement of the primary balance of the extrabudgetary funds. Net lending by the mass housing fund is considered as an expenditure, while in the authorities' presentation it is treated as a financing item. Repayments of loans extended by the price stabilization and support fund are treated as a negative expenditure item, while in the authorities' definition they are treated as a financing item.

State economic enterprises (SEEs)

13. Despite the ambitious reform program of divestiture, demonopolization, price liberalization, and management and personnel reorganization, which was started in 1980 and deepened in 1984, the accounts of the SEEs have been a major contributor to the overall deficit of the public sector throughout the 1980s and until the early 1990s. At present there are 49 nonfinancial SEEs, employing about 500,000 people. Four of these enterprises are acting as the main vehicle for the government in implementing major agricultural support policies (see the chapter on Agricultural Support Policies), and have recently become one of the main sources of deficit in the SEEs sector.

14. During 1990–93, the average primary balance before budgetary transfers of SEEs remained close to 5 percent of GNP (3.5 percent after budgetary transfers).[10] However after the 1994 crisis, SEEs' overall deficits were reduced sharply, under the combined effect of a major decline in real wages and a sharp curtailment of their investment plan. Some of these trends have started to reverse somewhat during the last three years, and the primary balance of the SEEs, after having turned into a small surplus in 1995, has been again in deficit since 1996. This deficit is projected to be some 1¼ percent of GNP, owing mainly to renewed wage pressures,[11]

Primary Balance of State Economic Enterprises
(In percent of GNP)



[10] In addition to transfers from the budget in the form of equity, compensation for duty losses, and aid, the SEEs receive other subsidies and transfers such as those from the support and price stabilization fund to fertilizer producers and transfers from the development and support fund to the electricity company. Other mechanisms of financing SEE deficits were tax arrears and unpaid dividends, and unpaid premia to the social security institutions.

[11] The same wage contracts as those covering public sector workers in local administrations cover workers in state economic enterprises.

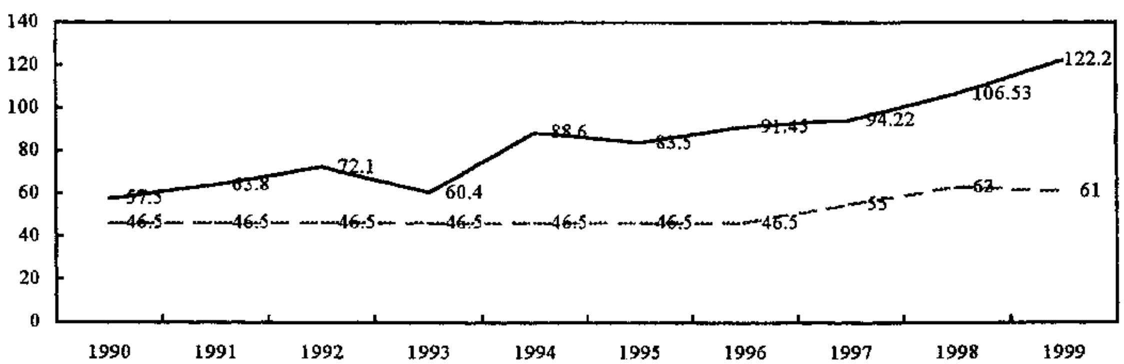
resumption of investment spending, and the carrying of costly stocks of surplus agricultural production.[12]

Unpaid duty losses of the state banks

15. In addition to the fiscal and quasi-fiscal activities run outside the budget by the budgetary and nonbudgetary funds, and by the SEEs, other quasi-fiscal activities have been run on behalf of the government by the two largest state banks, Ziräat Bank and Halk Bank.[13] The main quasi-fiscal activity in which both banks have been engaged is in the provision of subsidized credits to farmers, in the case of Ziräat, and small and medium-scale businesses, in the case of Halk. In addition, Ziräat Bank has acted as an agency to the treasury in collecting taxes and paying salaries to civil servants and public sector workers.

16. Up until around 1994–95, the cost of these quasi-fiscal activities has been borne by these banks and covered by their own profits. Up until that time both banks had a large share of the market both for deposits and commercial lending,[14] and the spread between their cost of borrowing and the subsidized rate was relatively limited. Under the impetus of financial liberalization, both banks started to lose market share. Moreover, a large wedge started to appear between their rising cost of funds and the subsidized rate at which they were lending, which was not adjusted commensurately. Their profitability quickly eroded and large deficits started to build.

Ziräat Bank Cost of Funds and Subsidized Interest Rates
(Annual Compounded)

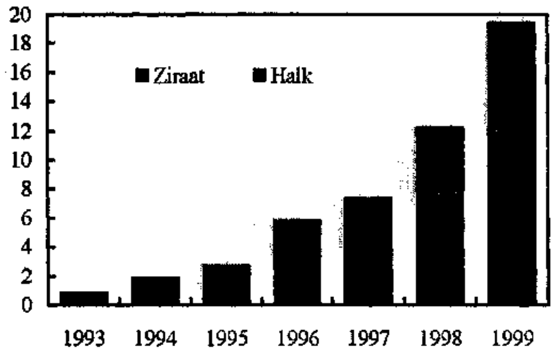


[12] In Table 67, the primary balance of the SEEs, as shown in the authorities' presentation, is adjusted downward by the amount of interest receipts and upward in the last three years by interest charges paid by soil products office (TMO) and which have not been classified as such in the consolidated accounts of the SEEs. These interest charges have become quite significant given the large stocks of grain that TMO has accumulated in the last few years.

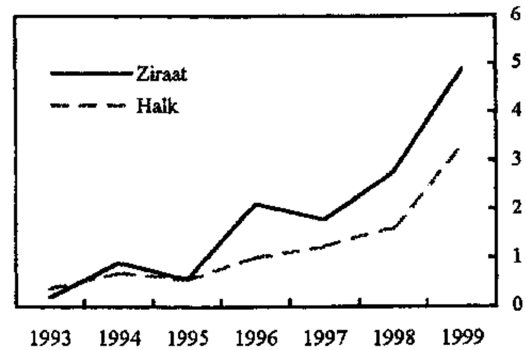
[13] Chronic liquidity pressures have been addressed from time to time through capital injections and minor payments of the duty losses by the treasury.

[14] Ziräat Bank alone had 20 percent of the commercial lending market as opposed to 7 percent now.

Banks Stock of Unpaid Duty Losses
(In billions of U.S. dollars)



Flow of Unpaid Duty Losses
(In percent of GNP)



17. These deficits were filled by an accumulation of claims on the government (the so-called unpaid duty losses), the yield of which was *de facto* set so as to cover any loss accumulated during each year.[15] This arrangement had two serious drawbacks: first, it did not allow a regular flow of compensation payments to these banks, thus making them increasingly cash strapped, which in turn pushed them to put pressure on interest rates on deposits; second, it resulted in the absence of a clear budget constraint on these banks, as any shortfall of revenues over expenses was covered by the treasury. All these have led to a rapid buildup in these unpaid duty losses, the flow of which is estimated to almost double to over 8 percent of GNP in 1999, bringing the stock close to 12.5 percent of GNP, or close to half of the stock of government's cash debt.

18. Given the lack of transparency in the way these banks have performed quasi-fiscal operations on behalf of the government, it is hard to analyze and quantify the nature of the losses that have been booked as unpaid duty losses. Analytically, the flow of unpaid duty losses could be decomposed into three components: (i) the credit subsidy on the outstanding stock of subsidized credits, (ii) inefficiency losses, due to overbranching, overstaffing, and reported poor treasury management, and (iii) interest payments on the outstanding stock of unpaid duty losses. The first two components could be looked at as additional primary expenditures of the public sector. The third should be added to interest payments on the stock of public debt. It is very difficult to come up with an estimate of inefficiency losses; accordingly, in this chapter we derive an estimate of credit subsidy and treat the residual flow of unpaid duty losses as interest payments. By doing so we are underestimating the additional primary expenditures of the state banks.

[15] Formally, Halk Bank's additional flow of unpaid duty losses is supposed to be calculated as interest income on the stock of unpaid duty losses at "commercial rates," while that for Ziräat Bank was supposed to be calculated based on Ziräat "cost of funds."

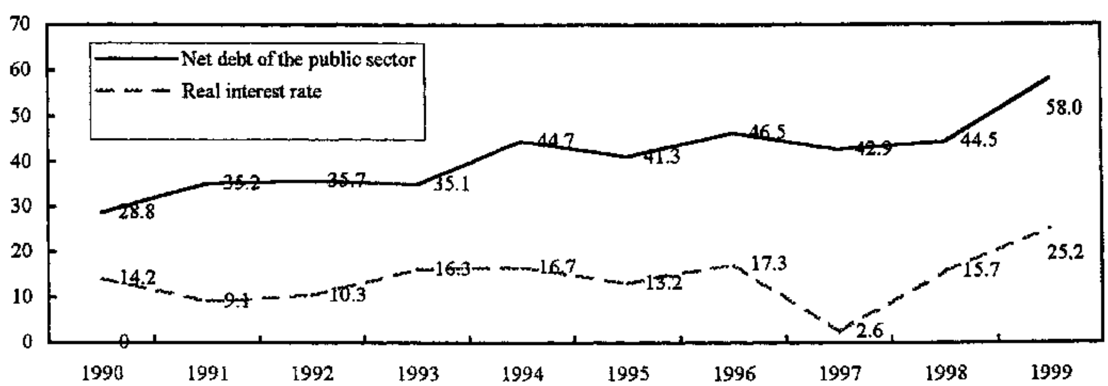
19. There are arguably a number of ways to measure the rate of credit subsidy. For each of these banks one could define the rate of credit subsidy as the difference between their purely commercial lending rates and the subsidized credit rate. However, given the thinness of their purely commercial lending activities, and the lack of a clear benchmark for commercial lending rates in the banking sector, it is preferable to measure the rate of credit subsidy with reference to a different benchmark. The average treasury bill rate is used here. Thus, we measure the amount of credit subsidy as the rate of credit subsidy times the volume of outstanding subsidized credits where the rate of subsidy is the difference between the average treasury bill rate (plus a 10 percent margin to capture credit risk and intermediation costs) and the subsidized interest rate. According to this measure, credit subsidies have been in a range of 1¼ to 1½ percent of GNP in recent years.

Net debt of the public sector and real interest rates

20. As reflected in Table 2 below, the net debt of the public sector in Turkey has increased from less than 30 percent in 1990 to close to 45 percent in 1998 and is projected to reach 58 percent by the end of 1999. This upward trend raises the prospective burden of interest payments, all the more so because it is accompanied by a fall of the share of foreign debt and a marked increase of the share of cash debt, a debt on which the interest rates paid are much higher than on foreign debt and noncash debt.

21. Average ex post real interest rates have been high and volatile with a clear upward trend during the 1990s reflecting the increased share of cash debt. This ex post average real interest rate is estimated to soar to 25 percent in 1999, owing mainly to the government's resolve to rein in inflation despite nominal interest rates having climbed to close to 140 percent following the Russia crisis in midsummer 1998 and having stayed above 100 percent for most of the year in 1999.[16]

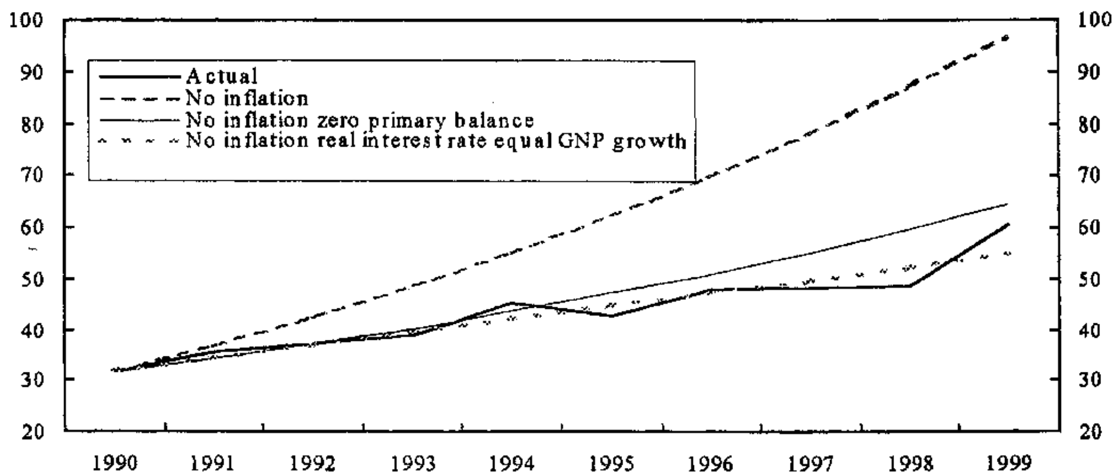
Net Debt of the Public Sector and Average Ex Post Real Interest Rate



[16] The dip in real ex post interest rate in 1997 is in part due to a lengthening of maturity.

22. Starting from a level of 32 percent at end 1990, the debt-to-GNP ratio would have reached almost 100 percent if inflation had been zero, and if growth, the primary surplus and the real interest rate had been equal to their average values during this period (4.3 percent, 2.6 percent of GNP, and 12.8 percent respectively).[17] Of this increase, about 33 percentage points is explained by the primary deficit, and about 35 percentage points to real interest rates in excess of the real GNP growth rate.(See figure below).

Simulation of Debt Dynamics in the Absence of Inflation



23. Table 2 also shows that most of the increase in total debt came from an increase in the debt of the central government (including the duty losses of state banks), whereas that of the rest of the public sector has remained more or less stable, despite the large primary deficits it has run. This is mainly due to the fact that quite often, EBFs, SEEs, and local authorities are unable to roll over their debt and the central budget makes the repayments fallen due on their behalf as most of their debt is contracted with a government guarantee.

[17] The exceptionally high real interest rate of 25 percent in 1999 is excluded from the calculation of the average real interest rate.

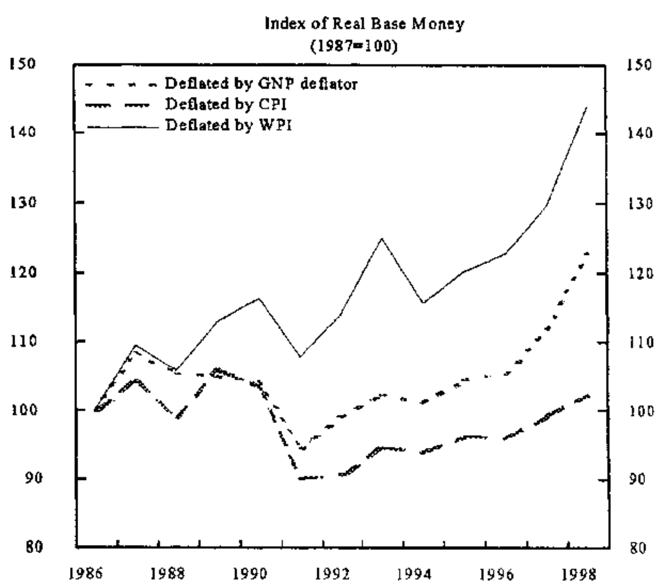
Table 2. Consolidated Net Debt of the Public Sector

(In percent of GNP)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
A. Central government plus central bank	23.6	28.5	30.1	30.7	37.8	34.5	39.5	37.5	38.9	48.9
Central bank net assets	0.0	-0.2	1.3	1.1	-0.9	1.3	3.0	7.7	8.0	10.4
Central government	31.8	35.5	37.4	38.8	45.3	42.8	48.0	48.4	48.5	60.5
Central government debt held by the CBT	8.3	7.2	5.9	7.0	8.5	7.0	5.5	3.2	1.6	1.2
B. Rest of the public sector	5.2	6.7	5.6	4.4	6.9	6.7	7.0	5.4	5.5	9.1
Foreign debt	5.0	6.0	6.0	5.7	6.8	6.9	6.5	5.9	6.0	6.7
Net domestic debt	0.2	0.7	-0.4	-1.3	0.1	-0.2	0.5	-0.5	-0.5	2.4
C. Net debt of the public sector	**28.8**	**35.2**	**35.7**	**35.1**	**44.7**	**41.3**	**46.5**	**42.9**	**44.5**	**58.0**
Net foreign debt	23.1	26.5	25.2	25.7	30.7	29.1	26.0	22.5	20.3	19.4
Net domestic debt	5.6	8.6	10.6	9.4	14.0	12.2	20.4	20.4	24.1	38.6
Of which: cash debt of the central government	6.1	6.6	7.6	6.9	8.7	9.3	12.8	15.8	17.9	23.8

Real money balances

24. Table 3 and the figure below show that as inflation ratcheted up during the 1990s, the demand for real base money dropped in percent of GNP. On average, the growth rate of real balances was below 2 percent during 1987–98, while the economy registered a 5 percent growth rate on average during the same period. As a result base money as a share of GNP (the base of the inflation tax) continued to decline falling from over 10 percent in the early 1970s to 6½ percent in 1986 and further to 4½ in 1998. Seignorage during that period averaged 2¾ percent of GNP. Compared to other countries which had gone through episodes of high inflation, Turkey is quite unique in the slow pace at which the demand for real base money has been eroded by inflation, a phenomenon which had prevented the chronic inflation from degenerating into hyperinflation as it did in other countries.



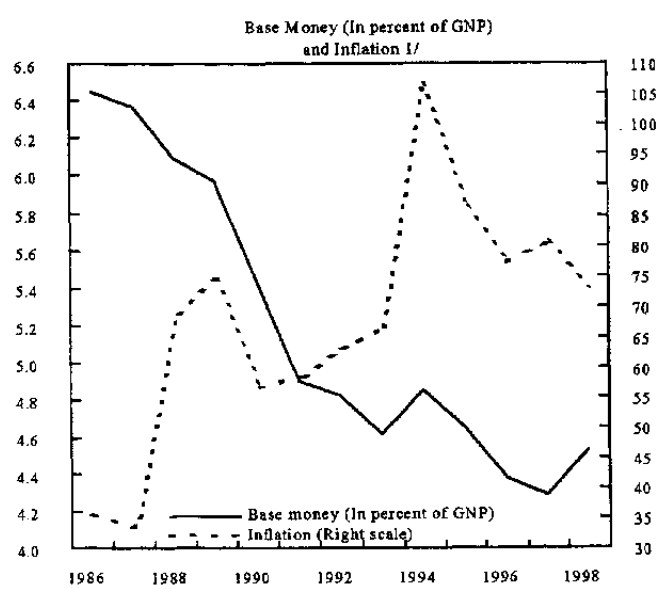


Table 3. Turkey: Real Base Money, Inflation and GNP Growth

	Base money 1/		Annual percent change			Seignorage
	Real (in trillion 1995 TL) 2/	In percent of GNP	GNP deflator	Real GNP	Real base money	(in percent of GNP) 3/
1986	349	6.45	35.6	6.8		
1987	379	6.36	33.5	9.8	8.4	2.3
1988	368	6.09	69.7	1.5	-2.9	3.5
1989	367	5.98	75.5	1.6	-0.3	3.1
1990	364	5.43	57.6	9.4	-0.7	2.0
1991	330	4.90	59.2	0.3	-9.4	2.0
1992	346	4.83	63.5	6.4	4.8	2.7
1993	358	4.62	67.4	8.1	3.4	2.4
1994	353	4.85	107.3	-6.1	-1.3	3.3
1995	365	4.64	87.2	8.0	3.3	3.0
1996	368	4.38	78.0	7.1	0.9	2.4
1997	390	4.28	81.2	8.3	6.0	2.9
1998	428	4.53	73.8	3.8	9.8	2.5
Average 87 to 98			68.4	5.0	1.8	2.7

1/ Base money is defined as currency issued plus banks' required reserves at the central bank.

2/ Base money deflated by the GNP deflator.

3/ Defined as the nominal variation of base money during the year divided by nominal GNP.

B. The Link Between Inflation and Budget Deficits

25. The simple explanation given in the literature about the relationship between inflation and government deficits views money creation (and the ensuing inflation) as a way to finance the gap between government expenditures and tax revenues, by adding the inflation tax to regular taxes. This "implicit" tax accrues to the government in the form of higher central bank profits, which are transferred directly in the form of dividends or indirectly in the form of interest-free loans.

26. A simple framework in which the relationship between debt and inflation could be formalized is one that looks at the consolidated accounts of the government/central bank. In this framework, the substitutability between debt financing and money financing can be seen, even if, as in Turkey, the government finances itself only through debt creation. In this framework, the increase in the nominal stock of government debt is identically equal to the budget deficit, independently of the level of money creation. However, by printing more money the central bank accumulates larger assets, and hence the increase in the **nominal net debt** of the consolidated government/central bank is lower than otherwise for the same nominal level of the budget deficit. In this framework it remains true that inflation helps stabilize the government debt-to-GNP ratio itself, and the only channel through which this could be done, with primary deficits and real interest rate higher than the growth rate, is through one form or another of transfers of

seignorage revenues to the government. In Turkey, transfers from the central bank to the government that have been reflected in the budget were insignificant. The main form in which revenues from seignorage have been transferred to the government is in the form of cancellation of government debt vis-à-vis the central bank—which are not reflected in the budget, interest-free short-term advances, and lower than market interest rates on noncash government securities held by the central bank.

27. The framework is as follows:

Let B_G^{PR} be the stock of government bonds held by the private sector,

B_G^{FX} be the stock of government bonds held by the foreign sector,

B_G^{CB} be the stock of government bonds held by the central bank,

I_G^{PR} be interest payments on government bonds held by the private sector,

I_G^{FX} be interest payments on government bonds held by the foreign sector inclusive of valuation losses,

I_G^{CB} be interest payments on debt vis-à-vis by the central bank,

TR_{CB}^{G} be transfers of profits from the central bank to the government, and

P be the primary balance of the government excluding transfers from the central bank.

Then the government budget constraint is written as

$$\Delta B_G^{PR} + \Delta B_G^{FX} + \Delta B_G^{CB} = -P - TR_{CB}^{G} + I_G^{PR} + I_G^{FX} + I_G^{cb}. \tag{1}$$

In return for issuing base money, M, the central bank can acquire claims on either the private sector, C_{CB}^{PR}, the foreign sector, C_{CB}^{FX}, or the government, C_{CB}^{G} or B_G^{CB}.

The changes in the central bank balance sheet can thus be written as

$$\Delta C_C^{FX} + \Delta C_{CB}^{PR} + \Delta B_G^{CB} = \Delta M + \Delta NW \ , \tag{2}$$

where NW is the central bank net worth.

The change in the central bank net worth is its profit. Thus, if we let

I_{FX}^{CB} be interest receipts on the central bank's net foreign assets C_{CB}^{FX} (inclusive of valuation gains),

I_{PR}^{CB} be interest receipts on the central bank's claim on the private sector C_{CB}^{PR}, and
OP be the operating costs of the central bank, then:

$$\Delta NW = I_{FX}^{CB} + I_{PR}^{CB} + I_{G}^{CB} - TR_{CB}^{6} - OP\,, \tag{3}$$

Substituting this expression of ΔNW into (2) and subtracting (2) from (1) we get

$$\Delta B_G^{PR} + \Delta B_G^{FX} - \Delta C_{CB}^{FX} - \Delta C_{CB}^{PR} = -P + I_G^{PR} + I_G^{FX} - I_{FX}^{CB} - I_{PR}^{CB} + OP - \Delta M\,.$$

If we define D as $B_G^{PR} + B_G^{FX} - C_{CB}^{FX} - C_{CB}^{PR}$ as the **net debt** of the consolidated government/central bank, and IP as net interest payments on the net debt $\left(IP = I_G^{PR} + I_G^{FX} - I_{FX}^{CB} - I_{PR}^{CB}\right)$,

we get the familiar budget constraint of the consolidated government/central bank:[18]

$$\Delta D + \Delta M = -P + OP + IP \tag{4}$$

which simply states that to finance the primary deficit plus net interest payments to the private sector, the consolidated government/central bank needs to have recourse to either bond financing or money financing (seignorage). Both bonds and money are liabilities vis-à-vis the private sector/foreign sector. The former is interest bearing, the latter is noninterest bearing. By altering the mix between bonds and money toward more money, the fiscal/monetary authorities are trading off lower debt burden against higher inflation.

28. The relationship between the primary balance, debt dynamics, and inflation can be derived in continuous time as follows:

Let $k = \frac{D}{Y}$ be the debt to GNP ratio.

Then $$dk = \frac{YdD - DdY}{Y^2} = \frac{1}{Y}dD - \frac{D}{Y}\frac{dY}{Y} \tag{5}$$

Taking the relationship specified in (4) in continuous time, we have $dD = -P_c + iD - dM$ with P_c the primary balance plus the operating costs of the central bank and i the nominal interest rate.

Substituting this expression into (5) we get

$$dk = -p + (i - g)\ k - \frac{dM}{Y}\,, \tag{6}$$

where $p = \frac{Pc}{Y}$ in the consolidated primary balance in percent of GNP; and g is the growth rate of nominal GNP.

[18] In what follows, domestic and foreign debt is aggregated and k refers to the ratio of domestic and foreign debt to GNP. This abstracts from the effects of a real appreciation (which lower the foreign debt to GNP ratio) since only a modest real appreciation can be sustained over time. See Chapter V.

Assuming a unit elasticity demand for money such as
$M^d = Yf(\pi)$,
where π is the inflation rate, and differentiating with respect to time and dividing by Y yields:
$$\frac{dM}{Y} = \frac{dY}{Y} f(\pi) + f'(\pi) d\pi$$

In steady state $d\pi = 0$ yielding:

$$\frac{dM}{Y} = \frac{\pi M}{Y} + y\frac{M}{Y} \tag{7}$$

where y is growth rate of real GNP. This familiar relationship shows that seignorage $\frac{dM}{Y}$ is equal to the inflation tax $\frac{\pi M}{Y}$ plus a revenue, which is due to the increase in the public's money holding stemming from growth, $\frac{yM}{Y}$.
In steady state $\frac{M}{Y}$, the inverse of base money velocity, is constant. Call it $\frac{1}{v}$.
Substituting (7) into (6) yields:
$$dk = -p + (r - y)\ k - \frac{\pi + y}{v} \tag{8}$$
where r is real interest rate.

Equation (8) shows that the debt dynamics are of particular concern when the real interest rate is higher than the growth rate of the economy. In this case the term $(r - y)k$ is positive and requires the sum of the two other terms to be negative to offset it to keep the debt to GDP ratio from rising.

Equation (8) allows us to derive the level of inflation that stabilizes the debt to GDP ratio for any given level of the primary balance. Setting $dk = 0$ in equation (8) gives:

$$\pi = -vp + v(r - y)k - y\,. \tag{9}$$

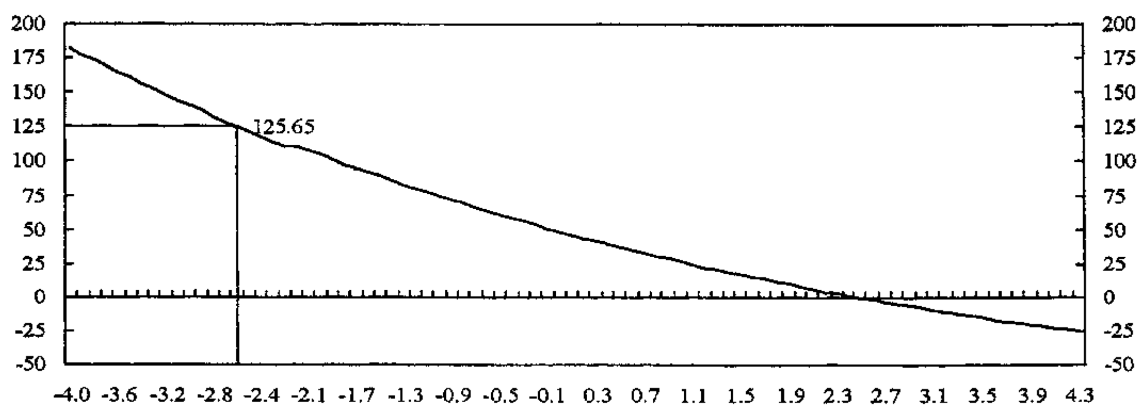
29. The larger the primary balance, the lower is the inflation needed to stabilize the debt-to-GNP ratio. The larger the gap between the real interest rate and real growth, the higher is the

required inflation for the same level of the primary balance. The higher the stock of debt, the higher is the required inflation.[19]

30. The case of hyperinflation could be seen as a limiting case of this equation. With real interest rate higher than the growth rate and the primary balance in deficit the debt/inflation dynamics could degenerate into hyperinflation. As inflation accelerates, the velocity of base money goes to infinity and thus the required inflation to stabilize the debt-to-GNP ratio becomes infinitely large. In equation (9) π goes to infinity when v goes to infinity.

31. The chart below depicts the relationship between inflation and the value of the primary balance for a level of the real interest rate equal to 10, a debt-to-GNP ratio equal to 60 percent, a growth rate equal to 5 percent, and velocity of base money equal to 16, that is, a ratio of base money to GNP equal to 6.25. A primary deficit of 2.6 percent of GNP would require an inflation of 125 percent to stabilize the debt to GNP ratio. To achieve zero inflation a primary surplus of 2.5 percent of GNP is needed.

Required Inflation as a Function of the Primary Surplus
(y=0.05, v=16,d=.6, and r=.1)



32. In the steady state depicted by equation (9), not only is the net debt-to-GNP ratio constant but also the government debt-to-GNP ratio. Recalling the definition of net debt and the identity representing the balance sheet of the central bank, it is easy to show that stabilizing the net debt-to GNP ratio is consistent with stabilizing the government debt-to GNP ratio as well, as M/Y is constant. With positive real interest rate and negative primary balances the only way in which the

[19] To apply this formula on actual data requires converting discrete time growth rates-in this case annual growth rate- to continuous time growth. The relationship between both is as follow: In $(1+g^d)=g^c$, where g^d and g^c are respectively discrete and continuous time growth rates. For example, an annual growth rate of 10 percent translates into a continuous growth rate of 9.5 percent.

government debt-to-GNP ratio could be stabilized is through positive transfers from the central bank to the government.

33. Table 4 shows some sensitivity analysis about the required level of primary surplus that is consistent with stabilizing the debt-to-GNP ratio with an inflation rate of 5 percent. The central scenario is a scenario with a growth rate of 5 percent, a real interest rate of 10 percent, a base money to GNP ratio of 6¼ percent. In this scenario a primary surplus of 2.2 percent of GNP is needed to stabilize the debt-to-GNP ratio at 60 percent. An additional 1 percent of primary surplus would be required for 2 percentage points of higher real interest rates. An additional 0.2 percent of GNP primary surplus would be needed for each 2 percentage points of lower base money to GNP ratio. An additional 0.6 percent of GNP primary surplus for each 1 percentage point of lower inflation. A 0.5 percent lower primary surplus would be required for a stock of debt 10 percentage points lower.

Table 4. Turkey: The Primary Surplus Needed to Stabilize the Debt to GNP Ratio

(With 5 Percent Inflation)

	Real growth rate y	Real interest rate r	Velocity base money v	Primary balance p	Debt-to-GNP ratio d	Inflation rate π
Discrete	0.050	0.120	23.000	0.035	0.600	0.050
continuous	0.049	0.113				0.048
Discrete	0.050	0.120	16.000	0.033	0.60	0.052
continuous	0.049	0.113				0.051
Discrete	0.050	0.100	23.000	0.024	0.60	0.052
continuous	0.049	0.095				0.050
Discrete	0.050	0.100	16.000	0.022	0.60	0.052
continuous	0.049	0.095				0.051
Discrete	0.040	0.100	23.000	0.030	0.600	0.051
continuous	0.039	0.095				0.049
Discrete	0.04	0.100	16.000	0.028	0.60	0.053
continuous	0.039	0.095				0.051
Discrete	0.050	0.100	23.000	0.019	0.50	0.05
continuous	0.049	0.095				0.049
Discrete	0.050	0.100	16.000	0.017	0.50	0.053
continuous	0.049	0.095				0.051

Table 5. Turkey: Primary and Overall Deficits of the Consolidated Public Sector, 1990-99

(In trillions of Turkish lira)

	1990	1991	1992	1993	1994	1995	1996	1997	1998 Est.	1999 Proj.
Primary balance of the public sector	**-14**	**-39**	**-77**	**-113**	**-6**	**213**	**-187**	**-622**	**255**	**-2,329**
Central government (adjusted)	**5**	**-4**	**-19**	**-12**	**133**	**268**	**184**	**-65**	**1,889**	**717**
Unadjusted	5	-4	-19	-10	144	278	224	40	2,093	1,000
Interest recepits 1/				2	9	10	40	71	153	178
Profits transfers from the CBT		0.1	0.0	0.1	1.6	0.0	0.0	33.3	51.2	105
Rest of the public sector	**-19**	**-35**	**-58**	**-95**	**-98**	**12**	**-82**	**-160**	**-1,020**	**-2,043**
Extrabudgetary funds	-2	-6	-9	-31	-58	-45	-27	22	-18	-387
Unadjusted	-2	-6	-9	-28	-53	-39	-6	42	0	-379
Interest receipts				3	5	7	21	20	18	8
Local authorities	-1	-2	-2	-12	-5	3	-15	-43	-209	-628
Unadjusted	-1	-2	-2	-10	2	11	1	-11	-140	-483
Interest receipts				2	6	8	17	32	69	145
SEEs (adjusted for interest receipts)	-17	-26	-44	-39	-10	99	-14	-127	-587	-963
Adjusted (before budgetary transfers)	-19	-39	-54	-70	-35	44	-75	-293	-844	-1,512
Unadjusted	-13	-20	-36	-29	16	152	104	-23	-461	-729
memo: Budgetary transfers	2	13	10	31	25	55	61	166	258	549
Interest receipts	4	5	8	10	26	52	118	137	369	658
TMO Interest payments								33	244	423
SSIs and revolving funds	0	-2	-4	-13	-25	-45	-26	-12	-207	-65
Unadjusted	1	-1	-3	-12	-23	-43	-16	3	-177	-14
Interest receipts	1	1	1	1	2	2	10	15	30	51
Primary component of unpaid duty losses	**0**	**0**	**0**	**-6**	**-41**	**-67**	**-289**	**-397**	**-614**	**-1,003**
Memorandum item:										
GNP (in trillion Turkish Lira)	397	634	1,104	1,997	3,888	7,852	14,978	29,393	53,013	83,124

Source: Data provided by the Turkish authorities.

Table 6. Turkey. Consolidated Net Debt of the Public Sector, 1990-99

(In trillions of Turkish lira)

	1990	1991	1992	1993	1994	1995	1996	1997	1998 Est.	1999 Proj.
A. Central government plus central bank	94	181	333	614	1,468	2,713	5,912	11,009	20,644	40,633
Central bank net assets	0	-1	14	21	-36	99	454	2,262	4,235	8,658
NFA	-1	0	14	17	-17	131	628	1,791	2,907	7,578
[in million of U.S. dollars]	-449	-87	1,601	1,164	-575	2,196	5,846	8,748	9,296	14,198
Free reserves in FX	1	2	4	7	25	21	78	223	422	761
[in million of U.S. dollars]	510	474	494	458	841	357	726	1,088	1,348	1,425
Claims on banks	5	4	9	17	11	-4	-44	728	1,838	2,000
Free reserves in Lira	2	3	4	6	6	7	53	34	88	159
Central government	127	225	412	774	1,762	3,358	7,195	14,222	25,708	50,305
External	69	128	221	410	888	1,850	3,480	6,449	10,089	17,356
[in million of U.S. dollars]	23,659	25,134	25,798	28,336	30,416	31,095	32,375	31,499	32,263	32,518
Cash debt	24	42	83	137	338	733	1,924	4,642	9,512	19,809
Noncash debt	0	10	45	118	206	410	854	1,304	2,101	2,722
Unsecuritized debt vis-à-vis the CBT	33	46	66	102	255	218	371	338	0	0
Unpaid duty losses	0	0	0	13	75	164	633	1,523	3,981	10,394
Ziraat				4	39	84	400	926	2,396	6,200
Halk				9	36	80	232	597	1,585	4,193
Deposits at Ziraat			3	6	1	17	68	34	-25	-25
Central government debt held by the CBT	33	46	66	139	330	547	828	951	828	1,014
Bonds	0	0	0	37	75	329	457	614	828	1,014
Unsecuritized debt vis-à-vis the CBT	33	46	66	102	255	218	371	338	0	0
B. Rest of the public sector	21	42	62	87	268	528	1,047	1,587	2,920	7,586
Foreign debt	20	38	67	114	264	544	970	1,727	3,179	5,607
Total (in millions of U.S. dollars)	6,756	7,447	7,779	7,877	9,027	9,142	9,021	8,434	10,167	10,505
EBFs	939	1,103	949	836	1,045	1,127	1,146	979	804	1,179
Local authorities	1,032	1,159	1,695	1,602	2,549	2,414	2,739	2,689	2,755	2,745
SEEs	4,785	5,185	5,135	5,439	5,433	5,601	5,136	4,766	6,608	6,581
Guaranteed	...	3,037	2,737	2,228	2,729	2,665	2,040	1,935	1,904	...
Other	...	2,148	2,398	3,211	2,704	2,936	3,096	2,831	4,704	...
Net domestic debt	1	4	-5	-27	5	-16	77	-139	-259	1,979
EBFs	-11	-14	-21	-39	-38	-50	137	-128	-331	...
Revenue sharing certificates							201	301	559	...
Other (bank net debt) 1/	-11	-14	-21	-39	-38	-50	-63	-429	-890	...
Local authorities (bank net debt) 1/	-1	-2	-3	-5	-7	-14	-53	-108	-172	...
SEEs	12	20	20	18	50	48	-7	97	245	...
Commercial banks	12	20	13	17	40	51	41	205	415	...
Individuals	1	2	11	12	23	32	57	97	254	...
Producers	2	4	5	1	9	16	40	3	4	...
Bank deposits 1/	3	5	8	12	22	53	145	207	428	...
C. Net debt of the public sector	114	223	394	701	1,737	3,240	6,959	12,596	23,565	48,218
Foreign	92	168	278	513	1,193	2,285	3,900	6,608	10,783	16,146
Domestic	22	55	117	187	543	956	3,059	5,988	12,782	32,073
Memorandum items:										
Adjusted eop TL/US$	2,930	5,080	8,556	14,458	29,205	59,501	107,505	204,750	312,720	
GNP	397	634	1,104	1,997	3,888	7,852	14,978	29,393	53,013	83,124

Source: Data provided by the Turkish authorities.

Table 7: Turkey: Average Ex Post Real Net Interest Rate on Public Domestic, 1990-99

(In trillions of Turkish liras, unless otherwise specified)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Net interest payments	16.2	32.6	59.7	148.2	391.7	711.8	1,786.0	3,245.4	8,687.4	17,126.4
Monetary correction	0.0	17.3	27.8	59.2	187.8	383.9	902.4	2,992.0	5,844.0	8,069.4
Real interest payments	16.2	15.4	31.9	89.0	204.0	328.0	883.5	253.4	2,843.4	9,057.0
Net debt of the public sector	114	223	394	701	1,737	3,240	6,959	12,596	23,565	48,218
Real interest rate	**14.2**	**9.1**	**10.3**	**16.3**	**16.7**	**13.2**	**17.3**	**2.6**	**15.7**	**25.2**

Source: Data provided by the Turkish authorities.

Table 8. Turkey: Simulation of Debt Dynamics, 1990-99

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Primary deficit		-2.7	-2.8	-2.9	-3.0	-3.2	-3.3	-3.4	-3.6	-3.7
in percent of GNP		-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6
Interest payments		4.1	4.9	5.9	7.1	8.4	9.8	11.5	13.4	15.6
interest rate		12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
Debt	31.8	38.6	46.3	55.2	65.3	76.8	89.9	104.9	121.9	141.2
in percent of GNP	**31.8**	**37.0**	**42.6**	**48.6**	**55.1**	**62.2**	**69.8**	**78.1**	**87.0**	**96.7**
An alternative scenario with lower real interest rate										
Interest payments		1.4	1.5	1.7	1.9	2.1	2.4	2.6	2.9	3.1
interest rate		4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Debt	31.8	35.9	40.2	44.8	49.8	55.1	60.7	66.8	73.2	80.1
in percent of GNP	**31.8**	**34.4**	**37.0**	**39.5**	**42.1**	**44.6**	**47.2**	**49.7**	**52.3**	**54.8**
An alternative scenario with zero primary deficit										
Interest payments		4.1	4.6	5.2	5.9	6.6	7.5	8.4	9.5	10.7
interest rate		12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
Debt	31.8	35.9	40.5	45.7	51.6	58.2	65.7	74.1	83.6	94.3
in percent of GNP	**31.8**	**34.5**	**37.3**	**40.3**	**43.6**	**47.2**	**51.0**	**55.2**	**59.7**	**64.6**
Memorandum items:										
GNP	100	104.3	108.8	113.5	118.3	123.4	128.7	134.3	140.0	146.1
GNP growth rate		4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3

Source: Fund staff calculations.

II. THE 1999 SOCIAL SECURITY REFORM[20]

A. Introduction

34. There has been a broad consensus in recent years that Turkey's pay-as-you-go social security system is unsustainable. The generosity of benefits relative to contributions has resulted in the system having a large deficit (equivalent to around 3 percent of GNP), notwithstanding the country's favorable demographic situation. In the absence of reform, the deficit of the social security system was set to increase sharply in the next few years, further widening the already large public sector deficit.

35. The landmark social security reform legislation approved by the Turkish government on September 8, 1999 is designed to address this issue. Simulations done by both the authorities and the World Bank show that the reforms will be able to stop the trend deterioration and indeed reduce the deficit of the social security in the short- to medium term, although the long-term impact of the reforms as yet remains unclear. Further reform is, nonetheless, likely to be required to eliminate the deficit in the social security system in the long run. This chapter outlines the key elements of the recent reforms, and discusses the additional measures that the authorities are contemplating to reform the system further.

B. The Old Social Security System[21]

36. Pension benefits for old age, disability and survivorship as well as health and other social benefits are provided in Turkey through three separate funds: the Sosyal Sigortalar Kurumu (SSK), covering private workers and non-civil servant public sector workers; the Emekli Sadigi (ES) covering civil servants; and Bag Kur (BK) covering the self-employed, permanent agricultural workers, elected local government officials, housewives and the unemployed. Together, those insured for pension benefits for old age, disability and survivorship by the three funds numbered 12.4 million people in 1998 (close to half the total employed population), and benefits were paid to a further 5.6 million people.

37. The balance of the social security system has deteriorated significantly in recent years as shown in Table 1. This is primarily due to a number of structural flaws in the system, including:

(i) **No minimum retirement age.** Rather, pension eligibility in all three funds was determined by the number of years worked (20/25, women/men respectively) and period of contribution (see Table 2). For BK and ES, the number of years worked needs to be equal to the

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[20] Prepared by Christopher Jarvis and Abebe Aemro Selassie.

[21] This section draws on Appendix II of the 1998 Selected Issues Papers (SM/98/196, 7/23/98) entitled Reforming Turkey's Social Security System, prepared by David W. H. Orsmond and Jeffery R. Franks.

Table 1. Turkey: Overview of Major Pension Indicators, 1992-99

	1992	1993	1994	1995	1996	1997	1998	1999 1/
SSK								
Number of contributors (in millions)	4,274	4,592	5,188	5,645	5,924	6,165	6,876	7,120
Percentage growth	...	7.4	13.0	8.8	4.9	4.1	11.5	3.5
Number of pensioners	1,857	1,999	2,175	2,338	2,540	2,732	2,931	3,157
Percentage growth	...	7.6	8.8	7.5	8.6	7.6	7.3	7.7
Contributors/pensioner	2.30	2.30	2.39	2.41	2.33	2.26	2.35	2.26
Average annual pension (in millions of TL)	15	24	40	75	143	301	519	871
in US$	2,121	2,195	1,332	1,641	1,766	1,983	1,994	2,079
Percentage growth	...	3.5	-39.3	23.2	7.6	12.3	0.6	4.3
Average annual contribution (in millions of TL)	7	10	13	19	47	104	182	314
in US$	953	883	424	420	584	685	700	749
Percentage growth	...	-7.4	-52.0	-1.0	39.2	17.3	2.3	7.0
Pension/contribution (avg.)	2.2	2.5	3.1	3.9	3.0	2.9	2.8	2.8
Balance of SSK (percent of GNP)	-0.2	-0.4	-0.8	-1.1	-1.0	-1.3	-1.0	-1.3
Emekli Sandigi								
Number of contributors	1,850	1,896	1,896	1,880	1,964	2,036	2,072	2,109
Percentage growth	...	2.5	0.0	-0.8	4.5	3.7	1.8	1.8
Number of pensioners	781	828	901	952	1,048	1,114	1,219	1,273
Percentage growth	...	6.0	8.8	5.7	10.1	6.3	9.4	4.4
Contributors/pensioner	2.37	2.29	2.10	1.97	1.87	1.83	1.70	1.66
Average annual pension (in millions of TL)	19	31	49	89	177	333	554	921
in US$	2,738	2,824	1,636	1,940	2,176	2,196	2,129	2,197
Percentage growth	...	3.1	-42.1	18.6	12.2	0.9	-3.0	3.2
Average annual contribution (in millions of TL)	8	14	23	45	94	182	326	556
in US$	1,156	1,233	778	983	1,161	1,201	1,253	1,327
Percentage growth	...	6.7	-36.9	26.4	18.2	3.4	4.3	5.9
Pension/contribution (avg.)	2.4	2.3	2.1	2.0	1.9	1.8	1.7	1.7
Balance of ES (in percent of GNP)	-0.6	-0.7	-0.6	-0.7	-1.1	-0.9	-1.0	-1.2
Bag-Kur								
Number of contributors	2,891	2,871	2,700	2,769	2,650	2,657	2,908	3,147
Percentage growth	...	-0.7	-6.0	2.6	-4.3	0.3	9.4	8.2
Number of pensioners	589	646	687	739	803	957	1,104	1,189
Percentage growth	...	9.7	6.3	7.6	8.7	19.2	15.4	7.7
Contributors/pensioner	4.91	4.44	3.93	3.75	3.30	2.78	2.63	2.65
Average annual pension (in millions of TL)	7	13	28	29	85	180	296	494
in US$	1,070	1,148	934	635	1,042	1,184	1,135	1,180
Percentage growth	...	7.3	-18.6	-32.0	64.1	13.6	-4.1	4.0
Average annual contribution (in millions of TL)	1	2	4	7	15	44	69	109
in US$	196	151	120	153	180	290	266	260
Percentage growth	...	-22.9	-20.2	27.5	17.5	60.9	-8.5	-2.0
Pension/contribution (avg.)	5.5	7.6	7.8	4.1	5.8	4.1	4.3	4.5
Balance of BK (in percent of GNP)	-0.1	-0.2	-0.3	-0.3	-0.5	-0.5	-0.9	-0.8
Total of pension funds								
Number of contributors	9,015	9,359	9,784	10,294	10,538	10,858	11,856	12,376
Percentage growth	...	3.8	4.5	5.2	2.4	3.0	9.2	4.4
Number of pensioners	3,227	3,473	3,763	4,029	4,391	4,803	5,254	5,619
Percentage growth	...	7.6	8.4	7.1	9.0	9.4	9.4	6.9
Contributors/pensioner	2.8	2.7	2.6	2.6	2.4	2.3	2.3	2.2
Weighted average annual pension (in millions of TL)	14	24	40	70	140	284	480	803
in US$	2,079	2,150	1,332	1,528	1,732	1,873	1,845	1,916
Percentage growth	...	3.4	-38.0	14.7	13.4	8.2	-1.5	3.8
Wieghted average annual contribution (in millions of TL)	5	8	12	21	48	104	180	303
in US$	752	729	409	451	590	685	690	723
Percentage growth	...	-3.0	-44.0	10.3	30.9	16.1	0.7	4.8
Pension/contribution (avg.)	2.8	2.9	3.3	3.4	2.9	2.7	2.7	2.6
Overall balance of three funds (percent of GNP)	-0.9	-1.3	-1.7	-2.1	-2.6	-2.7	-2.9	-3.3

Sources: Undersecretariat of the Treasury; Stat Planning Office; and Fund staff calculations.

1/ Projections.

Table 2. Turkey: Changes to the Basic Features of the Social Security System under the September 1999 Reform

Fund	Coverage	Contribution Rate		Eligibility for Retirement 1/		Reference Period for Benefits		Benefits Determination for Regular Pension	
		Old	New	Old	New	Old	New	Old	New
Sosyal Sigortalar Kurumu (SSK)	Private sector employees and public sector workers except civil servants	33.5 percent 20 percent for pensions; 12 percent for health care, and 1.5 percent for other benefits 2/	Unchanged	Regular pension 5,000 days (13.9 years) Partial Pension 3,600 days (10 years) if age 55 – men; 50 – women	Age: 58 Female/ 60 Male and Regular Pension 7000 days of (19.4 years) Partial Pension 12.5 years	Last 5 years for those paying at less than the contribution ceiling; last 10 years for those paying at the contribution ceiling 2/	Full contribution period.	60% for 5,000 days plus 1% for each additional 240 days 1/	3.5 percent accrual rate for first 10 years; 2 percent for next 15 years; 1.5 percent for each additional year
Emekli Sandiğl (ES)	Civil servants	35 percent combined for pensions and health care	Unchanged	25 years – men 20 years – women	58 Female/ 60 Male and 25 years	Last month's wage; last six months wage if the worker has recently been promoted	Unchanged.	75% plus 1% for each additional year	Unchanged
Bağ-Kur (BK)	Self-employed urban workers and farmers	32 percent 20 percent pensions; 12 percent health care	35 percent 20 percent pensions; 15 percent health care	Regular pension 9,000 days (25 years)-men 7,200 days (20 years)-women Alternative 15 years if age 55-men, 50-women	Age: 58 Female/ 60 Male and Regular Pension 9000 days of (25 years) Partial Pension 15 years	Last 1 year	Full contribution period	70% plus 1% for each additional year	3.5 percent accrual rate for first 10 years; 2 percent for next 15 years; 1.5 percent for each additional year

1/ For new entrants. Days (years) refer to the minimum contribution period.
2/ The wage on which contributions are based was previously capped at 1.8 times the minimum pensionable wage. Following the reform, the maximum contribution ceiling has been raised to a level close to 3 times the statutory minimum wage.

period of contribution. As long as they had worked for 20/25 years, SSK participants could, however, contribute for just a 14-year period. This meant that people who had started working and contributing to the system at the age of 18 (the minimum employment age) could retire as early as at 38/43 years of age in all three funds. And indeed the average age for new retirees was 47/50 for SSK and ES and 57 years for BK.[22] This contrasts with a life expectancy at birth of 71/67 and at age 60 of 79/77 (World Bank,1999).[23]

(ii) **A high replacement ratio**. The contribution rates in these schemes are high at 30 to 35 percent of the pensionable wage (including pension and health insurance contributions), with costs being shared between the employee and the employer. However, the absolute level of pension was not particularly high because the pensionable wage is well below the actual wage (see below). Moreover, because of the limited time over which *contributions* were required to be made, benefits were extremely generous relative to contributions, with an average replacement ratio of the order of 80 percent for the three funds. Contributors were able to reach a relatively high replacement ratio in the initial years of contribution. In the case of SSK, for example, for each of the first 14 years of contribution, the average replacement ratio was 4.3 percent, compared to just 1.5 percent for each additional year of contribution. This sharp decline in the marginal benefit of continuing to contribute to the system provided an incentive for people to retire as soon as they fulfilled the minimum contribution period.

(iii) **A short reference period for the payment of pensions.** An additional source of weakness has been the short reference period for determining the retirement pension. In SSK, the reference period for pensions was the 5 most recent years for those making contributions at the lower pension scale and the most recent 10 years for those making contribution at the upper scale. In the case of ES, pensioners were eligible to receive 75 percent of their actual wage on retirement (or the salary over the last six months if the civil servant was recently promoted). For BK, the reference period for the pension payment is the year preceding retirement.

38. A number of other weaknesses were evident in the social security system. Supplementary social assistance payments made by the funds were (and still are) untargeted, leading to wasteful expenditure. There are also significant compliance problems in SSK and BK, in large part due to administrative problems. In particular, the absence of a unique contributor identification number, makes the task of monitoring workers' records difficult as they change jobs. There is also very little coordination of social security contributions and tax payments.

[22] The higher retirement age of BK is explained by the fact that the fund was only created in 1972 as well as the fact the self-employed tend to join the system later in life.

[23] World Bank, "Turkey–Country Economic Memorandum: Structural Reforms for Sustainable Reform, Mission Aide-Memoire (November 1999).

39. The implication of these problems can be seen in the indicators outlined in Table 1. The ratios of contributors to pensioners (dependency ratio) for the three funds have declined from 2.8 in 1992 to a projected 2.2 this year. The decline in the dependency ratio of ES and BK is particularly sharp: from 2.4 to 1.7 and from 4.9 to 2.6, respectively, between 1992 and 1999.[24] The policies outlined above have also meant that the average level of contributions in ES and BK has not kept pace with average pension payments.

40. Financially, this has led to a dramatic increase in the deficit of the social security system in recent years. Starting from a position of approximate balance in the late 1980s, the three funds registered a total deficit of 2.9 percent of GNP in 1998. Moreover, the deficit is projected to worsen to 3.3 percent of GNP this year.

C. The September 1999 Reforms

41. On September 8, 1999 a new law governing social security was enacted. The law included a number of major changes, including:

- the introduction of a minimum retirement age;
- increases in the minimum contribution periods for pensions, and changes in the replacement ratio;
- basing pensions on indexed lifetime earnings, rather than earnings in the years immediately before retirement;
- increasing the retirement pension in line with changes in prices;
- a significant increase in the ceiling on contributions;
- the introduction of copayments for medical insurance; and
- the introduction of unemployment insurance

The minimum retirement age

42. The absence of a minimum retirement age was one of the most glaring deficiencies of the pre-reform system. Under the new system, the minimum retirement age for new entrants to the schemes is fixed at 58 for women and 60 for men. For existing members who have contributed for less than ten years, the minimum retirement ages will be 52 and 56. For those who have been in the system for more than ten years, there will be a transition period, with the retirement age being set at the current (implied) levels for those very close to retirement, and gradually increasing as time already spent in the schemes diminishes.

[24] In BK's case this is partly because the scheme is relatively new, so that in the early years few of its members had been in the scheme long enough to retire.

Increases in contribution periods and changes in replacement ratios

43. The minimum retirement age will be supplemented by a minimum contribution period to establish entitlement to a full pension. For new entrants, this will be set at 7000 days (19.4 years) for SSK and at 9000 days (25 years) for ES and BK. As in the case of retirement ages, there will be a gradual increase in the minimum contribution period for those already in the system. The amount of the pension received will be graduated according to length of contribution, with the replacement rate (the annual pension as a proportion of average lifetime earnings) set, in the case of SSK, at 3.5 percent for each 360 days for the first 10 years, 2 percent for the next 15 years and 1.5 percent for each subsequent year (for those who carry on contributing after the minimum period). This system has also been supplemented by explicit provision for a partial old age pension for those who have reached the minimum retirement age but have not made sufficient contributions to be eligible for a full pension, though 12½ years of contributions (10 years in the case of current members of SSK) will be necessary to get even this.

Basing pensions on lifetime earnings

44. One of the features of the pre-reform system which provided the greatest scope for abuse was the fact that pensions were based on earnings in the last year or few years before retirement rather than on lifetime earnings, which had been the basis for contributions. Since employers and employees both contribute to the schemes, there had been incentives for them to collude in underreporting wages until close to the end of the contribution period, and then raise reported wages so that the pension benefit would be maximized.

45. Under the new system, the reference period for pensions in SSK and BK will be lifetime earnings, with earnings in earlier years being indexed to take into account inflation and real growth. Again there will be a transitional period during which the old system will be used for part of the calculation of pensions (with the calculation based on wages at the time the system changed) and the new system for the remaining part, with the relative weights of the two depending on the time the employee is a member under each system. For ES, the old system will continue to operate.

Indexation of pensions to the consumer price index

46. Another important measure was the indexation of pensions to the consumer price index. In the past, the system of indexation implied that pensions were increased on a discretionary basis, typically in line with civil servants' wages. This led to large swings in the level of pensions, with pensions declining in periods of fiscal austerity and increasing as the fiscal stance was loosened. Under the new arrangements, pension increases will be made on the basis of a transparent and financially conservative rule. Specifically, pensions will be increased monthly on the basis of the previous months inflation for SSK and BK, with a similar indexation mechanism envisaged for ES after necessary amendments to the civil servants employment laws have been made.

An increase in the ceiling on contributions

47. Despite the fact that the replacement rate for pensions in Turkey was high under the old system and remains high under the new one (by way of comparison, the average rate in OECD countries is 45 percent) actual pensions received have been relatively low. The main reason for this is that the wage which formed the basis for calculating both contributions and pensions is capped at a level well below the actual wages of many participants. Under the new system, the lowest wage on which contributions and pensions will be based will be set at a level close to the statutory minimum wage for workers, and the highest contribution level will be set three times higher than this.[25] The Council of Ministers also has authority to raise the ceiling further, to five times the lower limit. The result should be both an immediate increase in contributions and, over the longer-term, a higher level of pensions for those who contribute more.

Medical insurance reforms

48. Health insurance is also covered by the major social insurance schemes, and part of total contributions are for health insurance.[26] While health contributions have been broadly in line with spending on health in SSK, in BK a large deficit has emerged. To reduce this, in BK the health insurance contribution rates were increased from 12 percent (for the self employed) and 10 percent (for farmers) to 20 percent of the pensionable wage. In addition, in all three schemes, a system of copayments for medical equipment and prostheses was introduced for the first time, with copayments being set at 20 percent of the cost for working members of the schemes and 10 percent for pensioners. Finally, a waiting period was introduced in SSK and BK before members become eligible for medical benefits.

Unemployment insurance

49. The new legislation provides for the introduction of unemployment insurance in SSK, the largest scheme. There will be mandatory additional contributions of 7 percent of the pensionable wage (3 percent being paid by the employer and 2 percent each by the employee and the government). Those who have paid insurance premia for at least 600 days will be entitled to unemployment benefits equivalent to 50 percent of the last four months' insurable wage for a period of six months. Those who have contributed for longer will be entitled to unemployment insurance for a longer period. The unemployment insurance scheme will begin operation in June 2000, with the mandatory contributions to it replacing contributions to a mandatory savings

[25] There is no longer a formal link between the contribution level and the statutory minimum wage.

[26] In the cases of SSK and BK health insurance contributions are identified separately; in the case of ES, a single payment is made, covering both pension contributions and health insurance contributions.

scheme. However, the existing system of lump-sum redundancy payments will be retained alongside the new unemployment insurance.

D. Fiscal Implications of the Social Security Reform

50. In the absence of reforms, both the World Bank's and the authorities simulations show approximately the same deterioration in the balance of the deficit of the social security system in the coming years: from 2.6 percent of GNP in 1998, to 4.4 percent in 2005, 7.6 percent in 2020, and 14 percent in 2050 (Chart 1). The two models, however, diverge in their projections of the fiscal implication of the recently introduced reforms. In particular, the World Bank's model shows the reforms delivering a sharper improvement in the deficit of the social security system in the short- to medium-term. However, it also suggests that in the long run, a growing deficit will emerge, which will reach some 5 percent of GNP in 2050. In contrast, the authorities' model shows a more modest improvement in the deficit in the short- to medium term, but projects that the deficit will remain contained even in the long-run.

51. The divergence in the results is in large part explained by the different assumptions underlying the two models, including in the mortality rate (which the authorities model assumes: will remain constant, while the World Bank model projects a decline), differences in GDP projection and the assumption as to what age people begin contributing into the system. There are as well a number of inherent difficulties in modeling the impact of the reforms. For example, it is unclear if the effective barrier to early retirement in the long-run will be the retirement age or the minimum contribution period. Relatedly, it is also unclear whether the fact that the marginal replacement ratios continue to decline after the initial contribution period, albeit more gradually than before, will continue to be a disincentive for continued contribution into the system. These complications as well as the large degree of uncertainty that accompanies all such long-term projections suggests that it is best to consider the two projections as the lower and upper bound of the likely fiscal effects of the recent reforms.

E. The Future of the Social Security System

52. The social security reform enacted in September 1999 is intended to be merely the first stage in a more comprehensive overhaul of the social insurance system. Beginning in 2000, the government is planning:

- the introduction of supplementary individual pension schemes and preparation of a regulatory framework for these;
- measures to increase the coverage of the schemes and compliance with them;
- integration of the social insurance functions of the three schemes under a single agency, and separation of the health and insurance functions of SSK; and
- the introduction of full healthcare coverage by means of a system of general health insurance.

53. These are ambitious goals, and it remains to be seen whether the government can indeed move rapidly towards them. The intention to introduce supplementary individual pension schemes reflects a very different philosophy of insurance from that currently operating in Turkey. At present, the system is one where *benefits* are clearly defined, contributions are also established by law, and the state is responsible for making up any differences between expenditures and revenues in the schemes. Individual pension schemes generally involve defined *contributions*, but are "fully funded", which is to say that the participants get back their contribution plus the accumulated return, whatever that is. There is a case to be made for both systems, but the government will need to consider how it will integrate a voluntary defined contribution system with the mandatory defined benefit scheme which provides the basic safety net in Turkey. There are also many regulatory issues to be worked out. If the three schemes are indeed to be brought under the control of a single agency, then the authorities will need to consider ways to harmonize their contributions and benefits. Finally, the details on the government's plans on healthcare have yet to be worked out and the government is also likely to be confronted with the problem of rising demand for healthcare from those already insured.

54. These outstanding issues, together with the still unresolved questions about the long-term solvency of the current system, are likely to complicate plans for further reforms. They are also likely to keep social security and healthcare reform in a prominent place on the political agenda in Turkey for some time to come. Nevertheless, the authorities' achievements in 1999 have been impressive. They have taken a system heading rapidly towards bankruptcy and given it a new lease of life.

III. Implications of Disinflation for Banks Profitability in Turkey[27]

A. Introduction and Summary

55. There is a strong perception that Turkish banks are highly profitable. A *Euromoney* 1997 article notes that "Turkey's banks are among the most profitable in the world. Why? Because the government rewards them royally for getting Turkish citizens to pay for its debts."[28] And indeed the numbers reported by the banks often tend to be quite impressive. Net interest margins reported by Turkish banks are twice as large as those for comparable OECD countries and greater still relative to industrialized countries (Tables 1 and 2, see also below). In part, this high profitability is explained by the fact that the reported numbers are not adjusted for inflation which tends to distort bank's balance sheets and income statements overstating profits.[29] [30] Nevertheless, even after adjusting for this, one finds that profits and net interest margins are quite high.

56. Given that the present government has embarked on an aggressive disinflation program, a natural question to ask is whether low inflation environment will be inimical to continued high profitability. This chapter looks at the implications for the banking system from disinflation. It starts with a brief overview of the structure of the banking system (Section B) and proceeds to assess the impact that inflation has had on the banking system (Section C), the link between inflation and interest margins and bank profits (Section D), and the implications of rapid disinflation and a low inflation environment for banks in Turkey (Section E).

57. The main findings of this study are threefold: (i) while relatively high, the profitability of Turkish banks also partly reflects the impact that inflation has on nominal interest margins; (ii) banks stand to make significant one-off profits as inflation and interest rates decline; and (iii) even though some sources of high profitability will disappear, the implications of a low inflation environment in the long term should also be positive, as the remonetization of the economy will offer an opportunity for banks to expand their deposit base and loan portfolio. This upbeat assessment is in keeping with the experience of other countries that have brought inflation under control, and other studies that have looked at the prospects for Turkish banks, including by van Rijckeghem (1997).

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[27] Prepared by Abebe Aemro Selassie.

[28] David Shirreff, "Tomorrow We Get Serious," *Euromoney* (November 1997).

[29] Companies in Turkey are not required to adjust their income statements for the effects of inflation. The International Accounting Standards Committee recommends inflation accounting for countries where the cumulative inflation rate exceeds 100 percent over three years.

[30] The aggregate numbers used in the analysis that follows no doubt also mask wide variations in profitability among banks. The absence of publicly available data over a sufficiently long period, however, makes bank-by-bank analysis impossible.

Table 1. Bank Profitability in Selected OECD Countries, 1987-96

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Average 1994-96
					Net interest margin, scaled by average assets						
Turkey 1/	6.0	5.8	4.1	7.4	9.2	8.7	8.9	9.0	7.8	9.1	8.6
Austria	1.8	1.8	1.7	1.8	1.8	1.9	2.1	1.9	1.7	1.7	1.8
Germany	2.3	2.2	2.0	2.0	2.2	2.2	2.2	2.2	2.0	1.8	2.0
United Kingdom	3.2	3.3	3.1	2.9	3.0	2.6	2.5	2.3	2.3	2.2	2.3
Czech Republic	...	...	...	...	...	...	...	3.6	2.8	2.7	3.0
Hungary	...	...	...	...	...	...	...	...	5.4	4.5	5.0
Korea	...	...	...	2.1	0.5	2.4	2.2	2.0	2.2	2.3	2.2
Mexico	4.1	5.4	5.3	5.8	5.4	6.1	6.4	5.1	5.1	3.3	4.5
Poland	...	...	...	...	...	...	...	5.1	5.8	5.5	5.4
					Profit before tax, scaled by average assets						
Turkey	4.5	4.9	3.6	4.4	4.0	4.3	5.0	4.5	5.6	5.8	5.3
Austria	0.7	0.7	0.8	0.9	0.9	1.0	1.1	0.9	0.9	0.9	0.9
Germany	1.0	1.0	1.1	1.2	1.1	1.2	1.2	1.1	0.9	0.9	1.0
United Kingdom	1.8	1.8	1.8	1.6	1.7	1.5	1.6	1.5	1.5	1.3	1.4
Czech Republic	...	...	...	...	...	...	...	2.8	1.7	0.9	1.8
Hungary	...	...	...	...	...	...	...	...	0.4	1.3	0.8
Korea	...	...	...	1.4	-0.4	1.7	1.6	2.3	1.5	1.3	1.7
Mexico	...	...	2.2	2.4	2.4	3.2	3.8	2.3	3.3	2.1	2.6
Poland	...	...	...	...	...	...	...	3.3	4.0	3.6	3.7
					Operating expense, scaled by average assets						
Turkey	2.8	3.3	3.8	4.8	5.2	5.2	4.7	4.3	3.9	3.6	3.9
Austria	1.5	1.6	1.6	1.7	1.7	1.8	1.9	1.7	2.0	1.9	1.9
Germany	2.2	2.2	2.1	2.0	2.1	2.0	1.9	1.9	1.8	1.7	1.8
United Kingdom	3.3	3.3	3.3	3.2	3.3	3.0	2.8	2.6	2.6	2.2	2.5
Czech Republic	...	...	...	...	...	...	...	7.4	7.8	9.4	8.2
Hungary	...	...	...	...	...	...	...	...	3.7	3.6	3.6
Korea	...	...	...	2.2	2.3	2.4	2.5	2.6	2.7	2.6	2.6
Mexico	5.3	6.7	5.0	5.3	4.9	4.7	4.7	4.2	3.8	3.8	3.9
Poland	...	...	...	...	...	...	...	3.5	3.5	3.5	3.5

Sources: OECD; and Bankers Association of Turkey.

1/ Net interest margin for Turkey is adjusted for valuation gains/losses due to foreign exchange transactions.

Table 2. Measures of Bank Efficiency Across Selected OECD Countries

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	Average 1994-96
					Branchs per million of population						
Turkey 1/	122.4	121.9	120.4	116.7	112.6	105.3	103.0	99.1	99.2	100.5	99.6
Austria	554.8	565.4	573.6	582.6	587.1	591.9	587.3	583.3	582.3	582.5	582.7
Germany	82.1	81.4	80.8	79.2	75.6	79.3	90.3	89.8	88.9	88.4	89.0
United Kingdom	242.6	240.1	235.3	226.3	212.9	202.6	196.9	189.8	181.0	205.5	192.1
Czech Republic	...	...	...	...	...	...	145.1	141.5	143.5	209.1	164.7
Hungary	...	...	...	...	...	...	...	...	...	...	...
Korea	...	...	...	55.7	63.3	69.4	76.7	84.2	102.9	114.1	100.4
Mexico	44.5	43.9	43.2	42.1	41.2	39.5	41.3	46.6	53.1	64.9	54.9
Poland	...	...	...	...	...	...	37.0	37.3	38.1	37.2	37.5
					Staff costs relative to average asset						
Turkey	2.2	2.6	3.1	3.9	4.0	4.0	3.4	3.0	2.9	2.7	2.8
Austria	0.9	0.9	0.9	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.0
Germany	1.5	1.4	1.3	1.3	1.3	1.3	1.2	1.1	1.1	1.0	1.1
United Kingdom	1.9	2.0	1.9	1.8	1.8	1.6	1.5	1.5	1.4	1.2	1.4
Czech Republic	...	...	...	...	...	...	...	0.8	0.8	0.8	0.8
Hungary	...	...	...	...	...	...	...	...	1.7	1.6	1.6
Korea	...	...	...	1.2	1.6	1.7	1.8	1.9	1.9	1.8	1.9
Mexico	...	...	2.2	2.3	2.1	2.2	2.3	2.0	1.5	1.5	1.7
Poland	...	...	...	...	...	...	...	1.9	1.9	1.9	1.9
					Staff cost in thousands per US$ million in deposits						
Turkey	30.9	37.4	41.6	54.3	52.0	54.4	53.4	34.4	32.5	28.8	31.9
Austria	21.9	22.1	22.1	22.9	23.1	23.1	22.1	22.3	22.9	23.0	22.7
Germany	28.6	27.4	25.9	24.5	24.0	24.2	23.1	24.7	24.6	22.0	23.8
United Kingdom	20.7	21.1	20.2	20.1	20.5	20.4	20.8	27.5	36.5	21.1	28.4
Czech Republic	...	...	...	...	...	...	11.7	13.3	14.5	16.0	14.6
Hungary	...	...	...	...	...	...	...	26.8	26.4	25.5	26.2
Korea	...	...	...	15.6	22.5	25.2	26.2	26.8	26.8	27.0	26.9
Mexico	...	...	30.5	25.5	22.3	27.5	27.6	25.6	22.5	20.1	22.7
Poland	...	...	...	...	...	...	24.8	25.9	27.3	28.9	27.4

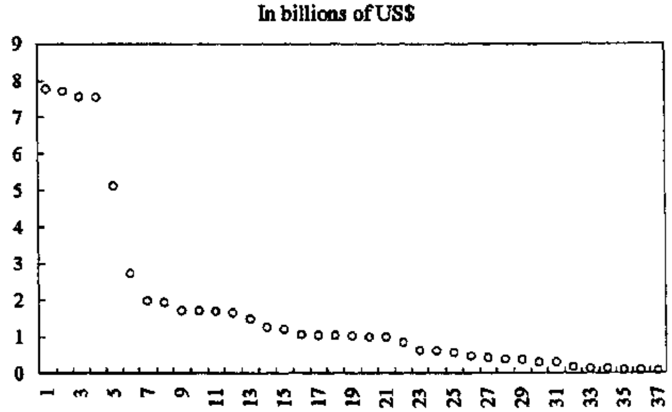
Sources: OECD; and Fund staff estimates.

B. A Brief Overview of the Turkish Banking System

58. Banks in Turkey have had to operate in a difficult macroeconomic environment. The government's large budget deficits, attendant financing need and high inflation has fostered an environment of high and variable real interest rates. One consequence of this high interest rate volatility has been the limited maturity transformation that banks in Turkey are able to undertake. At end-1998, the average maturity of all assets was less than four months, and for liabilities it stood at just over one month. This has led banks to eschew traditional banking services in favor of shorter-term lending and arbitrage activities. More directly still, by crowding out the private sector, the large public sector borrowing requirement has shaped the structure of banks' balance sheets. Thus, holdings of government securities comprise more than a quarter of private bank's total assets.

59. At end-1998, the Turkish banking system comprised of 4 state-owned commercial banks, 18 foreign banks, 15 investment and developments banks (3 of which are state-owned) and 39 private locally owned deposit money banks. The state-owned banks account for a large share total banking system assets (just under 40 percent) and deposits (41 percent). However, they have a largely quasi-fiscal role: the provision of subsidized credits to farmers and small- to medium-scale enterprises as well as undertaking the payment and tax collection functions of the treasury. The focus of this note is instead on the private deposit money banks that dominate banking and other financial service activity in Turkey. In particular, private banks account for 55 percent of total banking system assets. These banks also tend to be more profitable, accounting for the lion's share of net interest income (70 percent) and profits (65 percent) of the banking system.

Figure 1: Assets of Domestic Money Banks, 1998
In billions of US$

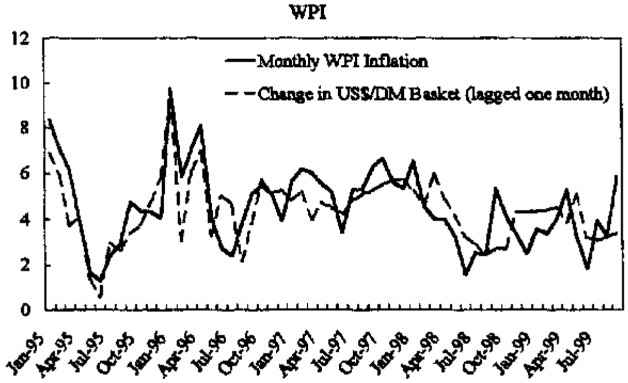


60. Notwithstanding the relatively large number of private deposit money banks, four banks account for almost half of total private banks' assets and just over a quarter of the total banking system's assets. The other private banks are much smaller, and can be put into two roughly equal groups with asset sizes either side of US$1 billion (Figure 1). An important feature of the private banks is the fact that most of the large private banks, including three of the "Big-4", are owned by large industrial conglomerates. Most private banks, in turn, tend to own other financial institutions (leasing and insurance companies, securities brokerage houses, etc.) and in some cases smaller private banks.

61. Loans are the largest asset on banks' balance sheets, and for the private banks comprise just over 40 percent of total assets.[31] Securities, largely consisting of Turkish lira-denominated government bills and bonds, account for a further 25 percent of total assets. The remainder is accounted for by deposits with other banks, interbank loans, and fixed and other assets. As to liabilities, for private and state banks, funding is dominated by deposits, which accounts for 70 percent of banks' total liabilities. The composition of deposits is, however, very different for the two groups of banks: foreign currency deposits (FCD) account for 63 percent of private banks' total deposits compared to just 37 percent for the state banks.

62. The attraction of foreign currency funding for the private banks stems from the fact that they are able to earn large returns by maintaining net open foreign exchange positions. Banks presently capture the high-risk premium on government debt (and other lira assets) through this net open position (van Rijckeghem, 1997). Over the last five years, ex post real interest rates on Turkish government securities have averaged more than 20 percent. Assuming that 10 percent of this premium has been captured by banks, the author estimates the annual benefit to banks from this at 0.5 percent of GNP. While the net open positions that banks have maintained has left them open to large capital losses in the event of large unanticipated changes in the exchange rate, the real exchange rate targeting pursued by the Central Bank of Turkey (CBT) in recent years has mitigated this risk (Figure 2).

Figure 2. Monthly Changes Nominal Exchange Rate and WPI



63. As noted above, the high rates of inflation that prevail make it difficult to gauge the profitability of the banking sector. According to the data reported by banks, pre-tax profits

[31] Repurchase agreements, which comprise a significant proportion of banks' off-balance sheet liabilities—and, mirroring this, assets—are not required to be recorded on balance sheet, and have been added to the balance sheet for the purposes of this analysis. Also, on the asset side of the balance sheet, interest and accrued income has been redistributed as part of loans, securities, and bank deposits in the same proportions implied by the composition of interest income.

represented around 6 percent of average assets in 1997 and 1998 for the private banks. A large part of reported profits, however, reflects the impact of inflation on banks' balance sheets and income statements. In particular, the reported earnings need to be adjusted by the amounts necessary to maintain the real value of the net monetary position of banks (net worth and fixed assets) constant in real terms.[32] Appropriate adjustments to banks' balance sheets and income statement for the impact of inflation suggest that 1997 and 1998 pre-tax profits would respectively be approximately 60 and 40 percent less than reported. The implied return on assets is also lower: 2.4 percent in 1997 and 3.6 percent in 1998.[33] Even these adjusted profits, however, suggest that Turkish banks are relatively more profitable than banks in other OECD countries (Table 3, see also below).

Table 3. Bank Profits in Selected OECD Countries
Pre-Tax Profits Scaled by Average Assets

	1994–96 1/
Turkey 2/	**3.00**
Austria	0.89
Germany	0.96
U.K.	1.43
Czech Republic	1.79
Hungary	0.84
Korea	1.69
Mexico	2.58
Poland	3.70

Sources: OECD, Undersecretary of the Treasury; and Fund staff estimates.

1/ Average for 1994–96.
2/ Average for 1997 and 1998, after monetary correction.

64. The continued reported high profitability of the banking sector under the difficult economic conditions of the last year, while encouraging, also raises a number of questions. The slowdown in economic activity that began early last year was compounded by the financial and

[32] Consider a stylized bank balance sheet MA + RA = ML + OE, where MA is monetary assets, RA is real assets, ML is monetary liabilities and OE is owners equity. In general, owners equity is larger than fixed assets, implying banks have a positive net monetary position (MA – ML = OE – RA > 0). In the presence of inflation, the real value of this position tends to be eroded and unless this is taken into account income and profits will be overstated.

[33] The larger adjustment (monetary correction) with respect to 1997 profits reflects the higher inflation in that year.

real contagion triggered by the Russian crises later in the year. One consequence of this was greater interest rate volatility. In August 1998, for example, compounded one-week repo rates jumped to 120 percent, from less than 70 percent in the previous month.[34] Neither this, nor the sustained period of high real interest rates that prevailed in the second half of last year appear to have triggered a significant deterioration in banks' loan portfolio according to the official statistics. It is most likely that this reflects the failure of banks to recognize doubtful loans and provision for them promptly. This, of course, would serve to overstate profits.

C. The Impact of Inflation on Banking Activity

65. A high inflation environment has a direct bearing on banking activity in at least two ways. First, it fosters the development of bank transaction services. Second, as high inflation lowers the extent of magnetization, it implies that the intermediary role played by banks between savers and borrowers is curtailed. This section explores these issues.

Increased demand for transaction services

66. There is ample anecdotal and empirical evidence that a high inflation environment leads to increased banking activity. An increase in inflation means that the cost of holding money rises, and demand for alternative assets, most of which are only readily available through the banking system, increases (English, 1996). Aside from this increased demand for banking services, the volume of banking transactions generally also increases, as households economize their average holdings of cash by making smaller withdrawals at greater frequency.

67. The most striking evidence of increased banking activity in an inflationary environment is during the German hyperinflation of the early 1920s. According to Bresciani-Turroni (1937), more than 400 new banks were established in 1923 (the peak year of hyperinflation) compared to an average of 75 during 1920–22. Employment and the number of bank accounts also exhibited a sharp increase as inflation accelerated in the early 1920s. This increase in banking activity is attributed to the higher volume of transactions, and the author notes that the expansion in the banking sector, employment and number of bank accounts all reversed following stabilization.

68. More recent evidence is also available from other countries that have been plagued by high inflation. Marom (1986) notes that while the share of value added by Israeli banks in GDP in 1970 was smaller than in six OECD countries by 1982 it was much larger than in the all six of the OECD countries. Similar experiences are noted in Argentina and Brazil by Aiyagari et al (1998). Further, in the case of Argentina, Catao (1998) notes that by lowering the real cost of expanding the deposit base, high inflation in the 1980s contributed to excessive branching.

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[34] The repo rate, which is determined in a highly competitive market, is an important indicator of the cost of funds to banks.

69. There is tentative evidence of a similar phenomenon being at work in Turkey. The number of bank branches per million of population is higher in Turkey than in most other comparable OECD countries, and even more than in some advanced ones (Table 2).[35] Unlike, say, Korea where the density of bank branches has increased over time, albeit briskly. Turkey has remained "over branched" throughout the period under consideration. Some consolidation in the sector is thus to be expected as inflation declines.

Reduced intermediation

70. The increase in transaction services that occurs in an inflationary environment takes place against the background of a lower level of intermediation by banks. Transaction services are, however, only a small subset of services provided by the financial sector. Arguably the key economic role that banks in particular play is to mobilize savings and allocate investment capital. The low levels of monetization induced by high inflation can thus be expected to have a direct bearing on the role of banks as intermediaries between savers and borrowers. Boyd, Levine, and Smith (1997) for instance show that there is a strong negative association between inflation and financial performance by exploring time-averaged data for a large (99) number of countries. In particular, they document the fact that lending to the private sector is lower in countries with higher rates of inflation.[36] Levine (1997) also notes that a lower level of monetization limits risk diversification and a lower level of deposits per bank account, raising operational costs per unit of deposit.

71. The extent of bank intermediation in Turkey is particularly low even by the standards of other emerging market countries (Van Rijckeghem, 1997). The ratio of credit to the private to GDP in Turkey, for example, is half as much as in a comparable group of countries and particularly low when compared to the OECD average (Table 4).

D. Inflation and Interest Margins

72. In addition to increased banking activity, inflation appears to induce greater banking profitability. Table 5, based on data presented in Demirgüç-Kunt and Huizinga (1999), provides some evidence.[37] Bank profits in high inflation countries are shown on average to be twice as high

[35] The density of bank branches across Turkey is, however, highly uneven. The number of bank branches per one million of population in the Marmara region is, for example, three times as high as in the Southeast.

[36] The authors also note that the relationship between inflation and financial performance is nonlinear, becoming less pronounced at higher inflation rates.

[37] Demirgüç-Kunt and Huizinga (1999) compiled their data from the BankScope data base of the IBCA rating agency and covers 80 countries with some 7,900 individual commercial bank observations over the 1988–95 period. Their sample of banks is reported to account for 90 percent of all bank assets.

Table 4. Credit to the Private Sector and Broad Money, Average for 1994-98

	Credit	Broad Money
Argentina	20.95	24.90
Chile	55.64	88.90
Colombia	19.25	34.17
Czech republic	58.98	71.52
Egypt	37.60	75.08
Estonia	19.60	28.61
India	23.88	50.68
Indonesia	54.69	52.18
Jordan	70.04	113.00
Malaysia	94.28	139.48
Mauritius	53.31	74.61
Mexico	19.14	32.48
Peru	20.00	19.06
Philippines	47.75	40.67
Poland	15.92	36.33
South Africa	63.39	53.40
Thailand	109.31	103.00
Venezuela	10.12	23.24
Average	**44.10**	**58.96**
Turkey	**21.72**	**35.35**
Memorandum item:		
OECD average	71.17	67.70

Sources: International Financial Statistics; and World Economic Outlook.

Table 5. Selected Financial Variables in High vs. Low Inflation Countries 1/

	High inflation countries (18)		Low inflation countries (61)		
	Median	Average	Median	Average	Turkey
Net profits scaled by total assets	1.75	2.18	0.80	0.96	3.30
Net interest margin (NIM)	5.65	5.76	3.05	3.33	6.30
Overhead costs/total Assets	6.70	5.86	2.90	3.13	5.40
Tax/NIM (in percent)	13.40	13.97	10.20	11.02	10.00
Total tax/profits (in percent)	0.24	0.27	0.25	0.19	0.14
Loan loss provisions/NIM (in percent)	18.50	28.20	18.55	24.22	32.90
Reserves/deposits	0.19	0.20	0.08	0.14	0.27
Concentration 2/	0.61	0.63	0.57	0.61	0.43
DMB assets/GDP	0.22	0.26	0.59	0.62	0.17

Source: Demirguc-Kunt and Huizinga, "Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence," *Economic Review*, (World Bank: Washington) May 1999.

1/ Country specific average data for the 1988-95 period published in Demirguc-Kunt and Huizinga, 1999 aggregated and classfied into high and low inflation groupings.

2/ Ratio of three largest banks' assets over total bank assets.

as in low inflation countries.[38] The main source of the observed profitability is the net interest margins, which are markedly larger in high inflation countries. Net interest margin (net interest income scaled by total assets) does not measure total bank profitability since it excludes all noninterest income and expenses. Nevertheless it is an important determinant of profitability since most commercial banks rely on interest income rather than fees as the primary source of revenue. In their (more systematic) study Demirgüç-Kunt and Huizinga also conclude that inflation increases net interest margin and, less significantly, bank profitability. More broadly, they find that higher real interest rates are associated with higher interest margins and profitability, after controlling for differences in taxation, market structure and banks specific factors.

73. Some part of the relatively large interest margins observed in high inflation countries clearly reflects higher nominal rather than real margins. The simple model outlined below illustrates this.

74. Consider the balance sheet identity,

$$D_0 + K_0 = L_0 \tag{1}$$

where D_0 are deposits, K_0 is the bank's capital and L_0 represents loans. The objective of the bank is to ensure that in the next period

$$K_1 / P_1 = K_0(1+r_k), \tag{2}$$

where P_1 is the price level (with $P_0 = 1$) and r_k is the real return on capital. The deposit rate, i_d, is assumed to be determined by the cost of funds for the government, r_d, as follows: $1+i_d = (1+r_d)P_1$.

The balance sheet one period ahead would be

$$K_1 = L_1 - D_1 - \zeta = (1+i_l)L_0 + (1+i_d)D_0 + P_1\zeta D_o \tag{3}$$

where ζ reflects the overhead costs incurred by the bank incurred during the period. Setting the leverage ratio as $\delta = D_0 / K_0$, and taking into account (1) and (3):

$$P_1K_0(1+r_k) = (1+i_l)(D_0 + K_0) - (1+r_d)P\delta + P_1\zeta D_o$$

[38] Those countries where the average and median inflation—over the period (1988–95) for which the authors gathered banking system data—exceeded 20 percent were considered to be high inflation countries, yielding a 19-country sample out of a total population of 80 countries. Setting the high inflation threshold at 40 percent accentuates the results.

solving for i_l, the interest rate on loans:

$$i_l = P_1[(1+r_k)+\delta(1+r_d)+\zeta\delta]/(1+\delta)-1$$

75. Applying a plausible set of parameters to the above framework, it is evident that the increase in nominal margins explained by higher inflation rates could be quite significant (Table 6).[39] As inflation increases from 10 percent to 100 percent, the nominal spread required to maintain deposit and lending rates constant doubles.

Table 6. Inflation and Nominal Interest Margins

Inflation	Loan Rate	Deposit Rate	Spread
0	7.7	5.0	2.7
10	18.5	15.5	3.0
20	29.3	26.0	3.3
30	40.0	36.5	3.5
50	61.6	57.5	4.1
80	93.9	89.0	4.9
100	115.5	110.0	5.5

76. It is also evident that operational costs contribute to a large part of the wedge between deposit and lending rates—a doubling in the costs from 2.5 percent to 5 percent implies a permanent increase in the margin by a similar magnitude. Given that one of the consequences of high inflation is the development of a more extensive branch network and accordingly higher overhead costs, this suggests that these costs may be a contributor to the observed high interest margins in high inflation countries.

77. Aside from the above, a number of other factors may explain the higher bank interest margins as well as profits observed in high inflation countries. First, as argued by Hanson and Rocha (1986) higher inflation may imply greater real risks for bank owners, and they may accordingly require higher real returns. Second, the higher net interest margins observed may also reflect the benefits generated from float income, which is considered to be an important source of bank profitability in an inflationary environment. Third, the real cost of maintaining reserve requirements, which generally tend to be unremunerated, is higher in an inflationary environment. Fourth, to the extent that high inflation leads to higher real interest rates, this will increase the profits of agents with a positive net financial position (such as banks).

[39] In particular, δ was set at 10, $\zeta = 2.5$ percent of deposits, $r_k = 10$ percent and $r_d = 5$ percent.

E. Implications of Disinflation

78. Declines in interest rates are generally good news for banks. Since banks borrow short and lend long, they are generally able to continue accruing interest income on their assets at the old (higher interest rates) even as they are able to lower their funding costs more quickly. In the context of Turkey's macroeconomic stabilization program, interest rates are projected to decline, albeit it sluggishly, relative to the targeted decline in inflation.

79. To the extent the envisaged decline in interest rates materializes, a relatively increase in net interest receipts can be expected to accrue to banks. The main source of this increase is likely to be the large portfolio of government securities that banks have on their balance sheets. There are two reasons for this. First, government securities comprise the bulk of long-term Turkish lira denominated fixed interest financial contracts in Turkey.[40] Second, the government will be making large real interest payments in 2000 (of the order of 16 percent of GNP) mostly on securities contracted in 1999. As banks hold a large part of the outstanding government securities, they stand to receive large payments. Other assets on bank's balance sheets could also be a source of windfall gains, although the relatively short-term nature of most Turkish lira-denominated loans means that these gains will be relatively small. Aside from these short-term benefits, a low inflation environment should also enable rapid growth in banks' loan portfolios. These issues are explored next.

Windfall gains from holding government securities

80. To estimate the potential windfall gains from holding government securities in the first year of disinflation, we focus on the part of banks' balance sheet comprising Turkish lira-denominated government securities and matching liabilities.

81. Banks' interest expenses were arrived at as follows. To ensure that the measurement of the windfall gains is conservative, costs associated with a relatively more expensive form of funding (Turkish lira deposits) are estimated. Monthly changes in the Turkish lira deposit rate are modeled as a function of changes in the repo rate and the spread between the repo rate and the deposit rate. The repo rate, which is determined in a relatively competitive and liquid market, is thus considered as the marginal cost of funds for banks. It was found that in the past the deposit rate has tended to adjust sluggishly—for a 100 basis point (bps) change in the repo rate, the deposit rate adjusts by 23 bps on impact and 57 bps and after one month. It is assumed that this sluggish adjustment in the deposit rate will persist in the future, implying that some of the windfall gains will be passed on to depositors. As well, the cost of the unremunerated reserve requirements held against the deposit base required to fund bank's holding of government securities was added to the interest expense of banks.

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[40] Until recently, the treasury relied on zero coupon discount bill and bonds for the lion's share of its domestic financing needs.

82. The monthly path of the repo rate was in turn derived from the path for the treasury bill rate that is assumed in the macroeconomic framework underpinning the authorities' stabilization program. In particular, it is assumed that the premium between the treasury bill rate and repo rate, which has tended to be pronounced largely reflecting political uncertainty, diminishes over time.

83. With respect to interest income on this part of banks' balance sheets, it is assumed that banks hold 60 percent of the outstanding government securities and would thus be eligible to receive the same share of the interest payments that the government is expected to make in 2000 (some 10 percent of GNP). This would imply gross returns of the order of 4½ to 5 percent of GNP from this aspect of banks operations. As this assessment does not take into account the noninterest expenses of banks (other than the cost of maintaining reserve requirements), to see what this implies in terms of additional profits it is best to compare it to the less than 1 percent of GNP return estimated for 1999 on the basis of similar calculations that takes into account actual interest rate developments through end-September. The 3½ to 4 percent of GNP improvement between the two years reflects the windfall gain that could accrue to banks.

Other long-term nominal financial contracts

84. In theory, the windfall gains noted above should not be limited to government securities but should also apply to other Turkish lira-denominated assets on which interest rates are predetermined. In practice, this is unlikely to be the case for a couple of reasons. First, the difference between the weighted average duration of liabilities and assets as indicated above is small, with the average duration of Turkish lira liabilities at one month and 3.8 months for assets. This contrasts with the present average maturity of government securities of around 12 months. Second, most Turkish lira denominated loans in Turkey are considered to be variable rate loans. As interest rates decline, lending rates too are likely to fall with only a brief lag.

Float income

85. Somewhat surprisingly in light of the high inflation environment that prevails, close to a quarter of all Turkish lira deposits in private deposit money banks (an amount equivalent 1.5 percent of GNP) appear to be demand deposits, implying that they do not earn any interest. This helps bank profitability in at least two ways: it reduces funding costs and allows banks to earn interest on this freely acquired resource. Assuming that banks are only able to earn a positive return equivalent to the prevailing interest rate on only half of the 1.5 percent of GNP that they hold in such deposits, the decline in float income between 1999 and 2000 is likely to be in the region of 0.5 percent of GNP.[41]

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[41] Van Rijckeghem (1997) estimates loss of float income to banks of a similar magnitude in the long run from a move to a low inflation environment.

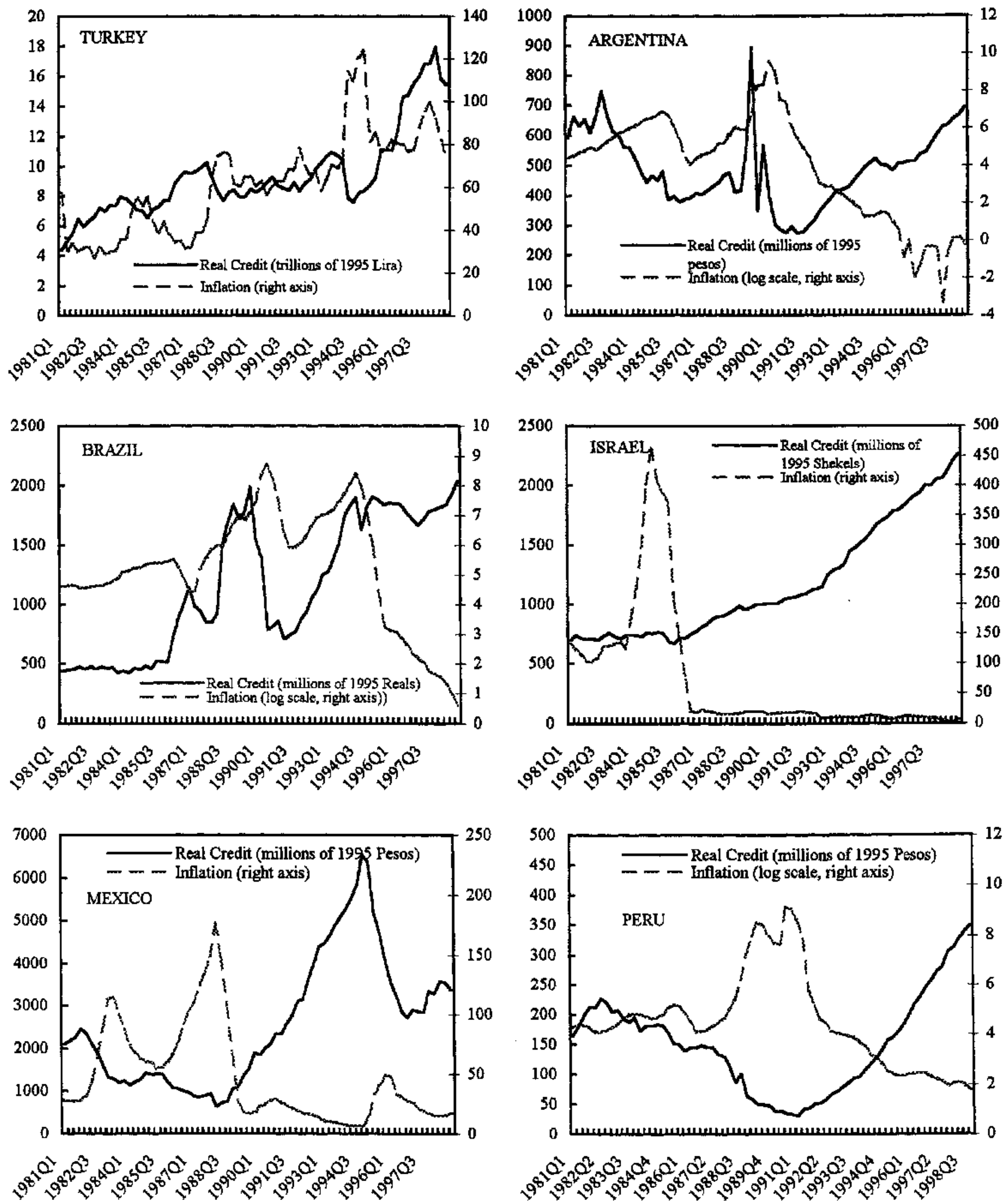
Long-term sources of profitability

86. Once the windfall gains from rapid disinflation and other source of profitability, such as float income, fade away, Turkish banks will need to look to traditional lending activities for profits. The remonetization of the economy likely to take place following disinflation should facilitate this. The experience of other countries that have brought inflation under control shows that there is almost always strong real credit growth in the aftermath of disinflation (Figure 3). While there already appears to have been strong real credit growth in Turkey over the last couple of years, there is no reason why there should be further increases given the still relatively low level of credit relative to GNP. This opportunity, however, can only be exploited profitably by banks that have developed their credit risk screening and related activities.

Declining real cost of reserve requirements

87. A low inflation environment will also help reduce interest margins by reducing the real cost of holding unremunerated reserve requirements—although it is unclear if this will be reflected in lower spreads or will be captured by banks.

Figure 3. Credit to the Private Sector and Inflation



Source: IFS.

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IV. Turkey's External Current Account[42]

A. Introduction

88. Over the past 15 years, Turkey's external current account has undergone a remarkable transformation, with both current receipts and current expenditures increasing in dollar terms almost fivefold, against a threefold increase in U.S. dollar GNP during the same period. By 1998, current receipts had reached US$63 billion and current expenditures US$61 billion—together amounting to some 60 percent of GNP (Table 1). This process of trade deepening, spurred by the opening of the economy in the mid-1980s and the customs union agreement with the European Union (EU), has not always been even, however. At times, imports have increased by more than 50 percent (following a decline of 24 percent), while export growth rates have occasionally reached 20–30 per year. The largest current account deficit recorded during the 1990s was in 1993, on the eve of the balance of payments crisis, when the deficit reached US$6.4 billion (3.5 percent of GNP),[43] caused primarily by a 30 percent surge in imports, associated, in part, with an appreciation of the real exchange rate.

89. This chapter examines the sources of volatility of Turkey's external balance, with a view to assessing the "sustainable" current account deficit and, relatedly, the level of the real exchange rate. The chapter is organized as follows. Section B looks at the main sources of volatility of the current account. Section C presents some empirical estimates of the key elasticities governing the behavior of exports and imports. Section D turns toward a calculation of the sustainable current account and trade deficit, based on the criterion of stabilizing the ratio of net debt-to-GDP. Section E uses the estimated elasticities of Section C to calculate the maximum real exchange rate appreciation consistent with achieving a sustainable current account deficit. Section F concludes.

B. Structure of the Current Account

90. Turkey's external current account transactions now amount to about US$125 billion per year, on a dollar GDP of about US$200 billion. In 1998, current receipts were US$63 billion, and current expenditures about US$61 billion, yielding a current account surplus of US$1.8 billion (or about 1 percent of GNP); Table 1.

[42] Prepared by Atish R. Ghosh (PDR).

[43] The dollar value of GNP in 1993 is overstated by overvaluation of the exchange rate. In terms of 1994 (post-devaluation) dollar GNP, the current account deficit in 1993 was over 5 percent.

Table 1. Key Items of the Current Account, 1985-98

(in billions of U.S. dollars)

	1985	1990	1991	1992	1993	1994	1995	1996	1997	1998
Total Receipts	**13.40**	**26.45**	**28.07**	**29.37**	**31.17**	**33.17**	**42.57**	**51.52**	**58.77**	**62.75**
Total recipts excluding shuttle trade	13.40	26.45	28.07	29.37	31.17	33.17	42.57	42.68	52.92	59.06
Exports f.o.b. in trade returns	8.26	13.03	13.67	14.89	15.61	18.39	21.98	23.60	26.78	27.53
Shuttle trade	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.84	5.85	3.69
Travel (Credit)	1.09	3.23	2.65	3.64	3.96	4.32	4.96	5.65	7.00	7.18
Interest (Credit)	0.30	0.92	0.94	1.01	1.14	0.89	1.49	1.58	1.90	2.48
Other (Credit)	1.77	4.79	5.72	5.77	6.69	6.48	9.65	7.40	12.37	16.14
Workers' remittances	1.71	3.25	2.82	3.01	2.92	2.63	3.33	3.54	4.20	5.36
Other transfers	0.27	1.25	2.28	1.05	0.85	0.47	1.17	0.91	0.67	0.37
Total Expenditures	**14.41**	**29.08**	**27.82**	**30.34**	**37.60**	**30.54**	**44.90**	**53.96**	**61.45**	**60.88**
Merchandise Imports f.o.b.	11.23	22.58	21.01	23.08	29.77	22.61	35.19	43.03	48.03	45.55
Interest (Debit)	1.75	3.26	3.44	3.44	3.57	3.92	4.30	4.20	4.59	4.82
Other (Debit)	1.43	3.23	3.38	3.82	4.26	4.01	5.41	6.73	8.83	10.50
Current Account	-1.01	-2.63	0.25	-0.97	-6.43	2.63	-2.34	-2.44	-2.68	1.87
				(Growth rates; in percent per year)						
Total Receipts	**15.9**	**20.7**	**6.1**	**4.6**	**6.1**	**6.4**	**28.3**	**21.0**	**14.1**	**6.8**
Total recipts excluding shuttle trade	15.9	17.9	6.1	4.6	6.1	6.4	28.3	0.3	24.0	11.6
Exports f.o.b. in trade returns	11.7	10.6	4.9	9.0	4.8	17.8	19.5	7.4	13.5	2.8
Shuttle trade	...	...	...	...	...	...	...	...	-33.8	-36.9
Travel (Credit)	99.6	26.1	-17.7	37.1	8.8	9.1	14.7	14.0	23.9	2.5
Interest (Credit)	104.1	34.1	2.0	8.2	12.2	-21.6	67.2	6.0	20.5	30.6
Other (Credit)	5.9	24.2	19.3	0.9	16.1	-3.2	48.9	-23.3	67.2	30.5
Workers' remittances	-5.1	6.8	-13.2	6.7	-3.0	-10.0	26.6	6.5	18.5	27.6
Other transfers	-1.8	140.7	82.8	-53.9	-19.2	-45.2	151.4	-22.6	-26.1	-44.5
Total Expenditures	**8.6**	**35.4**	**-4.3**	**9.1**	**23.9**	**-18.8**	**47.0**	**20.2**	**13.9**	**-0.9**
Merchandise Imports f.o.b.	8.7	41.1	-7.0	9.9	29.0	-24.1	55.7	22.3	11.6	-5.2
Interest (Debit)	10.5	12.3	5.4	0.0	3.9	9.8	9.7	-2.4	9.2	5.1
Other (Debit)	5.3	25.8	4.5	13.2	11.3	-5.7	34.9	24.3	31.2	18.9

91. Key exports include textiles, apparel, and leather products; iron, steel and associated products; and tools and machinery (Table 2). The main destination markets are the EU and the United States. The Russian market, which gained importance in the 1990s (becoming the fourth most important market for Turkish recorded exports), has since collapsed in the aftermath of the Russia crisis in August 1998. Imports, consisting mainly of industrial inputs, are also mostly from the EU and the United States (Table 3).

92. Both current receipts and expenditures tend to show a high degree of volatility. On occasion, imports have risen by as much as 55 percent in a given year (admittedly, following the recovery from the 1994 crisis), and merchandise exports have risen by 20 percent (even excluding shuttle trade).[44]

93. In terms of assessing vulnerability of the current account, therefore, it is useful to begin by identifying which components of the current account are subject to the greatest volatility. Table 4 decomposes the volatility of current receipts and expenditures into sub-components, weighted by their shares in receipts and expenditures, respectively. Thus, even though unrequited transfers, workers' remittances, and interest credits individually show a high degree of volatility, their low weights make them relatively unimportant as sources of volatility of the current account itself.

94. Indeed, on current receipts, the key components of current account volatility are (i) merchandise exports; (ii) other service credits; and (iii), much less important, tourism receipts. On the expenditures side, merchandise imports account for virtually all of the volatility. In what follows, we focus on the behavior of merchandise exports and imports, both because they are the most important in terms of volatility of the current account and, it turns out, the most sensitive to real exchange rate movements.

C. Modeling Exports and Imports

95. The structural changes in the economy, the relatively short data series available, and the massive swings in both exports and imports present particular challenges for econometric estimation. The modeling strategy, therefore, is to estimate key elasticities using standard times series methods, rather than developing a full structural model, which would require estimating a large number of parameters and impose greater demands upon the data.

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[44] Growth rates are for U.S. dollar values. Since price and quantities tend to be negatively correlated, the corresponding growth rates generally show a higher degree of volatility. Shuttle or "suitcase" trade with countries of the Baltics, Russia, and other former Soviet Union countries (BRO) mushroomed in the early 1990s, reaching almost US$9 billion in 1996, before declining dramatically in the wake of the Russia crisis; see SM/98/196 (7/23/98) Annex II for a description of shuttle trade.

Table 2. Destination and Composition of Exports

(In thousands of U.S. dollars)

1985		1990		1998	
West Germany	1,390,989	West Germany	3,063,574	Germany	5,460,333
Iran	1,078,852	Italy	1,106,319	United States	2,233,347
Iraq	961,374	United States	967,622	England	1,739,619
England	538,724	England	744,786	Italy	1,557,137
United States	505,992	France	736,799	Russia	1,348,002
Italy	502,216	U.S.S.R.	531,139	France	1,304,738
Saudi Arabia	430,123	Iran	495,482	Holland	888,601
France	215,281	Holland	435,355	Belgium-Luxembourg	669,514
Holland	213,317	Saudi Arabia	338,427	Spain	513,231
U.S.S.R.	190,050	Belgium-Luxembourg	311,744	Algeria	482,293
Belgium-Luxembourg	161,826	Switzerland	292,788	Israel	479,507
Egypt	140,988	Japan	239,234	Egypt	474,229
Switzerland	128,374	Libya	220,541	Saudi Arabia	473,868
Austria	122,501	Iraq	214,504	Romania	468,178
Kuwait	116,021	Algeria	201,097	Greece	370,039
Other	1,558,372	Other	3,126,589	Other	9,068,363
Articles of iron or steel	968,773	Articles of apparel and clothing accessories knitted	1,443,591	Articles of apparel and clothing accessories knitted	4,233,920
Cotton	556,295	Iron and steel	1,328,953	Articles of apparel and clothing accessories, not knitted	2,476,314
Edible fruit	527,552	Articles of apparel and clothing accessories, not knitted	1,187,069	Electrical machinery and equipment	1,847,475
Articles of apparel and clothing	488,147	Edible fruit	995,414	Iron and steel	1,589,502
Articles of leather,saddlery and harness, travel goods	469,930	Articles of leather,saddlery and harness, travel goods	676,082	Edible fruit	1,294,275
Reactors,boilers, machinery	377,653	Cotton,cotton yarn and coton fabrics	587,778	Reactors,boilers, machinery	1,163,948
Mineral fuels and mineral oils	376,788	Electrical machinery and equipment	475,775	Other made-up textile articles,sets,worn clothing	933,738
Tobacco and manufactured tobacco substitutes	330,454	Tobacco and manufactured tobacco substitutes	442,359	Vehicles other than railway or tramway	797,369
Articles of apparel and clothing accessories knitted	312,157	Vegetables	394,823	Cotton,cotton yarn and coton fabrics	783,846
Vegetables	267,449	Salt,sulphur, earthst, stone, lime, cement	318,776	Man-made staple fibres	671,006
Man-made filaments	243,970	Preparations of vegetables,fruits,nuts	304,113	Articles of iron or steel	662,102
Salt,sulphur, earthst, stone, lime, cement	233,211	Mineral fuels and mineral oils	296,347	Preparations of vegetables,fruits,nuts	621,134
Live animals	175,940	Articles of iron or steel	280,277	Tobacco and manufactured tobacco substitutes	589,861
Man-made staple fibres	166,109	Man-made staple fibres	274,704	Plastics and articles thereof	437,869
Vehicles other than railway or tramway	138,340	Other ready-made textile articles,sets,worn clothing	267,689	Salt,sulphur, earthst, stone, lime, cement	413,754
Other	2,622,233	Other	3,752,249	Other	9,014,886
Total	8,255,000		13,026,000		27,531,000

Source: Data provided by the Turkish authorities.

Table 3: Origin and Composition of Imports

(In thousands of U.S. dollars)

	1985		1990		1998
West Germany	1,368,789	West Germany	3,496,831	Germany	7,316,337
Iran	1,264,655	United States	2,281,647	Italy	4,221,740
United States	1,150,064	Italy	1,727,064	United States	4,053,750
Iraq	1,136,753	France	1,340,354	France	3,034,051
Italy	658,176	U.S.S.R.	1,247,436	England	2,683,336
Libya	620,814	Japan	1,119,656	Russia	2,155,006
France	513,937	Iraq	1,046,532	Japan	2,045,635
Japan	506,639	England	1,013,686	Holland	1,446,440
England	468,431	Saudi Arabia	723,628	Spain	1,276,378
Spain	322,238	Holland	572,939	Belgium-Luxembourg	1,202,606
Belgium-Luxembourg	235,029	Switzerland	536,647	South Korea	1,124,195
Saudi Arabia	226,231	Belgium-Luxembourg	522,732	Switzerland	1,017,738
U.S.S.R.	220,728	Iran	492,400	Sweden	999,366
Holland	218,255	Libya	487,090	Ukraine	988,781
Switzerland	186,566	Spain	345,331	China	846,134
Other	2,132,696	Other	5,627,027	Other	11,140,506
Mineral fuels and mineral oils	3,779,837	Mineral fuels and mineral oils	4,622,407	Reactors,boilers, machinery	8,927,832
Reactors,boilers, machinery	1,550,501	Reactors,boilers, machinery	3,778,476	Mineral fuels and mineral oils	4,509,461
Articles of iron or steel	1,059,754	Electrical machinery and equipment	1,663,894	Electrical machinery and equipment	4,401,424
Electrical machinery and equipment	663,472	Iron and steel	1,613,339	Vehicles other than railway or tramway	3,727,576
Vehicles other than railway or tramway	489,877	Vehicles other than railway or tramway	1,117,970	Iron and steel	2,769,416
Organic chemicals	483,945	Organic chemicals	868,996	Plastics and articles thereof	1,943,004
Inorganic chemicals	312,173	Plastics and articles thereof	562,986	Organic chemicals	1,626,640
Plastics and articles thereof	246,406	Cereals	560,584	Optical,photographic,cinematographic	1,144,685
Animal or vegetable fats and oils	215,623	Optical,photographic,cinematographic	504,465	Cotton,cotton yarn and coton fabrics	994,752
Aircraft,spacecraft and parts	196,319	Inorganic chemicals	376,113	Aircraft,spacecraft and parts	797,532
Fertilizers	183,156	Tanning, or dyeing extracts and their derivatives	344,748	Man-made filaments	781,818
Cereals	182,538	Tobacco and manufactured tobacco substitutes	337,195	Pharmaceutical products	720,403
Optical,photographic,cinematographic	149,947	Articles of iron or steel	307,471	Paper and paperboard, articles of paper pulp	719,259
Miscellaneous chemical products	134,117	Cotton,cotton yarn and coton fabrics	303,801	Tanning, or dyeing extracts and their derivatives	669,482
Wool,fine or coarse animal hair,horsehair yarn and woven fabris	98,131	Animal or vegetable fats and oils	303,138	Articles of iron or steel	649,006
Other	1,582,332	Other	5,315,419	Other	11,169,709
Total	11,230,000		22,581,000		45,552,000

Source: Data provided by the Turkish authorities.

Table 4. Sources of Volatility of the Current Account

Growth rates (in percent per year)	Avg. μ	Std. σ	Var.	Shares	Weighted Variance 1/	Volatility 2/
Total receipts	...	...	...	...	...	...
Total recipts excluding shuttle trade	**12.8**	**10.5**	**111**	**100**	**74**	**0.40**
Exports f.o.b. in trade returns	10.3	10.5	111	53	31	0.51
Shuttle trade	...	...	...	...	...	...
Travel (Credit)	23.5	31.1	969	12	13	0.64
Interest (Credit)	26.5	35.1	1,232	3	1	0.64
Other (Credit)	19.6	22.7	514	20	21	0.57
Workers' remittances	10.0	22.6	512	10	5	0.84
Other transfers	16.8	65.7	4,322	3	3	0.94
Total expenditures	**12.7**	**17.0**	**289**	**100**	**289**	**0.64**
Merchandise Imports f.o.b.	13.0	21.1	443	77	262	0.72
Interest (Debit)	8.4	6.4	42	10	0	0.37
Other (Debit)	16.3	11.6	135	13	2	0.34

Sources: Turkish authorities; and Fund staff estimates.

1/ Variance multiplied by shares in total receipts and total expenditures, respectively. Does not sum to variance of total receipts and expenditures due to covariation of components.

2/ Volatility: $1-(\mu^2/(\mu^2+\sigma^2))$

Import function

96. Real import demand (dollar value of imports deflated by the dollar price index) is assumed to depend upon economic activity and the real exchange rate. Economic activity is proxied by real GDP, while three different measures of the real exchange rate are used: a CPI-based measure (the INS index); a private manufacturing price-based measure (PMP); and relative unit labor costs (RULC). The data are quarterly, covering the period 1988:1–1998:4. Estimation of the long-run relationship is undertaken by the Johansen procedure, while the short-run dynamics are modeled using an autoregressive distributed lag (ARDL) representation.

97. Table 5 (left-hand panel) presents the estimated elasticities and the eigenvalue statistics of cointegration. The null of no cointegration is rejected strongly both the maximum and trace statistics (Reimers small sample statistics are reported). Consistent with the trade deepening which has occurred over the past decade, the point estimates of the activity variable are extremely high, at around 2.5 to 2.8. The estimated real exchange rate elasticities, on the other hand, are quite low and vary widely from 0.05 to 0.5, according to the index used.

98. Table 6 turns to the short-run dynamics. Again, the activity elasticity is high, ranging from 0.6 to 1.7 depending upon the specification, while the short-run real exchange rate elasticity is significantly higher than the corresponding long-run elasticity, at about 0.7. Both the activity and real exchange rate coefficients are significant at the 5 or 1 levels.

99. Despite the model's simplicity, its overall fit model is satisfactory, with the R^2 around 0.87, and a correlation between actual and fitted values of +0.92. That said, the time series plot (Figure 1) shows that the model can account only partially for the surge of imports in 1993 (on the eve of the balance of payments crisis) when imports rose by almost 30 percent in the space of one quarter whereas the model predicts "only" a 14 percent increase (the model also underpredicts the degree of forced adjustment in 1994).

Export function

100. Analogous to the import function, real exports are assumed to depend upon foreign economic activity and the real exchange rate. Foreign activity is proxied by real GDP in the United States and Germany[45]; for the real exchange rate, the same three series as above are used.

101. Again, the null of no cointegration is strongly rejected. Long-run activity elasticities are perhaps surprisingly high, at around 1.3 to 1.8, while the real exchange elasticity ranges between –0.5 and –1.3.

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[45] Using the G7 real GDP with Turkey's export weights, or the first principal component of the G7 real GDP growth rates does not perform as well.

Table 5. Long-run Relationships, Johansen Estimates

	β-eigenvector		β-eigenvector
Import Functions		**Export Functions**	
1. CPI-based REER		1. CPI-based REER	
Real GDP	2.560	Foreign Real GDP	1.870
CPI-Reer	0.070	CPI-Reer	-0.900
λ-trace	38.26**	λ-trace	25.67*
λ-max	44.1**	λ-max	30.43*
2. PMP-based REER		2. PMP-based REER	
Real GDP	2.760	Foreign Real GDP	1.300
PMP-Reer	0.514	PMP-Reer	-1.340
λ-trace	42.00**	λ-trace	24.04*
λ-max	50.55**	λ-max	30.83*
3. Relative Unit Labor Costs		3. Relative Unit Labor Costs	
Real GDP	2.550	Foreign Real GDP	1.580
RULC	0.040	RULC	-0.490
λ-trace	38.6*	λ-trace	25.22*
λ-max	44.9*	λ-max	30.8*

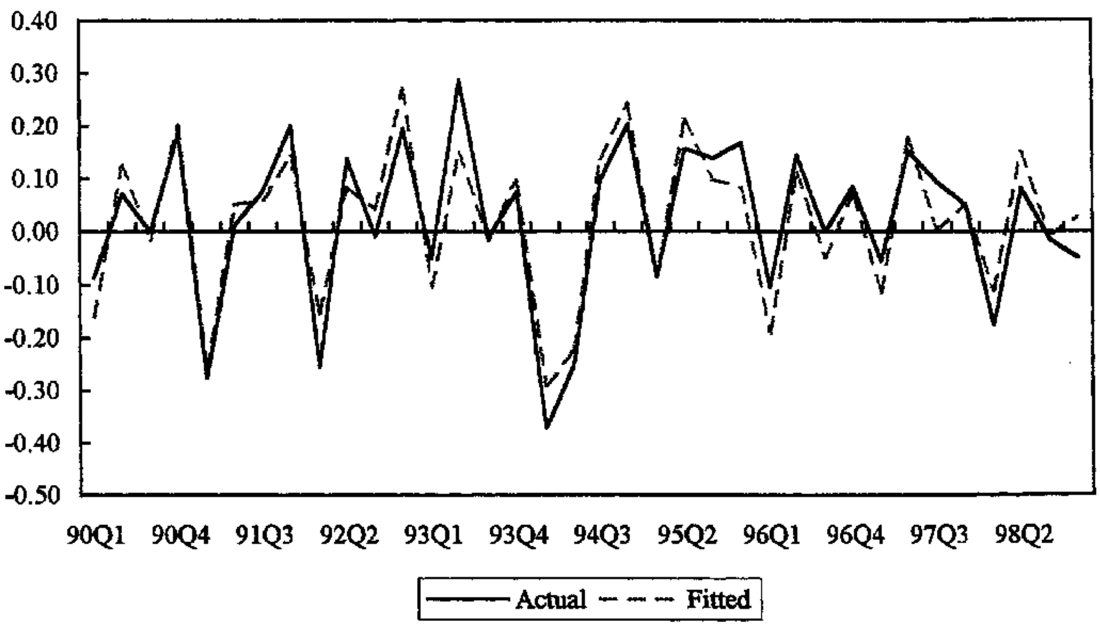
Table 6. Short-Run Dynamics

	coef.	t-stat.		coef.	t-stat.
Import Functions 1/			**Export Functions 1/**		
	0.193				
1. CPI-based REER	0.404		1. CPI-based REER		
Δ Real GDP	1.530	3.79**	Δ Foreign Real GDP	0.760	0.800
Δ CPI-Reer	0.700	3.62**	Δ CPI-Reer	-0.370	1.96*
R^2	0.850		R^2	0.822	
D.W.	1.870		D.W.	2.120	
2. PMP-based REER			2. PMP-based REER		
Δ Real GDP	1.692	3.96**	Δ Foreign Real GDP	0.918	0.998
Δ PMP-Reer	0.840	2.74**	Δ PMP-Reer	-0.380	1.280
R^2	0.815		R^2	0.824	
D.W.	1.730		D.W.	2.090	
3. Rel. Unit Labor Costs			3. Rel. Unit Labor Costs		
Δ Real GDP	0.600	1.74*	Δ Foreign Real GDP	1.600	1.650
Δ RULC	0.541	3.91*	Δ RULC	-0.415	3.12**
R^2	0.867		R^2	0.840	
D.W.	1.780		D.W.	2.190	
	1.274			1.093	
	0.694			-0.388	

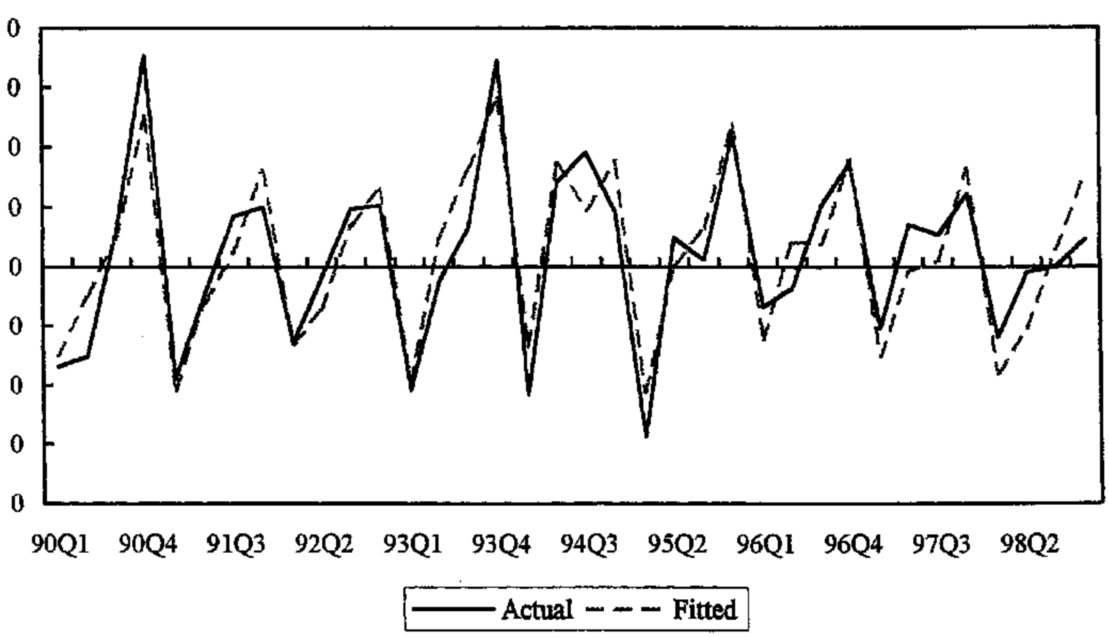
1/ Seasonal dummies, time trend, and lagged level variables included but not reported.

Figure 1. Turkey: Imports and Exports, 1990-98

Actual and Fitted Imports (log difference)



Actual and Fitted Exports (log difference)



Source: Fund staff calculations.

102. Turning to the short-run dynamics, the activity elasticity ranges from 0.7 to 1.6 (but is only marginally significant statistically), while the real exchange rate elasticity ranges from –0.37 to –0.42 (and is statistically significant). The fit of the export function is also satisfactory, with the R^2 around 0.82, and a correlation between actual and fitted values of +0.91. A comparison of the time series of actual and fitted values (Figure 1) does not suggest particular anomalies.

103. Finally, for the analysis below, the impact of a real exchange rate appreciation on dollar export prices, which depends upon the pricing behavior of exports, is required. This elasticity is estimated, again using the ARDL representation, to be 0.35 (t-statistic: 2.93^{**}).

104. In summary, the simple time series models perform relatively well in accounting for movements of both exports and imports, yielding short-run elasticities broadly in line with those of other countries.[46] The long-run activity elasticities, however, are implausibly high—interpreted literally, they would imply that eventually imports (exports) would exceed domestic (foreign) GDP. Clearly, the estimation sample covers a period of tremendous trade deepening in Turkey and the elasticities will eventually decline.

D. Sustainability of the Current Account

105. As is well known, the standard intertemporal solvency criterion—that the present value of absorption be less than the present discounted value of production, net of initial debt—implies implausibly sustainable debt-GDP ratios.[47] An alternative approach to calculating the maximum sustainable current account deficit is to use some sort of rule-of-thumb, based either on time series for the country, or on cross-country evidence.[48] Thus the current account deficit of 3.5 percent of GDP in 1993 proved unsustainable (a deficit close to the rule-of-thumb proposed by Milesi-Ferretti and Razin as the trigger level that eventually necessitates and abrupt reversal). Yet a third approach, adopted here, is to define a sustainable current account deficit as one which stabilizes the net external debt-to-GDP ratio. While this is a rather conservative criterion, it seems appropriate given the relatively high debt-to-GDP ratio of Turkey already.[49]

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[46] On export elasticities, see Abdelhak Senhadji and Claudio Montenegro, "Time Series Analysis of Export Demand Equations—A Cross-Country Analysis, IMF Working Paper 98/149

[47] For instance, if the minimum "subsistence" level of absorption is 75 percent of GDP, and the real interest rate exceeds the real growth rate by 2 percent per year, the maximum debt-GDP ratio consistent with intertemporal solvency would be 12.5.

[48] See Gian Maria Milesi-Ferretti and Assaf Razin, "Current Account Reversals and Currency Crisis-Empirical Regularities," IMF Working Paper 98/89.

[49] Turkey's external debt-GDP ratio would be classified as moderately indebted according to the World Bank classification, and at the very upper-end of medium indebted countries according to the EBRD classification for the net external debt-GDP ratio.

106. The starting point is the end-1997 level of debt, about US$92 billion, against central bank reserves of about US$20 billion, and commercial banks' foreign assets of US$10 billion, yielding net debt of US$62 billion and a net debt-to-GDP ratio of about 32 percent.[50]

107. Calculating the "sustainable" current account deficit, as defined above, requires only assumptions about the real growth rate of the economy and the real exchange rate (or, equivalently, the growth rate of dollar GDP).[51] Real GDP growth is assumed to average 5 percent per year (slightly below the average for 1990–98), while the equilibrium real exchange rate appreciation arising from productivity increases are assumed to average 2 percent per year.

108. Since the real exchange rate determines the trade balance, the next step requires linking the current account deficit to the trade balance via assumptions about net interest payments and transfer receipts (mainly workers' remittances).[52] Net interest payments are driven by the endogenous stock of net debt and the net interest rate. The latter is calculated by the historical ratio of net interest payments to net debt, which in 1997 was 4.3 percent. As this seems low, for the purposes of the projections the effective real interest rate is taken to be 6 percent.[53] Finally, the dollar growth rate of transfers is assumed to be 5 percent per year (slightly below the average for the period 1990–98).

109. Table 7 delineates the baseline projection as well as a number of sensitivity scenarios (higher interest rates or lower GDP and transfers growth). The projections suggest that the balance on goods and nonfactor services could range between 2.0 percent and 3.0 percent of GDP while keeping the net debt-to-GDP ratio constant. The corresponding current account deficit ranges between 1.6 percent and 2.6 percent of GDP—a full percentage point of GDP below the current account deficit witnessed in 1993. As noted above, to the extent that there are FDI flows,

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[50] Other foreign assets of the private sector are difficult to track and are ignored here.

[51] If the objective is to stabilize the net *debt* to GDP ratio, then an assumption about the behavior of nondebt creating flows is also required. Thus foreign direct investment can finances a current account deficit without increasing the country's net external debt. However, if the objective is to stabilize the ratio of net external liabilities (debt or nondebt), then only the current account deficit is relevant. In Turkey, FDI flows have been very small, typically less than 0.5 percent of GNP, and are ignored in the analysis below (to the extent that the objective is taken to be stabilization of net debt to GNP, and FDI flows increase, the equilibrium current account deficit can be correspondingly larger.

[52] Implicitly, the real exchange rate elasticities for services are assumed to be the same as for merchandise goods. In fact, the estimated elasticities are much lower for services, so the calculation of the equilibrium real exchange rate below is a conservative estimate.

[53] One reason for the estimated net interest rate being low is that the country's net debt is overestimated inasmuch as there are private sector foreign assets that are not being captured.

Table 7. Trade Balance Required to Stabilize Net Debt/GDP

	Years							
	1	2	3	4	5	6	7	8
Scenario 1: Baseline								
Interest rate (percent per year)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Transfers (percent growth per year)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Real GDP (percent growth per year)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Real exchange rate (percent growth per year)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Current account (percent of GDP)	-2.14	-2.14	-2.14	-2.14	-2.14	-2.14	-2.14	-2.14
Balance good and nonfactor services (percent of GDP)	-2.99	-2.94	-2.89	-2.84	-2.79	-2.75	-2.70	-2.66
Net external debt (percent of GDP)	31.67	31.71	31.75	31.78	31.82	31.85	31.87	31.90
Scenario 2 (higher effective interest rate)								
Interest rate (percent per year)	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Transfers (percent growth per year)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Real GDP (percent growth per year)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Real exchange rate (percent growth per year)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Current account (percent of GDP)	-2.10	-2.10	-2.10	-2.10	-2.10	-2.10	-2.10	-2.10
Balance good and nonfactor services (percent of GDP)	-2.00	-1.95	-1.90	-1.86	-1.81	-1.77	-1.73	-1.68
Net external debt (percent of GDP)	31.63	31.63	31.63	31.64	31.64	31.64	31.64	31.65
Scenario 3 (low GDP growth and transfers growth)								
Interest rate (percent per year)	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Transfers (percent growth per year)	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Real GDP (percent growth per year)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Real exchange rate (percent growth per year)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Current account (percent of GDP)	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60	-1.60
Balance good and nonfactor services (percent of GDP)	-2.47	-2.42	-2.37	-2.32	-2.27	-2.22	-2.17	-2.13
Net external debt (percent of GDP)	31.70	31.77	31.84	31.91	31.97	32.03	32.09	32.15
Scenario 4 (high GDP growth)								
Interest rate (percent per year)	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Transfers (percent growth per year)	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Real GDP (percent growth per year)	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.00
Real exchange rate (percent growth per year)	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Current account (percent of GDP)	-2.63	-2.63	-2.63	-2.63	-2.63	-2.63	-2.63	-2.63
Balance good and nonfactor services (percent of GDP)	-3.16	-3.12	-3.07	-3.03	-2.98	-2.94	-2.90	-2.85
Net external debt (percent of GDP)	31.61	31.59	31.57	31.56	31.55	31.53	31.52	31.51

Sources: Turkish authorities; and Fund staff estimates.

the equilibrium current account deficit can be correspondingly larger, while maintaining the same net external debt to GDP ratio (though not the net external liabilities to GDP ratio).

E. Toward an Equilibrium Real Exchange Rate

110. In 1998, Turkey's current account was in surplus to the tune of 1 percent of GDP (corresponding to a deficit of 0.75 percent of GDP on the balance of goods and nonfactor services).[54] In part, this presumably reflects an "undervaluation" of the real exchange rate. But it also reflects the slowdown in economic activity which served to lower the level of imports. Assessing the current level of the real exchange rate in relation to its "equilibrium" value, therefore, requires cyclically adjusting the trade balance.

111. Totally differentiating the trade balance (measured in U.S. dollars) yields:

$$dTB^* = x\,p_x^*[(\eta_q^p + \eta_q^x)(dq/q) + \eta_{y*}^x(dy^*/y^*)] - m\,p_m^*[(\eta_q^m)(dq/q) + \eta_y^m(dy/y)]$$

where asterisks denote values measured in U.S. dollars, x and m are the volumes of exports and imports respectively and where use of the assumption that the country is small in its *import* market has been made. A real exchange rate appreciation on export *volumes* should be negative but the effect on export prices, if any, should be positive.[55] Higher foreign output raises exports. A real appreciation increases the volume of imports, as does higher domestic demand.

112. Estimates of potential output suggest that the output gap in 1998 was in the order of 2.5 percent, while the output gap in Turkey's trading partners was perhaps 2 percent. Applying the elasticities in Table 6, therefore, suggests that the deficit on the goods and nonfactor services

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[54] Exports of goods and nonfactor services are defined as current receipts minus interest payment minus transfers; imports of goods and nonfactor services are defined as current expenditures minus interest payments. Since components of current receipts and expenditures other than merchandise trade tend to be less sensitive to real exchange rate movements (in Turkey), the deterioration of the trade balance arising from a real appreciation, calculated below, is probably overstated.

[55] Consider a firm that has a markup μ, then $ep^* = \mu c(e)$, where c(.) is the cost function (which may depend upon imported inputs) and e is the nominal exchange rate (increase: depreciation). Totally differentiating: $dp^*/p^* = [\eta^c+\eta^\mu - 1]de/e$ where η^c and η^μ are the exchange rate elasticities of the cost function and the firm's markup, respectively. If there are no imported inputs and no mark-up $\eta^\mu = 0$, then the export price measured in U.S. dollars falls one-for-one with the exchange rate depreciation ($dp^*/p = -de/e$). More generally, if a share $(1-\beta)$ of costs reflect imported inputs, then $dp^*/p^* = -\beta de/e$.

balance of 0.75 percent of GDP would, in fact, be close to a deficit of 1.0 percent of GDP (Table 8). Assuming a larger output gap—4 percent—raises the estimate of the underlying deficit to 1.5 percent of GDP.

113. The projections in Table 8 show that a 10 percent average real appreciation (together with closing of the output gaps) would deteriorate the trade deficit to 2.6 percent of GDP, while a 20 percent real appreciation would bring the trade deficit to 4.1 percent of GDP—rather larger than the sustainable trade deficit estimated above; a 15 percent real appreciation would result in a trade deficit of 3.4 percent of GDP, or just over the maximum sustainable deficit in the "high growth" projection (Table 7, scenario 4).

114. How sensitive are these results? The right-hand panels consider a 10 percent real appreciation under alternative assumptions about the key parameters. Increasing the output gap to 4.0 percent, for instance, suggests that a 10 percent real appreciation would be associated with a trade deficit of 3.0 percent. Sensitivity analysis on the estimated elasticities (varying them by about 1 standard error around the central estimate) yields trade deficits of about 2.9 percent to 3.4 percent of GDP (right hand panel of Table 8), or around the maximum sustainable in the "high growth" scenario if the real exchange rate appreciates by 10 percent from its 1998 average value. If FDI flows are 0.5 percent of GDP, this lowers the "debt-creating" deficit to 2.5 to 2.9 percent of GDP, sufficient to stabilize the net external debt to GDP ratio even in the baseline scenario (Table 7, scenario 1).

115. Taken as a whole, the results suggest that the lira could appreciate by about 10 percent from it's 1998 average while remaining consistent with a sustainable current account deficit. Of course, this is only the initial "undervaluation:" beyond the 10 percent real appreciation, higher productivity growth in the tradeables sector (relative to nontradeables) should allow for a couple of percentage points of real appreciation per year on account of Balassa-Samuelson effects.

F. Summary

116. The economic liberalization and the customs union agreement with the EU has resulted in substantial trade deepening in Turkey. Nonetheless, as the 1994 balance of payments crisis underscored, the external accounts remain vulnerable, particularly when confidence is weakened by a sizable monetary expansion and the resulting overheating of the economy.

117. Rather simple econometric trade models perform reasonably well, accounting for much of the observed movements of imports and exports, and even for part of the import surge in 1993 which was later associated with the balance of payments crisis.

118. Based on these econometric estimates, and using the criterion of stabilizing the net debt-to-GDP ratio, the analysis in this chapter suggests that Turkey's real exchange rate was "undervalued" by about 10 percent in 1998.

Table 8. Underlying Dollar Trade Balance and Impact of Real Appreciation

	Base	Base large ygap	10 pct. real appr.	20 pct. real appr.	Sensitivity: 10 pct. real appr. large ygap	10 pct. real appr. high η^x_q	10 pct. real appr. high η^m_q	10 pct. real appr. low η^x_{y*}	10 pct. real appr. high η^m_y
GDP (in millions of US$)	203,833	203,833	229,822	250,715	233,185	229,822	229,822	229,822	229,822
Exports	54,540	54,540	54,540	54,540	54,540	54,540	54,540	54,540	54,540
η^p_q	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
η^x_q	-0.38	-0.38	-0.38	-0.38	-0.38	-0.60	-0.38	-0.38	-0.38
Real exch. (proj. - r(t))	0.00	0.00	0.10	0.20	0.10	0.10	0.10	0.10	0.10
$(\eta^p_q+\eta^x_q)$ x real exch. rate	0.00	0.00	0.00	-0.01	0.00	-0.03	0.00	0.00	0.00
η^x_{y*}	1.10	1.10	1.10	1.10	1.10	1.10	1.10	0.50	1.10
-ygap*	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
η^x_{y*} x ygap*	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02
d(Exports)	1,200	1,200	1,036	873	1,036	-164	1,036	382	1,036
Exports+d(exports)	55,740	55,740	55,576	55,413	55,576	54,376	55,576	54,922	55,576
Imports	56,042	56,042	56,042	56,042	56,042	56,042	56,042	56,042	56,042
η^m_q	0.70	0.70	0.70	0.70	0.70	0.70	1.00	0.70	0.70
9. Real exch. (proj. - r(t))	0.00	0.00	0.10	0.20	0.10	0.10	0.10	0.10	0.10
η^m_q x real exch. rate	0.00	0.00	0.07	0.14	0.07	0.07	0.10	0.07	0.07
η^m_y	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	2.50
-ygap	0.03	0.04	0.03	0.03	0.04	0.03	0.03	0.03	0.03
η^m_y x ygap	0.03	0.05	0.03	0.03	0.05	0.03	0.03	0.03	0.06
d(Imports)	1,681	2,690	5,604	9,527	6,613	5,604	7,285	5,604	7,426
Imports+d(Imports)	57,723	58,732	61,646	65,569	62,655	61,646	63,327	61,646	63,468
Trade balance	-1,502	-1,502	-1,502	-1,502	-1,502	-1,502	-1,502	-1,502	-1,502
(in percent of GDP)	-0.74	-0.74	-0.65	-0.60	-0.64	-0.65	-0.65	-0.65	-0.65
Trade balance + d(trade balance)	-1,983	-2,992	-6,070	-10,157	-7,079	-7,270	-7,751	-6,724	-7,891
(in percent of GDP)	-0.97	-1.47	-2.64	-4.05	-3.04	-3.16	-3.37	-2.93	-3.43

V. How Costly Are Agricultural Support Policiesto the Taxpayers: A Methodological Primer?[56]

119. In the mid-1980s, Turkey made an important shift in its agricultural policy. Earlier, the country's agricultural policy, similar to that in many other developing countries, essentially taxed agricultural commodity exports and subsidized agricultural imports.[57] This offset a large part of the support that was given to the sector in the form of subsidies to various inputs, yielding an overall level of support that was kept low. In the mid-1980s, producer price supports, complemented by trade measures, were introduced and later intensified, contributing to a significant increase in the overall support provided to the sector, and consequently its cost. The OECD review of Turkey's agricultural policies[58] estimated that total support (as measured by the percentage producer subsidy equivalent [59]) rose to 40 percent in 1991–93, double the rate in the period 1979–81.

120. Much has been said about the inefficiencies of such policies. In particular, these policies are not giving Turkish farmers the flexible and clear price signals that are needed for them to respond efficiently to changes in demand. The country is a net exporter of heavily supported commodities, such as cereals and sugar, but is importing increasing amounts of other commodities, such as dairy products and beef, where the country may have a genuine comparative advantage. As a means of boosting agricultural productivity and food production for a growing domestic market, these policies have been largely self-defeating.[60] Indeed, the self-reinforcing nature of support policies is likely to be the main obstacle to removing major impediments to higher productivity, namely small farm size, continued fragmentation of holdings, and a poorly trained workforce. Support purchases as well as input subsidies are effectively open-ended, benefiting rich farmers more than poor ones, and hence are a poor vehicle for alleviating rural poverty. Moreover, in the absence of a clear link between support

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[56] Prepared by Rakia Moalla-Fetini.

[57] Negative protection policies have been extensively documented by Anne Krueger in "The Political Economy of Agricultural Policy." A World Bank comparative study, Washington, D.C., 1992.

[58] OECD: "National Policies and Agricultural Trade, Country Study: Turkey," 1994.

[59] The producer subsidy equivalent measures the value of the monetary transfers to producers from consumers of agricultural products and from taxpayers resulting from a given set of agricultural policies, in a given year.

[60] Indeed labor productivity in agriculture has increased at an annual rate of only 1.5 percent during the 1990s.

prices and world market prices, and between subsidized credit interest rates and market interest rates, these policies have led to a loss of state control over their costs. [61]

121. However, very little has been said about the nature and the magnitude of the direct fiscal costs of agricultural support policies, and a great deal of confusion reigns in the debate about these issues, both in academic and in political circles.[62] This state of confusion is mainly the result of the lack of transparency in the way these agricultural support policies have been administered. The share of these costs that is reflected in the central government budget is shrinking, whereas the remaining ballooning share is spreading across the many layers of the public sector. The government is giving so-called "duties" to some State Economic Enterprises (SEEs) and Agricultural Sales Cooperatives and their Unions (ASCUs) to execute certain support policies on its behalf. Theoretically the state is supposed to compensate these entities for the cost they incur. Usually, though, the amount of compensation provided each year is dismal, leaving it to these entities to find financing to cover these costs.

122. This kind of arrangement creates two problems. First, the task of adding up the bits and pieces of costs becomes quite complex, not only because these costs are spread across many accounts but because of the structure of their financing. Some of these costs—those incurred by the SEEs—are financed through inter-enterprise arrears, tax arrears, and arrears to the social security institutions, with sporadic one-time write-offs of debts, and the assumption of the debt by the treasury. Second, and much more importantly, the available measures of the costs outside the central government's budget reflect both the "original" cost of the policies plus the cost of servicing the "debt" that has been incurred to finance the initial cost, such as interest penalties on tax arrears, or the cost of carrying large stocks of unsold surplus production in the form of interest payments on the debt that was incurred to purchase this surplus production. Such cost of servicing the debt, while related to agricultural polices, does not involve transfers to farmers. On the other hand, there are some transfers to farmers (those from consumers due to higher domestic prices of agricultural products) that do show up the fiscal accounts. This chapter disregards those costs, focusing on the fiscal impact of agricultural policies.

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[61] In addition, by practicing uniform support prices across the country, these policies have led to an inefficient geographical pattern of production. Also, the proportion of transfers that actually reach the farmers is quite low given the large administrative cost involved in implementing these policies.

[62] In last year's recent economic developments and selected issues paper, Appendix IV on "Public Support for the Agricultural Sector" contained a preliminary measure of the cost of agricultural support policy. The measure was derived by drawing from different available measures. The analysis presented in this chapter examines the "theoretical" underpinning of available measures and proposes alternative ones, which allow an analytical decomposition of the cost into primary cost and debt burden.

123. A proper understanding of the fiscal costs of agricultural support policies has to make a clear distinction between the "primary" cost of these policies and the component of the cost that simply represents the burden of accumulated debt. This distinction is important when it comes to making policy recommendations for the reform of agricultural support policies. Clearly, the fiscal savings that can be achieved through a reform of the agricultural policies per se can only be realized from cuts in the primary component of the cost. The remainder cannot be affected by reform of agricultural policies, and will only decline to the extent that there is a fall in real interest rates, and/or a reduction in the debt stock through sales of accumulated excess stocks.

124. The chapter seeks to quantify and analyze the costs of agricultural support policies along these methodological lines. Its results are preliminary, as is the methodology used to derive them. Nevertheless, the results suggest that while the total cost of agricultural support policies has averaged about 5 percent of GNP during the last five years, the primary component accounted for a smaller and declining share, while interest payments have accounted for a larger and increasing share, as real interest rates increased and the stock of liabilities grew. At **2 percent of GNP** in the last three years, the primary fiscal cost of agricultural support policies in Turkey is lower than has generally been thought.

125. The rest of the chapter is organized as follow. Section A makes a brief assessment of the cost of input subsidies. It shows that the cost of fertilizer and other raw material input subsidies is easy to measure as these subsidies have been covered directly from the budget. In addition, the cost has declined quite sharply over the recent years and, at 0.2 percent of GNP in 1999, has become a negligible component of the total cost. The cost of credit subsidies is more complex to assess and a methodology is developed to analyze it (as explained in Chapter I). It is shown that the primary component has gone down quite sharply in recent years while interest payments snowballed. The total cost reached 5 percent in 1999. Section B analyzes the costs of the price support system. This is the component of the cost which is the least transparent and requires an in-depth look at the accounts of the main agricultural SEEs to disentangle the primary component from the overall costs. The section shows the link between a measure of these costs computed by the SEES/treasury, which is called unpaid duty losses, and the borrowing requirements of the SEEs. The section finds that the overall cost of the price support system has increased from less than ½ percent of GNP in 1995 to 2 percent in 1999. Over the last three years, the primary component of this cost has been about half.

A. Cost of Input Price Subsidies

126. The cost of fertilizer subsidy, provided on an unlimited per unit basis, is the main component of the input subsidy cost. Prior to 1997, the subsidy was an ad valorem amount paid to farmers upon presentation of payments receipts. The system was then changed and the subsidy is now provided directly to producers, with farmers paying the subsidized price at the point of purchase. This cost has been halved to just 0.15 percent of GNP since 1996, after the subsidy per kilo has been frozen in nominal terms at end 1997. Various small subsidies

also exist for seeds, pesticides, and milk production. Together they amount to less than 0.03 percent of GNP.

127. As explained in greater details in Chapter I, the cost of credit subsidy up until around 1994–95 was born by Ziräat Bank and covered by its own profits. After than, and as a combined result t of a decline in Ziräat's profits (due to a loss of market share) and a widening of the wedge between Ziräat's cost of funds and the subsidized rate at which it was lending, the cost was covered by an accumulation of claims on the government (the so-called unpaid duty losses), the yield of which was *de facto* set so as to cover any loss accumulated. Also as explained in Chapter I, the accumulation of unpaid duty losses, which to a great extent could be attributed to the credit subsidies to farmers, [63] can be decomposed into a primary component and a debt burden component. A possible measure of the primary component was presented in that chapter and is used in Tables 1 and 2.

B. The Cost of the Support Price System

128. The number of commodities for which support purchases are made has varied widely. It grew rapidly to 30 in the 1980s, was later reduced to 11 by the early 1990s and grew back to 19 by 1999. Only three main crops (cereals, tobacco, and sugar beet) are officially supported, the rest are "unofficially" supported.[64] Support purchases of the officially supported commodities represented, in 1999, 60 percent of total support purchases. Support purchases of unofficially support commodities (with the exception of tea) are done by ASCUs and are not automatic. Each year the ASCUs must apply for authorization to commission them.

The cost of support purchases done by the ASCUs

129. The fiscal cost of support purchases done through the ASCUs is captured by the component of the budget allocation to the support price stabilization fund for agricultural support.[65] These funds are channeled to ASCUs (and sometimes to agricultural SEEs) in the form of subsidized credit. ASCUs have never repaid these loans and the outstanding stock of credits keeps increasing by the additional budget allocation every year. This is why the entire

[63] Some of these losses are obviously inefficiency losses, due to overbranching, overstaffing, and reported poor treasury management, and are not to be attributed to the cost of agricultural credit subsidy. However because of the presumption that they are small and that they are hard to quantify, they are added to the cost of credit subsidies.

[64] This includes tea, for which support purchases are made by a state economic enterprise (Caykur).

[65] Budget allocation for the support stabilization fund is usually allocated to the ASCUs, agricultural SEES, and export promotion

Table 1. Turkey: Fiscal Cost of Agricultural Support Policies, 1995-99

(In percent of GNP)

	1995	1996	1997	1998	1999 Prel.
1. Costs reflected in the budget	**1.5**	**0.7**	**0.8**	**0.5**	**0.8**
1.1. Transfers to agricultural SEEs	0.4	0.0	0.1	0.1	0.1
Duty loss	0.0	0.0	0.0	0.0	0.1
Equity injection	0.4	0.0	0.1	0.0	0.0
1.2. Input subsidy	0.7	0.4	0.3	0.3	0.2
Fertilizer	0.1	0.3	0.3	0.2	0.1
Pesticides/seeds/milk premium	0.0	0.1	0.0	0.0	0.0
1.3. Compensation payments	0.0	0.0	0.0	0.0	0.1
1.4. Budget allocation to SPSF 1/ for agricultural support	0.4	0.3	0.3	0.2	0.4
2. Deficits of Agricultural SEEs 2/	**0.1**	**0.7**	**1.4**	**1.7**	**1.5**
TMO	-0.2	0.2	0.7	0.8	0.7
TSFAS	0.1	0.2	0.4	0.4	0.3
Caykur	0.1	0.1	0.1	0.0	0.1
TEKEL	0.2	0.2	0.2	0.5	0.4
3. Credit subsidy through Ziraat	**2.3**	**2.1**	**1.8**	**2.8**	**4.9**
Primary component	2.3	1.4	0.8	0.7	0.7
Interest charge component	0.0	0.7	0.9	2.1	4.2
Total (1+2+3-1.1)	**3.4**	**3.5**	**3.9**	**5.0**	**7.2**
Of which: primary component	**3.8**	**2.3**	**2.0**	**1.8**	**2.0**
Of which: primary component of support price mechanism	**0.4**	**0.4**	**0.7**	**0.7**	**0.9**

Sources: Data provided by the Turkish authorities; and Fund staff estimates.

1/ Support price stabilization fund.

2/ Before budgetary transfers.

Table 2. Turkey: Cost to the Taxpayers of Agricultural Support Policies

(In trillions of Turkish liras)

	1995	1996	1997	1998	1999 Prel. Est.
1. Costs reflected in the budget	**117.2**	**106.3**	**229.5**	**267.6**	**697.2**
1.1. Transfers to Agr SOEs	**33.3**	**5.6**	**27.8**	**33.6**	**102.0**
Duty loss	0.0	3.1	0.0	9.0	90.0
Equity injection	33.3	2.5	27.8	24.7	12.0
1.2. Input subsidy	**52.6**	**52.6**	**94.6**	**142.4**	**139.0**
Fertilizer	9.8	45.0	83.6	124.0	115.0
Quantity sold (in thousand tons)	*4,386*	*4,597*	*4,642*	*5,448*	*5,054*
Average subsidy (in TL per Kg)	*2,235*	*9,785*	*18,017*	*22,753*	*22,753*
Pesticides/seeds/milk premium	3.0	7.6	11.0	18.5	24.0
1.3. Compensation payments	**3.7**	**5.9**	**13.8**	**3.5**	**100.0**
1.4. Budget allocation to SPSF for agricultural support	**27.6**	**42.2**	**93.3**	**88.0**	**356.2**
2. Deficit of agricultural SEEs 1/	**9.0**	**111.7**	**405.8**	**926.6**	**1,265.3**
TMO	-19.1	27.9	209.2	443.9	613.8
TSFAS	10.4	36.1	118.2	195.5	276.4
Caykur	5.8	17.5	25.2	20.4	43.3
TEKEL	11.9	30.2	53.2	266.9	331.8
3. Credit subsidy through Ziraat	**177.1**	**316.7**	**525.5**	**1,469.8**	**4,104.4**
Primary component	177.1	212.1	246.7	380.2	579.7
Interest charge component	0.0	104.6	278.8	1,089.6	3,524.7
(Memo: end-of period stocks of subsidized credits)	*240.3*	*229.4*	*455.0*	*845.1*	*1,193.0*
5. Total (1+2+3-1.1)	**270.0**	**529.1**	**1,133.0**	**2,630.3**	**5,964.9**
Memorandum item:					
GNP (in trillions of Turkish lira)	7,852	14,978	29,393	53,013	83,125

1/ Before budgetary transfers.

budget allocation could be regarded as the cost of supporting the industrial crop purchased by these ASCUs. This cost is reflected in line 1.4 of Tables 1 and 2.

The cost of support purchases done by the SEEs

130. The cost of support purchases done by the SEEs is the hardest one to analyze and quantify. To prepare the ground for such an analysis, it is useful to first start by presenting the two measures of this cost that are the most commonly used. For the Turkish Grain Board (TMO)—engaged in cereal support purchases, the Turkish Sugar Factories Inc. (TSFAS)—engaged in support purchases of sugar-beet, and the Tea Industry Corporation (Caykur)—engaged in support purchases of tea, the first measure of the fiscal cost is their total deficit as reflected in their financial statements. For the Directorate General for the Tobacco and Tobacco Products, Salt, and Alcohol Industry (TEKEL), the financial statement of this SEE consolidates the activities of its support agency and its "regular" cigarettes and alcoholic beverages production, and thus cannot be as readily used to measure the cost of the support activities. The second measure of the cost of support purchases is what these companies report as their "duty losses."[66]

131. To understand both measures and the link between them, the following stylized presentation captures the way these two measures are computed in the case of TMO. Tables 3 and 4 show the data for TMO and TSFAS.

Let Q_0 be the stock of grains at the beginning of the year, whose value has been booked in liras at S_0,[67]

Let Q_p be the volume of new purchases during the year and C_p the cost of these purchases,

Let F be the financial charges on the stock of debt,

Let $TC = S_o + C_p + F$ be the total cost of the quantity $Q_0 + Q_p$.

Assume a quantity Q_s is sold during the year with sales proceeds equal to R.

TMO's accounts define the cost of goods sold C_s as equal to $(Q_s /(S_0 + Q_p)) * TC$, i.e., the total cost prorated by the fraction of the volume, which will be sold during the period. The

[66] No such measure is reported by Caykur, since officially Caykur does not make support purchases on behalf of the government.

[67] See below how the book value of the stock is derived.

Table 3. Turkey: Deficits and Unpaid Duty Losses of the State Grain Board

(In trillions of Turkish lira, unless otherwise specified)

	1996	1997	1998	1999 Prel. Est.
1. Beginning stock	322.5	273.8	358.0	465.9
(in thousand tons)	459	1,841	5,545	6,089
2. Purchases	29.5	190.3	407.3	486.0
(in thousand tons)	1,966	6,053	8,064	6,051
Unit price (in TL/kg)	15,004	31,446	50,511	80,312
Declared support price of wheat (in TL/kg)	*18,000*	*33,000*	*53,000*	*80,000*
Unit price of wheat (in $/ton)	*222*	*218*	*204*	*193*
3. Expenditure	4.6	12.3	32.4	62
4. Interest	4.1	33.3	243.6	423
5. Total cost	361	510	1,041	1,436
(in thousand tons)	2,425	7,894	13,610	12,140
Unit cost (in TL/kg)	148,705	64,561	76,513	118,311
Unit cost (in $/ton)	**1,835**	**427**	**294**	**285**
6. Cost of sales	87	152	575	847
(in thousand tons)	584	2,349	7,475	7,159
(price/ton)	148,705	64,561	76,984	118,311
7. Revenues from sales	12.0	64.8	267.4	406.3
(in thousand tons)	584	2,349	7,475	7,159
Unit price (in TL/kg)	20,588	27,573	35,778	56,763
Unit price (in $/ton)	**254**	**182**	**138**	**137**
8. End stocks	274	358	466	589
(in thousand tons)	1,841	5,545	6,089	4,981
9. Deficit (8=7-6-change in 8)	-26	-171	-416	-564
10. Duty loss (10=7-6)	-75	-87	-308	-441
Memorandum items:				
Deficit as shown in TMO's account	-27.9	-209.2	-443.9	-613.0
Duty losses as shown in TMO's account	3.5	21.5	212.7	499.2
Average TL/US$	81,035	151,239	260,080	415,554

Sources: Data provided by the Turkish authorities; and Fund staff estimates.

Table 4 . Turkey: The Unpaid Duty Losses of The State Sugar Factories Corp. (TSFAS)

(In trillions of Turkish lira, unless otherwise specified)

	1995	1996	1997	1998	1999 Prel.
1. Beginning stock	**12.6**	**18.1**	**56.9**	**139.4**	**308**
(in thousand tons)	882	782	1,439	1,626	2,122
2. Production	**32.7**	**74.1**	**231.3**	**413**	**552**
(in thousand tons) 1/	1,100	1,556	1,920	2,179	1,650
Unit cost (in TL/kg)	29,738	47,625	120,469	189,698	334,550
Unit cost (in US$/ton)	**651.0**	**587.7**	**796.5**	**729.4**	**805.1**
3. Import	**3.5**	**1.7**	**0**	**0**	**12**
(in thousand tons)	132	34.9	0	0	80
4. Total cost	**49**	**94**	**288**	**553**	**872**
(in thousand tons)	2,113	2,373	3,359	3,805	3,852
5. Cost of sale	**31**	**37**	**149**	**245**	**410**
(in thousand tons)	1,331	934	1,734	1,683	1,810
Unit cost (TL/kg)	23,080	39,551	85,805	145,286	226,443
Unit cost (in US$/ton)	505	488	567	559	545
6. Sales	25.6	39.2	150.1	244.6	414.3
(in thousand tons)	1,331	934	1,734	1,683	1,810
Unit sales price (TL/kg)	19,229	41,951	86,561	145,327	228,873
Unit sales price (in US$/ton)	421	518	572	559	551
Domestic sale	25.1	39.1	141.0	225.4	369.4
In thousand tons	1294	932	1494	1,307	1,270
Unit sales price (TL/kg)	19,362	41,996	94,384	172,464	290,851
Unit sales price (US$/ton)	423.9	518.2	624.1	663.1	699.9
Exports 2/	0.5	0.0	9.1	19.2	44.9
In thousand tons	37.3	2.0	240.4	375.9	540.0
Unit sales price (TL/kg)	14,617	21,313	37,939	50,976	83,111
Unit sales price (US$/kg)	320.0	263.0	250.9	196.0	200.0
7. End stocks	**18**	**57**	**139**	**308**	**458**
(in thousand tons)	782	1,439	1,624	2,122	2,042
8. Deficit (8=6-5-(change in 7) 3/	**-10.6**	**-37**	**-81**	**-169**	**-145**
9. Duty loss (9=6-5) 4/	**0.6**	**0.1**	**19.8**	**52.1**	**135.8**
Memorandum items:					
Sugar beet support purchase 5/	**24.2**	**54**	**180**	**319**	**383**
In thousand tons	8,820	11,414	14,907	17,646	13,045
Unit cost (in TL/kg)	2,740	4,731	12,075	18,077	29,360
Declared support price (in TL/kg)	2,751	4,749	12,095	16,500	27,000
Declared support price in (US$/ton)	**60.2**	**58.6**	**80.0**	**63.4**	**65.0**
Input cost per ton of sugar	**480**	**467**	**639**	**556**	**565**
Deficit as reported in TSFAS account 6/	**10.4**	**36.1**	**118.2**	**195.5**	**276.4**
Duty loss as reported by TSFAS 7/	**0.4**	**0.0**	**11.4**	**40.1**	**126.3**
Average TL/US$	45,678	81,035	151,239	260,080	415,554

1/ About 8 tons of sugar beet are needed to produce 1 ton of sugar.

2/ Includes sales to domestic candy producers done at same prices as exports.

3/ An approximation of the financial deficit is given by the difference between the revenues from sales minus the cost of the goods sold minus the change in the value of the stocks.

4/ Duty losses are calculated as the volume of exports times the difference between this unit year cost of production and the export price.

5/ Includes additional payments like transportation and stocking fees.

6/ Before budgetary transfers. Differs from the one calculated above as it include some other expenditures which are excluded for the stylized calculation presented above.

7/ Lower than those calculated above because they deduct partial payments received from the treasury.

value of the stock at the end-of the period ($Q_1 = Q_0 + Q_p - Q_s$) is booked as the remaining component of the total cost, i.e., $S_1 = TC - C_s$.

TMO defines it duty losses Dl as equal to $C_s - R$, the cost of the goods it sells minus its sales revenues.

Its financial statement will instead show a deficit Df equal to $S_1 - S_o + C_s - R$, the change in the value of stocks plus the cost of goods sold minus the sales revenues.

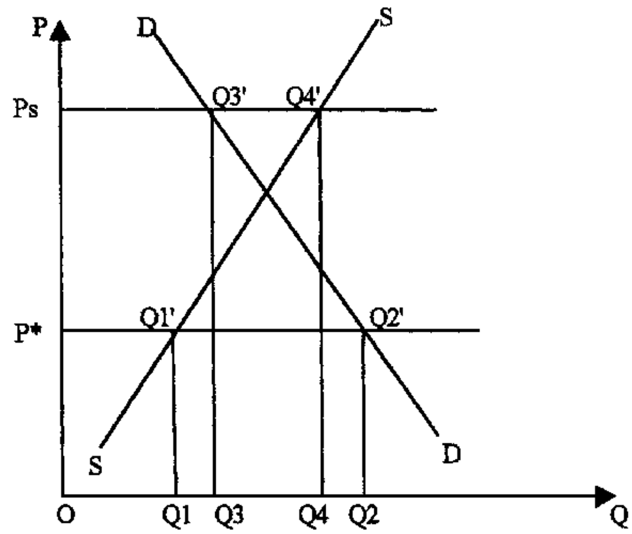
In this set up the link between the deficit as reflected in the financial statement and the reported duty losses is then:

$$Df = S_1 - S_0 + Dl \tag{1}$$

132. As can be seen in equation 1, in years where there is an accumulation of stocks, the deficit will record a cost higher than the one measured by the duty loss. This is the case because the increase in volume combined with inflation is guaranteeing that $S_1 \succ S_0$. In years where there is a de-cumulation of stocks the deficit may be lower than the duty losses but not necessarily. This is because the "valuation gain" may offset the decline in volumes. The "valuation gain" arises from the fact that the value of the stock at the end-of-the period reflects both a historical value but also the cost of the new purchases which is usually increasing in line with inflation.[68]

133. To determine to what extent these measures could be used in assessing the cost of these policies, it is important to review first what, theoretically, the main primary cost of a price support system complemented by trade measures is (what we could call an " an export subsidy cost"). This is illustrated by the following simple model:

[68] For TSFAS the duty losses are calculated differently. Duty losses as shown in Table 4 are measured as the volume of exports times the difference between the unit average cost of this year's production minus the export price.



Let SS be the domestic supply curve and DD the domestic demand curve. Let P^* be the international price. In the absence of trade barriers and price support, the domestic price would be equal to the international price. The country is a net importer of that commodity. A quantity OQ_1 would be produced domestically, a quantity Q_1Q_2 would be imported, and the total quantity OQ_2 would be consumed. The price support policy consist in introducing a support price at a level of say, P_S, and complement this policy with a trade measure in the form of a tariff τ such that $P^*(1+\tau)=P_S$. With this policy, the country instead of being a net importer becomes a net exporter of that commodity. A surplus production Q_3Q_4 is generated. If it is exported, a loss equal $Q_3Q_4 * P^*P_S$ will be incurred. The higher the support price compared to the international price the higher is the surplus production and the higher the implied fiscal cost.[69] Note that the cost comes only from export activities or stock building, not from domestic sales. Domestic prices to the local consumers are always a certain margin above the support price (but see footnote 15 below).

[69] The loss in terms of consumer surplus is represented by the area $P_SQ_3{}'Q'_2P^*$. The gains in terms of producer surplus are represented by the area $Q_1Q_1{}'Q_4{}'Q_4$.

134. Of course, the excess production Q_3Q_4 is not always exported within the same crop season. Two considerations are taken into account in deciding the timing and the amount of exports. The first consideration is the appropriate level of food reserves that have to be kept for strategic food security reasons. Because of such consideration, the authorities may decide to use some of this excess production to permanently build strategic grain reserves. The higher the stock of reserves, the higher is the interest burden that the public sector has to sustain. The second consideration has to do with choosing the right foreign market conditions for selling stocks. When international market prices are too low and there is an expectation that they will go up in the future, a decision could be taken to postpone exports. In both cases, the primary component of the subsidy is given by the rectangular area $Q_3'Q_4'Q_3''Q_4''$, that is, each year, the amount of purchases net of domestic sales times the difference between domestic price and international price. In the case of tobacco, given the low quality of the surplus production and the expendability of such stocks, surplus production has often had to be burned.

135. This methodology is used to analyze the primary fiscal cost of the price support, as illustrated in Table 5, and summarized in Table 6. The results are preliminary and would need to be firmed up based on more refined data. As can be seen in Figure 1, the total primary cost has increased from about US$700 million in 1995 to US$ 1,800 million in 1999 (about 1 percent of GNP) [70] reflecting the overall trend of widening spreads between support prices and international prices resulting from high and sometime increasing support prices in the face of sharply declining international prices. This trend has, in addition, been accompanied by a trend accumulation of stocks leading to an increased debt burden.

136. In particular, during the last five years, the export subsidy cost of supporting cereals has gone up due to a widening of the gap between support prices and international prices. This gap which, for wheat, narrowed down to less than US$15 per ton in 1996, widened to close to US$80 per tons, due to the small adjustments of support prices in the face of sharply declining international prices (Figure 2).[71] In the meantime stocks have build up reaching some 6 million tons. The primary cost has averaged about US$200 million over the last three years, some 0.1 percent of GNP.

137. For sugar, the same trend as for cereals has evolved in recent years. The support price for sugar beet has increased very sharply since 1994, at a time when international prices

[70] The primary fiscal cost of price support to tae is not included, as no data was available.

[71] The average spread during 1997–99 was equal to US$80 per ton.

Table 5. Turkey: Computation of the Primary Cost of the Support Price System for Cereals and Sugar

(In trillions of Turkish liras, unless otherwise specified)

	1995	1996	1997	1998	1999
CEREALS					
Purchases	3.2	29.5	190.3	407.3	486.0
In thousand tons	657	1,966	6,053	8,064	6,051
Unit price (TL/kg)	4,914	15,004	31,446	50,511	80,312
Unit price ($/ton)	108	185	208	194	193
Domestic sales	15.3	12.0	32.2	183.8	281.7
In thousand tons	3,000	584	999	4,925	4,659
Unit price (TL/kg)	5,090	20,588	32,204	37,322	60,463
Unit price ($/ton)	111	254	213	144	146
Exports	0.9	0.0	32.6	83.6	124.7
In thousand tons	108	0	1,350	2,550	2,500
Unit price (TL/kg)	8,083	16,786	24,148	32,795	49,866
Unit price ($/ton)	177	207	160	126	120
Primary cost 1/		-2.5	36.9	55.6	42.4
Primary cost (in millions of U.S. dollars)		-30	244	214	102
SUGAR					
Sugar production	32.7	74.1	231.3	413.367	552.007
In thousand tons	1,100	1,556	1,920	2,179	1,650
Unit price (TL/kg)	29,738	47,625	120,469	189,698	334,550
Unit price ($/ton)	**651**	**588**	797	729	805
Domestic sales	25.1	39.1	141.0	225.4	369.4
In thousand tons	1,294	932	1,494	1,307	1,270
Unit price (TL/kg)	19,362	41,996	94,384	172,464	290,851
Unit price ($/ton)	424	518	624	663	700
Exports	0.5	0.0	9.1	19.2	44.9
In thousand tons	37	2	240	376	540
Unit price (TL/kg)	14,617	21,313	37,939	50,976	83,111
Unit price ($/ton)	**320**	**263**	**251**	**196**	**200**
Primary cost 1/	-2.9	16.4	35.2	121.0	95.5
Primary cost (in millions of U.S. dollars)	**-64.4**	**202.6**	**232.5**	**465.2**	**229.9**
Memorandum items:					
Support purchase of sugar beet	24.2	54.0	180.0	319.0	383.0
In thousand tons	8,820	11,414	14,907	17,646	13,045
Unit price (TL/kg)	2,740	4,731	12,075	18,077	29,360
Unit price ($/ton)	**60**	**58**	**80**	**70**	**71**
TOBACCO					
Support purchase	8.9	8.4	31.3	125.3	169.8
In thousand tons	69.559	34.918	65.917	156.67	136.973
Unit price (TL/kg)	127,600	240,000	475,000	800,000	1,240,000
Unit price ($/ton)	2793	2962	3141	3076	2984
Primary cost 2/	8.9	8.4	31.3	125.3	169.8
Primary cost (in millions of U.S. dollars)	194.3	103.4	207.0	481.9	408.7
Average TL/US$	45,678	81,035	151,239	260,080	415,554

Sources: Data provided by the Turkish authorities; and Fund staff estimates.

1/ Defined as the difference between the volume of purchases and the volume of domestic sale times the difference between the purchase price and the export price.

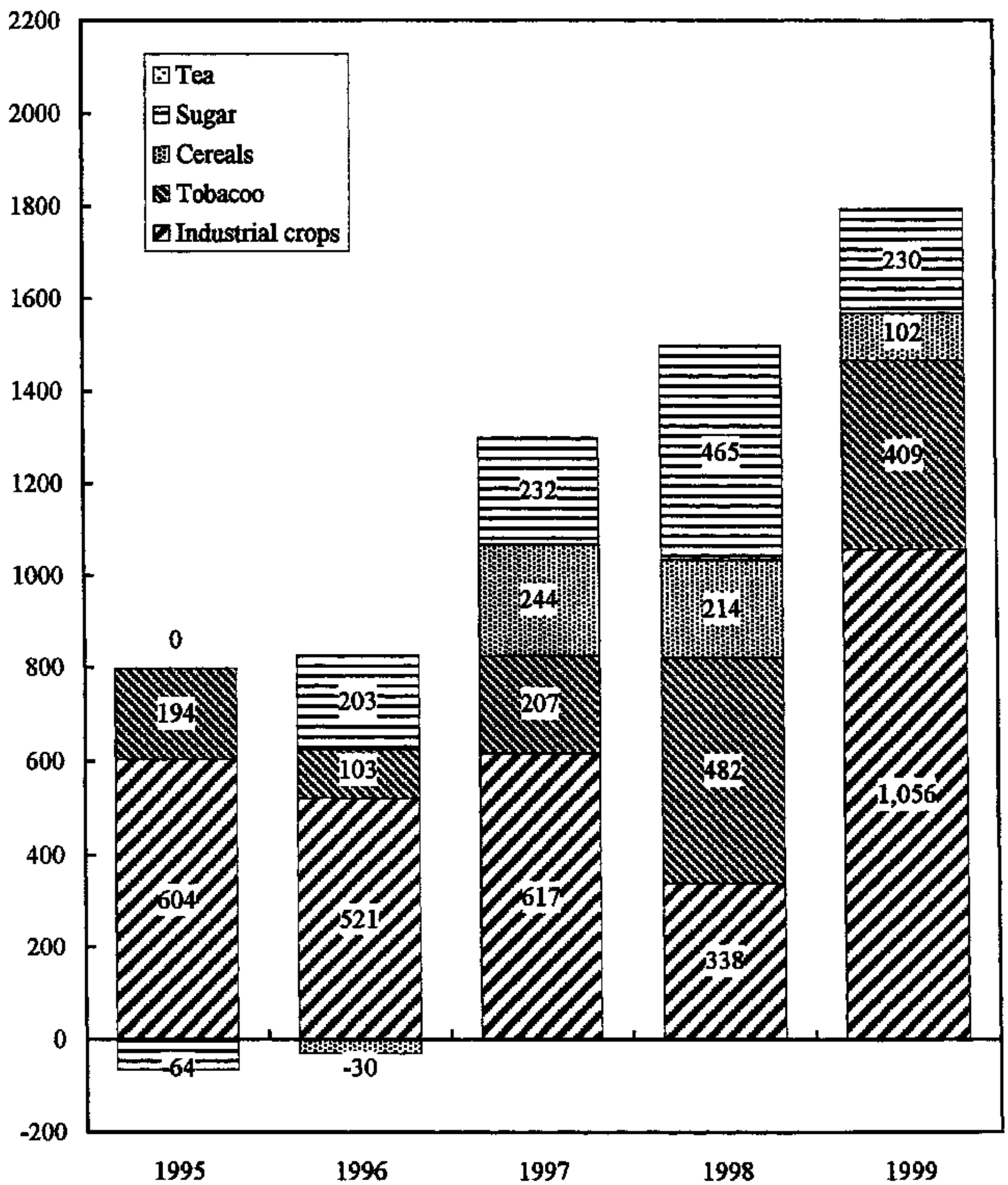
Table 6. Turkey: The Primary Fiscal Cost of the Price Support System, 1995-99

(In millions of U.S. dollars)

	1995	1996	1997	1998	1999	1995-99 Average
Total	734	796	1,300	1,499	1,797	1,225
Industrial crops	604	521	617	338	1,056	627
Tabacco	194	103	207	482	409	279
Cereals	0	-30	244	214	102	106
Sugar	-64	203	232	465	230	213
			(In percent of total)			
Industrial crops	82.3	65.4	47.4	22.6	58.8	51.2
Tabacco	26.5	13.0	15.9	32.1	22.7	22.8
Cereals	0.0	-3.8	18.8	14.3	5.7	8.6
Sugar	-8.8	25.4	17.9	31.0	12.8	17.4

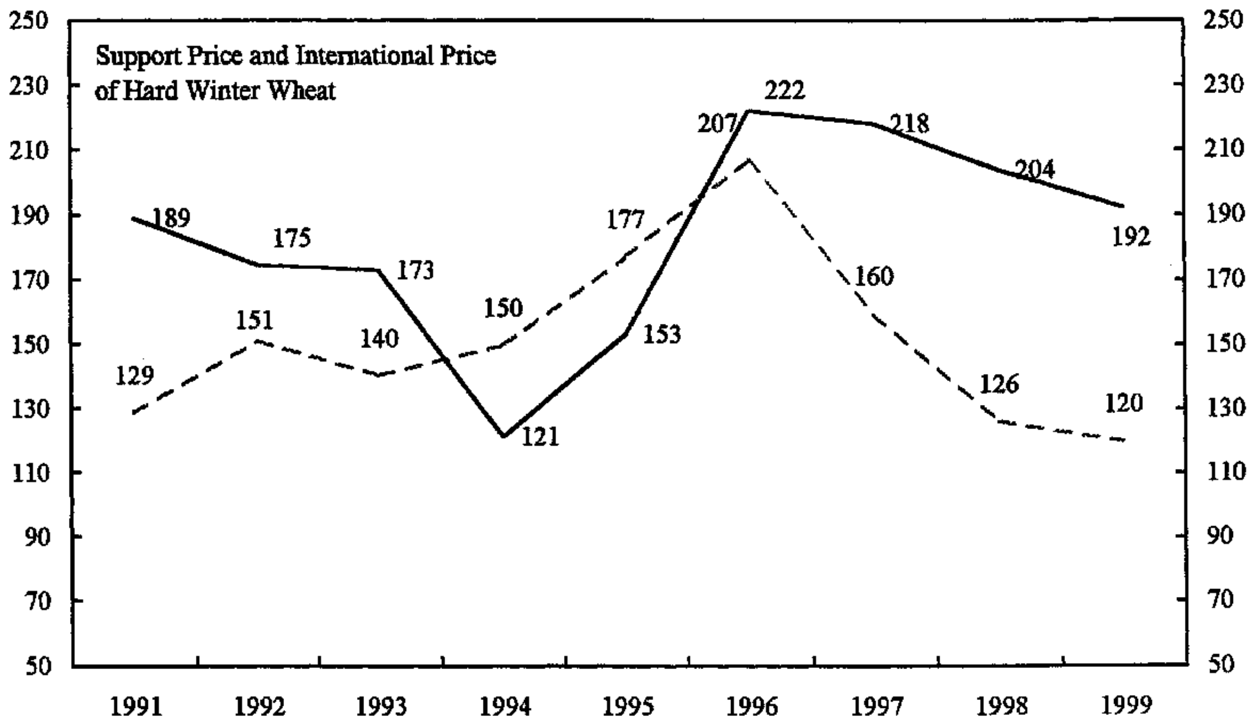
Source: Fund staff calculations.

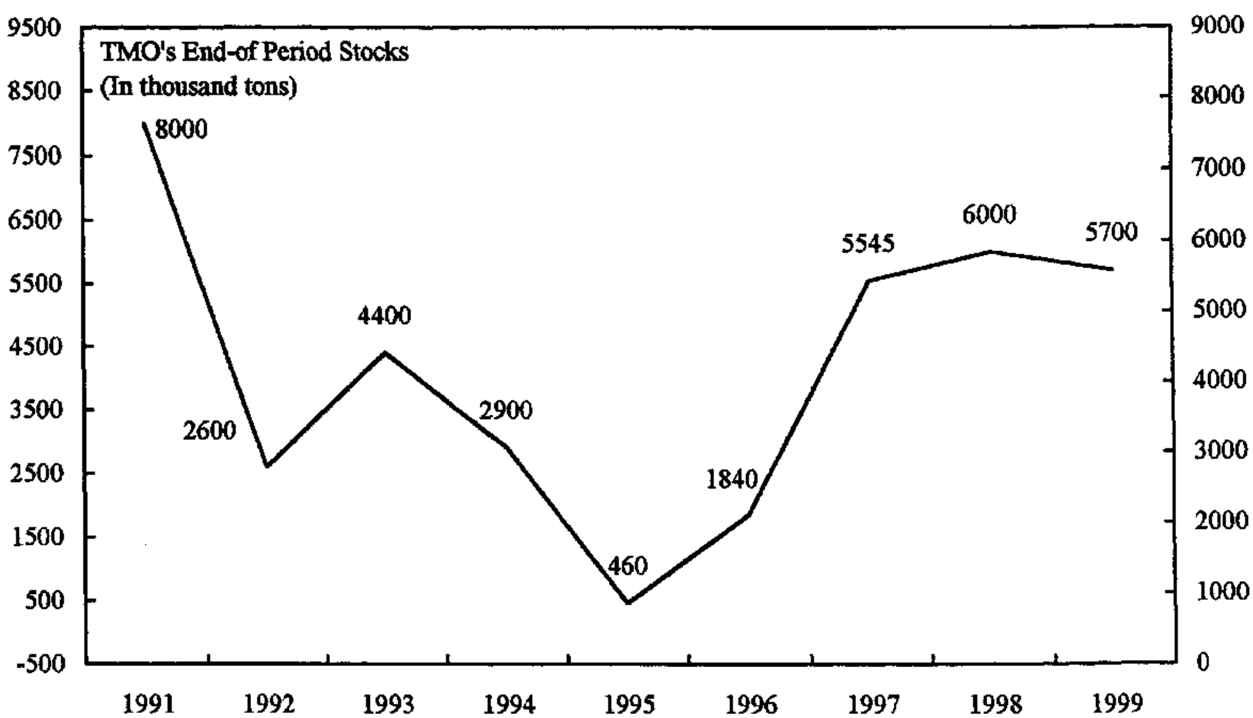
Figure 1. Turkey: The Primary Fiscal Cost of the Price Support System, 1995-99
(In millions of U.S. dollars)



Source: Data provided by the Turkish authorities; and Fund staff calculations.

Figure 2. Turkey: The Grains Sector, 1995-99





Source: Data provided by the Turkish authorities.

where fallen.[72] Stocks built up reaching 2 million tons. TSFAS produced an average of 1.6 million tons and had to export an average volume of 240 thousand tons,[73] at an average spread of close to US$500 million. The average export subsidy is estimated at US$220 million, less than 0.1 percent of GNP (Table 5).

138. Based on these estimates the total cost of the price support system could be measured by the deficit of the SEEs, while the debt burden element of these costs could be derived as a residual after subtracting the estimate we derived for the export subsidy. This approach, however, underestimates somewhat the primary component because it is based on the assumptions that no losses are incurred on domestic sales. In practice, in recent years, the profile of the domestic sales price within a crop season has not always fully covered the intra-harvest storage costs. Because of that an arbitrage opportunity was left open to traders of delaying their purchases and obliged TMO to buy a larger share of the harvest than it would have otherwise.

139. The results of the methodology developed above are presented in Table 1. These numbers are mainly illustrative of the methodology and would need to be refined in light of more accurate and detailed information. The table shows that the overall cost of the price support system, the sum of the deficits of the SEEs plus the budget allocation to SPSF, as has increased from less than ½ percent of GNP in 1995 to 2 percent in 1999. Over the last three years, the primary component of this cost has been about half.

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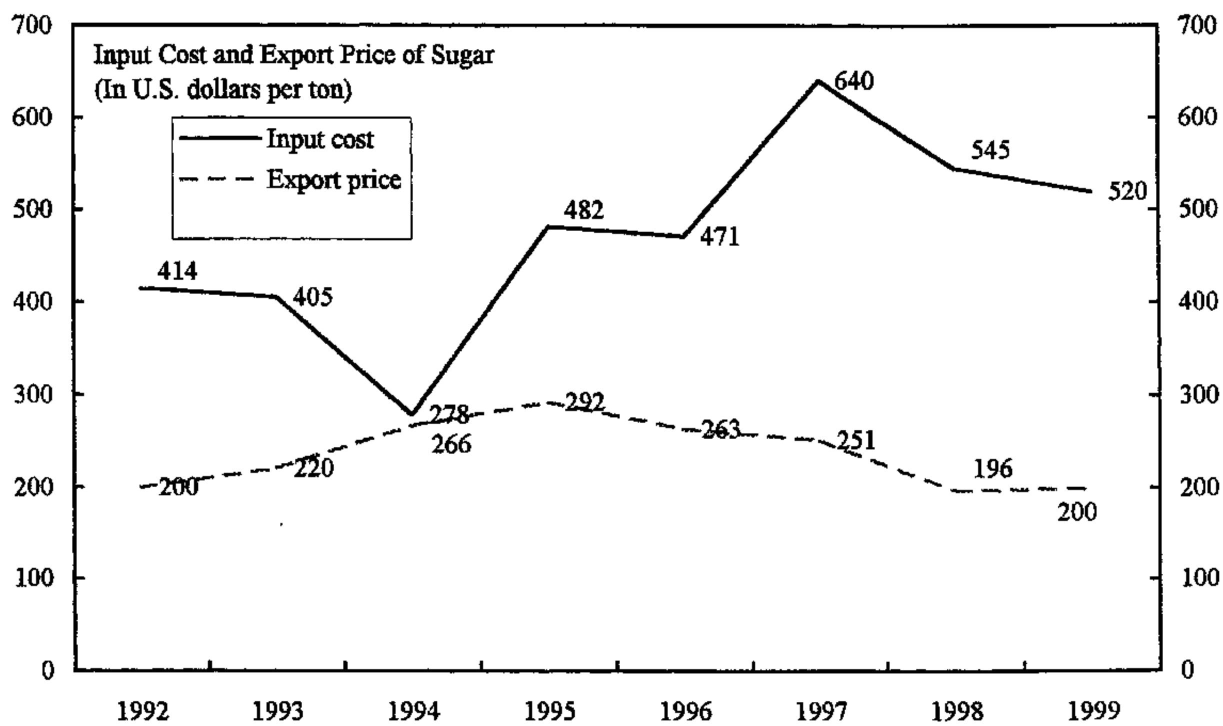
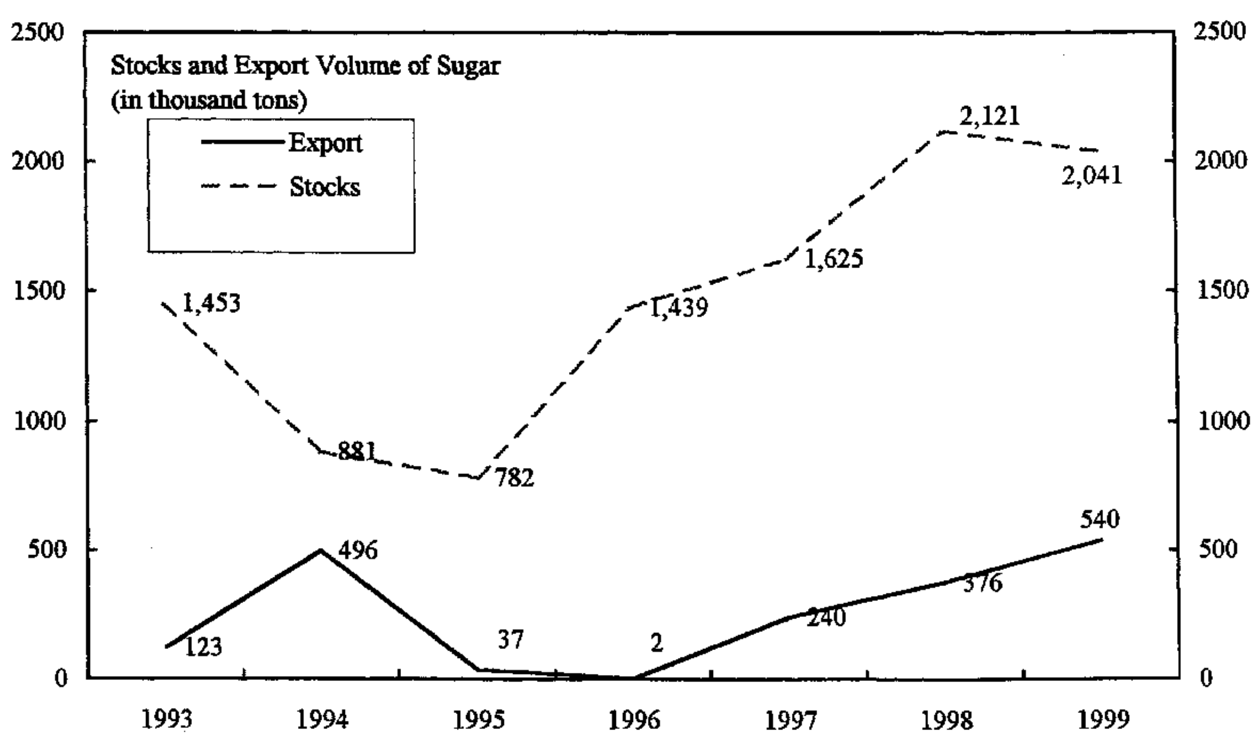
[72] Prior to 1998 the support price for sugar was open ended. Starting in 1998, a system of quota on production was introduced whereby the total quota is divided among TSFAS's 26 sugar factories, which then divide their respective quotas among the farmers of the region. According to past production. A tolerance level was specified according to which each farmer could sell as much as his assigned quota plus the tolerance level (expressed in percent of the quota). Above that amount the farmer could still sell to TSFAS by only at ½ the support price.

[73] Exports include pure exports as well as sales to domestic candy factories at the same price as pure exports.

Figure 3. Turkey: The Sugar Sector, 1995-99





Source: Data provided by the Turkish authorities.

Table 1. Turkey: Output Developments, 1991-99

	1991	1992	1993	1994	1995	1996	1997	1998	1999 Q3
				(In trillions of Turkish liras; at market current prices)					
GNP	634.4	1,103.6	1,997.3	3,887.9	7,854.9	14,978.1	29,393.3	53,518.3	26,021.4
Net factor income	4.3	10.2	15.5	19.5	92.4	206.0	557.4	1,293.4	349.6
GDP	630.1	1,093.4	1,981.9	3,868.4	7,762.5	14,772.1	28,835.9	52,224.9	25,671.8
Agriculture	96.1	163.8	305.5	598.2	1,218.2	2,489.8	4,170.0	9,113.5	6,536.3
Industry	163.3	280.1	485.7	1,019.8	2,042.4	3,716.5	7,293.2	11,970.3	4,731.5
Services	348.5	608.7	1,109.4	2,114.6	4,217.8	8,107.2	16,400.7	29,595.8	13,815.1
Import duties	22.2	40.7	81.2	135.9	284.1	458.6	972.0	1,545.4	588.9
				(In trillions of Turkish liras; constant 1987 market prices)					
GNP	84.9	90.3	97.7	91.7	99.0	106.1	114.9	119.3	36.0
Net factor income	0.5	0.9	1.1	0.4	1.1	1.3	2.2	3.2	0.5
GDP	84.4	89.4	96.6	91.3	97.9	104.7	112.6	116.1	35.5
Agriculture	14.0	14.7	14.5	14.4	14.6	15.3	14.9	16.2	8.9
Industry	22.9	24.3	26.3	24.8	27.8	29.7	32.8	33.5	8.3
Services	43.8	46.5	50.6	48.8	51.7	55.1	59.4	61.0	17.0
Import duties	3.6	4.0	5.3	3.4	3.8	4.6	5.5	5.4	1.4
				(Real percentage change)					
GNP	0.3	6.4	8.1	-6.1	8.0	7.1	8.3	3.9	-6.6
GDP	0.9	6.0	8.0	-5.5	7.2	7.0	7.5	3.1	-5.6
Agriculture	-0.9	4.3	-1.3	-0.7	2.0	4.4	-2.3	8.4	-3.8
Industry	2.7	5.9	8.2	-5.7	12.1	7.1	10.4	2.0	-8.3
Services	0.4	6.1	8.8	-3.6	6.0	6.6	7.8	2.7	-5.2
				(Sectoral contribution to real GNP growth)					
Net factor income	-0.6	0.5	0.2	-0.7	0.8	0.2	0.9	0.8	0.6
Agriculture	-0.2	0.7	-0.2	-0.1	0.3	0.7	-0.3	1.1	24.5
Services	0.2	3.2	4.5	-1.9	3.2	3.5	4.1	1.4	9.2
Import duties	0.2	0.5	1.4	-1.9	0.4	0.8	0.8	0.0	0.3
				(Percentage change)					
Deflators									
GNP	59.2	63.5	67.4	107.3	87.2	78.0	81.2	83.0	58.4
Agriculture	41.1	63.5	88.9	97.2	99.7	95.8	71.5	101.7	51.6
Industry	58.5	61.9	60.2	122.6	78.7	69.9	77.8	60.9	52.1
Services	64.9	64.6	67.6	97.7	88.3	80.3	87.6	75.6	63.2
WPI (average period)	55.3	62.1	58.4	120.7	88.5	77.9	81.8	71.8	53.6
CPI (average period)	66.0	70.1	66.1	106.2	93.6	82.3	85.7	84.6	64.9
Memorandum items:									
GNP (in million US$)	150,168	158,122	178,715	132,302	170,081	183,994	193,851	205,521	59,401
GDP (in million US$)	149,156	156,656	177,332	131,639	168,080	181,464	190,175	200,554	58,603

Source: State Institute of Statistics.

Table 2 .Turkey: GDP and its Components, 1991-99

	1991	1992	1993	1994	1995	1996	1997	1998	1999 Q3
	(In trillions of Turkish liras; at market current prices)								
GDP	630.1	1,093.4	1,981.9	3,868.4	7,762.5	14,772.1	28,835.9	52,224.9	25,671.8
Agriculture	96.1	163.8	305.5	598.2	1,218.2	2,489.8	4,170.0	9,113.5	6,536.3
Industry	163.3	280.1	485.7	1,019.8	2,042.4	3,716.5	7,293.2	11,970.3	4,731.5
Mining and quarrying	9.8	14.9	21.8	54.1	98.5	183.1	336.9	563.3	308.5
Manufacturing	139.7	236.6	412.4	853.5	1,751.7	3,123.0	6,218.6	10,128.3	3,794.5
Electricity, gas, and water	13.8	28.6	51.4	112.2	192.2	410.4	737.7	1,278.8	628.5
Services	348.5	608.7	1,109.4	2,114.6	4,217.8	8,107.2	16,400.7	29,595.8	13,815.1
Construction	44.1	74.5	145.8	263.7	426.2	857.8	1,743.2	3,124.6	1,390.8
Trade and hotel and restaurant services	117.4	202.4	368.4	760.9	1,587.7	3,022.3	5,985.4	10,404.5	4,742.1
Transportation and communication	74.6	133.3	236.9	514.1	981.1	1,941.6	4,018.6	7,102.8	3,127.9
Financial services	26.1	43.5	84.5	115.0	322.6	732.3	1,474.4	3,280.5	1,627.6
Ownership of dwelling	23.2	41.2	68.2	127.9	249.2	442.9	850.3	1,761.7	916.0
Business and personal services	23.0	39.6	71.4	142.8	287.0	554.1	1,067.5	1,956.3	967.9
(less) imputed bank service charges	23.3	41.2	75.7	163.5	270.3	709.2	1,371.7	3,049.2	1,398.0
Government services	61.1	111.8	203.9	344.5	619.8	1,238.5	2,579.9	4,915.7	2,363.0
Import duties	22.2	40.7	81.2	135.9	284.1	458.6	972.0	1,545.4	588.9
	(In percent of GDP; at market current prices)								
Agriculture	15.2	15.0	15.4	15.5	15.7	16.9	14.5	17.5	25.5
Industry	25.9	25.6	24.5	26.4	26.3	25.2	25.3	22.9	18.4
Mining and quarrying	1.5	1.4	1.1	1.4	1.3	1.2	1.2	1.1	1.2
Manufacturing	22.2	21.6	20.8	22.1	22.6	21.1	21.6	19.4	14.8
Electricity, gas, and water	2.2	2.6	2.6	2.9	2.5	2.8	2.6	2.4	2.4
Services	55.3	55.7	56.0	54.7	54.3	54.9	56.9	56.7	53.8
Construction	7.0	6.8	7.4	6.8	5.5	5.8	6.0	6.0	5.4
Trade and hotel and restaurant services	18.6	18.5	18.6	19.7	20.5	20.5	20.8	19.9	18.5
Transportation and communication	11.8	12.2	12.0	13.3	12.6	13.1	13.9	13.6	12.2
Financial services	4.1	4.0	4.3	3.0	4.2	5.0	5.1	6.3	6.3
Ownership of dwelling	3.7	3.8	3.4	3.3	3.2	3.0	2.9	3.4	3.6
Business and personal services	3.7	3.6	3.6	3.7	3.7	3.8	3.7	3.7	3.8
(less) imputed bank service charges	3.7	3.8	3.8	4.2	3.5	4.8	4.8	5.8	5.4
Government services	9.7	10.2	10.3	8.9	8.0	8.4	8.9	9.4	9.2
Import duties	3.6	3.7	4.1	3.4	3.7	3.0	3.3	2.9	2.3

Source: State Institute of Statistics.

Table 3. Turkey: GDP and its Components, 1991-99

	1991	1992	1993	1994	1995	1996	1997	1998	1999 Q3
	(In trillions of Turkish liras; constant 1987 market prices)								
GDP	84.4	89.4	96.6	91.3	97.9	104.7	112.6	116.1	35.5
Agriculture	14.0	14.7	14.5	14.4	14.6	15.3	14.9	16.2	8.9
Industry	22.9	24.3	26.3	24.8	27.8	29.7	32.8	33.5	8.3
Mining and quarrying	1.6	1.6	1.5	1.6	1.5	1.6	1.6	1.8	0.5
Manufacturing	19.2	20.3	22.2	20.5	23.3	25.0	27.8	28.2	6.9
Electricity, gas, and water	2.1	2.4	2.6	2.7	2.9	3.2	3.4	3.5	0.9
Services	43.8	46.5	50.6	48.8	51.7	55.1	59.4	61.0	17.0
Construction	5.5	5.8	6.3	6.1	5.9	6.2	6.5	6.6	1.8
Trade and hotel and restaurant services	16.7	17.9	20.0	18.5	20.6	22.4	25.0	25.4	7.4
Transportation and communication	10.1	10.9	12.1	11.8	12.5	13.5	14.5	15.2	4.1
Financial services	2.5	2.5	2.5	2.4	2.4	2.5	2.6	2.8	0.7
Ownership of dwelling	4.7	4.8	5.0	5.1	5.2	5.4	5.5	5.6	1.4
Business and personal services	1.9	2.1	2.2	2.1	2.3	2.4	2.6	2.7	0.8
(less) imputed bank service charges	2.2	2.1	2.1	2.1	2.1	2.1	2.1	2.2	0.6
Government services	4.1	4.3	4.3	4.4	4.5	4.5	4.5	4.7	1.2
Import duties	3.6	4.0	5.3	3.4	3.8	4.6	5.5	5.4	1.4
	(Percentage changes)								
GDP	0.9	6.0	8.0	-5.5	7.2	7.0	7.5	3.1	-5.6
Agriculture	-0.9	4.3	-1.3	-0.7	2.0	4.4	-2.3	8.4	-3.8
Industry	2.7	5.9	8.2	-5.7	12.1	7.1	10.4	2.0	-8.3
Mining and quarrying	4.5	0.3	-6.4	8.0	-6.9	2.3	4.7	9.3	-7.4
Manufacturing	2.4	5.8	9.3	-7.6	13.9	7.1	11.4	1.2	-9.2
Of which: private manufacturing	1.9	7.6	9.3	-12.1	19.6	20.6	21.6	22.6	...
Electricity, gas, and water	0.4	6.1	8.8	-3.6	6.0	6.6	7.8	2.7	-1.8
Services	0.4	6.1	8.8	-3.6	6.0	6.6	7.8	2.7	-5.2
Construction	1.1	6.2	7.9	-2.0	-4.7	5.8	5.0	0.7	-8.9
Trade and hotel and restaurant services	-0.7	6.9	11.6	-7.6	11.5	8.9	11.7	1.4	-8.0
Transportation and communication	-0.4	8.1	10.8	-2.0	5.7	7.6	7.6	4.9	-1.9
Financial services	0.8	-2.1	-0.4	-1.5	0.3	2.2	3.9	6.9	2.5
Ownership of dwelling	2.4	2.5	2.8	2.8	2.1	2.4	2.3	2.1	1.0
Business and personal services	0.9	5.5	6.9	-4.3	7.3	6.5	6.9	3.4	-5.4
(less) imputed bank service charges	0.2	-2.3	-0.6	-1.8	-0.3	0.6	1.9	6.0	5.2
Government services	2.4	3.4	1.8	0.8	2.5	-0.3	0.1	5.9	0.8
Import duties	4.1	11.3	32.8	-35.2	11.5	21.3	18.3	-1.0	-5.9

Source: State Institute of Statistics.

Table 4. Turkey: Production Index of Manufacturing Industry, 1991-99

	1991	1992	1993	1994	1995	1996	1997	1998	1999 Oct. 1/
	(Weighted by value added at constant prices; percentage change over previous year) 2/								
Food, beverages, and tobacco	9.2	-3.6	8.1	2.6	5.1	6.9	7.0	3.3	-10.0
Textile, clothing, and leather	-8.6	4.3	-0.7	-4.1	16.0	8.7	6.2	-5.9	-3.4
Wood	-6.2	0.6	7.6	-13.3	16.1	5.4	...	...	...
Paper and printing	-5.9	9.8	19.2	-11.9	11.1	-4.1	-1.5	-5.7	0.9
Chemicals, petrochemicals, petroleum products, and rubber	-0.6	3.2	7.4	-4.4	16.2	2.8	11.1	0.7	-3.5
Non-metallic mineral products	4.6	11.7	6.1	-4.3	11.9	5.1	11.2	0.9	-15.2
Basic metal	-7.8	6.5	13.7	-4.2	4.4	8.4	9.3	-0.6	-3.9
Machinery and transport equipment	12.0	8.1	16.8	-25.7	20.5	17.2	23.4	4.5	-4.3
Total manufacturing	1.9	4.1	8.9	-8.3	13.5	7.7	10.2	1.2	-10.1
Public	1.6	1.0	2.3	2.6	-1.5	3.2	-1.3	3.8	...
Private	1.9	7.6	9.3	-12.1	19.6	9.0	14.7	0.3	...

Source: State Institute of Statistics.

1/ 12-month change through October 1999.
2/ Beginning in 1993, changes based on 1992 = 100.

Table 5. Turkey: Production of Major Industrial Commodities, 1993-99

	Thousands of tons	Percentage change over same period of previous year						
	1998	1993	1994	1995	1996	1997	1998	Jan-Oct 1999
Mining								
Hard coal 1/	2,136	-3.8	4.3	-20.8	7.8	-0.5	-11.4	14.9
Lignite 1/	62,481	-7.8	6.3	6.4	1.1	-0.9	20.0	0.0
Crude oil	3,224	-9.4	-5.3	-4.7	-0.4	-2.0	-6.0	-8.6
Manufacturing								
Cotton yarn 2/	11	-7.3	-19.8	-7.9	-19.5	-22.9	-47.5	10.1
Wool yarn 2/	811	45.1	-11.8	-29.8	9.3	-29.4	-68.7	2.0
Filtered cigarettes	80	9.5	11.7	-3.3	-6.2	2.4	10.0	2.7
Raki and beer (millions of liters)	764	14.1	7.5	11.0	3.2	4.2	-4.0	1.9
Newsprint	98	-21.1	16.7	25.2	-46.0	-19.3	63.6	8.4
Kraft paper	54	-18.1	7.8	-4.9	-23.6	4.0	-8.7	0.4
Sulphuric acid	738	17.9	-3.6	-13.7	-1.1	26.4	-6.3	4.2
Polyethylene	295	3.9	4.5	6.4	-0.5	-2.3	0.7	4.4
PVC and PCC	200	5.9	-1.5	15.4	11.9	-6.6	5.5	0.1
LPG	839	-0.3	3.7	8.0	4.3	76.7	5.1	8.7
Naphta	1,979	0.6	1.4	16.4	9.2	1.9	20.7	2.5
Gasoline	3,713	9.1	3.9	6.4	-5.1	16.8	-5.8	4.0
Diesel	8,024	10.5	2.0	7.9	-6.2	-1.1	8.3	3.6
Fuel oil	6,708	3.1	-12.8	2.6	-4.8	-3.0	-6.6	0.4
Bottles and glass articles	738	3.5	0.9	14.9	19.1	22.7	-0.2	9.3
Crude iron	5,287	-3.4	5.7	-5.2	20.6	5.8	-5.0	4.1
Steel ingots	13,351	11.4	5.7	5.1	4.6	2.0	-2.1	3.7
Blistered copper	34	28.2	-9.0	-19.8	24.3	7.1	5.8	3.1
Alumina	157	-9.5	9.7	10.7	-7.4	3.2	-4.4	3.0
Cement	38,146	9.5	-5.8	12.4	6.2	2.3	5.9	3.5
Tractors (number)	52,545	44.7	-27.2	57.9	19.2	6.6	7.9	4.3
Automobiles (number)	223,934	29.6	-39.3	6.5	-11.7	20.5	-5.3	1.9
Trucks (number)	30,945	43.4	-62.2	70.6	54.0	47.8	-29.1	1.2
Buses and minibuses (number)	35,589	11.8	-59.3	41.3	49.8	34.7	41.9	1.5
Energy								
Electrical energy (Kwh million)	111,778	10.1	6.1	10.3	10.5	8.2	8.4	1.5
Value added in industry (at constant producer prices)		8.2	-5.7	12.1	7.1	10.4	2.0	...

Sources: State Institute for Statistics; and State Planning Office, Main Economic Indicators.

1/ Pithead production.
2/ Public sector.

Table 6 Turkey: Expenditure on GDP at Current Prices, 1991-99

	1991	1992	1993	1994	1995	1996	1997	1998	1999 Q3
	(In trillions of Turkish liras; current prices)								
GNP	**634.4**	**1,103.6**	**1,997.3**	**3,887.9**	**7,854.9**	**14,978.1**	**29,393.3**	**53,518.3**	**26,021.4**
Net factor income	4.3	10.2	15.5	19.5	92.4	206.0	557.4	1,293.4	349.6
Net exports of goods and services	**-17.6**	**-32.3**	**-112.4**	**37.8**	**-346.2**	**-878.5**	**-1,674.4**	**-1,859.9**	**-567.4**
Exports of goods and services 1/	87.2	157.4	271.0	826.4	1,544.1	3,178.9	7,088.4	12,713.3	4,842.8
Imports of goods and services	104.8	189.6	383.4	788.5	1,890.2	4,057.4	8,762.8	14,573.2	5,410.2
Domestic demand	**665.9**	**1,161.7**	**2,174.5**	**3,987.8**	**8,272.5**	**15,198.9**	**30,395.1**	**55,382.9**	**25,397.6**
Consumption	522.8	900.8	1,627.4	3,156.9	6,295.1	11,688.7	23,154.2	42,755.3	19,582.8
Public	77.9	140.6	258.1	450.6	837.2	1,709.2	3,535.1	6,632.8	3,053.6
Private	444.9	760.3	1,369.3	2,706.3	5,457.9	9,979.4	19,619.1	36,122.6	16,529.2
Gross domestic investment	143.2	260.9	547.1	830.9	1,977.4	3,510.2	7,240.9	12,627.6	5,814.8
Fixed capital formation	150.2	258.4	525.5	952.3	1,850.2	3,692.1	7,618.4	12,839.2	5,038.2
Public	48.0	81.3	143.8	221.1	304.4	687.4	1,636.3	3,203.0	1,166.0
Private	102.2	177.1	381.7	731.3	1,545.8	3,004.7	5,982.1	9,636.2	3,872.3
Change in stocks	-7.0	2.5	21.6	-121.4	127.1	-181.9	-377.5	-211.6	776.5
Gross national savings	**111.6**	**202.8**	**369.9**	**731.0**	**1,559.7**	**3,289.4**	**6,239.1**	**10,763.0**	**6,438.6**
	(In percent of GNP)								
Foreign balance 1/	**2.1**	**2.0**	**4.9**	**-1.5**	**3.2**	**4.5**	**3.8**	**1.1**	**0.8**
Domestic demand	**105.0**	**105.3**	**108.9**	**102.6**	**105.3**	**101.5**	**103.4**	**103.5**	**97.6**
Consumption	82.4	81.6	81.5	81.2	80.1	78.0	78.8	79.9	75.3
Public	12.3	12.7	12.9	11.6	10.7	11.4	12.0	12.4	11.7
Private	70.1	68.9	68.6	69.6	69.5	66.6	66.7	67.5	63.5
Gross domestic investment	22.6	23.6	27.4	21.4	25.2	23.4	24.6	23.6	22.3
Fixed capital formation	23.7	23.4	26.3	24.5	23.6	24.7	25.9	24.0	19.4
Public	7.6	7.4	7.2	5.7	3.9	4.6	5.6	6.0	4.5
Private	16.1	16.0	19.1	18.8	19.7	20.1	20.4	18.0	14.9
Change in stocks	-1.1	0.2	1.1	-3.1	1.6	-1.2	-1.3	-0.4	3.0
Statistical discrepency	**-2.9**	**-3.3**	**-4.0**	**-4.0**	**-2.1**	**3.0**	**0.4**	**-2.4**	**3.2**
Gross national savings	**17.6**	**18.4**	**18.5**	**18.8**	**19.9**	**22.0**	**21.2**	**20.1**	**24.7**
Memorandum item:									
External current account (excl. official transfers; BOP data)	-1.3	-1.2	-4.0	1.7	-2.0	-3.2	-2.6	0.3	-0.3

Source: State Institute of Statistics.

1/ National Income accounts statistics are based on BOP data that are unadjusted for shuttle trade.
In addition, 1/3 of other exports of services is excluded from exports of goods and services based on the premise that these may reflect capital transfers.

Table 7. Turkey: Expenditure on GDP and Its Components at Constant Prices, 1991-99

	1991	1992	1993	1994	1995	1996	1997	1998	1999 Q3
				(In trillions of Turkish liras; constant 1987 prices)					
GNP	**84.9**	**90.3**	**97.7**	**91.7**	**99.0**	**106.1**	**114.9**	**119.3**	**36.0**
Net factor income	0.5	0.9	1.1	0.4	1.1	1.3	2.2	3.2	0.5
GDP (production side)	**84.4**	**89.4**	**96.6**	**91.3**	**97.9**	**104.7**	**112.6**	**116.1**	**35.5**
Statistical discrepency	0.1	0.5	0.2	-0.3	0.2	-0.2	-0.3	0.3	2.3
GDP (expenditure side)	**84.3**	**88.9**	**96.4**	**91.6**	**97.7**	**104.9**	**112.9**	**115.8**	**33.2**
Net exports of goods and services	**-2.4**	**-2.7**	**-8.2**	**0.0**	**-4.3**	**-4.9**	**-6.8**	**-4.7**	**-0.9**
Exports of goods and services	14.6	16.2	17.5	20.1	21.7	26.5	31.6	35.4	8.5
Imports of goods and services	17.1	18.9	25.7	20.1	26.0	31.4	38.4	40.0	9.4
Domestic demand	**86.7**	**91.6**	**104.6**	**91.6**	**102.0**	**109.8**	**119.7**	**120.5**	**34.1**
Consumption	65.9	68.0	73.9	69.9	73.4	79.7	86.0	87.1	24.7
Public	6.5	6.8	7.3	6.9	7.4	8.0	8.4	9.0	2.4
Private	59.4	61.3	66.5	63.0	66.0	71.6	77.6	78.1	22.4
Gross domestic investment	20.8	23.5	30.7	21.7	28.6	30.1	33.7	33.3	9.4
Fixed capital formation	21.8	23.1	29.2	24.6	26.8	30.6	35.1	33.8	8.1
Public	6.8	7.2	7.7	5.3	4.3	5.4	6.9	7.9	1.9
Private	15.0	15.9	21.5	19.2	22.5	25.2	28.2	25.9	6.2
Change in stocks	-0.9	0.4	1.5	-2.9	1.8	-0.5	-1.4	-0.4	1.3
Gross national savings	**19.0**	**22.3**	**23.8**	**21.8**	**25.6**	**26.4**	**28.9**	**32.2**	**11.3**
				(Real percentage change)					
GNP	**0.3**	**6.4**	**8.1**	**-6.1**	**8.0**	**7.1**	**8.3**	**3.9**	**-6.6**
Net factor income	-47.3	72.5	17.8	-62.0	176.6	17.0	68.1	42.2	41.3
GDP (production side)	**0.9**	**6.0**	**8.0**	**-5.5**	**7.2**	**7.0**	**7.5**	**3.1**	**-5.6**
GDP (expenditure side)	**1.1**	**5.5**	**8.4**	**-5.0**	**6.7**	**7.4**	**7.6**	**2.6**	**-5.5**
Net exports of goods and services 1/	1.8	-0.3	-6.2	8.6	-4.7	-0.6	-1.9	1.9	7.8
Exports of goods and services	3.7	11.0	7.7	15.2	8.0	22.0	19.1	12.0	-13.9
Imports of goods and services	-5.2	10.9	35.8	-21.9	29.6	20.5	22.4	4.2	-4.6
Domestic demand	**2.2**	**4.0**	**13.1**	**-8.4**	**6.1**	**10.0**	**9.9**	**-0.2**	**-2.9**
Consumption	2.8	3.3	8.6	-5.4	5.0	8.5	8.0	1.3	-1.9
Public	3.7	3.6	8.6	-5.5	6.8	8.6	4.1	7.8	9.1
Private	2.7	3.2	8.6	-5.4	4.8	8.5	8.4	0.6	-2.9
Gross domestic investment	-10.2	13.1	30.5	-29.5	32.1	5.4	11.9	-1.2	-5.6
Fixed capital formation	0.4	6.4	26.4	-16.0	9.1	14.1	14.8	-3.9	-11.9
Public	-2.2	6.5	7.2	-30.8	-18.8	24.4	28.4	13.9	-8.0
Private	1.7	6.3	35.0	-10.7	16.9	12.1	11.9	-8.3	-13.1
Change in stocks 1/	-2.9	1.6	1.2	-4.6	5.1	-2.3	-0.9	0.9	1.4
				(Contribution to GDP growth)					
Gross domestic absorption	-0.7	5.8	14.7	-13.6	11.4	8.0	9.5	0.7	-2.9
Consumption	2.2	2.6	6.6	-4.1	3.8	6.4	6.0	1.0	-1.4
Public	0.3	0.3	0.7	-0.4	0.5	0.7	0.3	0.6	0.6
Private	1.9	2.3	5.9	-3.7	3.3	5.7	5.7	0.4	-1.9
Gross domestic investment	-2.8	3.2	8.1	-9.4	7.6	1.6	3.4	-0.3	-1.6
Fixed capital formation	0.1	1.6	6.9	-4.8	2.5	3.9	4.3	-1.2	-3.1
Public	-0.2	0.5	0.6	-2.5	-1.1	1.1	1.5	0.9	-0.5
Private	0.3	1.1	6.3	-2.4	3.5	2.8	2.9	-2.1	-2.7
Change in stocks	-2.9	1.6	1.2	-4.6	5.1	-2.3	-0.9	0.9	1.5
Net exports of goods and services	1.8	-0.3	-6.2	8.6	-4.7	-0.6	-1.9	1.9	-2.6
Exports of goods and services	0.6	1.9	1.4	2.8	1.8	4.9	4.8	3.4	-3.9
Imports of goods and services	-1.1	2.2	7.6	-5.8	6.5	5.5	6.7	1.4	-1.3

Source: State Institute of statistics.
1/ Contribution to GDP growth

Table 8. Turkey: Agricultural Production, Major Crops, 1994-98

	Thousands of tons	Percentage change				
	1998	1994	1995	1996	1997	1998
Cereals						
Wheat	21,000	-16.7	2.9	2.8	0.8	12.6
Barley	9,000	-6.7	7.1	6.7	2.5	9.8
Maize	2,320	-26.0	2.7	5.3	4.0	11.5
Pulses						
Lentils	540	-17.0	9.0	-3.0	-20.2	4.9
Chick peas	625	-12.2	12.3	0.3	-1.6	-13.2
Dry beans	236	-10.0	25.0	2.2	2.2	0.4
Industrial crops						
Sugar beet	22,283	-17.1	-13.7	28.8	29.0	20.1
Cotton	876	4.9	35.7	-6.0	0.8	8.2
Tobacco	251	-42.4	9.4	13.7	23.3	-12.5
Oil seeds						
Cotton seeds	1,400	4.9	35.7	-6.0	0.8	8.1
Sunflower seeds	860	-9.2	21.6	-13.3	15.4	-4.4
Groundnuts	90	0.0	0.0	14.3	2.5	9.8
Tuber crops						
Potatoes	5,250	-6.5	9.2	4.2	3.0	2.9
Dry onions	2,270	9.1	58.3	-33.3	10.5	8.1
Fruit bearing vegetables						
Watermelon and melon	5,815	10.2	0.0	7.4	-4.3	4.8
Tomatoes	8,290	3.3	14.2	7.6	-15.4	25.6
Fruit and nuts						
Grapes and figs	3,855	-6.1	3.2	3.6	-1.2	-2.2
Citrus fruits	1,944	8.1	-5.1	2.1	-21.3	35.6
Hazelnuts	580	60.7	-7.1	-2.0	-8.1	41.5
Apples	2,450	0.7	0.2	4.8	15.9	-3.9
Olives	1,650	154.5	-63.2	249.5	-71.7	223.5
Tea	979	13.1	-20.0	14.6	25.3	30.1
Value added in agriculture (at constant producer prices)		-0.7	2.0	4.4	-2.3	8.4

Source: State Institute of Statistics.

Table 9. Turkey: Selected Agricultural Support Prices, 1994-98

	Turkish lira per kg. 1998	1994	1995	1996	1997	1998
		(percentage change in nominal terms)				
Cereals						
Wheat	53,564	91.6	110.5	197.2	59.0	52.5
Barley	39,112	69.0	98.7	178.7	68.6	53.5
Rye	41,227	81.6	96.5	148.6	99.0	53.9
Maize	45,517	85.9	127.6	149.1	73.8	55.3
Industrial crops						
Sugar beet	17,709	85.7	166.5	73.6	153.4	46.4
Tea leaf	87,464	71.8	104.9	100.0	110.0	66.6
Tobacco	672,048	62.8	93.7	83.9	103.9	74.3
CPI (year-on-year)		106.3	93.6	82.3	85.7	84.6
		(percentage change in real terms)				
Cereals						
Wheat		-7.1	8.7	63.0	-14.4	-17.4
Barley		-18.1	2.6	52.9	-9.2	-16.8
Rye		-12.0	1.5	36.4	7.2	-16.6
Maize		-9.9	17.6	36.6	-6.4	-15.9
Industrial crops						
Sugar beet		-10.0	37.7	-4.8	36.5	-20.7
Tea leaf		-16.7	5.8	9.7	13.1	-9.8
Tobacco		-21.1	0.1	0.9	9.8	-5.6

Source: State Planning Organization.

Table 10. Turkey: Balances of Wheat, Tobacco, Sugar, and Petroleum Products, 1991-98
(Thousands of tons)

	1991	1992	1993	1994	1995	1996	1997	1998
Wheat								
Opening stock	7,861	8,196	4,992	6,402	3,980	3,048	3,293	3,821
Production	18,900	17,370	18,900	15,750	16,200	16,650	16,785	17,010
Net imports	-2,135	-3,880	-372	-522	1,023	1,974	2,289	599
Consumption	16,430	16,694	17,118	17,650	18,155	18,379	18,546	18,046
Ending stock	8,196	4,992	6,402	3,980	3,048	3,293	3,821	3,384
Tobacco								
Opening stock	389	418	468	571	569	518	419	379
Production	296	241	334	339	188	204	231	262
Net exports	137	79	96	112	136	169	160	155
Consumption	81	71	69	81	70	60	57	53
Burning of stocks	49	41	66	148	33	74	54	21
Ending stock	418	468	571	569	518	419	379	412
Sugar								
Opening stock	1,545	1,770	1,641	1,485	776	706	1,380	1,729
Production	1,888	1,954	2,016	1,547	1,375	1,862	2,371	2,709
Net imports	-53	-393	-472	-456	405	662	-122	-254
Consumption	1,610	1,690	1,700	1,800	1,850	1,850	1,900	1,950
Ending stock	1,770	1,641	1,485	776	706	1,380	1,729	2,234
Refined petroleum products								
Opening stock	3,408	2,641	2,575	2,627	2,459	2,561	2,547	2,692
Production 1/	22,057	23,597	25,661	24,885	27,027	26,416	27,032	27,150
Net imports	-592	369	1,706	1,162	1,836	3,415	3,093	2,941
Consumption	22,232	24,032	27,315	26,215	28,761	29,845	29,980	29,848
Ending stock	2,641	2,575	2,627	2,459	2,561	2,547	2,692	2,935

Source: Data provided by the Turkish authorities.

1/ Most of the refining uses imported crude oil.

Table 11. Turkey: Rate of Capacity Utilization in Manufacturing Industry, 1991-99 1/
(Weighted by production value)

	Total	Public	Private
1991	74.5	77.4	73.0
1992	76.5	77.7	75.7
1993	79.5	79.1	79.7
1994	73.0	78.3	70.9
1995	78.6	80.5	77.9
1996	78.0	82.0	76.5
1997	79.4	81.5	78.6
1998 2/	79.0	83.2	75.8
1997			
January	78.4	82.9	75.5
February	77.3	81.8	75.8
March	80.8	85.0	78.0
April	77.6	81.2	75.2
May	82.6	81.7	83.1
June	81.0	82.2	80.3
July	80.8	82.5	79.9
August	82.4	88.2	78.2
September	86.6	90.8	82.1
October	79.8	77.1	81.7
November	84.0	89.8	80.2
December	78.8	80.2	78.0
1998 2/			
January	75.8	78.7	73.6
February	78.1	78.3	77.9
March	80.5	80.7	80.1
April	77.4	78.9	76.6
May	82.1	84.4	78.4
June	78.7	66.4	79.7
July	81.1	89.5	76.4
August	79.4	92.0	71.3
September	81.8	87.8	78.5
October	80.0	86.6	76.2
November	79.2	87.8	74.0
December	74.4	86.9	66.3
1999 2/			
January	71.5	85.2	60.5
February	71.2	75.8	68.0
March	74.1	80.3	68.8
April	77.9	88.4	70.9
May	78.0	85.9	72.2
June	76.3	86.4	69.8
July	75.9	86.9	68.7
August	70.7	79.1	64.9
September	68.4	65.8	70.0
October	71.0	69.9	71.8

Source: Data provided by the Turkish authorities.

1/ Data on capacity utilization are collected from monthly and quarterly surveys. The quarterly series is based on a larger sample, hence it is not directly comparable with the monthly series. The annual figures in this table are averages of the quarterly data.

2/ Provisional.

Table 12. Turkey: Wholesale and Consumer Price Index, 1991-99

	Wholesale price index									Consumer price index		
	General			Agriculture 1/	Mining 2/	Manufacturing			Energy 4/	Total	Food 5/	Housing 6/
	Total	Public	Private	Total	Total	Total	Public	Private 3/	Total			
	(Year-on-year change; in percent)											
1991	55.3	61.3	52.9	50.8		55.3	58.8	53.8	75.1	66.0	...	...
1992	62.1	65.2	60.8	62.7		59.7	59.4	59.8	93.8	70.1	...	...
1993	58.4	54.5	60.1	62.2		56.6	50.7	59.3	43.1	66.1	...	...
1994	120.7	122.5	119.9	97.8	132.8	129.4	127.4	129.8	102.2	106.2	...	...
1995	88.5	77.0	93.4	118.7	76.6	83.5	83.2	83.9	47.8	93.6	...	...
1996	77.9	81.2	78.0	94.8	88.8	70.9	76.9	69.8	100.2	82.3	72.2	85.4
1997	81.8	85.5	80.7	86.9	76.2	80.6	89.7	77.6	71.8	85.7	92.5	82.2
1998	71.8	58.4	75.9	86.8	48.6	66.7	57.2	70.1				
	(12-month changes; in percent)											
1997												
January	78.0	88.2	75.1	81.3	91.8	74.6	83.5	71.9	107.3	75.7	69.5	80.0
February	78.6	88.6	75.7	78.5	93.3	77.4	87.6	74.2	89.1	77.7	77.1	78.0
March	77.0	76.0	77.2	84.4	82.7	73.3	73.6	73.2	83.9	77.3	78.1	76.9
April	72.8	63.2	75.7	83.9	72.0	68.2	60.2	71.0	73.9	77.2	82.3	78.8
May	74.6	68.3	76.4	85.9	66.3	70.4	67.9	71.2	72.3	77.5	80.7	79.5
June	75.7	71.6	76.9	86.9	72.9	71.9	72.5	71.7	66.9	78.0	84.1	79.2
July	80.7	87.8	78.6	84.4	73.6	80.6	94.9	75.9	64.7	85.2	93.0	81.4
August	83.4	92.0	80.8	84.4	77.6	84.6	100.4	79.2	62.4	87.8	93.0	83.4
September	85.4	95.0	82.5	85.3	78.7	87.1	103.9	81.4	63.9	89.8	98.8	82.7
October	87.5	93.7	85.6	88.8	71.9	88.9	102.6	84.3	66.8	93.2	105.1	84.0
November	88.4	92.8	87.0	94.5	71.6	87.8	100.8	83.4	70.1	95.8	108.9	87.7
December	91.0	97.5	89.0	96.5	72.6	91.2	108.5	85.4	64.1	99.1	117.3	88.0
1998												
January	92.5	89.0	93.6	111.2	61.9	88.4	98.8	84.9	64.9	101.6	119.6	92.2
February	89.6	81.6	92.0	110.0	55.3	84.3	88.9	82.9	66.7	99.3	112.1	92.8
March	86.0	79.4	87.9	98.7	58.2	82.7	84.9	81.9	68.9	97.2	102.5	94.6
April	83.3	78.3	84.7	90.3	60.2	81.8	82.7	81.4	70.5	93.6	91.5	92.0
May	79.9	72.0	82.1	88.1	61.0	77.3	73.8	78.6	72.4	91.4	87.4	93.9
June	76.7	69.5	78.8	82.8	54.2	75.1	70.9	76.5	74.7	90.6	84.0	94.4
July	72.1	55.5	77.2	86.3	50.5	67.1	52.4	72.4	77.1	85.3	82.0	90.3
August	67.4	48.4	73.4	82.7	45.6	61.7	43.1	68.7	80.9	81.4	75.1	86.8
September	65.9	48.2	71.6	85.4	41.0	58.9	44.2	64.5	76.9	80.4	76.8	89.1
October	62.0	45.0	67.3	81.1	43.9	54.7	40.4	60.0	71.4	76.6	71.7	90.2
November	58.6	41.5	63.9	75.5	36.6	52.2	37.7	57.6	66.0	72.8	65.6	85.8
December	54.3	35.6	60.1	71.9	34.0	47.1	29.8	53.6	69.9	69.7	60.6	86.8
1999												
January	50.0	36.9	53.9	59.4	33.9	45.8	32.3	50.6	62.8	65.9	58.6	82.9
February	48.3	39.7	50.7	52.6	39.8	45.8	34.7	49.5	63.1	63.9	55.0	81.3
March	48.2	45.9	48.9	49.4	41.0	47.1	42.5	48.6	63.3	63.5	55.5	80.4
April	50.0	53.2	49.2	50.1	51.6	49.2	50.8	48.7	63.2	63.9	58.3	83.7
May	50.0	58.1	47.8	45.8	61.3	50.8	55.8	49.1	63.6	63.0	53.1	84.1
June	50.3	62.3	47.1	43.1	58.7	52.5	61.6	49.6	63.6	64.3	51.2	86.4
July	52.4	74.1	46.5	39.4	58.4	57.3	77.4	50.8	63.2	65.0	49.6	87.7
August	53.7	79.2	46.7	39.6	65.8	58.8	83.9	50.8	61.1	65.4	47.9	89.7
September	54.4	81.0	47.1	37.0	71.9	61.1	85.1	53.0	62.7	64.3	44.3	88.8
October	55.2	86.1	46.9	35.2	74.4	63.0	90.9	54.0	66.1	64.7	46.0	89.7

Source: State Institute of Statistics.

1/ Entirely private sector.
2/ Predominantly public.
3/ Private sector manufacturing WPI accounts for 75 percent of the total manufacturing WPI.
4/ Entirely public sector.
5/ Accounts for 31 percent of the CPI.
6/ Accounts for 26 percent of the CPI.

Table 13. Turkey: Labor Market Developments, 1991-98 1/

	1991	1992	1993	1994	1995	1996	1997	1998
				(In percent)				
Participation rate	**56.2**	**55.7**	**54.3**	**54.7**	**54.7**	**54.6**	**51.7**	**51.3**
Urban	45.8	47.0	46.0	46.2	44.9	44.6	43.9	43.2
Male	75.7	76.4	74.5	74.5	73.2	72.7	71.8	71.9
Female	15.6	17.3	17.2	17.4	16.5	15.9	16.4	15.8
Rural	67.7	65.8	64.1	64.9	66.6	67.1	61.9	62.0
Male	82.7	82.4	80.6	82.0	83.0	83.3	80.9	79.3
Female	53.7	50.1	48.7	48.8	51.2	51.7	43.6	45.1
Unemployment rate	**7.9**	**8.1**	**7.7**	**8.1**	**6.9**	**6.0**	**6.4**	**6.3**
Urban	12.1	11.9	11.6	11.8	10.2	9.2	9.4	9.9
Male	10.1	10.0	9.5	10.0	8.6	8.0	7.6	8.6
Female	22.0	20.5	20.6	19.7	17.6	14.7	16.8	15.8
Rural	4.7	4.9	4.4	5.0	4.2	3.4	3.6	3.0
Male	6.2	6.2	6.2	6.4	5.4	4.4	4.0	3.7
Female	2.4	2.9	1.8	2.6	2.2	1.8	2.8	1.9
Underemployment rate	6.9	7.8	6.9	8.2	6.7	6.3	5.6	5.9
Rate of unemployment and underemplo	**14.8**	**15.8**	**14.6**	**16.3**	**13.6**	**12.3**	**12.0**	**12.2**
				(In percent of total employment)				
Agriculture	**47.4**	**43.5**	**44.5**	**44.8**	**46.8**	**44.9**	**41.9**	**42.3**
Industry	**15.7**	**16.8**	**15.8**	**16.4**	**15.3**	**15.9**	**17.2**	**16.8**
Mining	1.0	0.9	0.8	0.9	0.7	0.8	0.8	0.7
Manufacturing industry	14.4	15.5	14.5	15.0	14.0	14.7	15.9	15.5
Electricity, gas, and water	0.3	0.3	0.5	0.5	0.5	0.4	0.6	0.5
Services	**36.8**	**39.7**	**39.7**	**38.8**	**38.0**	**39.2**	**40.9**	**40.9**
Construction	5.5	5.6	6.2	5.8	5.8	6.0	6.2	6.1
Transportation	4.3	4.6	4.8	4.4	4.1	4.3	4.3	4.5
Commerce	11.5	12.6	12.5	12.4	12.5	12.6	13.7	13.6
Financial institutions	2.3	2.5	2.3	2.4	2.2	2.3	2.5	2.4
Other services	13.3	14.5	14.0	13.8	13.3	13.9	14.3	14.4

Source: State Planning Organization.

1/ Based on results of the State Institute of Statistics' Household Labor Force Survey (revised series).

Table 14. Turkey: Labor Market Developments, 1991-98 1/

	1991	1992	1993	1994	1995	1996	1997	1998
				(In thousands)				
Total population	**57,064**	**57,591**	**58,812**	**59,706**	**60,614**	**61,536**	**62,510**	**63,451**
Urban	31,339	32,327	33,347	34,399	35,483	36,602	37,757	38,948
Rural	25,725	25,264	25,465	25,307	25,131	24,934	24,753	24,503
Total population in the 15+ age group	**36,436**	**37,072**	**38,262**	**39,137**	**40,075**	**40,744**	**42,331**	**43,926**
Urban	19,216	19,816	20,673	21,398	22,123	22,746	23,908	25,082
Male	9,675	9,961	10,395	10,774	11,088	11,490	11,876	12,263
Female	9,541	9,855	10,278	10,624	11,035	11,256	12,032	12,819
Rural	17,220	17,256	17,589	17,739	17,952	17,998	18,423	18,844
Male	8,329	8,374	8,496	8,626	8,721	8,794	9,037	9,279
Female	8,891	8,882	9,093	9,113	9,231	9,204	9,386	9,565
Civilian labor force	**20,469**	**20,665**	**20,783**	**21,404**	**21,907**	**22,236**	**21,899**	**22,513**
Urban	8,809	9,315	9,509	9,883	9,942	10,151	10,496	10,837
Male	7,320	7,610	7,741	8,031	8,116	8,356	8,523	8,812
Female	1,489	1,705	1,768	1,852	1,826	1,795	1,973	2,025
Rural	11,660	11,350	11,274	11,521	11,965	12,085	11,403	11,676
Male	6,886	6,900	6,844	7,076	7,235	7,323	7,314	7,359
Female	4,774	4,450	4,430	4,445	4,730	4,762	4,089	4,317
Civilian employment	**18,860**	**19,001**	**19,181**	**19,665**	**20,395**	**20,894**	**20,505**	**21,085**
Urban	7,743	8,207	8,408	8,715	8,927	9,216	9,513	9,761
Male	6,581	6,851	7,005	7,228	7,422	7,684	7,872	8,056
Female	1,162	1,356	1,403	1,487	1,505	1,532	1,641	1,705
Rural	11,117	10,794	10,773	10,950	11,468	11,678	10,992	11,324
Male	6,458	6,472	6,423	6,621	6,841	7,002	7,019	7,089
Female	4,659	4,322	4,350	4,329	4,627	4,676	3,973	4,235
Unemployment	**1,609**	**1,664**	**1,602**	**1,739**	**1,512**	**1,342**	**1,394**	**1,428**
Underemployment	**1,415**	**1,609**	**1,439**	**1,756**	**1,474**	**1,401**	**1,237**	**1,324**
Civilian employment by sector:								
Agriculture	**8,948**	**8,263**	**8,539**	**8,807**	**9,538**	9,379	**8,584**	**8,918**
Industry	**2,963**	**3,195**	**3,030**	**3,223**	**3,111**	**3,327**	**3,529**	**3,536**
Mining	185	177	144	175	148	174	161	154
Manufacturing industry	2,715	2,953	2,783	2,948	2,854	3,063	3,254	3,267
Electricity, gas, and water	63	65	103	100	109	90	114	115
Services	**6,949**	**7,543**	**7,612**	**7,635**	**7,746**	**8,188**	**8,392**	**8,631**
Construction	1,029	1,066	1,183	1,150	1,177	1,264	1,269	1,277
Transportation	805	866	921	863	840	893	885	957
Commerce	2,174	2,385	2,389	2,447	2,555	2,634	2,811	2,860
Financial institutions	430	474	443	471	458	484	504	511
Other services	2,511	2,752	2,676	2,704	2,716	2,913	2,923	3,026

Source: State Planning Organization.

1/ Based on results of the State Institute of Statistics' Household Labor Force Survey (revised series).

Table 15. Turkey: Wages and Labor Costs, 1991-98

	1991	1992	1993	1994	1995	1996	1997	1998 Provisional
				(In Turkish liras per day)				
Minimum wage 1/	19,175	35,700	62,863	101,875	186,750	400,750	822,938	1,353,500
Minimum wage (end-of-Period)	26,700	48,300	83,250	139,125	282,000	567,000	1,181,250	1,594,650
Private sector 2/								
Base wage	72,030	127,208	212,115	349,583	588,818	1,097,910	2,000,303	3,880,590
Gross wage	148,680	260,573	440,775	726,975	1,204,440	2,243,730	4,056,660	7,875,263
Total labor cost	203,490	341,963	577,635	936,045	1,468,688	2,732,520	5,063,828	9,722,550
Net wage	93,578	165,105	282,443	486,135	838,988	1,549,350	2,762,873	5,660,108
Public sector 3/								
Base wage	72,030	127,208	212,115	349,583	588,818	1,097,910	2,323,367	4,215,000
Gross wage	133,500	240,567	429,600	839,667	1,279,733	1,770,500	4,030,600	7,096,333
Total labor cost	164,000	291,233	520,333	1,019,633	1,485,967	2,053,033	4,836,733	8,352,400
Net wage	82,767	149,200	267,767	552,067	885,700	1,198,367	2,653,367	4,878,667
Civil servants								
Net salary	41,357	80,010	135,735	218,550	403,057	782,122	1,691,982	3,082,721
Labor cost	70,598	128,456	214,625	328,687	602,070	1,207,903	2,543,119	4,518,545
				(Percentage change)				
Minimum wage 1/	89.4	86.2	76.1	62.1	83.3	114.6	105.3	64.5
Private sector 2/								
Gross wage	136.7	75.3	69.2	64.9	65.7	86.3	80.8	94.1
Labor cost	144.8	68.0	68.9	62.0	56.9	86.1	85.3	92.0
Public sector 3/								
Gross wage	148.9	80.2	78.6	95.5	52.4	38.3	127.7	76.1
Labor cost	142.8	77.6	78.7	96.0	45.7	38.2	135.6	72.7
Civil servants								
Net salary	77.9	93.5	69.6	61.0	84.4	94.0	116.3	82.2
Labor cost	72.3	82.0	67.1	53.1	83.2	100.6	110.5	77.7
Consumer price index	66.0	70.1	66.1	106.3	93.6	82.3	85.7	84.6
				(Index: 1989 = 100)				
Real wages 4/								
Minimum wage 1/	129.2	141.4	150.0	117.8	111.5	131.3	145.2	129.3
Private sector gross wage	127.8	131.7	134.1	107.2	91.7	93.7	91.3	95.9
Public sector gross wage	182.7	193.5	208.1	197.1	155.2	117.8	144.4	137.7
Civil servants' net salary	123.3	140.3	143.2	111.8	106.5	113.4	132.0	130.3
				(Percentage changes)				
Real wages 4/								
Minimum wage 1/	14.1	9.5	6.0	-21.4	-5.3	17.7	10.6	-10.9
Private sector gross wage	42.6	3.0	1.8	-20.1	-14.4	2.2	-2.7	5.1
Public sector gross wage	49.9	5.9	7.5	-5.3	-21.3	-24.1	22.6	-4.6
Civil servants' net salary	7.2	13.7	2.1	-22.0	-4.7	6.4	16.5	-1.3
Real wages (in U.S. dollars per day)								
Minimum wage 1/	4.60	5.19	5.72	3.43	4.09	4.95	5.43	5.20
Private sector gross wage	35.64	37.92	40.13	24.50	26.37	27.69	26.75	30.24
Public sector gross wage	32.00	35.00	39.11	28.30	28.02	21.85	26.58	27.25
Civil servants' net salary	9.91	11.64	12.36	7.37	8.82	9.65	11.16	11.84
Memorandum item:								
Average TL/US$	4,172	6,872	10,985	29,670	45,678	81,035	151,628	260,403

Source: State Planning Organization.

1/ Average over the calendar year. (The minimum wage set each year is effective from September to the following August.)
2/ Represents only the wages of workers covered by collective labor agreements.
3/ Based on data provided by the Public Sector Employers' Union.
4/ Nominal wages deflated by the consumer price index.

Table 16. Turkey: Wage Contracts in Selected Sectors in the Private Sector

Sector	Duration	Wage Increases	Number of Workers
Basic metals industry	1.9.1998-31.8.2000	1st 6 months: 43% (22% + 11000-74000 TL/hr wage) 2nd 6 months: percentage increase in CPI during the previous 6 months 3rd 6 months: percentage increase in CPI during the previous 6 months 4th 6 months: percentage increase in CPI during the previous 6 months	85,000
Textile	1.9.1998-31.8.2000	1st 6 months: 45% 2nd 6 months: 30% 3rd 6 months: percentage increase in CPI during the previous 6 months 4th 6 months: percentage increase in CPI during the previous 6 months	60,000
Paper printing	1.9.1998-31.8.2000	n.a.	3,000
Cement	1.1.1998-31.12.1999	1st year: 105% 2nd year: 1st 6 months: percentage increase in CPI during the previous 6 months + 10 points 2nd 6 months: percentage increase in CPI during the previous 6 months + 10 points	7,500
Glass Industry	1.1.1999-31.12.2000	For the base wages: 1st 6 months: 31% 2nd 6 months: percentage increase in CPI during the previous 6 months 3rd 6 months: percentage increase in CPI during the previous 6 months 4th 6 months: percentage increase in CPI during the previous 6 months For the fringe benefits: 1st year: 70 - 90% 2nd year: percentage increase in CPI during the previous year	6,200
Leather	1.3.1999-28.2.2001	For the base wages: 1st year: 76% 2nd year: percentage increase in CPI during the previous year For the fringe benefits: 1st year: 90% 2nd year: inflation rate in the CPI during the previous year	1,000
Construction	n.a.	n.a.	n.a.
Chemistry	1.1.1999-31.12.2000	At the negotiation stage.	7,000

Source: Data provided by the Turkish authorities.

Table 17: Turkey--Balance of Payments, 1993-1999
(In millions of US dollars)

	1993	1994	1995	1996	1997	1998	1999 H1
CURRENT ACCOUNT BALANCE	**-5,766**	**3,698**	**-806**	**-2,433**	**-2,750**	**1,872**	**-259**
Trade balance	-12,160	-1,016	-8,612	-10,582	-15,466	-14,332	-4,418
Exports (fob)	17,611	21,590	26,575	32,446	32,631	31,220	13,537
of which: Exports (fob) in trade returns	15,345	18,106	21,636	23,225	26,245	26,973	12,382
Shuttle trade	2,000	3,200	4,600	8,842	5,849	3,689	883
Imports (fob)	-29,771	-22,606	-35,187	-43,028	-48,097	-45,552	-17,955
of which: Imports (cif)	-29,428	-23,270	-35,709	-43,627	-48,657	-45,935	-18,220
Services (net)	2,626	1,622	3,310	3,702	7,850	10,477	1,567
Services (credit)	10,455	9,558	13,027	14,632	21,273	25,802	9,109
of which: Interest	1,135	890	1,488	1,577	1,900	2,481	1,161
Tourism receipts	3,959	4,321	4,957	5,650	7,002	7,177	1,791
Services (debit)	-7,829	-7,936	-9,717	-10,930	-13,423	-15,325	-7,542
of which: Interest	-3,574	-3,923	-4,303	-4,200	-4,588	-4,823	-2,713
Private transfers (net)	3,035	2,709	3,425	3,892	4,552	5,568	2,471
of which: Workers remittances	2,919	2,627	3,327	3,542	4,197	5,356	2,379
Official transfers (net)	733	383	1,071	555	314	159	121
CAPITAL ACCOUNT BALANCE	**8,736**	**-4,217**	**4,548**	**8,761**	**8,735**	**545**	**2,592**
(including errors and omissions)	6,074	-3,152	5,811	6,980	6,213	-1,652	3,797
Direct investment	622	559	772	612	701	573	265
Portfolio investment in securities	190	1,059	1,338	-761	-140	-5,807	1,120
Public sector (including Central Bank of Turkey)	3,032	-570	638	700	1,054	-1,221	-174
Public sector (excluding Central Bank of Turkey)	1,866	-2,365	-1,190	-698	-105	-1,683	74
Borrowing (net)	1866	-2365	-1190	-698	-105	-1,933	74
Disbursements (bonds and loans)	4,284	1,086	3,034	3,579	3,960	3,868	2,674
Repayments (bonds and loans)	-2,418	-3,451	-4,224	-4,277	-4,065	-5,801	-2,600
Bonds (net)	3721	411	809	1,491	1,353	-261	1,124
Disbursements	3759	721	2311	2,804	2,898	2,706	2,276
Repayments	-38	-310	-1502	-1,313	-1,545	-2,967	-1,152
Loans (net)	-1855	-2776	-1999	-2,189	-1,458	-1,672	-1,050
Disbursements	525	365	723	775	1,062	1,162	398
Repayments	-2380	-3141	-2722	-2,964	-2,520	-2,834	-1,448
Central Bank of Turkey (net)	1,166	1,795	1,828	1,398	1,159	462	-248
Domestic money banks (net)	1,270	-4,924	73	4,334	1,677	1,935	-650
Domestic money banks (FX reserves, -: accumulation)	-2,894	2,451	-2,030	1,510	-678	-752	61
Domestic money banks (other, net)	4,164	-7,375	2,103	2,824	2,355	2,687	-711
Domestic money banks (medium and long-term, net)	199	-594	62	886	2,081	511	-541
Domestic money banks (short-term, net)	3,965	-6,781	2,041	1,938	274	2,176	-170
Other private sector (net)	3,622	-341	1,727	3,876	5,443	5,315	2,031
Other private sector (medium and long-term, net)	2,107	959	185	1,506	3,487	4,176	474
Other private sector (short-term, net)	1,515	-1,300	1,542	2,370	1,956	1,139	1,557
Errors and omissions (including correction for shuttle trade)	-2,662	1,065	1,263	-1,781	-2,522	-2,197	1,205
OVERALL BALANCE	**308**	**546**	**5,005**	**4,547**	**3,463**	**220**	**3,538**
Change in official reserves (-: accumulation)	-308	-546	-5,005	-4,547	-3,463	-220	-3,538

Sources: Data provided by the Turkish authorities; and Fund staff estimates.

Table 18. Turkey: Estimate of the Shuttle Trade and Implications for the Balance of Payments, 1996-98

	1996		1997		1998	
	Estimate without Shuttle Trade	Adjusted for Estimate of Shuttle trade	Estimate without Shuttle Trade	Adjusted for Estimate of Shuttle trade	Estimate without Shuttle Trade	Adjusted for Estimate of Shuttle trade
Current account	-5,380	-2,433	-4,738	-2,750	618	1,872
Trade balance	-19,424	-10,582	-21,315	-15,466	-18,021	-14,332
Exports	23,604	32,446	26,782	32,631	27,531	31,220
Imports	-43,028	-43,028	-48,097	-48,097	-45,552	-45,552
Services	9,597	3,702	11,710	7,850	12,912	10,477
Capital account	9,763	8,761	9,411	8,735	972	545
Long-term capital	2,818	2,818	6,974	6,974	-2,057	-2,057
Short-term capital	6,945	5,943	2,437	1,761	3,029	2,602
Errors and ommissions	164	-1,781	-1,209	-2,522	-1,370	-2,197
Overall balance	4,547	4,547	3,463	3,463	220	220

Sources: Data provided by the Turkish authorities; and Fund staff estimates.

Table 19. Turkey: Foreign Trade, Value, and Volume, 1991-98

	1991	1992	1993	1994	1995	1996	1997	1998
	(In millions of U.S. dollars)							
Exports, f.o.b. 1/	13,593	14,715	15,345	18,106	21,637	23,224	26,261	26,973
Imports, c.i.f. 2/	21,047	22,871	29,429	23,270	35,709	43,626	48,558	45,934
Consumption goods	2,879	2,971	4,116	2,780	4,415	6,620	7,127	5,325
Capital goods	6,051	6,772	9,565	6,895	10,488	13,257	13,227	10,651
Intermediate goods	12,117	13,128	15,747	13,596	20,807	23,749	28,204	29,959
Oil	2,456	2,632	2,549	2,433	3,017	3,417	3,490	2,083
Other	9,661	10,496	13,197	11,163	17,790	20,332	24,713	27,876
	(Percent change from previous year)							
Total exports								
Value	4.9	8.3	4.3	18.0	19.5	7.3	13.0	2.8
Price 3/	-0.9	1.3	-2.8	-3.7	13.6	-5.5	-4.7	-4.0
Volume 4/	6.7	3.0	6.4	14.8	3.8	2.2	13.5	6.0
Total imports 2/								
Value	-5.6	8.7	28.7	-20.9	53.5	18.9	11.5	-5.6
Price 3/	-3.1	-1.9	-6.2	0.9	17.2	1.0	-8.7	-4.1
Volume 4/	-3.9	1.7	37.0	-21.5	28.3	20.0	23.6	-4.6
Oil and oil products imports								
Value	-20.9	2.3	3.7	-5.3	25.0	22.9	13.3	-40.3
Price	-20.6	-1.6	-14.8	-2.1	7.6	11.7	-6.9	-33.5
Volume	-0.4	4.0	21.7	-3.3	16.2	-2.2	-3.1	1.6
Non-oil imports 2/								
Value	-1.9	9.9	33.2	-23.1	58.4	22.1	12.3	-2.9
Price	1.0	-1.8	-4.6	1.4	18.6	0.2	-6.8	-2.0
Volume	-2.9	11.9	39.7	-24.2	33.6	32.2	25.9	-4.8
Terms of trade	2.3	3.2	3.6	-4.5	-3.1	-5.3	4.4	0.0

Source: State Institute of Statistics.

1/ Excluding transit trade.
2/ Excluding transit trade and nonmonetary gold.
3/ Price indices are estimated by the State Institute of Statistics.
4/ Volume indices are estimated by the State Institute of Statistics.

Table 20. Turkey: Real Effective Exchange Rate Indices, 1991-99
(Base 1992=100)

	Real Exchange Rate INS	Real Exchange Rate CPI based	Real Exchange Rate WPI based	Real Exchange Rate Private Manufacturing	Relative Unit Labor Cost Staff Rebased
1991	102.2	101.0	98.7	98.1	120.2
1992	98.4	96.6	92.2	89.9	98.7
1993	107.0	101.8	94.0	92.6	97.9
1994	80.3	76.2	75.4	76.9	66.4
1995	85.7	85.6	82.9	82.9	66.4
1996	87.7	88.5	83.8	80.1	70.1
1997	93.4	91.3	86.9	81.1	72.2
1998	101.3	97.2	89.7	82.7	78.8
1999 1/	105.4	100.2	87.1	79.7	84.2

Sources: Data provided by the Turkish authorities; and Fund staff estimates.

1/ As of the second quarter of 1999.

Table 21. Turkey: Commodity Composition of Exports, 1994-98 1/

	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
	In millions of U.S. dollars					Percent of total					Percent change from year earlier				
Agriculture and livestock	2,457	2,307	2,708	2,947	2,969	13.6	10.7	11.7	11.2	11.0	3.9	-6.1	17.4	8.8	0.7
Crops	2,082	2,085	2,473	2,673	2,748	11.5	9.6	10.6	10.2	10.2	3.4	0.1	18.6	8.1	2.8
Hazelnuts	436	586	445	622	579	2.4	2.7	1.9	2.4	2.1	5.6	34.4	-24.1	39.8	-6.9
Raisins	176	190	207	224	214	1.0	0.9	0.9	0.9	0.8	31.3	8.0	8.9	8.2	-4.5
Tobacco	395	245	542	565	590	2.2	1.1	2.3	2.2	2.2	-0.3	-38.0	121.2	4.2	4.4
Cotton	31	6	65	55	55	0.2	0.0	0.3	0.2	0.2	-78.6	-80.6	983.3	-15.4	0.0
Others	1,044	1,058	1,214	1,207	1,310	5.8	4.9	5.2	4.6	4.9	12.7	1.3	14.7	-0.6	8.5
Livestock products	245	155	170	195	171	1.4	0.7	0.7	0.7	0.6	-16.7	-36.7	9.7	14.7	-12.3
Fishery products	53	54	59	71	42	0.3	0.2	0.3	0.3	0.2	20.5	1.9	9.3	20.3	-40.8
Forestry	16	13	6	8	8	0.1	0.1	0.0	0.0	0.0	14.3	-18.8	-53.8	33.3	0.0
Mining and quarry products	272	406	389	424	385	1.5	1.9	1.7	1.6	1.4	13.9	49.1	-4.2	9.0	-9.2
Industrial products	15,377	18,924	20,127	22,890	23,619	84.9	87.5	86.7	87.2	87.6	20.7	23.1	6.4	13.7	3.2
Processed agricultural products	1,765	2,214	2,118	2,397	1,941	9.7	10.2	9.1	9.1	7.2	28.9	25.4	-4.3	13.2	-19.0
Textiles	6,286	8,158	8,528	9,711	10,353	34.7	37.7	36.7	37.0	38.4	16.0	29.8	4.5	13.9	6.6
Forestry products	41	58	62	66	61	0.2	0.3	0.3	0.3	0.2	78.3	41.5	6.9	6.5	-7.6
Hides and leather products	560	597	434	512	455	3.1	2.8	1.9	1.9	1.7	1.4	6.6	-27.3	18.0	-11.1
Chemicals	576	712	823	953	927	3.2	3.3	3.5	3.6	3.4	23.1	23.6	15.6	15.8	-2.7
Rubber and plastic	450	555	611	718	774	2.5	2.6	2.6	2.7	2.9	16.9	23.3	10.1	17.5	7.8
Petroleum products	235	277	274	189	254	1.3	1.3	1.2	0.7	0.9	36.6	17.9	-1.1	-31.0	34.4
Cement	145	141	135	171	158	0.8	0.7	0.6	0.7	0.6	61.1	-2.8	-4.3	26.7	-7.6
Glass and ceramics	431	544	621	736	761	2.4	2.5	2.7	2.8	2.8	13.4	26.2	14.2	18.5	3.4
Nonferrous metal	215	344	384	452	480	1.2	1.6	1.7	1.7	1.8	24.3	60.0	11.6	17.7	6.2
Iron and steel	2,369	2,257	2,256	2,599	2,252	13.1	10.4	9.7	9.9	8.3	17.8	-4.7	0.0	15.2	-13.4
Metal prod. & machinery	591	764	884	1,064	1,164	3.3	3.5	3.8	4.1	4.3	50.4	29.3	15.7	20.4	9.4
Electrical appliances	682	914	1,328	1,449	1,847	3.8	4.2	5.7	5.5	6.8	20.5	34.0	45.3	9.1	27.5
Motor vehicles	503	816	991	1,022	1,159	2.8	3.8	4.3	3.9	4.3	32.4	62.2	21.4	3.1	13.4
Other	528	573	678	851	1,033	2.9	2.6	2.9	3.2	3.8	47.4	8.6	18.3	25.5	21.4
Total exports	18,106	21,637	23,224	26,261	26,973	100.0	100.0	100.0	100.0	100.0	18.0	19.5	7.3	13.1	2.7

Source: Data provided by the Turkish authorities.

1/ Exports f.o.b., excluding transit trade.

Table 22. Turkey: Geographical Distribution of Exports, 1995-98
(In millions of U.S. dollars)

					Percentage of total				Percentage change from a year earlier			
	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998
OECD countries	13,213	14,427	15,546	13,742	61.1	62.1	59.2	50.9	22.8	9.2	7.8	-11.6
EC countries	11,071	11,549	12,236	13,498	51.2	49.7	46.6	50.0	28.2	4.3	5.9	10.3
France	1,033	1,053	1,163	1,304	4.8	4.5	4.4	4.8	21.4	1.9	10.4	12.1
Germany	5,034	5,187	5,253	5,460	23.3	22.3	20.0	20.2	28.0	3.0	1.3	3.9
Italy	1,456	1,446	1,388	1,557	6.7	6.2	5.3	5.8	40.8	-0.7	-4.0	12.2
United kingdom	1,135	1,261	1,505	1,739	5.2	5.4	5.7	6.4	27.7	11.1	19.3	15.5
Others	2,413	2,602	2,927	3,438	11.2	11.2	11.1	12.7	25.2	7.8	12.5	17.5
Other OECD countries	2,142	2,878	3,310	3,124	9.9	12.4	12.6	11.6	0.9	34.4	15.0	-5.6
Switzerland	238	276	318	244	1.1	1.2	1.2	0.9	-0.4	16.0	15.2	-23.3
United states	1,516	1,639	2,120	2,233	7.0	7.1	8.1	8.3	-0.3	8.1	29.3	5.3
Others	388	963	872	647	1.8	4.1	3.3	2.4	6.6	148.2	-9.4	-25.8
Eastern Europe and FSU	3,353	3,329	4,337	4,989	15.5	14.3	16.5	18.5	45.5	-0.7	30.3	15.0
Middle East and North African countries	3,265	2,992	3,246	3,955	15.1	12.9	12.4	14.7	7.0	-8.4	8.5	21.8
Egypt	245	316	304	474	1.1	1.4	1.2	1.8	25.6	29.0	-3.8	55.9
Islamic Rep of Iran	266	298	307	194	1.2	1.3	1.2	0.7	6.4	12.0	3.0	-36.8
Iraq	119	-	-	-	0.5	-	-	-	-15.6	-	-	-
Kuwait	119	107	126	89	0.5	0.5	0.5	0.3	-7.0	-10.1	17.8	-29.4
Libya	238	244	187	95	1.1	1.1	0.7	0.4	33.0	2.5	-23.4	-49.2
Saudi Arabia	467	431	534	472	2.2	1.9	2.0	1.7	-23.3	-7.7	23.9	-11.6
Other MENA	1,811	1,596	1,788	2,631	8.4	6.9	6.8	9.8	16.8	-11.9	12.0	47.1
Other countries	1,806	2,476	3,132	1,413	8.3	10.7	11.9	5.2	-9.3	37.1	26.5	-54.9
Total exports	21,637	23,224	26,261	26,979	100.0	100.0	100.0	100.0	19.5	7.3	13.1	2.7

Source: Data provided by the Turkish authorities.

Table 23. Turkey: Commodity Composition of Imports, 1994-98

	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
	In millions of U.S. dollars					Percent of total					Percent change from year earlier				
Agriculture and livestock	1,209	2,444	2,955	3,171	2,666	5.2	6.8	6.8	6.5	5.8	-27.3	102.2	20.9	7.3	-15.9
Mining and quarry product	2,969	3,478	4,298	4,138	2,942	12.8	9.7	9.9	8.5	6.4	8.3	17.1	23.6	-3.7	-28.9
Crude oil	2,432	2,919	3,417	3,194	2,083	10.5	8.2	7.8	6.6	4.5	8.1	20.0	17.1	-6.5	-34.8
Others	537	559	881	944	859	2.3	1.6	2.0	1.9	1.9	9.4	4.1	57.6	7.2	-9.0
Industrial products	19,092	29,787	36,373	41,249	40,326	82.0	83.4	83.4	84.9	87.8	-23.7	56.0	22.1	13.4	-2.2
Processed agricultural products	1,029	1,805	1,367	1,211	1,145	4.4	5.1	3.1	2.5	2.5	-19.6	75.4	-24.3	-11.4	-5.5
Textiles	1,136	1,848	2,535	2,825	2,796	4.9	5.2	5.8	5.8	6.1	7.9	62.7	37.2	11.4	-1.0
Forestry products	29	47	89	87	114	0.1	0.1	0.2	0.2	0.2	-27.5	62.1	89.4	-2.2	31.0
Hides and leather products	186	245	315	321	252	0.8	0.7	0.7	0.7	0.5	3.9	31.7	28.6	1.9	-21.5
Chemicals	2,647	4,288	4,546	4,992	5,115	11.4	12.0	10.4	10.3	11.1	-11.2	62.0	6.0	9.8	2.5
Petroleum products	974	1,374	1,871	2,319	1,900	4.2	3.8	4.3	4.8	4.1	-9.4	41.1	36.2	23.9	-18.1
Rubber and plastic	1,003	1,780	2,157	2,413	2,427	4.3	5.0	4.9	5.0	5.3	-13.2	77.5	21.2	11.9	0.6
Cement	12	13	7	14	19	0.1	0.0	0.0	0.0	0.0	-33.3	8.3	-46.2	100.0	35.7
Glass and ceramics	179	300	404	377	429	0.8	0.8	0.9	0.8	0.9	-17.5	67.6	34.7	-6.7	13.8
Nonferrous metals	443	823	943	1,114	1,003	1.9	2.3	2.2	2.3	2.2	-5.7	85.8	14.6	18.1	-10.0
Iron and steel	2,401	3,534	3,406	3,723	3,432	10.3	9.9	7.8	7.7	7.5	-22.3	47.2	-3.6	9.3	-7.8
Metal products and machinery	3,724	5,654	8,763	9,445	8,928	16.0	15.8	20.1	19.5	19.4	-30.9	51.8	55.0	7.8	-5.5
Electrical appliances	1,767	2,138	2,966	3,849	4,402	7.6	6.0	6.8	7.9	9.6	-12.2	21.0	38.7	29.8	14.4
Motor vehicles	2,162	3,635	4,394	5,701	4,886	9.3	10.2	10.1	11.7	10.6	-46.6	68.1	20.9	29.7	-14.3
Others	1,400	2,303	2,610	2,858	3,478	6.0	6.4	6.0	5.9	7.6	-30.6	64.5	13.3	9.5	21.7
Total imports	23,270	35,709	43,626	48,558	45,934	100.0	100.0	100.0	100.0	100.0	-20.9	53.5	22.2	11.3	-5.4

Source: Data provided by the Turkish authorities.

1/ Imports c.i.f., excluding nonmonetary gold and transit trade.

Table 24. Turkey: Geographical Distribution of Imports, 1995-98
(In millions of U.S. dollars)

					Percentage of total				Percentage change from a year earlier			
	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998
OECD countries	23,695	31,092	34,779	32,316	66.2	71.3	71.6	70.4	54.6	31.2	11.9	-7.1
EC countries	16,861	23,138	24,834	24,088	47.1	53.0	51.1	52.4	54.5	37.2	7.3	-3.0
France	1,996	2,771	2,964	3,034	5.6	6.4	6.1	6.6	36.9	38.8	7.0	2.4
Germany	5,548	7,814	8,010	7,316	15.5	17.9	16.5	15.9	52.2	40.8	2.5	-8.7
Italy	3,193	4,286	4,456	4,235	8.9	9.8	9.2	9.2	58.9	34.2	4.0	-5.0
United kingdom	1,830	2,510	2,758	2,683	5.1	5.8	5.7	5.8	56.4	37.2	9.9	-2.7
Others	4,294	5,757	6,646	6,820	12.0	13.2	13.7	14.8	63.1	34.1	15.4	2.6
Other OECD countries	6,834	7,954	9,945	8,228	19.1	18.2	20.5	17.9	54.8	16.4	25.0	-17.3
Switzerland	816	1,015	1,097	1,017	2.3	2.3	2.3	2.2	72.5	24.4	8.1	-7.3
United states	3,724	3,516	4,345	4,053	10.4	8.1	8.9	8.8	53.5	-5.6	23.6	-6.7
Others	2,294	3,423	4,503	3,158	6.4	7.8	9.3	6.9	51.2	49.2	31.6	-29.9
Eastern Europe and FSU	4,540	3,979	4,524	4,923	12.7	9.1	9.3	10.7	76.0	-12.4	13.7	8.8
Middle East and North African countries	4,320	5,563	4,517	3,713	12.1	12.8	9.3	8.1	28.1	28.8	-18.8	-17.8
Egypt	211	272	393	392	0.6	0.6	0.8	0.9	70.2	28.9	44.5	-0.3
Islamic Rep of Iran	690	806	646	433	1.9	1.8	1.3	0.9	-0.4	16.8	-19.9	-33.0
Kuwait	97	104	171	80	0.3	0.2	0.4	0.2	26.0	7.2	64.4	-53.2
Libya	385	476	533	342	1.1	1.1	1.1	0.7	20.3	23.6	12.0	-35.8
Saudi Arabia	1,383	1,708	1,017	669	3.9	3.9	2.1	1.5	12.5	23.5	-40.5	-34.2
Others	1,554	2,197	1,757	1,797	4.3	5.0	3.6	3.9	67.3	41.4	-20.0	2.3
Other countries	3,253	2,992	4,738	4,982	9.1	6.9	9.8	10.8	63.7	-8.0	58.4	5.1
Total exports	35,808	43,626	48,558	45,934	100.0	100.0	100.0	100.0	53.9	21.8	11.3	-5.4

Source: Data provided by the Turkish authorities.

Table 25. Turkey: Long-Term Capital Flows, 1993-99
(In millions of US dollars)

	1993	1994	1995	1996	1997	1998	1999 Q2
Total long-term capital	**5,909**	**933**	**2,417**	**2,818**	**7,002**	**-1,826**	**1,159**
Direct investment	**622**	**559**	**772**	**612**	**701**	**573**	**173**
Portfolio investment	**3,917**	**1,158**	**1,724**	**570**	**1,634**	**-6,386**	**1,333**
of which : Bond issues (net)	3,727	99	386	1,331	1,774	-579	1,018
Other long-term capital	**1,370**	**-784**	**-79**	**1,636**	**4,667**	**3,987**	**-347**
Resident official sector (including central bank)	-930	-1,461	-537	-916	-480	-1,018	-447
Drawings	525	365	723	775	1,062	1,162	152
Dresdner deposits	925	1,315	1,462	1,273	978	654	82
Amortizations	-2,380	-3,141	-2,722	-2,964	-2,520	-2,834	-681
Domestic money banks (net)	193	-282	273	1,046	1,660	829	-236
Drawings	682	352	500	1,439	2,478	3,126	234
Amortizations	-489	-634	-227	-393	-818	-2,297	-470
Other sectors (including private)	2,107	959	185	1,506	3,487	4,176	336
Drawings	3,650	2,632	2,903	3,834	6,244	7,216	1,469
Amortizations	-1,543	-1,673	-2,718	-2,328	-2,757	-3,040	-1,133

Sources: Data provided by the Turkish authorities; and Fund staff estimates.

Table 26•Turkey: Short-term Capital Flows, 1993-99
(In millions of US dollars)

	1993	1994	1995	1996	1997	1998	1999 Q2
Short-term capital	**3,054**	**-5,127**	**2,305**	**6,945**	**2,437**	**3,029**	**801**
Assets	**-3,291**	**2,423**	**-1,791**	**1,331**	**-1,074**	**-1,036**	**-147**
Credits extended abroad (net)	-289	-38	293	-125	-358	-260	-255
Central Bank of Turkey (net)	48	-28	-48	-63	-60	-70	-19
Deposit money banks (net)	-337	-10	341	-62	-298	-190	-236
FX reserve holdings (DMBs - increase of reserves)	-2,894	2,451	-2,030	1,510	-678	-752	104
Other assets	-108	10	-54	-54	-38	-24	4
Liabilities	**6,345**	**-7,550**	**4,096**	**5,614**	**3,511**	**4,065**	**948**
Central Bank of Turkey	193	168	279	188	269	109	-21
Of which: Dresdner deposits	144	115	101	63	49	-80	-21
Deposit money banks	4,302	-6,771	1,700	2,000	572	2,366	633
FX deposit accounts (nonresidential)	520	-170	899	1,231	-152	2,303	-194
FX credits (net of repayments)	3,782	-6,601	801	769	724	63	827
Other sectors	1,850	-947	2,117	3,426	2,670	1,590	336
Trade credits (net)	2,244	-816	1,671	3,419	2,084	1,171	341
FX credits (net)	-394	-131	446	7	586	419	-5

Sources: Data provided by the Turkish authorities; and Fund staff estimates.

Table 27. Turkey: Foreign Direct Investment, 1982-99
(In millions of US dollars)

	Permits		Realization		
	Annual	Cumulative	Inflow	Outflow	Net
1982	167	830	103	48	55
1983	103	933	87	41	46
1984	271	1,204	162	49	113
1985	235	1,439	158	59	99
1986	364	1,803	170	45	125
1987	655	2,458	171	65	106
1988	821	3,279	387	33	354
1989	1,512	4,791	738	75	663
1990	1,861	6,652	788	88	700
1991	1,967	8,619	910	127	783
1992	1,820	10,439	912	133	779
1993	2,125	12,564	797	175	622
1994	1,485	14,049	637	78	559
1995	2,938	16,987	935	163	772
1996	3,837	20,824	937	325	612
1997	1,678	22,502	873	319	554
1998	1,645	24,147	982	409	573
1999 1/	425	24,572	214	122	92

Source: Data provided by the Turkish authorities.

1/ As of the first quarter of 1999.

Table 28. Turkey: External Debt, 1996-99
(In millions of U.S. dollars; end-of-period)

	1996	1997	1998	1999 Q1	1999 Q2
			(By creditor)		
Total outstanding debt	**83,963**	**91,109**	**103,956**	**101,599**	**100,058**
Short-term	**20,517**	**22,634**	**27,236**	**27,548**	**27,902**
Medium- and long-term	**63,446**	**68,475**	**76,720**	**74,051**	**72,156**
Short-term	**20,517**	**22,634**	**27,236**	**27,548**	**27,902**
Commercial banks	4,940	5,969	6,511	7,214	7,047
Private lenders	15,577	16,665	20,725	20,334	20,855
Medium- and long-term	**63,446**	**68,475**	**76,720**	**74,051**	**72,156**
Official creditors	**17,920**	**16,476**	**16,889**	**14,529**	**14,086**
Bilateral lenders	**8,852**	**8,255**	**8,834**	**8,279**	**8,098**
Central banks	28	16	28	29	28
Central governments	4,170	3,699	3,561	3,351	3,202
Official financial institutions	3,689	3,251	3,450	3,116	3,039
Official inv. and development banks	965	1,289	1,795	1,783	1,829
Multilateral organizations	**9,068**	**8,221**	**8,055**	**6,250**	**5,988**
European investment bank	419	494	599	265	259
European resettlement fund	2,676	2,227	2,176	1,065	966
Islamic development bank	266	275	301	291	286
Int. Fund for agricultural development	11	8	6	6	5
International finance corporation	761	997	1,229	1,194	1,227
International development association	122	115	109	109	106
International bank for reconst. and dev.	4,152	3,510	3,247	3,023	2,922
International monetary fund	661	595	388	297	217
Private creditors	**45,526**	**51,999**	**59,831**	**59,522**	**58,070**
Private lenders	32,445	38,268	45,254	44,326	43,059
Commercial banks	15,273	19,446	22,967	22,810	22,249
Nonbank financial institutions	3,663	5,294	6,146	6,094	5,965
Non-monetary institutions	2,235	2,456	3,335	3,366	3,380
Off-shore banks	529	780	1,099	1,062	996
Private inv. and development banks	11	11	11	11	11
Individuals	6	6	7	8	8
Dresdner account	10,720	10,267	11,681	10,967	10,442
NGTA	8	8	8	8	8
Bond issue	13,081	13,731	14,577	15,196	15,011
			(by borrower)		
Total outstanding debt	**83,962**	**91,110**	**103,955**	**101,596**	**100,056**
Short-term	**20,517**	**22,634**	**27,236**	**27,548**	**27,902**
Medium- and long-term	**63,445**	**68,476**	**76,719**	**74,048**	**72,154**
Short-term	**20,517**	**22,634**	**27,236**	**27,548**	**27,902**
CBRT	984	889	905	838	778
CBRT loans	42	30	7	13	13
Dresdner ban scheme	942	859	898	825	765
Deposit money banks	8,419	8,503	11,159	11,540	10,873
Other sectors	11,114	13,242	15,172	15,170	16,251
Medium- and long-term	**63,445**	**68,476**	**76,719**	**74,048**	**72,154**
Public sector	**40,702**	**39,768**	**40,900**	**38,929**	**38,049**
General government	36,343	35,312	36,547	34,914	34,176
Central government	32,407	31,548	32,895	31,436	30,802
Treasury loans	17,247	17,269	17,870	18,024	17,782
Onlending and allocated	12,756	11,980	12,622	11,183	10,746
Annexed budget	2,404	2,299	2,403	2,229	2,274
Local administration	2,774	2,776	2,838	2,698	2,675
Extrabudgetary funds	1,146	979	804	771	692
Universities	16	9	10	9	7
Other public sectors	1,085	939	686	646	571
State owned enterprises	3,274	3,517	3,667	3,369	3,302
Financial SOEs	157	420	534	518	503
Nonfinancial SOEs	3,117	3,097	3,133	2,851	2,799
CBRT	**10,728**	**10,273**	**11,685**	**10,971**	**10,445**
CBRT loans	8	6	4	4	3
Dresdner bank scheme	10,720	10,267	11,681	10,967	10,442
Private sector	**12,015**	**18,435**	**24,134**	**24,148**	**23,660**
Financial	3,376	5,602	6,664	6,483	6,076
Banks	2,258	3,775	4,271	4,148	3,845
Nonbank financial enterprises	1,118	1,827	2,393	2,335	2,231
Nonfinancial	8,639	12,833	17,470	17,665	17,584

Source: Data provided by the Turkish authorities.

Table 29. Turkey: External Debt Service, 1992-98

(In millions of US dollars)

	1992	1993	1994	1995	1996	1997	1998
Total external debt service	8,733	8,227	9,993	11,897	11,418	12,390	16,279
Interest debits	3,439	3,574	3,923	4,303	4,200	4,588	4,823
Medium and Long-term debt repayments	5,294	4,653	6,070	7,594	7,218	7,802	11,456
Current account receipts (excluding official transfers)	28,790	31,101	33,857	43,027	50,970	58,456	62,590
Debt service ratio	30.3	26.5	29.5	27.6	22.4	21.2	26.0

Sources: Data provided by the Turkish authorities; and Fund staff estimates.

Table 30. Turkey: Monetary Survey, 1994-99

(In billions of Turkish liras)

	1994	1995	1996	1997	1998	Jun-99
Net foreign assets	**184,213**	**397,306**	**777,956**	**1,570,223**	**1,799,814**	**3,539,452**
Central bank	-25,300	119,465	633,616	1,752,100	2,743,836	5,135,226
Deposit money banks	209,513	277,841	144,339	-181,877	-944,022	-1,595,774
Net domestic assets	**1,113,455**	**2,280,879**	**4,929,688**	**10,851,118**	**20,066,152**	**26,877,715**
Domestic credit	**1,015,789**	**2,242,763**	**5,093,356**	**11,084,579**	**19,501,860**	**29,288,472**
Claims on the central government (net)	**469,397**	**1,074,128**	**2,591,185**	**5,562,759**	**9,462,790**	**15,878,181**
Central bank	175,972	421,458	612,054	123,899	4,845	-122,067
Short-term credits	122,278	192,000	370,953	337,623	0	0
Government securities	75,098	329,168	457,139	605,111	797,839	514,122
Government's deposits	21,403	99,710	216,039	818,835	792,994	636,190
In Turkish lira	9,989	13,665	43,869	245,668	274,201	211,765
In foreign exchange	11,414	86,044	172,170	573,167	518,794	424,425
Deposit money banks	190,719	394,073	1,457,522	3,301,378	7,203,215	12,530,001
Credits	188	20,525	12,538	21,752	14,756	10,235
Bills and bonds	146,233	252,822	874,679	1,842,642	3,742,140	7,121,262
Duty loss accounts	54,498	103,158	387,533	897,999	4,051,566	6,412,994
Deposits	31,788	66,113	217,626	386,862	605,248	1,014,498
Repos	102,705	258,597	521,609	2,137,482	2,254,731	3,470,247
Claims on other public sector (net)	**-3,541**	**-104,353**	**-299,960**	**-804,795**	**-1,454,169**	**-492,858**
Extrabudgetary funds	-41,139	-64,727	-110,022	-591,678	-1,031,184	-1,587,496
Central bank 1/	-2,853	-14,864	-46,651	-162,327	-164,222	-216,664
Deposit money banks	-38,286	-49,863	-63,371	-429,351	-866,962	-1,370,832
Local government	-8,347	-16,523	-57,323	-113,768	-152,910	-139,551
Central bank	-1,082	-2,405	-4,007	-5,646	-15,671	-10,884
Deposit money banks	-7,265	-14,117	-53,316	-108,123	-137,239	-128,667
Non-financial state enterprises	45,945	-23,104	-132,616	-99,349	-270,076	1,234,189
Central bank	23,291	-10,748	-36,652	-109,288	-132,653	1,264,460
Deposit money banks	22,653	-12,357	-95,964	9,939	-137,423	-30,271
Claims on the private sector	**549,933**	**1,272,987**	**2,802,132**	**6,326,614**	**11,493,239**	**13,903,149**
Credit in lira	341,758	789,555	1,555,543	3,413,419	6,625,742	8,165,550
Credit in foreign exchange 2/	208,174	483,433	1,246,589	2,913,195	4,867,497	5,737,599
Other items net	97,667	38,117	-163,668	-233,461	564,292	-2,410,757
Broad liquidity	**1,297,669**	**2,678,185**	**5,707,644**	**12,421,341**	**21,865,966**	**30,417,167**
M2X	1,194,964	2,419,588	5,186,035	10,283,859	19,611,235	26,946,920
M2	633,089	1,273,769	2,776,444	5,390,042	10,956,935	14,999,365
Currency outside banks	100,085	185,689	309,895	589,227	1,016,010	1,190,954
Demand deposits	105,360	160,966	379,640	697,732	1,109,273	1,184,109
Time and savings deposits	423,011	920,196	2,075,701	4,102,923	8,831,637	12,624,286
Certificates of deposits	4,633	6,919	11,208	160	16	16
Residents' foreign exchange deposits	561,875	1,145,819	2,409,591	4,893,818	8,654,300	11,947,555
Repos	102,705	258,597	521,609	2,137,482	2,254,731	3,470,247

Source: Statistics Department of the Central Bank of Turkey.

1/ Includes deposits of the Saving Deposits Insurance Fund.

Table 31. Turkey: Accounts of the Monetary Authorities, 1994-99

(In billions of Turkish lira)

	1994	1995	1996	1997	1998	Jun-99
Net foreign assets	**-25,300**	**119,465**	**633,616**	**1,752,100**	**2,743,836**	**5135226**
Foreign assets	372,835	888,772	2,028,848	4,260,031	6,895,742	10029747
Foreign liabilities	398,135	769,307	1,395,231	2,507,931	4,151,906	4894521
Net domestic assets	**305,794**	**383,081**	**328,624**	**176,002**	**731,301**	**-583643**
Claims on the central government (net)	**175,972**	**421,458**	**612,054**	**123,899**	**4,845**	**-122067**
Short-term credits	122,278	192,000	370,953	337,623	0	0
Government securities 1/	75,098	329,168	457,139	605,111	797,839	514122
Government's deposits	21,403	99,710	216,039	818,835	792,994	636190
In Turkish lira	9,989	13,665	43,869	245,668	274,201	211765
In foreign exchange	11,414	86,044	172,170	573,167	518,794	424425
Claims on other public sector	**19,357**	**-28,017**	**-87,309**	**-277,261**	**-312,546**	**1036912**
Claims	25,930	1,203	2,243	1,576	1,559	1436103
Lira deposits	1,762	5,511	10,568	55,359	32,192	35304
FX deposits	4,811	23,709	78,984	223,478	281,913	363888
By sector:	888	-2,321	-5,585	-46,992	15,819	-9247
Extrabudgetary funds	-2,853	-14,864	-46,651	-162,327	-164,222	-216664
Deposits in Turkish lira	643	3,087	6,549	49,718	16,541	23656
Deposits in foreign exchange 2/	2,210	11,777	40,102	112,609	147,682	193008
Of which: Insurance fund of savings deposits	1,774	11,464	37,666	106,351	124,065	156261
Local governments	-1,082	-2,405	-4,007	-5,646	-15,671	-10884
Deposits in Turkish lira	1,075	2,395	3,992	5,620	15,630	10836
Deposits in foreign exchange	7	11	15	25	41	49
Nonfinancial public enterprises	23,291	-10,748	-36,652	-109,288	-132,653	1264460
Claims	25,930	1,203	2,243	1,576	1,559	1436103
Turkish lira deposits	44	30	27	21	22	812
Foreign exchange deposits	2,594	11,921	38,867	110,843	134,190	170831
Claims on deposit money banks	**20,503**	**28,677**	**73,112**	**831,002**	**2,102,597**	**1428428**
Advances and discount	12,252	12,220	7,682	7,676	7,539	0
Other claims	8,251	16,457	65,430	823,326	2,095,058	1428428
Other items net:	**89,962**	**-39,037**	**-269,232**	**-501,639**	**-1,063,595**	**-2926916**
Revaluation account	133,417	25,940	-49,934	-290,796	-499,636	-624446
Capital and reserves	-13,709	-19,192	-113,967	-203,448	-435,678	-234133
Others	-29,746	-45,785	-105,332	-7,395	-128,281	-2068336
Reserve money	**280,494**	**502,546**	**962,240**	**1,928,102**	**3,475,137**	**4551583**
Currency issued	120,126	223,660	381,814	758,393	1,327,755	1557789
Currency outside banks	100,085	185,689	309,895	589,227	1,016,010	1190954
Currency in bank vaults	20,042	37,971	71,920	169,166	311,745	366835
Banks deposits	160,368	278,886	580,426	1,169,710	2,147,382	2993794
Required reserves	122,543	250,873	450,876	917,008	1,648,021	2200056
Free reserves	37,826	28,012	129,550	252,701	499,361	793738
TL/US$	38,418	59,501	107,505	204,750	312,720	418189

Source: Statistics Department of the Central Bank.

1/ Securities are adjusted to include those sold, and to exclude those purchased, under repurchase agreements. Counterpart adjustments are made in the accounts of the Deposit Money Banks.

2/ Includes deposits of the Saving Deposits Insurance Fund.

Table 32. Turkey: Accounts of Commercial Banks, 1994-99

(In billions of Turkish liras)

	1994	1995	1996	1997	1998	Jun-99
Net foreign assets	**209,513**	**277,841**	**144,339**	**-181,877**	**-944,022**	**-1,595,774**
Foreign assets	335,160	593,596	1,016,172	2,160,786	3,661,849	4,718,815
Foreign liabilities	125,647	315,755	871,833	2,342,663	4,605,871	6,314,589
Net domestic assets	**988,071**	**2,214,655**	**5,253,410**	**12,013,991**	**21,793,978**	**30,821,986**
Domestic credit	**980,366**	**2,137,501**	**5,147,845**	**11,745,813**	**20,166,091**	**30,305,828**
Claims on central government (net)	**293,424**	**652,670**	**1,979,131**	**5,438,860**	**9,457,946**	**16,000,248**
Credits	188	20,525	12,538	21,752	14,756	10,235
Bills and bonds	146,233	252,822	874,679	1,842,642	3,742,140	7,121,262
Duty loss accounts	76,087	186,840	787,930	1,823,846	4,051,568	6,413,002
Deposits	31,788	66,113	217,626	386,862	605,248	1,014,498
Claims on other public sector (net)	-22,898	-76,337	-212,651	-527,534	-1,141,624	-1,529,770
Extrabudgetary institutions	-38,286	-49,863	-63,371	-429,351	-866,962	-1,370,832
Claims	21,640	27,880	111,890	22,213	23,135	25,283
Deposits	59,927	77,742	175,261	451,564	890,097	1,396,115
Local government	-7,265	-14,117	-53,316	-108,123	-137,239	-128,667
Claims	2,756	4,746	6,421	8,194	19,539	14,890
Deposits	10,021	18,863	59,736	116,317	156,777	143,557
Nonfinancial public enterprises	22,653	-12,357	-95,964	9,939	-137,423	-30,271
Claims	44,629	40,289	49,211	217,409	289,798	193,675
Deposits	21,976	52,645	145,175	207,469	427,221	223,946
Claims on private sector	549,933	1,272,987	2,802,132	6,326,614	11,493,239	13,903,149
Net position vis-à-vis the central bank	159,907	288,180	579,234	507,873	356,530	1,932,201
Claims of central bank	20,503	28,677	73,112	831,002	2,102,597	1,428,428
Bank reserves	160,368	278,886	580,426	1,169,710	2,147,382	2,993,794
Cash in vaults	20,042	37,971	71,920	169,166	311,745	366,835
Other items net	7,705	77,154	105,564	268,179	1,627,886	516,159
Liabilities vis-à-vis private sector	**1,197,584**	**2,492,496**	**5,397,749**	**11,832,114**	**20,849,956**	**29,226,213**
Demand deposits	105,360	160,966	379,640	697,732	1,109,273	1,184,109
Time and savings deposits	423,011	920,196	2,075,701	4,102,923	8,831,637	12,624,286
Residents' foreign exchange deposits	561,875	1,145,819	2,409,591	4,893,818	8,654,300	11,947,555
Certificates of deposits	4,633	6,919	11,208	160	16	16
Repos	102,705	258,597	521,609	2,137,482	2,254,731	3,470,247
	(In percent of total liabilities to the private sector)					
Memorandum items:						
Lira deposits	44.5	43.7	45.7	40.6	47.7	46.6
Residents' foreign exchange deposits	46.9	46.0	44.6	41.4	41.5	40.9
Repos	8.6	10.4	9.7	18.1	10.8	11.9

Source: Central Bank of Turkey.

Table 33. Turkey: Central Bank Balance Sheet, 1994-99

(End-of-period stocks, in billions of Turkish liras) 1/

	1994	1995	1996	1997	1998	1999		
						Q1	Q2	Q3
Net foreign assets	**-22,234**	**130,652**	**628,568**	**1,791,137**	**2,907,004**	**4,346,390**	**5,468,470**	**6,776,867**
Net international reserves	310,919	767,514	1,793,348	3,823,698	6,289,393	7,986,972	9,226,605	11,005,646
Other foreign liabilities (net)	333,153	636,862	1,164,780	2,032,561	3,382,389	3,640,582	3,758,135	4,228,779
Banks deposits in FX	**97,565**	**165,571**	**353,441**	**803,479**	**1,375,262**	**1,615,251**	**1,942,565**	**2,204,693**
Required reserves	65,033	144,324	275,364	580,655	953,760	1,068,107	1,243,090	1,495,005
Free reserves	32,532	21,247	78,077	222,824	421,502	547,144	699,475	709,688
Net domestic assets	**303,674**	**372,642**	**335,313**	**141,978**	**579,355**	**95,920**	**-899,257**	**-1,400,535**
Claims on central government (net)	**144,245**	**256,528**	**421,140**	**-26,309**	**-4,763**	**102,499**	**-125,248**	**-279,955**
Short term credits	122,278	192,000	370,953	337,623	0	0	0	0
Portfolio accounts	43,198	163,850	266,087	454,299	782,770	645,037	510,386	584,639
Securities portfolio	75,098	329,167	457,304	613,513	828,192	661,341	522,474	596,727
Securitizations	-31,900	-165,317	-191,217	-159,214	-45,422	-16,304	-12,088	-12,088
Other	-3,774	74	-10,456	-63,607	-57,836	-61,474	-59,132	-22,211
Deposits	17,457	99,396	205,444	754,624	729,697	481,064	576,502	842,383
Lira deposits	6,056	13,381	33,274	181,458	212,127	95,875	119,601	163,739
FX deposits	11,401	86,015	172,170	573,166	517,570	385,189	456,901	678,644
(In millions of U.S. dollars)	295	1,446	1,602	2,799	1,655	1,054	1,093	1,476
Claims on other public sector (net)	**23,008**	**-10,828**	**-38,269**	**-112,067**	**-146,359**	**-150,156**	**-193,352**	**-216,865**
Soil products office	25,096	0	0	0	0	0	0	0
Claims on SEEs	833	1,201	2,243	1,576	1,559	1,672	1,784	1,873
Deposits	2,921	12,029	40,512	113,643	147,918	151,828	195,136	218,738
Lira deposits	169	37	68	461	36	18	1,001	111
FX deposits	543	215	342	573	921	1,022	1,127	829
Funds FX	2,209	11,777	40,102	112,609	146,961	150,788	193,008	217,798
Claims on banks	**11,189**	**-3,672**	**-43,674**	**728,020**	**1,838,133**	**1,296,832**	**875,970**	**912,930**
Agricultural	0	0	0	0	0	0	0	0
Commercial	12,322	12,249	7,689	7,676	7,539	7,675	7,675	7,675
Other	0	0	0	0	0	0	0	0
TL credit against FX (swap)	0	0	0	0	0	0	0	0
Claims under legal procee.	5	5	5	5	5	5	5	5
Open market operations	**-1,138**	**-15,926**	**-51,368**	**720,339**	**1,830,589**	**1,289,152**	**868,290**	**905,250**
TL deposits against FEX deposits	0	0	0	0	0	0	0	0
Bonds transactions (net)	-9,384	-23,552	-38,884	710,202	1,587,949	990,242	506,650	582,020
Debts due to bonds which will be repurchased	-9,384	-23,552	-57,048	0	0	0	0	0
Claims due to bonds which will be resold	0	0	-18,164	-710,202	-1,587,949	-990,242	-506,650	-582,020
Overnight operations	8,246	7,626	-12,485	10,137	242,640	298,910	361,640	323,230
Deposits given	8,246	16,452	34,230	36,650	242,640	298,910	361,640	323,230
Deposits taken	0	8,826	46,715	26,513	0	0	0	0
Other items (net)	**125,232**	**130,614**	**-3,881**	**-447,666**	**-1,107,656**	**-1,153,255**	**-1,456,627**	**-1,816,645**
Devaluation account	135,520	41,898	-3,635	-190,081	-416,801	-223,498	-536,580	-858,487
Securitizations	31,900	165,317	191,217	159,214	45,422	16,304	12,088	12,088
Other items (net)	-40,108	-68,615	-179,787	-342,437	-698,816	-910,338	-890,410	-910,138
Nonbank private sec. dep.	-218	-2,328	-633	-17,611	-2,840	-13,617	-4,333	-9,998
FX Cre. against TL (Swap)	0	0	0	0	0	0	0	0
Other	-1,862	-5,658	-11,043	-56,751	-34,621	-22,106	-37,392	-50,110
Funds	-656	-3,090	-6,549	-49,722	-16,737	-9,883	-23,673	-37,552
Nonbank private sector	-1,206	-2,568	-4,494	-7,029	-17,884	-12,223	-13,719	-12,558
Reserve money	**183,875**	**337,723**	**610,440**	**1,129,636**	**2,111,097**	**2,827,059**	**2,626,648**	**3,171,639**
Currency issued	120,212	223,934	382,243	758,878	1,328,542	1,926,966	1,559,694	1,870,281
Bank deposits in liras	63,663	113,789	228,197	370,758	782,555	900,093	1,066,954	1,301,358
Required reserves	57,509	106,548	175,512	336,353	694,261	820,594	956,966	1,183,157
Free reserves	6,154	7,241	52,685	34,405	88,294	79,499	109,988	118,201
Memorandum items:								
Lira/US$ (end-of-period)	38,687	59,501	107,505	204,750	312,720	365,579	418,189	459,780
Foreign exchange exposure (In millions of US$)	-3,462	-2,234	581	1,472	2,770	6,002	6,875	7,993
(In percent of reserve money)	-72.8	-39.4	10.2	26.7	41.0	77.6	109.5	115.9

Source: Accounting Department of the Central Bank.

1/ All foreign currency aggregates are valued at current exchange rates (cross exchange rates vis-à-vis the US$, and lira/US$).

Table 34. Turkey: Factors Affecting Changes in Reserve Money, 1995-99

	1995	1996	1997	1998 H1	1998 H2	1998 Year	1999 H1
	(Flows; in billions of Turkish liras) 1/						
Net foreign assets	**126,795**	**296,110**	**396,978**	**1,908,616**	**-2,037,890**	**-129,274**	**1,358,904**
(In millions of U.S. dollar)	2,771	3,651	2,901	7,926	-7,379	548	3,781
Banks' deposits in foreign exchange	**11,934**	**40,957**	**103,285**	**41,064**	**78,872**	**119,936**	**94,709**
Net domestic assets	**38,986**	**17,564**	**225,503**	**-1,444,456**	**2,675,126**	**1,230,671**	**-748,644**
Claims on central government (net)	**134,225**	**238,123**	**-278,872**	**108,044**	**102,401**	**210,445**	**-8,103**
Short-term credits	69,722	178,953	-33,330	-337,623	0	-337,623	0
Portfolio accounts	120,652	102,237	188,212	284,707	43,764	328,471	-272,384
Other	3,848	-10,530	-53,151	-28,642	34,413	5,771	-1,296
Deposits	59,997	32,537	380,603	-189,602	-24,224	-213,826	-265,577
Lira deposits	7,325	19,893	148,184	79,176	-48,507	30,669	-92,526
Foreign exchange deposits	52,672	12,644	232,419	-268,778	24,283	-244,495	-173,051
Claims on other public sector (net)	**-30,564**	**-13,155**	**-26,594**	**-62,333**	**95,807**	**33,474**	**-4,949**
Claims on banks	**-14,861**	**-40,002**	**771,694**	**-1,728,812**	**2,838,925**	**1,110,113**	**-962,163**
Open market operations	**-14,788**	**-35,442**	**771,707**	**-1,728,811**	**2,839,061**	**1,110,250**	**-962,299**
Other items (net)	-49,813	-167,402	-240,725	238,645	-362,006	-123,361	226,572
Reserve money	**153,848**	**272,717**	**519,196**	**423,096**	**558,365**	**981,461**	**515,551**
Currency issued	103,722	158,309	376,635	247,110	322,554	569,664	231,152
Bank deposits in liras	50,126	114,408	142,561	175,986	235,811	411,797	284,399
Required reserves	49,039	68,964	160,841	189,963	167,945	357,908	262,705
Free reserves	1,087	45,444	-18,280	-13,977	67,866	53,889	21,694
	(Changes in percent of initial stock of reserve money)						
Net foreign assets	**69.0**	**87.7**	**65.0**	**169.0**	**-180.4**	**-11.4**	**64.4**
Banks' deposits in foreign exchange	**6.5**	**12.1**	**16.9**	**3.6**	**7.0**	**10.6**	**4.5**
Net domestic assets	**21.2**	**5.2**	**36.9**	**-127.9**	**236.8**	**108.9**	**-35.5**
Claims on central government (net)	73.0	70.5	**-45.7**	**9.6**	**9.1**	**18.6**	**-0.4**
Short-term credits	37.9	53.0	-5.5	-29.9	0.0	-29.9	0.0
Portfolio accounts	65.6	30.3	30.8	25.2	3.9	29.1	-12.9
Other	2.1	-3.1	-8.7	-2.5	3.0	0.5	-0.1
Deposits	32.6	9.6	62.3	-16.8	-2.1	-18.9	-23.5
Lira deposits	4.0	5.9	24.3	7.0	-4.3	2.7	-4.4
FX deposits	28.6	3.7	38.1	-23.8	2.1	-21.6	-15.3
Claims on other public sector (net)	**-16.6**	**-3.9**	**-4.4**	**-5.5**	**8.5**	**3.0**	**-0.2**
Claims on banks	**-8.1**	**-11.8**	**126.4**	**-153.0**	**251.3**	**98.3**	**-45.6**
Open market operations	**-8.0**	**-10.5**	**126.4**	**-153.0**	**251.3**	**98.3**	**-45.6**
Other items (net)	**-27.1**	**-49.6**	**-39.4**	**21.1**	**-32.0**	-10.9	10.7
Reserve money	**83.7**	**80.8**	**85.1**	**37.5**	**49.4**	**86.9**	**24.4**
Memorandum items:							
Central bank's foreign exchange exposure (US$ million) 2/	**-2,234**	**581**	**1,472**	**10,127**	**5,901**	**2,770**	**6,875**
(In percent of reserve money)	-39.4	10.1	26.7	172.9	85.5	41.0	109
Average TL/US$	45,766	81,102	151,628	268,762	270,698	269,730	359,322

Source: Accounting Department of the Central Bank.

1/ Flows of foreign currency assets and liabilities are valued at the average period exchange rate.

2/ Defined as central bank's foreign assets minus foreign exchange deposits of banks, the central government, and the rest of the public sector, and foreign liabilities to nonresidents.

Table 35 Turkey: Repo Transactions between Banks and the Private Sector, 1994-99
(In billions of Turkish liras)

	Total	Total (In US$; millions)	TL/US$ (End-of-period)
1994	102,705	2,652	38,726
1995	258,597	4,335	59,650
1996	521,609	4,840	107,775
1997	2,137,482	10,421	205,110
1998	2,254,731	7,187	313,707
1997			
January	718,228	6,234	115,210
February	774,368	6,356	121,830
March	947,474	7,457	127,050
April	1,158,257	8,606	134,580
May	1,317,837	9,460	139,300
June	1,471,437	9,963	147,690
July	1,767,679	11,141	158,660
August	2,058,784	12,447	165,410
September	2,132,082	12,309	173,210
October	1,951,601	10,768	181,240
November	2,224,466	11,501	193,420
December	2,137,482	10,421	205,110
1998			
January	2,483,674	11,596	214,190
February	2,608,036	11,414	228,500
March	2,609,438	10,799	241,630
April	2,806,461	11,291	248,550
May	3,137,201	12,258	255,940
June	2,720,547	10,271	264,880
July	2,586,989	9,608	269,260
August	2,909,220	10,540	276,020
September	2,611,456	9,455	276,210
October	2,614,320	9,137	286,130
November	2,352,842	7,808	301,320
December	2,254,731	7,187	313,707
1999			
January	2,888,133	8,736	330,605
February	3,121,037	8,899	350,713
March	3,131,487	8,524	367,383
April	4,001,267	10,264	389,833
May	3,856,805	9,531	404,642
June	3,470,247	8,298	418,189

Source: Central Bank of Turkey.

Table 36. Turkey: Net Foreign Asset Position of the Central Bank, 1994-99
(In millions of U.S. dollars)

	1994	1995	1996	1997	1998	1999								
						Jan	Feb	Mar	Apr	May	June	July	August	September
Net foreign assets	-575	**2,196**	**5,847**	**8,748**	**9,296**	**9,966**	**10,325**	**11,889**	**12,720**	**12,945**	**13,077**	**14,345**	**14,417**	**14,739**
Net international reserves	**8,037**	**12,899**	**16,682**	**18,675**	**20,112**	**20,714**	**20,522**	**21,847**	**22,225**	**22,289**	**22,063**	**23,892**	**23,594**	**23,937**
Gross reserves	8,561	13,812	17,695	19,575	20,874	21,423	21,188	22,478	22,779	22,814	22,561	24,347	24,030	24,395
Gold	1,449	1,422	1,422	1,156	1,156	1,156	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040
Other	7,112	12,391	16,272	18,419	19,718	20,267	20,147	21,438	21,739	21,774	21,521	23,307	22,990	23,355
Foreign banknotes	419	796	292	363	473	420	430	382	455	391	350	445	452	454
Correspondent accounts	6,693	11,595	15,980	18,056	19,246	19,847	19,718	21,056	21,284	21,383	21,171	22,862	22,537	22,901
Current accounts	4,601	7,430	5,826	6,463	1,553	1,870	1,078	930	1,327	811	1,198	1,165	1,637	2,111
Portfolio accounts	1,394	3,931	9,990	11,530	17,591	17,880	18,568	20,062	19,897	20,564	19,963	21,687	20,889	20,778
of which :														
Turkish defense fund account	0	1,072	965	632	477	477	476	482	479	480	469	469	469	469
Required deposits in dresdner	1,393	1,604	1,498	1,309	1,339	1,297	1,232	1,218	1,186	1,157	1,150	1,187	1,160	1,179
Other accounts	698	234	164	63	101	96	71	64	60	8	10	10	12	12
International reserves liabilities	524	913	1,013	900	762	708	666	631	554	526	498	455	436	458
Overdrafts	5	20	42	30	15	19	20	13	13	12	13	13	12	13
Short-term credits	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Letters of credit	175	209	310	274	359	346	322	319	284	272	270	262	258	303
IMF	344	684	661	595	388	343	323	299	255	241	215	179	166	142
Other foreign liabilities (net)	**8,611**	**10,703**	**10,835**	**9,927**	**10,816**	**10,748**	**10,197**	**9,958**	**9,505**	**9,344**	**8,987**	**9,547**	**9,177**	**9,197**
FCDs of nonresident citizens	9,225	11,558	11,949	11,360	12,771	12,497	12,139	12,004	11,695	11,557	11,404	11,702	11,384	11,424
1-year maturity	834	999	968	879	915	889	857	841	812	799	781	794	758	750
2-year maturity	7,845	9,347	9,149	8,480	9,377	9,173	8,907	8,801	8,558	8,442	8,315	8,511	8,272	8,295
3-year maturity	546	1,212	1,832	2,001	2,479	2,435	2,376	2,362	2,325	2,316	2,309	2,398	2,354	2,379
Medium-term credit (net)	-763	-1,006	-1,143	-1,197	-1,252	-1,257	-1,262	-1,270	-1,275	-1,279	-1,283	-1,284	-1,289	-1,293
others (net)	150	151	29	-236	-702	-491	-681	-776	-915	-934	-1,135	-871	-918	-934
Memorandum item:														
Net international reserves (excl. Turkish defense)														
Fund account and required deposits in dres	6,643	10,224	14,219	16,734	18,296	18,940	18,814	20,148	20,561	20,653	20,444	22,237	21,965	22,289
Lira/US$	38,687	59,501	107,505	204,750	312,720	329,894	350,034	365,579	387,750	402,551	418,189	425,880	443,201	459,780

Source: Accounting Department of the Central Bank.

Table 37. Turkey: Net Foreign Asset Position of the Banking System, 1994-99
(In millions of U.S. dollars)

	1994	1995	1996	1997	1998				1999
					Mar.	Jun.	Sep.	Dec.	Jun.
Net foreign assets	5,454	4,670	1,343	-888	-3,804	-3,063	3,086	-3,019	-3,816
Foreign assets	8,724	9,976	9,452	10,553	8,892	9,462	17,051	11,710	11,284
Cash	559	666	920	927	631	767	3,182	702	664
Claims on banks abroad	7,007	8,079	6,651	6,742	5,447	5,837	10,148	7,692	6,932
Banks abroad	5,597	6,183	5,339	4,989	3,991	4,341	7,923	5,909	5,580
Head offices and branches abroad	1,410	1,896	1,312	1,753	1,456	1,496	2,225	1,783	1,352
Claims on other nonresidents	1,159	1,232	1,881	2,884	2,814	2,857	3,720	3,316	3,689
Securities and bonds	484	648	1,144	1,813	1,599	1,613	2,222	1,765	1,390
Credits	529	379	461	645	719	737	862	873	1,020
Equity participation	118	145	194	337	364	376	420	501	530
Other	28	60	82	89	132	132	216	177	749
Foreign liabilities	3,271	5,307	8,110	11,442	12,696	12,525	13,964	14,728	15,100
Interbank deposits	328	1,272	1,556	2,398	2,851	3,483	3,686	4,003	4,387
Loans	1,869	2,100	4,254	5,907	6,413	6,864	8,264	7,538	7,879
Nonresidents FCDs	953	1,806	2,028	2,931	3,223	1,993	1,822	3,022	2,625
Others	121	128	271	205	208	185	193	165	208

Source: Central Bank of Turkey.

Table 38. Turkey: Selected Interest Rates, 1991-99

(Compounded annualized after tax; in percent)

	Overnight Interbank Rate	Three-month Treasury Bills 1/	Six-month Treasury Bills 1/	One Year Treasury Bills 1/	Average Across Maturities 1/ 2/	Three-month Repurchase Rate	Three-month Time Deposits 3/	Short-term Commercial Credits
1991	109.6	86.0	...	...	86.0	...	69.0	111.4
1992	92.2	94.2	...	...	94.2	84.2	77.0	116.0
1993	87.6	85.8	...	...	85.8	81.2	71.4	114.7
1994	591.7	156.2	136.6	...	160.7	143.9	115.8	274.8
1995	108.2	123.0	121.3	108.6	125.8	106.9	93.8	176.7
1996	115.8	138.1	138.6	115.0	132.4	114.0	101.1	162.6
1997	101.4	118.3	112.4	105.5	106.0	97.2	89.0	144.7
1998	111.9	124.7	110.4	101.3	115.5	100.5	89.3	155.2
1997								
January	85.6	...	...	92.2	92.2	85.8	85.8	145.5
February	92.6	...	...	...	89.6	88.0	85.0	139.1
March	92.4	...	...	...	95.8	88.4	84.9	141.4
April	91.3	...	...	...	0.0	96.9	85.0	140.3
May	94.2	...	...	97.7	97.7	91.1	85.3	141.0
June	101.5	...	100.9	...	100.9	95.7	86.1	140.5
July	99.1	...	...	105.7	107.0	97.4	88.6	144.3
August	109.3	...	...	119.7	119.7	103.6	93.4	145.3
September	111.5	...	121.7	112.1	116.9	103.6	92.8	145.3
October	103.9	114.1	...	...	108.9	101.7	93.3	148.5
November	117.7	...	114.7	...	114.7	106.0	93.8	152.4
December	118.0	122.5	...	...	122.5	107.9	94.2	152.6
1998								
January	109.7	...	120.0	...	120.0	100.6	93.2	155.5
February	127.1	128.9	124.0	...	126.5	112.7	86.7	154.7
March	123.5	113.1	117.8	...	115.5	103.1	93.6	152.8
April	112.9	...	106.8	...	105.4	100.3	92.4	153.5
May	109.9	...	...	91.5	92.3	92.6	91.4	152.6
June	94.8	...	90.5	99.0	92.2	83.5	86.4	148.5
July	73.7	...	71.1	86.6	77.5	67.2	77.8	141.2
August	113.7	100.0	86.9	...	94.3	97.8	80.1	146.5
September	119.7	143.3	130.5	...	137.0	103.9	92.1	153.9
October	117.6	...	...	...	141.7	106.7	92.9	159.7
November	120.0	...	145.7	...	142.0	125.4	92.2	167.6
December	120.1	138.2	...	128.2	141.1	112.5	93.3	175.6
1999								
January	119.4	...	...	128.6	128.6	110.9	94.8	176.1
February	116.0	...	119.9	125.4	122.7	106.6	92.9	176.1
March	116.0	...	110.4	102.8	106.6	93.3	91.3	171.2
April	115.7	...	101.6	99.4	100.5	91.7	91.1	169.5
May	115.7	...	104.6	95.3	100.0	98.3	91.4	172.9
June	115.9	...	114.5	106.8	110.7	96.1	93.1	172.7
July	102.2	99.0	96.2	104.4	99.8	88.6	92.5	172.9
August	10.8	99.8	...	109.7	104.7	89.1	91.3	...
September	95.7	...	98.7	101.4	100.0	96.1	88.1	...
October	100.2	...	...	...	103.4	99.4	...	...

Sources: Central Bank of Turkey; and Fund staff estimates.

1/ From November 1996 onwards, after withholding of taxes at the rate of 13.2 percent and from January 1998 at 6.6 percent.

2/ Average across maturities ranging from three months to one year.

3/ The withholding tax on deposits (inclusive of fund charges) was raised from 5.5 percent during 1995-96 to 13.2 percent in January 1997.

Table 39. Turkey: Selected Real Interest Rates, 1995-99

(Compounded annualized after tax; in percent)

	Overnight Interbank Rate Return vis-à-vis basket 1/	Repo Market Rate Return vis-à-vis basket 1/	Three-month Time Deposits 2/	Short-term Commercial Credits 2/
1995	38.7	38.5	4.2	48.5
1996	21.0	20.1	10.6	44.2
1997	13.4	11.1	-1.4	27.7
1998	34.3	26.5	7.1	44.5
1997				
January	-3.3	-3.2	0.0	32.1
February	18.8	16.0	-2.1	26.5
March	18.8	16.3	-0.8	29.5
April	11.9	15.2	-1.0	28.5
May	10.4	8.6	0.1	30.1
June	21.2	17.8	1.5	31.2
July	14.9	13.9	2.2	32.3
August	23.3	19.9	3.7	31.5
September	11.2	7.1	-0.3	26.9
October	9.2	8.0	-3.1	24.5
November	8.8	2.9	-6.4	21.9
December	15.5	10.2	-10.2	16.8
1998				
January	14.1	9.1	-12.2	16.0
February	17.4	9.9	-12.3	19.6
March	23.5	12.2	-3.8	25.7
April	29.4	21.7	2.5	35.0
May	32.4	21.5	8.2	42.8
June	36.0	28.1	11.0	48.0
July	27.0	22.2	13.9	54.6
August	60.8	48.8	16.4	59.4
September	59.2	47.7	18.6	56.8
October	46.9	39.6	16.0	56.3
November	29.4	32.5	13.9	58.6
December	29.2	24.8	12.7	60.6
1999				
January	30.8	25.7	10.4	56.5
February	28.6	23.0	11.0	58.9
March	32.7	18.8	15.8	64.1
April	26.9	12.8	18.3	66.8
May	38.9	27.7	21.6	73.4
June	46.5	33.1	22.8	73.4
July	38.2	29.0	24.7	76.8
August	37.5	28.4	21.5	...
September	27.5	27.8	15.2	...
October	42.1	41.5	10.1	...

Sources: Central Bank of Turkey; and Fund staff estimates.

1/ Defined as annualized monthly nominal interest rates divided by the annualized rates of monthly depreciation vis-à-vis a basket of 1 US dollar and 0.77 euro.

2/ Defined as annualized monthly nominal interest rates deflated by the annualized rates of CPI inflation during the previous three months.

Table 40. Turkey: Interest Rates on Foreign Exchange Denominated Deposits and Commercial Lending, 1995-99
(Compounded; percent)

	Three-month Deposits		Commercial Credit	
	US Dollar	Deutsche Mark	Short-term	Long-term
1995	4.8	5.4	9.5	8.1
1996	5.7	5.0	10.4	7.2
1997	7.2	5.7	9.9	7.3
1998	9.2	7.2	12.0	7.3
1997				
January	6.1	4.8	9.5	7.1
February	6.0	4.8	9.6	7.1
March	6.1	4.8	9.7	7.0
April	6.1	4.8	9.8	7.0
May	6.5	5.1	10.0	7.1
June	7.0	5.3	9.8	7.1
July	7.3	5.6	10.0	7.2
August	7.6	6.0	10.0	7.2
September	8.1	6.5	10.0	8.8
October	8.4	6.7	10.0	7.3
November	8.5	6.8	9.9	7.1
December	8.3	6.7	9.9	7.7
1998				
January	8.3	6.8	10.9	10.3
February	8.4	6.8	11.6	8.8
March	8.4	6.8	11.8	8.8
April	8.9	7.0	11.6	8.8
May	8.8	6.9	10.9	8.6
June	9.2	7.1	11.7	8.7
July	9.1	7.2	12.2	8.8
August	9.3	7.3	13.1	8.9
September	9.6	7.4	13.7	9.1
October	9.8	7.7	12.8	9.2
November	10.3	7.8	14.1	9.8
December	10.3	7.8	14.7	15.7
1999				
January	10.5	8.3	14.6	9.5
February	10.5	8.3	14.7	9.6
March	11.2	8.6	16.6	9.4
April	10.8	8.6	17.3	9.6
May	10.9	8.7	15.7	9.7
June	11.1	9.0	16.5	9.8
July	13.5	10.6	16.4	10.4
August	13.9	10.7	...	...

Sources: Central Bank of Turkey; and Fund staff estimates.

Table 41. Turkey: Taxes on Financial Instruments, 1996-98

(In percent)

	1996			1997			1998		
	January	June	December	January	June	December	January	June	December
Withholding tax on TL deposits	5.0	5.0	5.0	12.0	12.0	12.0	12.0	12.0	12.0
Inclusive of Fund contribution 1/	5.5	5.5	5.5	13.2	13.2	13.2	13.2	13.2	13.2
Withholding tax on FX deposits	10.0	10.0	10.0	12.0	12.0	12.0	12.0	12.0	12.0
Witholding tax on corporate bonds	10.0	10.0	10.0	12.0	12.0	12.0	12.0	12.0	12.0
Witholding tax on finance bills	10.0	10.0	10.0	12.0	12.0	12.0	12.0	12.0	12.0
Withholding tax on government bills and bonds 2/	0.0	0.0	10.0	12.0	12.0	12.0	12.0	12.0	12.0
Financial transaction tax	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
RUSF contribution (Consumer credits) 3/	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
RUSF contribution (Others)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0

Source: Data provided by the Turkish authorities.

1/ Beginning January 1, 1993, 5% DISF charge on Deposit withholding tax has been replaced by Fund allocation charge of 7% and beginning February 1, 1995, it increased to 10%.

2/ Charge on Withholding tax on government bills and bonds was in effect from November 1, 1996.

3/ In effect since September 22, 1995.

Table 42. Turkey: Maturity Structure of Bank Deposits and Loans, 1994-99

	1994	1995	1996	1997	1998	Jun-99
			Deposits			
Total Lira Deposits	563,520	1,117,904	2,800,419	5,402,783	10,913,742	15,052,175
Sight	153,592	238,916	756,353	1,259,163	1,902,117	2,545,129
1-month	73,301	193,879	410,506	795,286	1,843,758	2,029,395
3-months	206,692	360,029	882,003	1,804,359	4,357,083	5,169,820
6-months	98,421	264,454	658,528	1,294,388	2,420,737	4,532,131
1 year and more	31,515	60,625	93,028	249,588	390,048	775,701
Total Foreign Exchange Deposits	598,478	1,253,290	2,627,629	5,493,852	9,599,247	13,045,307
Sight	172,546	364,908	705,978	1,280,512	2,036,166	2,337,997
1-month	48,726	166,577	363,917	1,055,243	2,124,536	3,022,616
3-months	209,881	403,037	804,652	1,913,188	3,105,568	4,402,637
6-months	54,432	112,961	244,038	467,966	897,184	1,069,993
1 year and more	112,892	205,806	509,043	776,943	1,435,793	2,212,065
Total Deposits	1,161,998	2,371,193	5,428,047	10,896,635	20,512,989	28,097,482
Sight	326,138	603,825	1,462,331	2,539,675	3,938,283	4,883,125
1-month	122,027	360,457	774,424	1,850,528	3,968,293	5,052,011
3-months	416,573	763,066	1,686,656	3,717,547	7,462,651	9,572,456
6-months	152,854	377,415	902,566	1,762,354	3,317,920	5,602,124
1 year and more	144,407	266,431	602,071	1,026,530	1,825,841	2,987,766
			(In percent of total)			
TL deposits						
Sight	27.3	21.4	27.0	23.3	17.4	16.9
1-month	13.0	17.3	14.7	14.7	16.9	13.5
3-months	36.7	32.2	31.5	33.4	39.9	34.3
6-months	17.5	23.7	23.5	24.0	22.2	30.1
1 year and more	5.6	5.4	3.3	4.6	3.6	5.2
Foreign exchange deposits						
Sight	28.8	29.1	26.9	23.3	21.2	17.9
1-month	8.1	13.3	13.8	19.2	22.1	23.2
3-months	35.1	32.2	30.6	34.8	32.4	33.7
6-months	9.1	9.0	9.3	8.5	9.3	8.2
1 year and more	18.9	16.4	19.4	14.1	15.0	17.0
Total deposits						
Sight	28.1	25.5	26.9	23.3	19.2	17.4
1-month	10.5	15.2	14.3	17.0	19.3	18.0
3-months	35.8	32.2	31.1	34.1	36.4	34.1
6-months	13.2	15.9	16.6	16.2	16.2	19.9
1 year and more	12.4	11.2	11.1	9.4	8.9	10.6
Average maturity (in months)						
TL deposits	2.9	3.2	2.9	3.1	3.1	3.6
FX deposits	3.9	3.6	3.9	3.4	3.5	3.8
Total deposits	3.5	3.4	3.4	3.3	3.3	3.7
			Loans (In percent of total)			
Lira loans						
Short-term	76.6	81.3	83.2	86.7	84.0	83.6
Long-term	23.4	18.7	16.8	13.3	16.0	16.4
Foreign exchange loans						
Short-term	78.2	85.5	81.2	84.2	76.9	76.9
Long-term	21.8	14.5	18.8	15.8	23.1	23.1
Total loans						
Short-term	77.4	83.2	82.2	85.6	80.8	80.4
Long-term	22.6	16.8	17.8	14.4	19.2	19.6

Source: Central Bank of Turkey.

Table 43. Turkey: Breakdown of Banks Loans to the Private Sector, 1993-98
(Percentage shares)

	1993	1994	1995	1996	1997	1998
Export loans	18.5	23.0	24.5	29.0	28.1	27.7
Commercial loans	33.1	31.6	29.9	29.9	32.5	39.0
Special loans	29.1	28.1	28.7	26.2	25.1	17.0
Financial sector loans	6.8	8.8	8.6	6.1	4.5	5.0
Consumer loans	9.1	3.7	4.4	4.7	5.2	5.4
Export guaranteed investment loans	1.5	2.1	2.1	2.2	2.7	3.2
Other investment loans	1.9	2.8	1.7	1.7	1.8	2.6
Import loans	0.0	0.1	0.1	0.2	0.1	0.1

Source: Central Bank of Turkey.

Table 44. Turkey: General Information on Banks, 1996-98

	No. of Banks			Capital Billion TL			Number of Branches			Personnel Employed		
	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
A. Investment and Development Banks	13	13	15	36,914	96,158	179,793	23	24	30	6,107	5,246	5,303
State banks	3	3	3	27,364	82,460	142,636	9	10	12	5,110	4,357	4,341
Private banks	7	7	9	8,638	12,250	32,975	10	10	14	859	802	880
Foreign banks	3	3	3	912	1,448	4,182	4	4	4	138	87	82
B. Deposit Money Banks	55	59	60	254,655	746,681	1,445,928	6,419	6,795	7,340	142,046	149,618	161,189
State banks	5	5	4	54,001	209,193	240,024	2,886	2,915	2,832	70,284	69,218	71,072
Private banks	31	35	38	177,309	480,540	1,091,980	3,429	3,764	4,393	68,592	76,601	86,066
Foreign banks	19	19	18	23,345	56,948	113,924	104	116	115	3,170	3,799	4,051
Of which: branch offices	11	10	10	9,573	19,346	38,702	19	19	19	902	892	900
Total	68	72	75	291,569	842,839	1,625,721	6,442	6,819	7,370	148,153	154,864	166,492

Source: Data provided by the Turkish authorities.

Table 45-Turkey: Distribution of Bank Assets, 1993-98

	1993	1994	1995	1996	1997	1998
			(In billions of Turkish liras)			
Investment and development banks	73,834	164,662	302,126	553,774	1,042,507	1,740,152
State banks	52,213	121,804	232,169	406,970	791,176	1,313,053
Private banks	18,770	39,015	61,863	128,494	206,681	350,033
Foreign banks	2,851	3,843	8,094	18,310	44,650	77,066
Deposit money banks	973,592	1,854,263	3,803,409	8,404,789	18,333,786	32,864,758
State banks	386,185	800,215	1,550,370	3,428,986	6,696,986	12,922,933
Private banks	547,727	993,061	2,093,002	4,584,663	10,506,286	17,868,350
Foreign banks	39,680	60,987	160,037	391,140	1,130,514	2,073,475
Total assets	1,047,426	2,018,925	4,105,535	8,958,563	19,376,293	34,604,910
			(In percent of total assets)			
Investment and development banks	7.0	8.2	7.4	6.2	5.4	5.0
State banks	5.0	6.0	5.7	4.5	4.1	3.8
Private banks	1.8	1.9	1.5	1.4	1.1	1.0
Foreign banks	0.3	0.2	0.2	0.2	0.2	0.2
Deposit money banks	93.0	91.8	92.6	93.8	94.6	95.0
State banks	36.9	39.6	37.8	38.3	34.6	37.3
Private banks	52.3	49.2	51.0	51.2	54.2	51.6
Foreign banks	3.8	3.0	3.9	4.4	5.8	6.0
			(In percent of GNP)			
Investment and development banks	3.7	4.2	3.8	3.7	3.5	3.3
State banks	2.6	3.1	3.0	2.7	2.7	2.5
Private banks	0.9	1.0	0.8	0.9	0.7	0.7
Foreign banks	0.1	0.1	0.1	0.1	0.2	0.1
Deposit money banks	48.7	47.7	48.4	56.1	61.7	62.0
State banks	19.3	20.6	19.7	22.9	22.6	24.4
Private banks	27.4	25.5	26.6	30.6	35.4	33.7
Foreign banks	2.0	1.6	2.0	2.6	3.8	3.9
Total assets	52.4	51.9	52.3	59.8	65.3	65.3

Source: Data provided by the Turkish authorities.

Table 46.Turkey: Concentration Ratios for Deposit Money Banks, 1991-98
(Shares in percent)

	1991	1992	1993	1994	1995	1996	1997	1998
Largest five banks 1/								
Total assets	54	52	50	56	48	46	44	43
Total deposits	55	56	52	56	53	52	47	49
Total loans	55	58	53	55	50	46	46	40
Largest ten banks 1/								
Total assets	77	75	71	82	71	69	67	66
Total deposits	80	81	76	82	73	72	70	72
Total loans	75	86	75	80	75	72	72	66

Source: Data provided by the Turkish authorities.

1/ At end-December 1998, three of the five largest banks (Ziraat Bank, Halk Bank, and Emlak Bank), and four of the ten largest banks (the previous three and Vakif Bank) were state owned.

Table 47.Turkey: Commercial Banking System Capital/Asset Ratios, 1993-98 1/
(In percent)

	1993	1994	1995	1996	1997	1998
Investment and development banks	9.8	3.8	8.8	16.1	18.4	18.5
State banks	9.5	2.1	6.8	13.2	17.7	18.0
Private banks	11.3	11.3	17.4	33.4	26.7	26.8
Foreign banks	11.2	30.2	38.3	32.1	11.2	11.8
Deposit money banks	10.4	8.1	13.0	12.4	12.2	12.0
State banks	12.7	8.1	8.3	9.1	12.6	8.6
Private banks	9.1	7.4	14.7	13.4	11.9	12.0
Foreign banks	13.8	20.7	21.8	20.8	13.7	21.0
Total	10.3	7.6	12.6	12.7	12.6	12.5

Source: Data provided by the Turkish authorities.

1/ The capital asset ratio is measured at end-of-period. It is defined as the ratio of the capital base over risk-weighted assets noncash credits, and obligations, in conformity with the Banking Law No. 3182 (Decree No. 12, February 9, 1995).

Table 48. Turkey: Bank Profitability Indicators, 1992-98
(In percent) 1/

Type of Banks	1992	1993	1994	1995	1996	1997	1998
Investment and Development Banks							
Profits on total average equity	16.7	25.9	-33.1	58.1	73.0	60.7	67.9
Profits on total average assets	1.7	2.3	-1.7	2.6	5.4	4.5	6.8
Deposit Money Banks							
Profits on total average equity	50.1	56.1	37.8	55.6	59.0	54.1	39.9
Profits on total average assets	3.3	3.7	2.5	3.6	3.6	3.8	2.7
State Banks 2/							
Profits on total average equity	48.9	47.0	-10.0	10.3	31.9	29.3	28.1
Profits on total average assets	2.8	3.0	-0.5	0.4	1.4	1.3	1.1
Private Banks 2/							
Profits on total average equity	44.4	57.7	59.2	76.3	77.2	61.1	60.5
Profits on total average assets	3.5	4.1	4.4	6.1	6.0	4.3	3.8

Source: Data provided by the Turkish authorities.

1/ After tax profits and losses in percent of average stocks of equity or assets at beginning- and end-year. Branches abroad are excluded.

2/ Includes both investment/development banks and deposit money banks.

Table 49. Turkey: Nonperforming Loans and Selected Assets in Bank Portfolios, 1992-98

(In percent of total assets) 1/

Type of Banks	1992	1993	1994	1995	1996	1997	1998
Development and Investment Banks							
Treasury bills and bonds	2.2	2.1	1.2	1.8	2.5	2.5	3.8
Other public issues securities	0.4	0.2	0.4	0.2	0.2	0.1	0.1
Loans	62.4	61.1	58.8	63.4	70.7	69.3	65.8
Nonperforming loans (gross)	3.2	2.7	5.2	3.9	1.8	1.3	0.9
Provisions	0.8	0.8	1.5	1.1	0.3	0.3	0.2
Nonperforming loans (net)	2.4	1.9	3.7	2.8	1.4	0.9	0.7
Deposit Money Banks—State Banks							
Treasury bills and bonds	11.9	15.1	11.5	8.3	10.6	7.8	8.7
Other public issues securities	0.2	0.0	0.6	1.0	0.6	0.1	0.0
Loans	41.2	39.0	37.4	44.0	39.5	45.6	30.5
Nonperforming loans (gross)	1.8	1.8	1.5	1.3	1.1	1.2	1.7
Provisions	1.2	1.1	1.0	0.7	0.7	0.4	0.5
Nonperforming loans (net)	0.6	0.7	0.5	0.6	0.4	0.7	1.2
Deposit Money Banks—Private Banks							
Treasury bills and bonds	9.1	6.7	7.5	7.4	9.7	12.9	11.3
Other public issues securities	0.3	0.2	1.7	0.7	0.6	0.1	0.5
Loans	38.5	38.0	35.1	36.6	44.5	45.3	39.6
Nonperforming loans (gross)	0.9	0.8	1.1	0.8	0.7	0.9	4.2
Provisions	0.6	0.5	0.7	0.6	0.5	0.6	2.0
Nonperforming loans (net)	0.3	0.3	0.4	0.2	0.2	0.3	2.2
Deposit Money Banks—Foreign Banks							
Treasury bills and bonds	7.9	4.1	6.9	8.9	14.1	11.8	14.7
Other public issues securities	4.0	7.4	6.7	9.2	15.4	0.0	5.4
Loans	34.5	30.9	23.8	24.3	20.5	23.9	24.3
Nonperforming loans (gross)	1.0	7.3	2.6	0.7	0.4	0.3	0.3
Provisions	0.6	7.0	1.3	0.6	0.3	0.2	0.2
Nonperforming loans (net)	0.4	0.4	1.3	0.1	0.1	0.1	0.1
Total Commercial Banking System							
Treasury bills and bonds	9.7	9.4	8.6	7.4	9.8	10.5	10.2
Other public issues securities	0.4	0.4	1.3	1.2	1.2	0.1	0.6
Loans	41.3	39.8	37.7	41.0	43.1	45.5	36.5
Nonperforming loans (gross)	1.5	1.5	1.6	1.2	0.9	1.0	2.8
Provisions	0.9	1.0	0.9	0.7	0.6	0.5	1.2
Nonperforming loans (net)	0.6	0.5	0.7	0.5	0.3	0.4	1.6

Source: Data provided by the Turkish authorities.

1/ Branches abroad are excluded.

Table 50. Turkey: Net Open Position of Commercial Banks, 1992-98

(In millions of U.S. dollars)

Type of Banks	1992	1993	1994	1995	1996	1997	1998
Investment and Development Banks	**25**	**-404**	**-195**	**-16**	**-17**	**99**	**11**
State banks	76	-232	-27	75	62	213	210
Private banks	-29	-116	-136	-79	-61	-88	-140
Foreign banks	-22	-56	-32	-12	-18	-26	-59
Deposit Money Banks	**-2,616**	**-4,574**	**-823**	**-1,499**	**-2,032**	**-2,629**	**-2,530**
State banks	-660	-673	59	-341	186	316	-295
Private banks	-1,944	-3,577	-720	-1,141	-2,131	-2,821	-2112
Foreign banks	-12	-324	-162	-17	-87	-124	-123
Total Commercial Banking System	-2,591	-4,978	-1,018	-1,515	-2,049	-2,530	-2,519
(in percent of paid-in capital)	103.6	178.4	54.7	68.2	75.5	61.7	48.5

Source: Data provided by the Turkish authorities.

1/ The net open position is defined as (total asset + forward purchases) - (total liabilities + forward sales) in foreign currency valued at end-period central bank buying exchange rates. Exchange indexed transactions are not included.

Table 51. Turkey: Consolidated Budget, 1994-99
(In billions of Turkish lira)

	1994	1995	1996	1997	1998	1999 Proj.
Total revenue	748,889	1,405,681	2,722,685	5,800,099	11,565,065	18,260,000
Tax revenue	587,760	1,084,350	2,244,094	4,745,484	9,228,596	14,396,000
Direct	230,834	441,710	883,571	1,931,970	4,304,108	6,495,000
Indirect	356,926	642,640	1,360,523	2,813,514	4,924,488	7,901,000
Nontax revenue	161,129	321,331	478,591	1,054,615	2,336,469	3,864,000
Budgetary and nonbudgetary funds	106,374	217,366	280,884	576,769	1,011,725	1,588,000
Education levies	0	0	0	0	173,760	346,000
Revenue from state property	12,043	21,023	82,876	216,473	834,769	1,073,000
Other	42,712	82,942	114,831	261,373	316,215	857,000
Expenditure	902,454	1,724,194	3,961,308	8,050,252	15,614,441	28,322,000
Noninterest expenditure	604,170	1,148,078	2,463,907	5,772,335	9,437,846	17,260,000
Personnel	273,062	502,601	974,148	2,073,140	3,871,005	6,950,000
Other current	74,200	143,344	312,092	715,158	1,316,835	2,360,000
Transfers	179,892	399,144	922,311	2,343,903	3,250,686	6,465,000
Social security	34,480	108,205	335,300	760,000	1,400,000	2,750,000
Extrabudgetary funds	49,130	64,886	168,480	387,341	428,563	1,010,000
State participation 1/	1,748	5,292	24,950	180,371	30,000	134,000
Transfers to SEEs	21,000	45,440	50,244	123,450	159,960	385,000
Tax rebates	31,147	63,620	104,900	249,499	539,253	1,103,000
Other	42,387	111,701	238,437	643,242	692,910	1,083,000
Investment	77,016	102,989	255,356	640,134	999,320	1,485,000
Interest payments	298,284	576,116	1,497,401	2,277,917	6,176,595	11,062,000
Domestic borrowing	233,167	475,520	1,329,087	1,977,967	5,629,514	10,163,000
Foreign borrowing	65,117	100,596	168,314	299,950	547,081	899,000
Primary balance (commitment)	144,719	257,603	258,778	27,764	2,127,219	1,000,000
Primary balance (cash)	144,974	279,730	229,172	47,986	2,015,553	1,000,000
Overall balance (commitment)	-153,565	-318,513	-1,238,623	-2,250,153	-4,049,376	-10,062,000
Deferred payments	20,092	52,072	16,325	139,740	204,064	0
Advance	-19,837	-29,945	-45,931	-119,518	-315,730	0
Overall balance (cash)	-153,310	-296,386	-1,268,229	-2,229,931	-4,161,042	-10,062,000
Financing	150,584	292,817	1,262,956	2,214,931	3,915,042	10,062,000
Foreign borrowing (net)	-67,174	-79,560	-134,411	-444,598	-1,035,567	-235,000
Receipts from loans	44,030	159,424	277,686	246,668	803,298	2,052,000
Payments on loans	-111,204	-238,984	-412,097	-691,266	-1,838,865	-2,287,000
Domestic borrowing (net)	217,758	372,377	1,397,367	2,659,529	4,950,609	10,297,000
Central bank (net)	51,857	94,723	228,954	0	0	0
Treasury bills and bonds (net)	173,877	282,875	1,066,229	2,505,517	4,590,178	10,297,000
Other	-7,977	-5,222	102,184	154,012	360,431	0
Memorandum item:						
Privatization proceeds	2,726	3,569	5,273	15,000	246,000	0

Sources: The Undersecretariat of Treasury; and Fund staff estimates.

1/ Capital transfers to financial and nonfinancial SEEs.

Table 52. Turkey: Consolidated Budget, 1994-99
(In percent of GNP)

	1994	1995	1996	1997	1998	1999 Proj.
Total revenue	19.3	17.9	18.2	19.7	21.6	22.0
Tax revenue	15.1	13.8	15.0	16.1	17.2	17.3
Direct	5.9	5.6	5.9	6.6	8.0	7.8
Indirect	9.2	8.2	9.1	9.6	9.2	9.5
Non-tax revenue	4.1	4.1	3.2	3.6	4.4	4.6
Budgetary and nonbudgetary funds	2.7	2.8	1.9	2.0	1.9	1.9
Education levies	0.0	0.0	0.0	0.0	0.3	0.4
Revenue from state property	0.3	0.3	0.6	0.7	1.6	1.3
Other	1.1	1.1	0.8	0.9	0.6	1.0
Expenditure	23.2	22.0	26.4	27.4	29.2	34.1
Non-interest expenditure	15.5	14.6	16.5	19.6	17.6	20.8
Personnel	7.0	6.4	6.5	7.1	7.2	8.4
Other current	1.9	1.8	2.1	2.4	2.5	2.8
Transfers	4.6	5.1	6.2	8.0	6.1	7.8
Social security	0.9	1.4	2.2	2.6	2.6	3.3
Extrabudgetary funds	1.3	0.8	1.1	1.3	0.8	1.2
State participation 1/	0.0	0.1	0.2	0.6	0.1	0.2
Transfers to SEEs	0.5	0.6	0.3	0.4	0.3	0.5
Tax rebates	0.8	0.8	0.7	0.8	1.0	1.3
Other	1.1	1.4	1.6	2.2	1.3	1.3
Investment	2.0	1.3	1.7	2.2	1.9	1.8
Interest payments	7.7	7.3	10.0	7.7	11.5	13.3
Domestic borrowing	6.0	6.1	8.9	6.7	10.5	12.2
Foreign borrowing	1.7	1.3	1.1	1.0	1.0	1.1
Primary balance (commitment)	3.7	3.3	1.7	0.1	4.0	1.2
Primary balance (cash)	3.7	3.6	1.5	0.2	3.8	1.2
Overall balance (commitment)	-3.9	-4.1	-8.3	-7.7	-7.6	-12.1
Deferred payments	0.5	0.7	0.1	0.5	0.4	0.0
Advance	-0.5	-0.4	-0.3	-0.4	-0.6	0.0
Overall balance (cash)	-3.9	-3.8	-8.5	-7.6	-7.8	-12.1
Financing	3.9	3.7	8.4	7.5	7.3	12.1
Foreign borrowing (net)	-1.7	-1.0	-0.9	-1.5	-1.9	-0.3
Receipts from loans	1.1	2.0	1.9	0.8	1.5	2.5
Payments on loans	-2.9	-3.0	-2.8	-2.4	-3.4	-2.8
Domestic borrowing (net)	5.6	4.7	9.3	9.0	9.3	12.4
Central bank (net)	1.3	1.2	1.5	0.0	0.0	0.0
Treasury bills and bonds (net)	4.5	3.6	7.1	8.5	8.6	12.4
Other	-0.2	-0.1	0.7	0.5	0.7	0.0
Memorandum item:						
Privatization proceeds	0.1	0.0	0.0	0.1	0.5	0.0

Sources: The Undersecretariat of Treasury; and Fund staff estimates.

1/ Capital transfers to financial and nonfinancial SEEs.
2/ Adjusted for extrabudgetary and quasi-fiscal operations.

Table 53. Turkey: Consolidated Budget Tax Revenue, 1994-99
(In billions of Turkish lira)

	1994	1995	1996	1997	1998	1999 Proj.
Total tax revenue	587,760	1,084,350	2,244,094	4,745,484	9,228,596	14,396,000
Direct taxes	230,834	441,710	883,571	1,931,970	4,304,108	6,495,000
Taxes on income	225,832	432,959	864,934	1,896,483	4,231,413	6,342,000
Personal income tax	181,877	329,783	675,604	1,500,245	3,481,801	4,765,000
Corporate income tax	43,955	103,176	189,330	396,238	749,612	1,577,000
Taxes on wealth 1/	5,002	8,751	18,637	35,487	72,695	153,000
Indirect taxes	356,926	642,640	1,360,523	2,813,514	4,924,488	7,901,000
Taxes on goods and services	214,353	429,232	970,862	1,985,244	3,605,772	5,949,000
VAT on domestic transactions	110,918	212,119	419,167	861,262	1,589,060	2,571,000
Supplementary VAT (excises)	8,029	16,937	42,835	57,971	70,046	114,000
Petroleum consumption tax	46,625	103,180	303,915	637,472	1,069,631	2,247,000
Financial transactions tax	16,467	25,340	56,998	114,761	315,098	456,000
Stamp duty	13,677	29,197	57,349	122,941	240,718	360,000
Other indirect taxes 2/	18,637	42,459	90,598	190,837	321,219	201,000
Taxes on imports	89,650	194,648	387,147	826,211	1,317,350	1,952,000
Customs duties	21,896	48,472	62,109	123,622	176,050	246,150
VAT on imports	65,824	142,861	323,859	700,300	1,136,023	1,699,000
Other duties and levies	1,930	3,315	1,179	2,289	5,277	6,850
Abolished taxes	52,923	18,760	2,514	2,059	1,366	1,000
			(In percent of GNP)			
Total tax revenue	15.1	13.8	15.0	16.1	17.2	17.3
Direct taxes	5.9	5.6	5.9	6.6	8.0	7.8
Taxes on income	5.8	5.5	5.8	6.5	7.9	7.6
Personal income tax	4.7	4.2	4.5	5.1	6.5	5.7
Corporate income tax	1.1	1.3	1.3	1.3	1.4	1.9
Taxes on wealth 1/	0.1	0.1	0.1	0.1	0.1	0.2
Indirect taxes	9.2	8.2	9.1	9.6	9.2	9.5
Taxes on goods and services	5.5	5.5	6.5	6.8	6.7	7.2
VAT on domestic transactions	2.9	2.7	2.8	2.9	3.0	3.1
Supplementary VAT (excises)	0.2	0.2	0.3	0.2	0.1	0.1
Petroleum consumption tax	1.2	1.3	2.0	2.2	2.0	2.7
Financial transactions tax	0.4	0.3	0.4	0.4	0.6	0.5
Stamp duty	0.4	0.4	0.4	0.4	0.4	0.4
Other indirect taxes 2/	0.5	0.5	0.6	0.6	0.6	0.2
Taxes on imports	2.3	2.5	2.6	2.8	2.5	2.3
Customs duties	0.6	0.6	0.4	0.4	0.3	0.3
VAT on imports	1.7	1.8	2.2	2.4	2.1	2.0
Other duties and levies	0.0	0.0	0.0	0.0	0.0	0.0
Abolished taxes	1.4	0.2	0.0	0.0	0.0	0.0

Source: Undersecretariat of the Treasury.

1/ Includes the motor vehicles tax and the inheritance and gift tax.
2/ Includes fee and excises on motor vehicle purchases.

Table 54. Turkey: Budgetary Defense and Security-Related Expenditures, 1994-00

	1994	1995	1996	1997	1998	1999 2/	2000 2/
				(In billions of Turkish lira)			
Total defense and security expenditure	134,595	254,910	502,668	1,106,028	2,025,049	3,625,858	5,272,544
Ministry of defense	85,377	167,798	333,434	745,746	1,359,025	2,433,339	3,538,443
General directorate of security	26,870	49,777	102,189	227,034	407,161	729,023	1,060,110
Gendarmerie	22,021	36,675	64,713	129,293	252,828	452,689	658,279
Coast guard	327	660	2,332	3,955	6,035	10,806	15,713
				(Ratio to GNP)			
Total defense and security expenditure	3.5	3.2	3.4	3.8	3.8	4.4	4.2

Source: General Directorate of Public Accounts, Ministry of Finance.

1/ Including personnel, other current, and investment items.
2/ Staff estimates.

Table 55. Turkey: Consolidated Net Debt of the Public Sector, 1993-98
(In trillions of Turkish Lira)

	1993	1994	1995	1996	1997	1998
A. Central government plus central bank	**614**	**1,468**	**2,713**	**5,912**	**11,009**	**20,644**
Central bank net assets	**21**	**-36**	**99**	**454**	**2,262**	**4,235**
NFA	17	-17	131	628	1,791	2,907
[in millions of U.S. dollars]	1,164	-575	2,196	5,846	8,748	9,296
Free reserves in FX	7	25	21	78	223	422
[in millions of U.S. dollars]	458	841	357	726	1,088	1,348
Claims on banks	17	11	-4	-44	728	1,838
Free reserves in lira	6	6	7	53	34	88
Central government	**774**	**1,762**	**3,358**	**7,195**	**14,222**	**25,708**
External	410	888	1,850	3,480	6,449	10,089
[in millions of U.S. dollars]	28,336	30,416	31,095	32,375	31,499	32,263
Cash debt	137	338	733	1,924	4,642	9,512
Non-cash debt	118	206	410	854	1,304	2,101
Unsecuritized debt vis-à-vis the CBT	102	255	218	371	338	0
Unpaid duty losses	13	75	164	633	1,523	3,981
Ziraat	4	39	84	400	926	2,396
Halk	9	36	80	232	597	1,585
Deposits at Ziraat	6	1	17	68	34	-25
Central government debt held by the CBT	**139**	**330**	**547**	**828**	**951**	**828**
Bonds	37	75	329	457	614	828
Unsecuritized debt vis-à-vis the CBT	102	255	218	371	338	0
B. Rest of the public sector	**87**	**268**	**528**	**1,047**	**1,587**	**2,920**
Foreign debt	**114**	**264**	**544**	**970**	**1,727**	**3,179**
Total (in millions of U.S. dollars)	7,877	9,027	9,142	9,021	8,434	10,167
EBFs	836	1,045	1,127	1,146	979	804
Local authorities	1,602	2,549	2,414	2,739	2,689	2,755
SEEs	5,439	5,433	5,601	5,136	4,766	6,608
Guarranteed	2,228	2,729	2,665	2,040	1,935	1,904
Other	3,211	2,704	2,936	3,096	2,831	4,704
Net domestic debt	**-27**	**5**	**-16**	**77**	**-139**	**-259**
EBFs	-39	-38	-50	137	-128	-331
Revenue sharing certificates				201	301	559
Other (bank net debt)	-39	-38	-50	-63	-429	-890
Local authorities (bank net debt)	-5	-7	-14	-53	-108	-172
SEEs	18	50	48	-7	97	245
Commercial banks	17	40	51	41	205	415
Individuals	12	23	32	57	97	254
Producers	1	9	16	40	3	4
Bank deposits	12	22	53	145	207	428
C. Net debt of the public sector	**701**	**1,737**	**3,240**	**6,959**	**12,596**	**23,565**
Net external	513	1,193	2,285	3,900	6,608	10,783
Net domestic	187	543	956	3,059	5,988	12,782
Memorandum item:						
Adjusted eop TL/US$	14,458	29,205	59,501	107,505	204,750	312,720

Source: Undersecretariat of the Treasury.

Table 56. Turkey: Consolidated Net Debt of the Public Sector, 1993-98
(In percent of GNP)

	1993	1994	1995	1996	1997	1998
A. Central government plus central bank	**30.7**	**37.8**	**34.5**	**39.5**	**37.5**	**38.9**
Central bank net assets	**1.1**	**-0.9**	**1.3**	**3.0**	**7.7**	**8.0**
NFA	0.8	-0.4	1.7	4.2	6.1	5.5
Free reserves in FX	0.3	0.6	0.3	0.5	0.8	0.8
Claims on banks	0.8	0.3	0.0	-0.3	2.5	3.5
Free reserves in Lira	0.3	0.2	0.1	0.4	0.1	0.2
Central government	**38.8**	**45.3**	**42.8**	**48.0**	**48.4**	**48.5**
External	20.5	22.8	23.6	23.2	21.9	19.0
Cash debt	6.9	8.7	9.3	12.8	15.8	17.9
Noncash debt	5.9	5.3	5.2	5.7	4.4	4.0
Unsecuritized debt vis-à-vis the CBT	5.1	6.6	2.8	2.5	1.1	0.0
Unpaid duty losses	0.7	1.9	2.1	4.2	5.2	7.5
Ziraat	0.2	1.0	1.1	2.7	3.1	4.5
Halk	0.5	0.9	1.0	1.6	2.0	3.0
Central government debt held by the CBT	**7.0**	**8.5**	**7.0**	**5.5**	**3.2**	**1.6**
B. Rest of the public sector	**4.4**	**6.9**	**6.7**	**7.0**	**5.4**	**5.5**
Foreign debt	**5.7**	**6.8**	**6.9**	**6.5**	**5.9**	**6.0**
Net domestic debt	**-1.3**	**0.1**	**-0.2**	**0.5**	**-0.5**	**-0.5**
EBFs	-2.0	-1.0	-0.6	0.9	-0.4	-0.6
Local authorities (bank net debt)	-0.3	-0.2	-0.2	-0.4	-0.4	-0.3
SEEs	0.9	1.3	0.6	0.0	0.3	0.5
C. Net debt of the public sector	**35.1**	**44.7**	**41.3**	**46.5**	**42.9**	**44.5**
Memorandum items:						
GNP deflator	67.4	107.3	87.1	77.9	81.3	73.8
GNP	1,997	3,888	7,852	14,978	29,393	53,013
GNP (in billions of U.S. dollars)	178.7	132.3	170.1	184.6	194.1	203.8
End-of-period GNP	2,584	5,597	10,740	19,980	39,581	69,888
Adjusted debt to GNP ratio	**27.1**	**31.0**	**30.2**	**34.8**	**31.8**	**33.7**

Source: Undersecretariat of the Treasury.

Table 57. Turkey: Central Government Domestic Debt, 1992-98

(In billions of Turkish liras)

	Stocks outstanding at end						1998			Stock
	1992	1993	1994	1995	1996	1997	Payments	Borrowing	Net	at end-Dec 1998
Total domestic debt	**194,235**	**357,347**	**799,310**	**1,361,008**	**3,148,984**	**6,283,424**	**8,907,409**	**14,225,375**	**5,317,966**	**11,601,390**
Securitized debt	**128,633**	**254,994**	**543,615**	**1,143,068**	**2,777,991**	**5,945,801**	**8,569,785**	**14,225,375**	**5,655,589**	**11,601,390**
Cash debt	**83,333**	**137,389**	**338,266**	**733,254**	**1,923,828**	**4,642,884**	**6,980,402**	**11,837,809**	**4,857,407**	**9,500,291**
Bonds sold for cash	**41,086**	**72,901**	**34,036**	**220,955**	**603,485**	**2,267,894**	**1,116,187**	**2,664,136**	**1,547,950**	**3,815,844**
By auction	28,680	62,899	6,358	159,518	296,117	933,568	933,567	908,683	-24,884	908,684
Inflation indexed	0	0	0	0	0	975,238	0	1,469,802	1,469,802	2,445,040
Tap issues	9,041	5,120	9,337	35,567	18,842	559	338	84,584	84,246	84,805
Console bonds	2,179	3,783	8,867	13,236	27,180	60,801	0	69,514	69,514	130,314
FX indexed	1,099	1,099	1,099	7,634	239,847	277,729	132,282	101,554	-30,728	247,001
Public unique account	87	0	347	0	16,500	0	0	0	0	0
Other issues			8,029	5,000	5,000	20,000	50,000	30,000	-20,000	0
Bills sold for cash	**42,247**	**64,488**	**304,230**	**512,299**	**1,320,343**	**2,374,990**	**5,864,216**	**9,173,673**	**3,309,458**	**5,684,448**
By auction	38,855	44,265	226,616	447,405	1,244,059	2,301,382	5,696,447	9,001,419	3,304,971	5,606,354
Irregular issues	0	0	0	306,154	971,905	1,921,904	171,035	1,711,250	1,540,215	3,462,120
Public issues	3,391	20,224	45,327	36,775	22,192	44,977	67,965	11,494	-56,471	-11,494
Irregular issues					22,192	44,977	44,977	0	-44,977	0
In terms of FX	0	0	25,702	26,867	54,092	28,631	99,804	160,761	60,957	89,588
Public unique account	0	0	0	0	0	0	0	0	0	0
Other issues	0	0	6,585	1,251	0	0	0	0	0	0
Noncash debt	**45,300**	**117,605**	**205,349**	**409,815**	**854,163**	**1,302,917**	**1,589,383**	**2,387,566**	**798,182**	**2,101,099**
Related to parafiscal operations	**20,581**	**63,705**	**98,285**	**159,738**	**428,977**	**782,060**	**788,996**	**1,281,783**	**492,786**	**1,274,847**
Central bank	8,455	42,788	48,288	73,384	250,353	513,971	511,099	688,937	177,838	691,808
Consolidation securities	3,852	25,185	25,185	50,281	50,281	50,281	21,333	21,333	0	50,281
Paper in lieu of cash interest pay.	0	0	0	0	120,669	384,286	410,363	667,604	257,241	641,527
Securities given in place of losses	4,603	17,603	23,103	23,103	79,403	79,403	79,403	0	-79,403	0
Agricultural bank	11,218	20,010	49,090	84,721	175,319	263,386	277,897	553,529	275,631	539,017
Consolidation securities/budg law	11,218	20,010	46,067	42,338	94,593	84,004	5,000	84,875	79,875	163,879
Paper in lieu of cash principal & interest payments	0	0	3,023	42,383	80,726	179,382	272,897	468,653	195,756	375,139
Other banks	907	907	907	1,632	3,305	4,704	0	39,317	39,317	44,021
Consolidation securities/budg law	907	907	907	907	851	0	0	34,876	34,876	34,876
Paper in lieu of cash interest pay.	0	0	0	725	2,454	4,704	0	4,441	4,441	9,145
Other noncash securities	**24,719**	**53,899**	**107,064**	**250,076**	**425,186**	**520,856**	**800,387**	**1,105,783**	**305,396**	**826,252**
Central bank	6,000	14,000	45,900	204,317	280,217	234,213	533,151	758,643	225,492	459,705
Securities for devaluation account	6,000	14,000	45,900	179,317	205,217	159,213	230,528	118,397	-112,132	47,081
Bonds	6,000	14,000	45,900	60,317	48,769	159,213	230,528	118,397	-112,132	47,081
Bills	0	0	0	119,000	156,447	0	0	0	0	0
Securities for short-term advances	0	0	0	25,000	75,000	75,000	302,623	640,246	337,623	412,623
Bonds	0	0	0	25,000	50,000	75,000	75,000	277,623	202,623	277,623
Bills	0	0	0	0	25,000	0	227,623	362,623	135,000	135,000
Agricultural bank 1/	684	684	0	0	0	0	0	0	0	0
Other institutions 2/	1,153	1,153	1,153	1,153	0	0	0	0	0	0
Extrabudgetary issues	14,509	33,991	45,482	44,607	116,301	51,264	43,767	0	-43,767	7,497
Foreign exchange rate difference	2,374	4,072	14,530	0	28,668	235,380	223,469	347,140	123,671	359,050
Bonds	2,374	4,072	14,530	0	27,806	235,380	223,469	337,176	113,707	349,087
Bills	0	0	0	0	862	0	0	9,964	9,964	9,963
Unsecuritized debt	**65,602**	**102,354**	**255,695**	**217,940**	**370,993**	**337,623**	**337,623**	**0**	**-337,623**	**0**

Source: Undersecretariat of the Treasury.

1/ Securities given to cover duty losses.
2/ Consolidation securities.

Table 58 Turkey: Holders of the Central Government Securitized Debt, 1992-98 1/

	1992	1993	1994	1995	1996	1997	1998
				(In billions of Turkish liras)			
Total securitized debt	**128,633**	**254,994**	**543,615**	**1,143,068**	**2,777,991**	**5,945,801**	**8,569,785**
Banking system	**58,644**	**113,957**	**221,331**	**581,990**	**1,331,819**	**2,456,155**	**4,570,332**
Central bank	20,773	37,013	75,098	329,168	457,139	613,513	828,192
Commercial banks	37,872	76,944	146,233	252,822	874,679	1,842,642	3,742,140
Private sector							
Repos with banks	**25,645**	**71,209**	**102,706**	**258,597**	**521,609**	**2,137,482**	**2,254,731**
Residual	**44,344**	**69,828**	**219,578**	**302,482**	**924,564**	**1,352,164**	**1,744,722**
				(In millions of U.S. dollars) 2/			
Total securitized debt	**15,020**	**17,637**	**14,150**	**19,211**	**25,841**	**29,039**	**27,404**
Banking system	**6,848**	**7,882**	**5,761**	**9,781**	**12,388**	**11,996**	**14,615**
Central bank	2,426	2,560	1,955	5,532	4,252	2,996	2,648
Commercial banks	4,422	5,322	3,806	4,249	8,136	8,999	11,966
Private sector							
Repos with banks	**2,995**	**4,925**	**2,673**	**4,346**	**4,852**	**10,439**	**7,210**
Residual	**5,178**	**4,830**	**5,716**	**5,084**	**8,600**	**6,604**	**5,579**
				(In percent of total)			
Central bank	16.1	14.5	13.8	28.8	16.5	10.3	9.7
Commercial banks	29.4	30.2	26.9	22.1	31.5	31.0	43.7
Private sector repos with banks	19.9	27.9	18.9	22.6	18.8	35.9	26.3
Other	34.5	27.4	40.4	26.5	33.3	22.7	20.4

Source: Data provided by the Turkish authorities.

1/ The breakdown shown in this table is only approximate as it is based on Treasury's data, which value debt excluding accrued interest, and monetary survey data, where debt data reported by some banks may be marked to market.

2/ Converted into U.S. dollars by using end-of-period exchange rate.

3/ A positive number indicates the amount of banks T-bill holdings sold to the central bank on a repo agreement.
A negative number indicated the amount of banks T-bills holdings that have been purchased from the central bank on a repo agree

Table 59. Turkey: Primary and Overall Deficits of the Consolidated Public Sector, 1994-99
(In trillions of Turkish lira)

	1994	1995	1996	1997	1998 Est.	1999 Proj.
Primary balance of the public sector	**39.5**	**306.8**	**-189.8**	**-599.6**	**399.0**	**-2,230.9**
Central government (adjusted)	**134.6**	**269.3**	**189.1**	**-56.7**	**1,826.3**	**717.3**
Unadjusted	145.0	279.7	229.2	48.0	2,030.6	1,000.0
Interest recepits 1/	8.8	10.5	40.1	71.4	153.0	177.7
Profits transfers from the CBT	1.6	0.0	0.0	33.3	51.2	105.0
Rest of the public sector	**-54.0**	**104.2**	**-90.1**	**-145.8**	**-813.7**	**-1,944.9**
Extrabudgetary funds	-58.4	-45.5	-27.0	22.0	-17.9	-387.4
Unadjusted	-53.4	-38.8	-6.2	42.4	0.4	-378.7
Interest receipts	4.9	6.6	20.9	20.4	18.2	8.7
Local authorities	37.6	103.0	-15.5	-43.5	-209.3	-627.8
Unadjusted	43.9	111.0	1.1	-11.3	-140.1	-482.8
Interest receipts	6.3	8.0	16.5	32.1	69.1	145.0
SEEs (adjusted for interest receipts)	-10.4	99.4	-13.9	-126.8	-586.6	-963.3
Unadjusted	15.7	151.8	103.7	-22.7	-461.4	-728.5
Interest receipts	26.2	52.4	117.6	137.3	368.8	657.7
SSIs and revolving funds	-22.8	-52.7	-33.7	2.4	0.0	33.5
Primary component of unpaid duty losses	**-41.1**	**-66.7**	**-288.8**	**-397.1**	**-613.6**	**-1,003.3**
Net Interest payments	**391.7**	**711.8**	**1,778.3**	**3,245.3**	**8,687.4**	**17,132.1**
Consolidated budget	298.3	576.1	1,497.4	2,277.9	6,176.6	11,062.0
Interest on non cash debt of the central government	3.0	40.1	161.0	364.5	457.0	597.8
Share of interest payments in non-paid duty losses	21.3	22.1	179.9	493.1	1844.0	5839.6
Extrabudgetay funds	9.4	31.1	33.1	182.3	415.6	670.2
Local authorities	17.4	27.0	43.4	71.8	104.1	214.7
SEEs	89.1	93.3	115.8	171.7	244.3	396.8
Interest Receipts on bank deposits	46.2	77.5	195.1	261.2	609.2	989.1
Central Bank profits 2/	1	0	57	88	189	676
Overall deficit of the general gvt & SEEs	**-352.9**	**-405.4**	**-2,025.4**	**-3,932.9**	**-8,425.8**	**-19,933.9**
Central government	-154.9	-296.4	-1268.2	-2,263.3	-4,146.0	-10,062.0
Interest on non cash debt of the central government	-3.0	-40.1	-161.0	-364.5	-457.0	-597.8
Unpaid duty losses	-62.3	-88.8	-468.7	-890.2	-2457.6	-6842.9
Rest of the public sector	-132.6	19.8	-127.4	-415.0	-1365.2	-2838.2
Extrabudgetary funds	-62.8	-69.9	-39.2	-139.9	-415.3	-1048.9
Local authorities	26.5	84.0	-42.4	-83.1	-244.3	-697.5
SEEs	-73.4	58.5	-12.1	-194.4	-705.7	-1125.4
SSIs and revolving funds	-22.8	-52.7	-33.7	2.4	0.0	33.5
Central Bank profits (after transfers to the government)	**0.6**	**0.4**	**57.2**	**88.0**	**137.4**	**570.9**
Monetary correction in interest payments 3/	187.8	383.9	902.4	2,992.0	5,844.0	8,036.1
Central budget	172.4	267.0	584.8	1,906.4	3,953.4	4,824.9
Non-cash debt of central government	3.0	40.1	161.0	364.5	457.0	597.8
Revenue sharing certificates	0.0	0.0	7.6	112.0	209.8	360.8
Unpaid duty losses	12.3	76.8	149.0	609.0	1,223.8	2,252.6
Operational deficit	**-164.5**	**-21.1**	**-1065.7**	**-853.0**	**-2444.4**	**-11327.0**

Sources: Data provided by the Turkish authorities; and Fund staff estimates and projections.

1/ Includes interest receipts of SSIs.

2/ Primary expenditures of the central bank are implicitly treated as interest expenditures in this presentation.

3/ TMO interest payments classified as other expenditures.

Table 60. Turkey: Primary and Overall Deficits of the Consolidated Public Sector, 1994-99
(In percent of GNP)

	1994	1995	1996	1997	1998 Est.	1999 Proj.
Primary balance of the public sector	**1.0**	**3.9**	**-1.3**	**-2.0**	**0.8**	**-2.7**
Central government (adjusted)	**3.5**	**3.4**	**1.3**	**-0.2**	**3.4**	**0.9**
Unadjusted (with measures)	3.7	3.6	1.5	0.2	3.8	1.2
Interest receipts	0.2	0.1	0.3	0.2	0.3	0.2
Profits transfers from the CBT	0.0	0.0	0.0	0.1	0.1	0.1
Rest of the public sector	**-1.4**	**1.3**	**-0.6**	**-0.5**	**-1.5**	**-2.3**
Extrabudgetary funds	-1.5	-0.6	-0.2	0.1	0.0	-0.5
Unadjusted	-1.4	-0.5	0.0	0.1	0.0	-0.5
Interest receipts	0.1	0.1	0.1	0.1	0.0	0.0
Local authorities	1.0	1.3	-0.1	-0.1	-0.4	-0.8
Unadjusted	1.1	1.4	0.0	0.0	-0.3	-0.6
Interest receipts	0.2	0.1	0.1	0.1	0.1	0.2
SEEs (adjusted for interest receipts)	-0.3	1.3	-0.1	-0.4	-1.1	-1.2
Unadjusted	0.4	1.9	0.7	-0.1	-0.9	-0.9
Interest receipts	0.7	0.7	0.8	0.5	0.7	0.8
SSIs and revolving funds	-0.6	-0.7	-0.2	0.0	0.0	0.0
Primary component of unpaid duty losses	**-1.1**	**-0.8**	**-1.9**	**-1.4**	**-1.2**	**-1.2**
Net Interest payments	**10.1**	**9.1**	**11.9**	**11.0**	**16.4**	**20.6**
Consolidated budget	7.7	7.3	10.0	7.7	11.7	13.3
Interest on non cash debt of the central government	0.1	0.5	1.1	1.2	0.9	0.7
Share of interest payments in non-paid duty losses	0.5	0.3	1.2	1.7	3.5	7.0
Extrabudgetay funds	0.2	0.4	0.2	0.6	0.8	0.8
Local authorities	0.4	0.3	0.3	0.2	0.2	0.3
SEEs	2.3	1.2	0.8	0.6	0.5	0.5
Interest Receipts on bank deposits	1.2	1.0	1.3	0.9	1.1	1.2
Central Bank profits 2/	0.0	0.0	0.4	0.3	0.4	0.8
Overall balance	**-9.1**	**-5.2**	**-13.1**	**-13.1**	**-15.6**	**-23.3**
Overall deficit of the general gvt & SEEs	**-9.1**	**-5.2**	**-13.5**	**-13.4**	**-15.9**	**-24.0**
Central government	-4.0	-3.8	-8.5	-7.7	-7.8	-12.1
Interest on non cash debt of the central government	-0.1	-0.5	-1.1	-1.2	-0.9	-0.7
Unpaid duty losses	-1.6	-1.1	-3.1	-3.0	-4.6	-8.2
Rest of the public sector	-3.4	0.3	-0.9	-1.4	-2.6	-3.4
Extrabudgetary funds	-1.6	-0.9	-0.3	-0.5	-0.8	-1.3
Local authorities	0.7	1.1	-0.3	-0.3	-0.5	-0.8
SEEs	-1.9	0.7	-0.1	-0.7	-1.3	-1.4
SSIs and revolving funds	-0.6	-0.7	-0.2	0.0	0.0	0.0
Central Bank profits 2/	**0.0**	**0.0**	**0.4**	**0.3**	**0.3**	**0.7**
Monetary correction in interest payments 3/	**4.8**	**4.9**	**6.0**	**10.2**	**11.0**	**9.7**
Central budget	4.4	3.4	3.9	6.5	7.5	5.8
Non-cash debt of central government	0.1	0.5	1.1	1.2	0.9	0.7
Revenue sharing certificates	0.0	0.0	0.1	0.4	0.4	0.4
Unpaid duty losses	0.3	1.0	1.0	2.1	2.3	2.7
Operational Balance	-4.2	-0.3	-7.1	-2.9	-4.6	-13.6

Sources: Data provided by the Turkish authorities; and Fund staff estimates and projections.

1/ Includes interest receipts of SSIs.

2/ Primary expenditures of the central bank are implicitly treated as interest expenditures in this presentation.

3/ TMO interest payments classified as other expenditures.

Table 61. Turkey: Consolidated Accounts of the Extrabudgetary Funds, 1995-99

(In billions of Turkish lira)

	1995	1996	1997	1998	1999 Estimate
Total revenues	**208,691**	**429,795**	**947,746**	**1,374,378**	**2,207,899**
Tax revenues	135,049	217,952	543,446	871,230	1,087,485
Share in PCT	11,443	32,974	69,130	86,946	0
Share in additional VAT 2/	9,934	24,353	33,080	22,946	83,861
Share in other taxes	113,672	160,625	441,236	761,338	1,003,624
Nontax revenues	73,642	211,843	404,300	503,147	1,120,414
Current transfers	16,839	115,271	239,146	218,089	575,564
of which : from the budget	13,571	92,582	206,047	173,679	507,310
Capital transfers	12,414	14,693	30,933	86,391	179,050
of which : from local gvt. funds	2,781	6,390	15,080	28,849	46,406
from other funds 3/	4,886	5,146	9,543	18,885	36,421
Other nontax revenues	44,389	81,879	134,221	198,667	365,800
Total expenditure	**278,635**	**469,035**	**1,087,646**	**1,789,634**	**3,256,755**
Current expenditure	195,808	249,372	550,649	945,324	1,827,147
Transfers	119,897	157,843	265,483	386,063	724,009
of which : to the budget	79,293	102,389	148,807	185,526	414,724
Interest 4/	31,135	33,090	182,286	415,625	670,188
Other current expenditure	44,776	58,440	102,879	143,636	432,950
Capital expenditure	82,269	178,268	470,125	746,907	1,043,686
Investment	42,589	107,903	256,681	341,069	497,680
Capital transfers	39,680	70,365	213,443	405,838	546,006
of which : to the budget	13,947	31,593	91,959	200,999	250,067
to other funds	4,556	6,083	5,621	25,210	42,109
Net lending	559	41,395	66,873	97,403	385,922
Primary balance	**-38,809**	**-6,150**	**42,386**	**368**	**-378,667**
Balance	**-69,944**	**-39,240**	**-139,900**	**-415,257**	**-1,048,856**
Financing	69,944	39,240	139,900	415,257	1,048,856
Foreign net	13,698	18,804	91,543	65,629	155,980
New borrowing	22,295	53,504	133,618	136,986	227,146
Repayments	8,597	34,700	42,075	71,358	71,166
Privatization	21,646	24,476	76,231	270,553	57,865
[In millions of U.S. dollars]	474	302	504	1,040	140
Net domestic borrowing	34,600	-4,040	-27,874	79,075	835,011

Source: State Planning Organization.

1/ Consolidated accounts of 13 EBFs: Privatization authority, Public Participation Fund, Mass Housing Fund, Development and Support Fund, Price Support Stabilization Fund, Fuel Price Stabilization Fund, Oil Exploration Fund, Resource Utilization Fund, Revenue Administration Improvement Fund, Defence Industry Support Fund, and Social Aid and Solidarity Fund, Education and Health Tax Fund, Petroleum Consumption Tax Fund.

2/ 30 percent of additional VAT on alcohol and tobacco plus 100 percent of the additional VAT on wine and beer go to the MHF.

3/ Excluding the 13 extrabudgetary funds and the 3 local government funds.

4/ Interest payments include interest payments of revenues sharing certificates of the PPF.

Table 62. Turkey: Consolidated Accounts of Local Governments and Local Government Funds, 1994-00

(In billions of Turkish liras)

	1994	1995	1996	1997	1998 Estimate	1999 Estimate
Total revenue	**162,678**	**349,241**	**502,053**	**1,100,335**	**2,047,298**	**3,215,948**
Tax revenue	**123,008**	**264,316**	**314,844**	**678,484**	**1,356,600**	**2,058,840**
Share in the divisible pool	105,788	221,629	216,033	471,728	897,673	1,353,573
Municipalities	53,318	111,886	115,696	242,765	467,348	703,164
Metropolitan municipalities	28,102	59,866	75,834	170,768	319,011	484,881
Special provinces	20,298	39,973	19,840	48,052	92,315	136,864
Water & sewage administrations	4,070	9,904	4,663	10,143	18,999	28,664
Revenues earmarked to local gvt. funds:	16,127	39,524	68,399	154,333	296,893	429,162
Municipalities fund	13,879	34,318	53,598	119,540	231,301	333,948
Local government fund	62	93	9,908	22,340	42,918	63,138
Special provinces fund	2,186	5,113	4,893	12,453	22,674	32,076
Share of municipalities in PCT	1,017	3,049	610	1,274	1,305	0
Local government own tax revenues	76	114	29,802	51,149	160,729	276,105
Nontax revenue and factor income	39,670	84,925	187,209	421,851	690,698	1,157,108
Total expenditures	**136,177**	**265,228**	**544,403**	**1,183,434**	**2,291,554**	**3,913,434**
Current expenditures	93,011	179,767	338,439	701,475	1,317,952	2,370,044
Transfers	25,045	57,825	106,135	233,997	444,769	699,887
Of which : to the budget	8,923	25,664	47,335	109,440	223,732	348,510
to EBFs 2/	11,749	3,975	7,050	16,060	86,392	45,466
to other funds 3/	1,017	344	1,819	4,136	7,944	11,736
Interest	17,434	26,990	43,413	71,786	104,117	214,679
Personnel	36,273	64,582	122,963	249,447	490,785	977,106
Other current expenditure	14,207	30,292	65,928	146,245	278,281	478,372
Capital expenditures	41,983	83,748	202,779	475,506	963,513	1,529,215
Fixed investment	37,001	74,599	186,108	416,694	840,211	1,403,438
Increase in fixed assets and changes in stocks	3,399	7,831	11,549	35,331	63,576	62,541
Transfers	1,583	1,318	5,122	23,481	59,726	63,236
Stock revaluation fund	-1,183	-1,713	-3,185	-6,453	-10,089	-14,175
Surplus (+) or deficit (-)	**26,501**	**84,013**	**-42,350**	**-83,099**	**-244,256**	**-697,486**
Primary balance	**43,935**	**111,003**	**1,063**	**-11,313**	**-140,139**	**-482,807**
Off-budget transfers	**5,320**	**22,556**	**42,212**	**147,011**	**123,254**	**0**
Balance (after off-budget transfers)	**31,821**	**106,569**	**-138**	**63,912**	**-121,002**	**-697,486**
Financing	-31,821	-106,569	138	-63,912	121,002	697,486
Foreign (net)	7,101	-7,156	2,597	-22,767	-12,119	-4,145
Borrowing	13,409	15,400	32,049	89,198	188,981	207,238
Repayment	-6,308	-22,556	-29,452	-111,965	-201,100	-211,383
Domestic	-38,922	-99,413	-2,459	-41,145	133,121	701,631
			(In percent of GNP)			
Total revenue	**4.2**	**4.4**	**3.4**	**3.7**	**3.9**	**3.9**
Tax revenue	3.2	3.4	2.1	2.3	2.6	2.5
Nontax revenue and factor income	1.0	1.1	1.2	1.4	1.3	1.4
Total expenditures	**3.5**	**3.4**	**3.6**	**4.0**	**4.3**	**4.7**
Current expenditures	2.4	2.3	2.3	2.4	2.5	2.9
Capital expenditures	1.1	1.1	1.4	1.6	1.8	1.8
Primary balance	**1.1**	**1.4**	**0.0**	**0.0**	**-0.3**	**-0.6**
Surplus (+) or deficit (-)	**0.7**	**1.1**	**-0.3**	**-0.3**	**-0.5**	**-0.8**

Source: State Planning Organization.

1/ Local Government Funds consist of the Municipalities Fund, the Local Government Fund, and the Special Provinces Fund.
2/ Consists of transfers to the Social Aid and Solidarity Funds from the three Local Government Funds.
3/ Consists of transfers to the Natural Disaster Fund from the three Local Government Funds.

Table 63. Turkey: Public Sector Fixed Investment, 1992-98

	1991	1992	1993	1994	1995	1996	1997	1998 Estimate
				(In billions of Turkish liras)				
Total Public Sector	**45,561**	**79,034**	**143,977**	**192,052**	**329,516**	**764,398**	**1,753,954**	**2,903,920**
Consolidated budget 1/	17146	29239	53,161	72,788	123,777	289,493	710,000	1,180,000
Of which: reflected in budget			53,161	72,788	91,800	238,100	579,585	1,003,323
SEEs	14,892	23,137	38,680	53,742	80,873	168,472	385,468	655,000
Nonfinancial SEEs	13144	20341	33,148	45,812	64,328	135,576	323,799	580,000
Financial SEEs	317	445	414	681	2,284	3,704	8,401	15,000
SEEs under privatization	1,431	2,351	5,118	7,249	14,261	29,192	53,268	60,000
Local authorities	3,993	10,795	22,302	37,001	74,599	177,980	382,285	711,746
Revolving funds	726	628	1,082	1,293	5,129	12,660	12,889	28,000
Social security institutions	376	470	831	1,362	2,549	7,920	6,640	20,844
Extrabudgetary funds	8428	14765	27,921	25,866	42,589	107,873	256,672	308,330
Total Private Sector	**102,172**	**177,094**	**381,740**	**731,261**	**1,545,796**	**3,004,661**	**5,965,781**	**9,694,305**
Total investment	**147,733**	**256,128**	**525,717**	**923,313**	**1,875,312**	**3,769,059**	**7,719,735**	**12,598,225**
				(In percent of GNP)				
Total Public sector	**7.2**	**7.2**	**7.2**	**4.9**	**4.2**	**5.1**	**6.0**	**5.6**
Consolidated budget 1/	2.7	2.6	2.7	1.9	1.6	1.9	2.4	2.3
SEEs	2.3	2.1	1.9	1.4	1.0	1.1	1.3	1.3
Local authorities	0.6	1.0	1.1	1.0	0.9	1.2	1.3	1.4
Revolving funds	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1
Social security institutions	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Extrabudgetary funds	1.3	1.3	1.4	0.7	0.5	0.7	0.9	0.6
Total Private Sector	**16.1**	**16.0**	**19.1**	**18.8**	**19.7**	**20.1**	**20.3**	**18.8**
Total investment	**23.3**	**23.2**	**26.3**	**23.7**	**23.9**	**25.2**	**26.3**	**24.4**
				(In percent of public sector investment)				
Consolidated budget 1/	37.6	37.0	36.9	37.9	37.6	37.9	40.5	40.6
SEEs	32.7	29.3	26.9	28.0	24.5	22.0	22.0	22.6
Nonfinancial SEEs	28.8	25.7	23.0	23.9	19.5	17.7	18.5	20.0
Financial SEEs	0.7	0.6	0.3	0.4	0.7	0.5	0.5	0.5
SEEs under privatization	3.1	3.0	3.6	3.8	4.3	3.8	3.0	2.1
Local authorities	8.8	13.7	15.5	19.3	22.6	23.3	21.8	24.5
Revolving funds	1.6	0.8	0.8	0.7	1.6	1.7	0.7	1.0
Social security institutions	0.8	0.6	0.6	0.7	0.8	1.0	0.4	0.7
Extrabudgetary funds	18.5	18.7	19.4	13.5	12.9	14.1	14.6	10.6
				(In percent of total investment)				
Public investment	30.8	30.9	27.4	20.8	17.6	20.3	22.7	23.1
Private investment	69.2	69.1	72.6	79.2	82.4	79.7	77.3	76.9

Source: State Planning Organization.

1/ Includes central government operations not covered by the consolidated budget, for example, State Hydraulic Authority (DSI) and State Highways and Rural Affairs Authority.

Table 64. Turkey: Social Security Institutions, 1993-99

	1993	1994	1995	1996	1997	1998	1999 Estimate
				(In billions of Turkish liras)			
Revenue	**100,823**	**183,803**	**352,169**	**909,843**	**1,989,230**	**3,790,069**	**6,842,775**
Premium	78,344	127,822	212,376	488,268	1,145,331	2,034,134	3,744,773
Other revenues	8,549	15,400	31,593	86,275	83,899	319,832	348,003
Transfers form central government	13,930	40,580	108,200	335,300	760,000	1,436,103	2,750,000
-SSK	0	14,480	59,200	146,000	337,000	451,000	1,105,000
-Bağ-Kur	2,700	4,530	8,000	70,100	123,000	435,000	610,000
-EMS	11,230	21,570	41,000	119,200	300,000	550,103	1,035,000
Expenditure	**112,360**	**206,371**	**401,746**	**945,183**	**1,991,781**	**3,981,141**	**7,025,317**
Insurance expenditure	94,626	172,800	346,157	794,607	1,810,726	3,517,663	6,438,347
Retirement expenditure	82,511	147,739	285,817	670,453	1,524,252	2,866,941	5,266,385
Health expenditure	12,115	25,061	60,340	124,154	286,474	650,722	1,171,962
Expenditures made behalf of budget	11,230	21,570	30,611	101,236	120,093	189,662	300,000
Other expenditures	5,673	10,640	22,430	41,421	51,094	258,538	260,550
Of which : interest expenditure	0	0	0	0	0	0	0
Investment	831	1,362	2,548	7,919	9,868	15,278	26,420
Surplus (+) Deficit (-)	**-11,536**	**-22,569**	**-49,577**	**-35,340**	**-2,551**	**-191,072**	**-182,542**
Off-budget transfers (1)	**9,705**	**10,687**	**23,869**	**20,000**	**0**	**0**	**0**
Deficit	**-1,831**	**-11,882**	**-25,708**	**-15,340**	**-2,551**	**-191,072**	**-182,542**
Financing (domestic)	**1,831**	**11,882**	**25,708**	**15,340**	**2,551**	**191,072**	**182,542**
External financing	0	0	0	0	0	0	0
Domestic financing	1,831	11,882	25,708	15,340	2,551	191,072	182,542
				(In percent of GNP)			
Revenue	**5.0**	**4.7**	**4.5**	**6.1**	**6.8**	**7.1**	**8.2**
Premium	3.9	3.3	2.7	3.3	3.9	3.8	4.5
Other revenues	0.4	0.4	0.4	0.6	0.3	0.6	0.4
Transfers form central government	0.7	1.0	1.4	2.2	2.6	2.7	3.3
-SSK	0.0	0.4	0.8	1.0	1.1	0.9	1.3
-Bağ-Kur	0.1	0.1	0.1	0.5	0.4	0.8	0.7
-EMS	0.6	0.6	0.5	0.8	1.0	1.0	1.2
Expenditure	**5.6**	**5.3**	**5.1**	**6.3**	**6.8**	**7.5**	**8.5**
Insurance expenditure	4.7	4.4	4.4	5.3	6.2	6.6	7.7
Retirement expenditure	4.1	3.8	3.6	4.5	5.2	5.4	6.3
Health expenditure	0.6	0.6	0.8	0.8	1.0	1.2	1.4
Expenditures made behalf of budget	0.6	0.6	0.4	0.7	0.4	0.4	0.4
Other expenditures	0.3	0.3	0.3	0.3	0.2	0.5	0.3
Of which : interest expenditure	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Investment	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Surplus (+) Deficit (-)	**-0.6**	**-0.6**	**-0.6**	**-0.2**	**0.0**	**-0.4**	**-0.2**
Off-budget transfers	**0.5**	**0.3**	**0.3**	**0.1**	**0.0**	**0.0**	**0.0**
Deficit	-0.1	-0.3	-0.3	-0.1	0.0	-0.4	-0.2
Financing (domestic)	**0.1**	**0.3**	**0.3**	**0.1**	**0.0**	**0.4**	**0.2**
Memorandum item:							
Off-budget transfers as reflected in SSI accounts (2)	9,705	10,687	23,869	20,000	0	0	0
SSK	9,705	10,687	23,869	0	0	0	0
Bağ-Kur	0	0	0	20,000	0	0	0
EMS	0	0	0	0	0	0	0

Source: State Planning Organization.

1/ As reflected in Treasury's domestic debt data. This same figures are reflected in Table 94.

2/ The difference has not been reconciled.

Table 65. Turkey: Social Security Institutions, 1993-99

(In billions of Turkish liras)

	1993	1994	1995	1996	1997	1998	1999 Revised
Sosyal Sigortalar Kurumu (SSK)							
Revenue	52,167	94,126	195,624	476,172	1,050,745	1,883,390	3,511,355
Premium	44,444	65,304	108,384	280,521	640,323	1,133,913	2,095,004
Other revenues	7,723	14,342	28,040	49,651	73,422	298,477	311,350
Transfers form central government	0	14,480	59,200	146,000	337,000	451,000	1,105,000
Expenditure	60,252	109,735	219,993	473,190	1,051,760	1,993,782	3,695,109
Insurance expenditures	57,035	103,585	210,073	456,341	1,012,485	1,926,084	3,582,202
Retirement expenditures	48,116	86,046	175,636	387,514	869,761	1,652,000	3,083,964
Health expenditures	8,919	17,539	34,437	68,827	142,724	274,084	498,237
Other expenditures	2,593	5,011	8,053	11,363	31,308	57,889	95,987
Investment	624	1,139	1,867	5,486	7,967	9,809	16,920
Balance (excl. off-budget transfers)	-8,085	-15,609	-24,369	2,982	-1,015	-110,392	-183,754
Off-budget transfers	9,705	10,687	23,869	0	0	0	0
Balance (incl. off-budget transfers)	1,620	-4,922	-500	2,982	-1,015	-110,392	-183,754
Financing (domestic)	-1,620	4,922	500	-2,982	1,015	110,392	183,754
Bağkur							
Revenue	7,526	14,357	28,055	109,677	241,799	655,140	1,006,838
Premium	4,748	9,655	19,452	38,767	116,959	214,814	386,238
Other revenues	78	172	603	810	1,840	5,326	10,600
Transfers form central government	2,700	4,530	8,000	70,100	123,000	435,000	610,000
Expenditure	8,668	19,898	40,789	109,384	238,301	669,365	991,809
Insurance expenditures	8,136	19,063	29,528	88,569	231,495	505,568	889,659
Retirement expenditures	8,136	19,063	21,483	67,868	171,785	315,970	581,223
Health expenditures	0	0	8,045	20,701	59,710	189,598	308,436
Other expenditures	481	808	11,250	20,690	6,658	163,393	101,151
Investment	51	26	11	125	148	404	1,000
Balance (excl. off-budget transfers)	-1,141	-5,541	-12,734	293	3,498	-14,225	15,029
Off-budget transfers	0	0	0	20,000	0	0	0
Balance (incl. off-budget transfers)	-1,141	-5,541	-12,734	20,293	3,498	-14,225	15,029
Financing (domestic)	1,141	5,541	12,734	-20,293	-3,498	14,225	-15,029
Emekli Sandığı (EMS)							
Revenue	41,130	75,320	128,490	323,994	696,686	1,251,539	2,324,583
Premium	29,152	52,863	91,540	184,980	456,586	898,054	1,523,531
Transfers form central government	11,230	21,570	34,000	103,200	231,463	337,456	775,000
Other revenues	747	886	2,950	35,814	8,637	16,029	26,052
Expenditure	43,440	76,739	140,964	362,609	701,720	1,317,994	2,338,399
Insurance expenditures	29,455	50,151	106,556	249,697	566,746	1,086,011	1,966,487
Retirement expenditures	26,259	42,630	88,698	215,071	482,706	898,971	1,601,198
Health expenditures	3,196	7,522	17,858	34,626	84,040	187,040	365,288
Other expenditures	13,829	26,391	33,737	110,604	133,221	226,918	363,413
Investment	156	197	671	2,309	1,753	5,065	8,500
Balance	-2,310	-1,419	-12,474	-38,615	-5,034	-66,455	-13,817
Financing (domestic)	2,310	1,419	12,474	38,615	5,034	66,455	13,817

Source: State Planning Organization.

Table 66.Turkey: Summary of Borrowing Requirement of State Economic Enterprises, 1994-99 1/

	1994	1995	1996	1997	1998	1999 Proj.
			(In billions of Turkish liras)			
Borrowing requirement (=1+2+3+4)	**59,546**	**-64,714**	**-7,838**	**194,421**	**690,314**	**1,125,355**
1. Gross investment outlays	109,230	127,558	398,684	941,131	1,802,289	2,513,653
2. Adjusted operating deficit	-19,494	-162,690	-418,338	-840,151	-1,481,257	-2,146,749
Operating deficit (excl personnel outlays)	-176,342	-385,594	-784,195	-1,627,364	-2,868,935	-4,823,228
Personnel outlays	156,848	222,904	365,857	787,213	1,387,678	2,676,479
3. Government transfers	-38,594	-61,114	-81,286	-165,700	-271,958	-549,469
4. Dividends/taxes/other	8,404	31,532	93,102	259,141	641,240	1,307,920
Financing (5+6)	**59,546**	**-64,714**	**-7,838**	**194,421**	**690,314**	**1,125,355**
5. Deferred payments	115,453	38,034	230,773	291,035	2,931,264	2,499,833
6. Cash financing	-55,907	-102,748	-238,611	-96,614	-2,240,950	-1,374,478
			(In percent of GNP)			
Borrowing requirement (=1+2+3+4)	**1.5**	**-0.8**	**-0.1**	**0.7**	**1.3**	**1.4**
1. Gross investment outlays	2.8	1.6	2.7	3.2	3.5	3.2
2. Adjusted operating deficit	-0.5	-2.1	-2.8	-2.9	-2.9	-2.8
Operating deficit (excl personnel outlays)	-4.5	-4.9	-5.2	-5.5	-5.6	-6.2
Personnel outlays	4.0	2.8	2.4	2.7	2.7	3.4
3. Government transfers	-1.0	-0.8	-0.5	-0.6	-0.5	-0.7
4. Dividends/taxes/other	0.2	0.4	0.6	0.9	1.2	1.7
Financing (5+6)	**1.5**	**-0.8**	**-0.1**	**0.7**	**1.3**	**1.4**
5. Deferred payments	3.0	0.5	1.5	1.0	5.7	3.2
6. Cash financing	-1.4	-1.3	-1.6	-0.3	-4.3	-1.8

Source: Undersecretariat of the Treasury.

1/ Includes a total of 47 SEEs, of which 31 are still in the Treasury's portfolio, and 16 have been transferred to the Privatization Authority's portfolio.

Table 67. Turkey: Consolidated Accounts of the SEEs 1/
(In billions of Turkish liras)

	1995	1996	1997	1998	1999 Estimate
Total current revenues	1,583,537	3,056,289	5,899,081	10,073,438	18,068,103
Sales of goods and services	1,474,001	2,810,612	5,451,514	9,160,509	16,611,440
Other sales revenue	4,341	4,614	21,598	33,396	53,210
Nonoperating revenues	105,195	241,063	425,970	879,534	1,403,453
of which: interest receipts	117,557	117,557	137,318	368,800	657,741
Total expenditures	1,579,936	3,129,737	6,259,200	11,035,711	19,742,926
Current expenditures	1,452,379	2,731,052	5,318,069	9,233,421	17,229,274
Costs of goods and services sold	899,261	1,756,946	3,414,553	5,689,467	10,566,129
Of which: wages and salaries	222,904	365,857	787,213	1,387,678	2,690,927
Interest payments	93,285	115,803	171,671	244,313	396,823
Other expenses	428,301	765,202	1,472,704	2,658,400	4,958,402
Dividends/taxes	31,532	93,102	259,141	641,240	1,307,920
Capital expenditures	127,557	398,685	941,131	1,802,290	2,513,652
of which: fixed investment	78,589	164,768	377,067	891,707	1,410,607
change in stocks	56,241	202,118	524,970	857,255	873,324
Financing req. from outside sources	3,601	-73,448	-360,118	-962,273	-1,674,823
Budgetary & PA transfers	54,874	61,320	165,700	256,609	549,469
Capital	54,325	52,111	162,130	238,349	464,519
Duty losses	0	8,297	2,050	14,960	80,000
Aid	549	912	1,520	3,300	4,950
Primary balance (after budgetary transfers)	151,760	103,675	-22,748	-461,350	-728,531
Overall balance	58,475	-12,128	-194,418	-705,664	-1,125,354
Deferred payments	197,075	409,898	892,431	1,747,900	2,027,289
Advance payments	-159,041	-179,126	-601,399	-1,183,365	-757,261
Cash financing requirement	96,509	218,644	96,614	-141,129	144,674
Financing	-96,509	-218,644	-96,614	141,129	-144,674
Foreign borrowing, net	-13,527	-58,920	26,421	339,849	312,063
Receipts	25,232	65,455	82,746	378,635	351,419
Repayments	-38,759	-124,375	-56,325	-38,786	-39,356
Domestic Financing	-82,982	-159,724	-123,035	-198,720	-456,737
Transfers from the government	...	...	...	...	135,119
Payment of interest on guaranteed debt	...	...	...	...	22,382
Payment of principal on guaranteed debt	...	...	...	...	112,738
Domestic bank lending, net	-49,148	-212,734	38,756	-111,802	-324,878
Other	-33,834	53,010	-161,791	-86,918	-266,978
Memoramdum items:					
TMO's interest payments	...	...	33,276	243,600	423,000
Servicing of external debt (in million U..S. dollars)					
Interest	...	...	...	...	186
of which: repayed by the budget	...	...	...	...	54
Principal	...	...	...	...	638
of which: repayed by the budget	...	...	...	...	272
New external borrowing	...	...	...	...	611

Source: Undersecretariat of the Treasury.

1/ Includes a total of 47 SEEs, of which 31 are still in the Treasury's portfolio, and 16 have been transferred to the PA's portfolio.

Table 68. Turkey: Profit and Loss Accounts of State Economic Enterprises, 1994-99 1/
(In billions of Turkish liras)

	1995	1996	1997	1998	1999 Estimate
Total current revenues	1,583,537	3,056,289	5,899,081	10,073,438	18,068,103
Sales of goods and services	1,474,001	2,810,612	5,451,514	9,160,509	16,611,440
Other sales revenues	4,341	4,614	21,598	33,396	53,210
Nonoperating revenues	105,195	241,063	425,970	879,534	1,403,453
Total current expenses	1,582,690	2,874,138	5,420,499	9,220,493	16,858,516
Cost of goods and services sold	899,261	1,756,946	3,414,553	5,689,467	10,566,129
Of which: wages & salaries	222,904	365,857	787,213	1,387,678	2,690,927
Depreciation	100,110	147,156	259,541	390,269	624,426
Interest payments	93,285	115,803	171,671	244,313	396,823
Provisions	16,141	8,687	11,836	22,058	61,996
Provisions for exchange rate differences	45,592	80,345	90,194	215,985	250,740
Other expenses	428,301	765,202	1,472,704	2,658,400	4,958,402
Operating balance	847	182,151	478,583	852,945	1,209,587
Direct tax obligations	26,824	71,515	194,350	428,395	800,870
After tax operating balance	-25,977	110,636	284,233	424,550	408,717
Subsidies	0	0	0	0	0
After-tax available income	-25,977	110,636	284,233	424,550	408,717
Of which: Declared dividends	4,708	21,587	64,791	212,845	507,050
Retained earnings	-30,685	89,049	219,442	211,705	-98,333
Memorandum items:					
Duty losses accrued on goods sold	16,341	18,407	53,522	290,042	687,985

Source: Undersecretariat of the Treasury.

1/ Includes a total of 47 SEEs, of which 31 are still in the Treasury's portfolio, and 16 have been transferred to the PA's portfolio.

Table 69. Turkey: Financing Requirement of State Economic Enterprises, 1994-99
(In billions of Turkish liras)

	1995	1996	1997	1998	1999 Estimate
Total financing requirement	127,558	398,684	941,131	1,802,289	2,513,653
Fixed investment	78,589	164,768	377,067	891,707	1,410,607
Change in stocks	56,241	202,118	524,970	857,255	873,324
Change in fixed assets	-11,031	17,850	12,387	-23,347	102,190
Equity in joint ventures	389	3,580	1,875	12,596	33,472
Legal requirements, funds	3,370	10,368	24,832	64,078	94,060
Internally generated funds	131,158	325,237	581,013	840,017	838,829
Retained earnings	-30,685	89,049	219,442	211,705	-98,333
Depreciation	100,110	147,156	259,541	390,269	624,426
Provisions	16,141	8,687	11,836	22,058	61,996
Provisions for exchange rate differences	45,592	80,345	90,194	215,985	250,740
Cap.inj. other than from Treasury & PA	0	0	0	0	0
External financing requirements (+)	-3,600	73,447	360,118	962,272	1,674,824
Government transfers	61,114	81,286	165,700	271,958	549,469
Transfers from budget & PA	54,874	61,320	165,700	256,609	549,469
Capital	54,325	52,111	162,130	238,349	464,519
Duty losses	0	8,297	2,050	14,960	80,000
Aid 1/	549	912	1,520	3,300	4,950
Extrabudgetary transfers 2/	6,240	19,966	0	15,349	0
Borrowing requirement	-64,714	-7,839	194,418	690,314	1,125,355
Deferred payments	197,075	409,898	892,431	1,747,900	2,027,289
Advance payments	-159,041	-179,126	-601,399	-1,183,365	-757,261
Cash financing requirement	-102,748	-238,611	-96,614	125,779	-144,673
Financing	-102,748	-238,611	-96,614	125,779	-144,673
Securities	-40,073	33,043	-161,791	-102,268	-131,858
Domestic bank lending, net	-49,148	-212,734	38,756	-111,802	-324,878
Loans	7,524	-35,284	195,089	202,783	337,086
Central bank	231	0	0	0	0
Commercial banks	7,795	-35,284	195,089	202,783	337,086
Eximbank	-502	0	0	0	0
Change in deposits 3/	56,672	177,450	156,333	314,585	661,964
Foreign borrowing, net	-13,527	-58,920	26,421	339,849	312,063
Receipts	25,232	65,455	82,746	378,635	351,419
Repayments	-38,759	-124,375	-56,325	-38,786	-39,356

Source: Undersecretariat of the Treasury.

1/ Reflected in the consolidated budget under "other transfers."
2/ Includes transfers of government bonds outside the budgetary framework.
3/ Including pure cash balances.