

ANNEXES

ANNEX I

Data and Methodology for Consolidated General Government Classification of Expenditures

1. Economic Classification:

In this analysis, the State Planning Organization (SPO) data produced for the Pre-Accession Economic Program (PEP) has been used for the consolidated budget, social security institutions, local administrations, revolving funds, extra-budgetary funds and unemployment insurance fund. With the implementation of the PFMC law in January 2006, the institutional coverage has changed to be more in line with the international definitions and to increase the scope of the general government institutions, however, since the last year covered in Chapter I is 2005, the terminology used here and the coverage are not consistent with the PFMC law.

The SPO is the only public institution which estimates the size of the general government for Turkey. In generating consolidated general government data the SPO is following the GFS manual. The IMF is another source for the general government data in Turkey. However, the purpose of their data is not to measure the overall size of the revenues and expenditures of the general government, but to monitor the performance criteria set in terms of the primary surplus of the public sector.

The definition of general government used in this report includes: consolidated budget (CB), local administrations, revolving funds, social security institutions (SSI), Revolving Funds and a common subset of budgetary and extra budgetary funds (EBFs)

Consolidated Budget Institutions: All of the general and annex budget institutions. As of 2005 the total number of the institutions was 98.

Local Administrations: 3225 municipalities, 81 special provincial administrations, Iller Bank, 16 water and sewerage companies of metropolitan municipalities and 10 natural gas and public transportation companies.

Revolving funds: 1,083 (in 2005) enterprises established under the consolidated budget institutions and TRT (Turkish Radio and Television), DG of Dormitory and Student Credits, National Lottery and AOC (Ataturk Forestry Farm).

Social Security Institutions: SSK, BagKur, Emekli Sandigi and Unemployment Insurance Funds. The UI was included into the balance since year 2000.

Extra Budgetary Funds: The total number of the funds included in the general government balance decreased from 12 in 1999 to 4 in 2005.

It should also be noted that the analysis does not include the expenditures of the Central Bank and other public depository institutions, 36 non-financial state economic enterprises (SOEs), eight regulatory and supervisory agencies, and 38 institutions covered under the general and special budget institutions listed in the Public Financial Management and Control Law (PFMC).¹³³ The analysis includes the net subsidies and transfers between these institutions and the consolidated budget.

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

- To eliminate the double counting:

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

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

- To transfer cash –based accounting into accrual accounting;

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

- Moreover, in order to be in line with the primary surplus definition of the GFS 2001 manual, interest revenues of the institutions were deducted. In their current definition of primary surplus, the SPO has been deducting only the interest expenditures but not interest revenues.

2. Functional Classification:

7. In this study a cross classification of general government expenditures -- functional vs economic -- for 2003 and 2004 by combining the expenditures of the institutional coverage defined in the economic classification was used. Regulatory and Supervisory Institutions and some of the special budget institutions which were recently brought under the definition of general government by law 5018 were not included because of the data problem.

8. Main data sources for the study are as follows.

- SPO economic classification of the general government data
- Ministry of Finance, consolidated budget and revolving funds

¹³³ Special budget institutions refer to 83 public entities including 55 higher education institutions and universities established as affiliated or related to a ministry to provide certain public services. These special budget institutions receive revenues and are authorized to spend them. The complete list of these institutions is presented in the Public Financial Management and Control Law.

- SSK, Bağkur, Emekli Sandığı
- High Audit Board (YDK) on the accounts of SSK, Bağkur and TRT (Turkish Radio and Television Board) , AOÇ (Atatürk's Farm) , General Directorate of Credit and Dormitories.
- National Lottery Directorate
- IMF fiscal tables of June 2006
- Ministry of Internal Affairs, General Directorate of Local Authorities

9. As a general principle the GFS consolidation methodology has been used while producing the functional classification of the general government. A detailed analysis on the methodology and assumptions for producing the cross classification is available in Ferhat Emil, 2005, Turkey-Economic and Functional Classification of General Government Expenditures, background analysis note for the CEM: promoting Sustained Growth and Convergence with the European Union. Table A1 below shows the results of this study.

Table A1: Classification of General Government Expenditures across Economic and Functional Categories, 2003-2004, in percent of GDP

(% of GDP)	Personnel Expenditures		SSI Premium Payments		Goods and Service Purchase		Interest Payments		Current Transfers		Capital Payments		Capital Transfers		Lending		Contingency		Total	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
General Public Services	0.9	0.9	0.1	0.1	0.5	0.5	16.6	13.3	0.6	0.6	0.4	0.5	0.2	0.2	0.4	0.2	0.0	0.0	19.8	16.4
Defense	0.8	0.8	0.1	0.1	1.4	1.2	0.0	0.0	0.1	0.1	0.0	0.0	0.0	-	-	-	-	-	2.5	2.2
Public Order and Safety	1.2	1.1	0.2	0.2	0.6	0.6	-	-	0.0	0.0	0.2	0.2	-	-	-	-	-	-	2.1	2.0
Economic Affairs	1.1	1.1	0.2	0.2	0.5	0.5	0.2	0.1	1.1	1.0	1.5	1.4	0.1	0.1	0.3	0.3	-	-	4.9	4.7
Environmental Protection	0.1	0.1	0.0	0.0	0.0	0.1	-	-	0.0	0.0	0.1	0.1	0.0	0.0	-	-	-	-	0.2	0.2
Housing and Community Amenities	0.3	0.2	0.0	0.0	0.2	0.1	-	-	0.0	0.0	0.6	0.4	0.0	0.0	0.0	0.0	-	-	1.1	0.7
Health	1.3	1.5	0.1	0.1	3.4	3.8	0.0	0.0	0.2	0.3	0.2	0.3	-	-	-	-	-	-	5.4	5.9
Recreation, Culture and Religion	0.2	0.3	0.0	0.0	0.1	0.1	-	-	0.1	0.1	0.1	0.1	0.0	0.0	-	-	-	-	0.5	0.6
Education	2.6	2.5	0.3	0.3	0.6	0.6	-	-	0.5	0.5	0.7	0.5	0.0	0.0	-	-	-	-	4.6	4.5
Social Protection	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.0	8.5	8.5	0.1	0.1	0.0	0.0	-	0.0	-	-	8.8	8.9
Total	8.6	8.5	1.1	1.1	7.5	7.6	16.8	13.5	11.1	11.0	3.8	3.6	0.3	0.4	0.7	0.5	0.0	0.0	50.0	46.2

Source: World Bank Staff calculations based on data from MOF

ANNEX II Classification of Central Government Expenditures across Functional and Economic Categories, 2004-2008

Table 3A: Economic and Functional Cross Classification, Central Government, 2004

(YTL million)	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
Personnel	2,977	3,626	4,624	3,724	51	11	2,774	904	10,140	117	28,948
Social Security Cont.	316	574	649	626	8	2	398	138	1,299	16	4,024
Goods and Services	1,421	4,948	2,098	823	11	2	1,241	283	1,734	122	12,684
Interest expenditures	56,488	0	0	0	0	0	0	0	0	0	56,488
Current Transfers	12,182	260	4	4,192	22	63	9	330	1,913	19,389	38,364
Capital Expenditures	461	14	208	4,718	6	275	541	136	1,519	172	8,050
Capital Transfers	133	0	0	218	9	22	0	30	13	12	437
Lending	1,448	0	0	1,158	0	1	0	0	0	62	2,669
Reserves	37	0	0	0	0	0	0	0	0	0	37
Total	75,464	9,422	7,582	15,459	106	376	4,963	1,821	16,619	19,891	151,702

1/Adjusted by the revenue shares of the local administrations and funds based on their functional distribution in 2006-2008

Table 3B: Economic and Functional Cross Classification, Central Government, 2005

(YTL million)	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
Personnel	3,264	3,967	5,221	3,030	55	9	3,778	1,040	11,362	130	31,856
Social Security Cont.	364	655	754	499	9	1	549	163	1,521	18	4,533
Goods and Services	1,210	5,261	2,116	968	12	1	2,338	299	1,896	187	14,290
Interest expenditures	45,680	0	0	0	0	0	0	0	0	0	45,680
Current Transfers	15,002	283	41	6,365	37	122	10	453	1,974	23,825	48,112
Capital Expenditures	479	27	210	5,869	6	236	665	254	1,856	82	9,684
Capital Transfers	250	0	203	633	63	310	2	34	24	25	1,546
Lending	541	0	0	1,152	0	2	0	0	0	90	1,784
Reserves	0	0	0	0	0	0	0	0	0	0	0
Total	66,790	10,193	8,545	18,516	181	682	7,342	2,244	18,634	24,357	157,483

1/Adjusted by the revenue shares of the local administrations and funds based on their functional distribution in 2006-2008

Table 3C: Economic and Functional Cross Classification, Central Government, 2006

	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
(YTL million)											
Personnel	3,922	4,363	5,832	3,123	62	12	4,180	1,337	13,046	144	36,021
Social Security Cont.	431	689	818	525	9	2	614	197	1,670	19	4,975
Goods and Services	1,565	6,616	2,481	1,169	15	7	2,318	400	2,833	316	17,721
Interest expenditures	46,260	0	0	0	0	0	0	0	0	0	46,260
Current Transfers	16,394	244	6	5,695	1	1,636	12	191	812	24,118	49,108
Capital Expenditures	816	43	1,063	6,382	30	316	1,005	412	2,241	143	12,452
Capital Transfers	565	0	0	411	6	783	6	33	30	0	1,834
Lending	965	0	0	2,259	0	2	0	4	921	106	4,256
Reserves	1,695	0	0	0	0	0	0	0	0	0	1,695
Total	72,614	11,953	10,200	19,563	125	2,759	8,135	2,574	21,552	24,846	174,322

Table 3D: Economic and Functional Cross Classification, Central Government, 2007

	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
(YTL million)											
Personnel	4,189	4,660	6,257	3,288	67	13	4,467	1,449	13,993	153	38,538
Social Security Cont.	776	848	1,086	612	12	3	833	257	2,515	28	6,972
Goods and Services	1,321	6,757	2,185	1,094	10	7	416	265	2,120	267	14,441
Interest expenditures	44,084	0	0	0	0	0	0	0	0	0	44,084
Current Transfers	17,343	254	6	5,782	1	1,710	5,013	201	850	23,419	54,580
Capital Expenditures	807	35	1,111	6,501	31	329	961	442	2,493	206	12,915
Capital Transfers	590	0	0	438	7	819	8	35	28	0	1,925
Lending	847	0	0	1,381	0	2	0	0	951	110	3,291
Reserves	1,743	0	0	0	0	0	0	0	0	0	1,743
Total	71,700	12,555	10,645	19,097	128	2,883	11,698	2,649	22,951	24,183	178,489

Table 3E: Economic and Functional Cross Classification, Central Government, 2008

(YTL million)	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
Personnel	4,350	4,840	6,500	3,426	70	13	4,640	1,506	14,536	160	40,040
Social Security Cont.	819	865	1,127	637	13	3	866	268	2,605	30	7,232
Goods and Services	1,415	7,026	2,273	1,140	11	7	432	274	2,213	293	15,085
Interest expenditures	38,601	0	0	0	0	0	0	0	0	0	38,601
Current Transfers	18,035	265	6	6,114	1	1,779	5,514	209	884	26,251	59,057
Capital Expenditures	755	33	1,126	6,728	31	330	1,047	470	2,616	234	13,369
Capital Transfers	611	0	0	453	7	851	9	36	30	0	1,996
Lending	907	0	0	1,435	0	2	0	0	989	115	3,448
Reserves	1,783	0	0	0	0	0	0	0	0	0	1,783
Total	67,275	13,029	11,033	19,933	132	2,986	12,507	2,763	23,873	27,082	180,613

Source: World Bank Staff calculations based on data from MOF

Table 4A: Economic and Functional Cross Classification, Central Government, 2004 (% of GDP)

(% of GDP)	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
Personnel	0.7	0.8	1.1	0.9	0.0	0.0	0.6	0.2	2.4	0.0	6.7
Social Security Cont.	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.3	0.0	0.9
Goods and Services	0.3	1.1	0.5	0.2	0.0	0.0	0.3	0.1	0.4	0.0	2.9
Interest expenditures	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.1
Current Transfers	2.8	0.1	0.0	1.0	0.0	0.0	0.0	0.1	0.4	4.5	8.9
Capital Expenditures	0.1	0.0	0.0	1.1	0.0	0.1	0.1	0.0	0.4	0.0	1.9
Capital Transfers	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Lending	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.6
Reserves	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	17.5	2.2	1.8	3.6	0.0	0.1	1.2	0.4	3.9	4.6	35.2

1/Adjusted by the revenue shares of the local administrations and funds based on their functional distribution in 2006-2008.

Table 4B: Economic and Functional Cross Classification, Central Government, 2005 (% of GDP)

(% of GDP)	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
Personnel	0.7	0.8	1.1	0.6	0.0	0.0	0.8	0.2	2.3	0.0	6.5
Social Security Cont.	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.3	0.0	0.9
Goods and Services	0.2	1.1	0.4	0.2	0.0	0.0	0.5	0.1	0.4	0.0	2.9
Interest expenditures	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4
Current Transfers	3.1	0.1	0.0	1.3	0.0	0.0	0.0	0.1	0.4	4.9	9.9
Capital Expenditures	0.1	0.0	0.0	1.2	0.0	0.0	0.1	0.1	0.4	0.0	2.0
Capital Transfers	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3
Lending	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Reserves	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	13.7	2.1	1.8	3.8	0.0	0.1	1.5	0.5	3.8	5.0	32.3

1/Adjusted by the revenue shares of the local administrations and funds based on their functional distribution in 2006-2008

Table 4C: Economic and Functional Cross Classification, Central Government, 2006 (% of GDP)

(% of GDP)	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
Personnel	0.7	0.8	1.1	0.6	0.0	0.0	0.8	0.2	2.4	0.0	6.6
Social Security Cont.	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.3	0.0	0.9
Goods and Services	0.3	1.2	0.5	0.2	0.0	0.0	0.4	0.1	0.5	0.1	3.3
Interest expenditures	8.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
Current Transfers	3.0	0.0	0.0	1.1	0.0	0.3	0.0	0.0	0.1	4.4	9.1
Capital Expenditures	0.2	0.0	0.2	1.2	0.0	0.1	0.2	0.1	0.4	0.0	2.3
Capital Transfers	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3
Lending	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.2	0.0	0.8
Reserves	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total	13.4	2.2	1.9	3.6	0.0	0.5	1.5	0.5	4.0	4.6	32.2

Table 4D: Economic and Functional Cross Classification, Central Government, 2007 (% of GDP)

(% of GDP)	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
Personnel	0.7	0.8	1.1	0.6	0.0	0.0	0.8	0.2	2.4	0.0	6.5
Social Security Cont.	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.4	0.0	1.2
Goods and Services	0.2	1.1	0.4	0.2	0.0	0.0	0.1	0.0	0.4	0.0	2.4
Interest expenditures	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4
Current Transfers	2.9	0.0	0.0	1.0	0.0	0.3	0.8	0.0	0.1	3.9	9.2
Capital Expenditures	0.1	0.0	0.2	1.1	0.0	0.1	0.2	0.1	0.4	0.0	2.2
Capital Transfers	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3
Lending	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.6
Reserves	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total	12.1	2.1	1.8	3.2	0.0	0.5	2.0	0.4	3.9	4.1	30.0

Table 4E: Economic and Functional Cross Classification, Central Government, 2008 (% of GDP)

(% of GDP)	General Public Services	Defense	Public Order and Safety	Economic Affairs	Environmental Protection	Housing and Community Amenities	Health	Recreation, Culture and Religion	Education	Social Protection	Total
Personnel	0.7	0.7	1.0	0.5	0.0	0.0	0.7	0.2	2.3	0.0	6.2
Social Security Cont.	0.1	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.4	0.0	1.1
Goods and Services	0.2	1.1	0.4	0.2	0.0	0.0	0.1	0.0	0.3	0.0	2.3
Interest expenditures	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
Current Transfers	2.8	0.0	0.0	0.9	0.0	0.3	0.9	0.0	0.1	4.1	9.1
Capital Expenditures	0.1	0.0	0.2	1.0	0.0	0.1	0.2	0.1	0.4	0.0	2.1
Capital Transfers	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.3
Lending	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.5
Reserves	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total	10.4	2.0	1.7	3.1	0.0	0.5	1.9	0.4	3.7	4.2	28.0

Source: World Bank Staff calculations based on data from MOF

ANNEX III

Estimating Structural and Cyclical Budget Balances

1. The structural budget balance reflects a fiscal policy adjusted for the effects of cyclical movements in economic activity on budget. In other words, the structural budget balance reflects what government revenues and expenditures would be if the economy was operating at potential level of output and therefore does not include the effect of cyclical developments in economic activity. In contrast, the actual budget balance does include the effect of the cyclical component of economic activity and therefore fluctuates around the structural budget balance. The methodology for estimating structural budget balance consists of two steps; measuring the potential output and linking the related budget items, revenues and expenditures, to the cycle. However, the common difficulties in application are the estimation of robust revenue and expenditure elasticities with respect to economic activity and the estimation of potential output which is itself an unobservable variable. There are different approaches used by many countries or international institutions and the difference mainly comes from the method to identify the cycle and determine the sensitivity of budget to the cycle.

2. There are two widely used methodologies to identify the economic cycle. Smoothing methods such as Hodrick-Prescott filters are commonly used to estimate trend output and the cyclical component of the economic activity is calculated as the difference between trend and actual output. Although, this approach is simple and transparent, it suffers from end point bias. That is the difference between actual and trend series gets smaller for recent observations with a meaning that economic slowdown or overheating may not be truly cached. A second approach aimed at eliminating this drawback is to estimate potential output based on a production function. The production function approach is relatively more complex since it requires judgments on the rate of technological change and the rate of structural unemployment. However, it is less susceptible to the end point bias for recent observations. The production function approach is used by many international institutions such as OECD and the EU as well as by many countries. It is also used by the Turkish government since 2003, in its annual Pre-Accession Economic Programmes (PEP) submitted to the EU. Considering the methods to determine the sensitivity of budget to the cycle, there are different approaches for estimating revenue and expenditure elasticities, ranging from the ones using single equation regression analysis to the ones using a macro-econometric model

3. The structural budget balances are in practice calculated from revenues and expenditures adjusted for the deviation of actual output from potential using estimated elasticities linking revenues and expenditures to economic activity. Therefore, the structural budget balance is defined as follows:

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

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

- Tax_i^* : The structural value of tax revenues in category i,
 GE_i^* : The structural value of government expenditures in category i,
 OER : Other expenditures and revenues which are not affected by the growth cycles,
 Y^P : Potential output.

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

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

- Tax_i : Actual tax revenues in category i,
 GE_i : Actual government expenditures in category i,
 Y : Actual national income,
 α_i : The output elasticity of category i taxes,
 β_i : The output elasticity of category i government expenditures.

4. In this study, the potential output is calculated by using the Production function Method. Tax revenues are divided into 3 categories showing cyclical movements. These categories are taxes levied on income, corporate taxes and indirect taxes. Following the standard practice in the literature and in international applications, the elasticity of indirect taxes is taken as unit elasticity. On the other hand, the elasticity of the other two taxes was estimated from regression analysis. In the case of general government, social security contributions were also adjusted for the cycle using an elasticity estimated by a regression analysis. On the expenditure side theoretically only unemployment benefits and social security benefits are assumed to be affected by the growth cycles. However, introduction of unemployment benefits in Turkey is a very recent issue and the eligibility conditions to apply for a benefit are quite restrictive. Therefore, unemployment benefits in Turkey still do not show a cyclical pattern. In this context, while estimating structural balances for the general government, unemployment benefits are not adjusted for the cycle. This leads to the following equation for the calculation of the structural budget balance;

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

- i : Income tax, corporate tax and indirect tax while making estimations for consolidated budget and it also includes social security contributions as a separate tax item while making estimations for the general government.

5. Once the structural budget balance calculated, the difference between the actual budget balance and structural budget balance can be defined as the cyclical budget balance.

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

for stationarity. The results show a strong and statistically significant relation between income and CIT with an estimated elasticity of 1.57. The stationarity of the residuals indicate a co-integrating relation between the two variables.

10. Similarly, the time path of PIT as ratio to GNP is presented in the Figure A3.3 below. The figure shows that the ratio of PIT to GNP fluctuated a lot throughout the period. Following an initially increasing path, the ratio declines through 1980-1984 and shows fluctuations around an increasing trend thereafter. Especially the reversed u-shaped pattern at the beginning of the sample is hard to be explained by the developments in GNP. Therefore, we chose the more stable second part of the sample (1984-2005) to search for a reliable relation between PIT and the GNP. However, even for the second part, there is stable decline (PIT declines also in real terms) at the end of the sample, particularly in 2004 and 2005. This could be due to fact that the government adopted a medium term tax strategy covering the period of 2002-2004 and within this context many changes took place in taxation regime starting from 2003. The government also introduced tax allowances for new employment created in some lagging regions in 2003. Moreover, there has been a shift towards indirect taxes and all these changes may have brought a decline in the PIT to GNP ratio at the end of sample. The weak employment generation in the post-2001 era could be another factor supporting this decline in the ratio. Therefore a co-integration relation is tested for two different samples, 1984-2003 and 1984-2005.

11. First, a co-integration is tested by regressing log of PIT on a constant, log of income and a time dummy for the end-sample in order to account for the decline in PIT in real terms and then residuals are tested for stationarity. The results show a strong and statistically significant relation between income and PIT with an estimated elasticity of 1.50. The stationarity of the residuals indicate a co-integrating relation between the two variables. A second co-integration relation is tested by regressing log of PIT on a constant and log of income for the sample 1984-2003 in order to exclude the end period decline. The results again show a strong and statistically significant relation between income and PIT with an estimated elasticity of 1.46. The stationarity of the residuals indicate a co-integrating relation between the two variables. Both equations support existence of a co-integration relation between PIT and GNP and the estimated elasticities are very close to each other. For that reason, we use the elasticity of 1.5 estimated for the full sample in the calculation of structural budgets.

12. Finally the time path of SSC as a ratio to GNP is presented in the Figure A3.6 below, which shows two distinct periods. A declining path through 1975-1986, and then an increasing path through 1987-2005. A co-integration is tested by regressing log of SSC on a constant, log of income and a time dummy in order to account for the broken time path and then residuals are tested for stationarity. The results show a strong and statistically significant relation between income and SSC with an estimated elasticity of 0.82. The stationarity of the residuals indicate a co-integrating relation between the two variables.

Table A3.1: Unit Root tests

Null Hypothesis: Variable has a unit root

(Sample: 1975-2005, Lag selection: automatic based on SIC, MAXLAG=4)

	Level with constant		1 st difference with constant	
	t-Statistic	Prob.*	t-Statistic	Prob.*
CIT	0.357518	0.9775	-5.672049	0.0001
PIT	-1.425974	0.5563	-5.541518	0.0001
SSC	2.134058	0.9998	-3.093936	0.0382
GNP	0.950752	0.9948	-5.674495	0.0001

*MacKinnon (1996) one-sided p-values

Test critical values:

1% level	-3.808546
5% level	-3.020686
10% level	-2.650413

	Level with trend		1 st difference with trend	
	t-Statistic	Prob.*	t-Statistic	Prob.*
CIT	-1.472806	0.8166	-5.807175	0.0003
PIT	-2.394180	0.3749	-5.429284	0.0007
SSC	-0.611427	0.9702	-4.904890	0.0026
GNP	-2.109044	0.5202	-6.056936	0.0001

*MacKinnon (1996) one-sided p-values

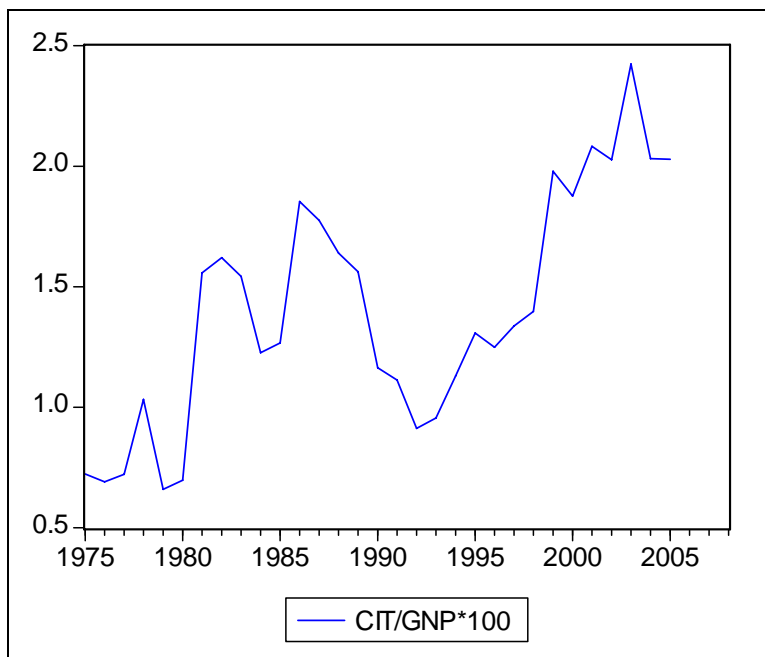
Test critical values:

1% level	-4.498307
5% level	-3.658446
10% level	-3.268973

Source: World Bank Staff calculations

Corporate Income Tax

Figure A3.1: CIT as a Ratio to GNP



Source: World Bank Staff calculations

Table A3.2: Regression of CIT on Income

Dependent Variable: LOG(CIT)

Method: Least Squares

Date: 05/18/06 Time: 10:13

Sample (adjusted): 1975 2005

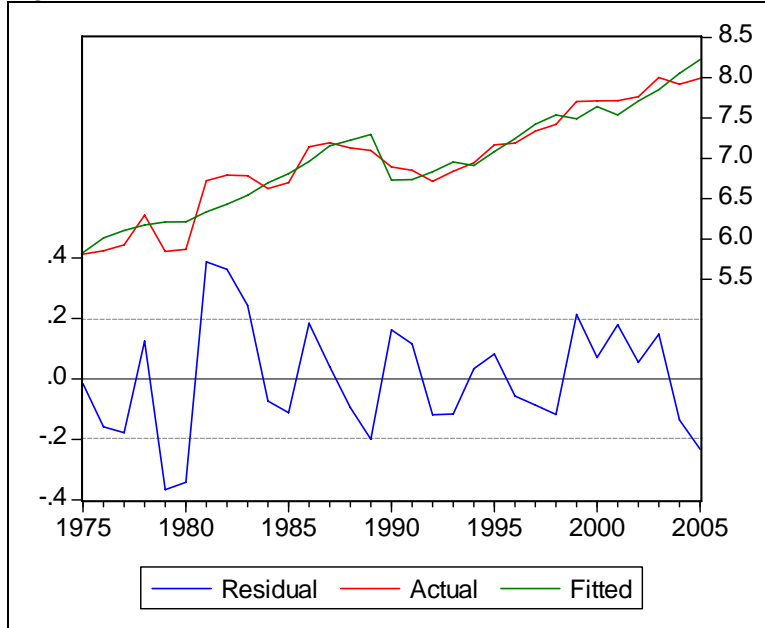
Included observations: 31 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-11.08901	1.947756	-5.693223	0.0000
LOG(GNP)	1.570558	0.174202	9.015715	0.0000
T1_CIT	0.047138	0.008424	5.595815	0.0000
T3_CIT	0.053354	0.015482	3.446170	0.0019
R-squared	0.918644	Mean dependent var		6.966399
Adjusted R-squared	0.909605	S.D. dependent var		0.654503
S.E. of regression	0.196781	Akaike info criterion		-0.293532
Sum squared resid	1.045519	Schwarz criterion		-0.108501
Log likelihood	8.549744	F-statistic		101.6256

Durbin-Watson stat 1.558320 Prob(F-statistic) 0.000000

Source: World Bank Staff calculations

Figure A3.2: Actual, Fitted and Residuals



Source: World Bank Staff calculations

Table A3.3: Residual Stationarity

Null Hypothesis: RESID01 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=7)

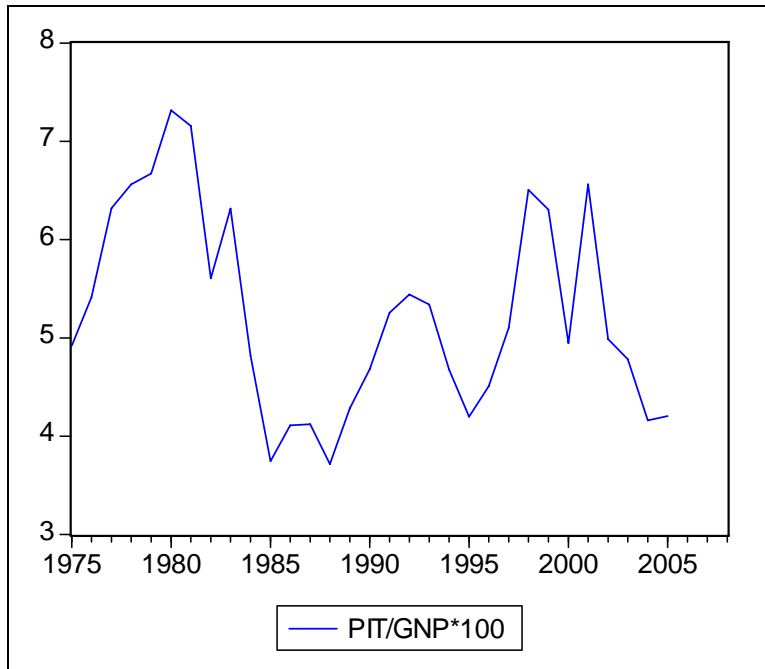
	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.174036	0.0029
Test critical values:		
1% level	-3.670170	
5% level	-2.963972	
10% level	-2.621007	

*Mackinnon (1996) one-sided p-values.

Source: World Bank Staff calculations

Personal Income Tax

Figure A3.3: PIT as a Ratio to GNP



Source: World Bank Staff calculations

Table A3.4: Regression of PIT on Income

Dependent Variable: LOG(PIT)

Method: Least Squares

Date: 05/24/06 Time: 17:49

Sample: 1984 2005

Included observations: 22

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.766768	1.557270	-5.629577	0.0000
LOG(GNP)	1.502484	0.136301	11.02326	0.0000
T1_PIT	-0.142184	0.043240	-3.288240	0.0039
R-squared	0.875356	Mean dependent var		8.430307
Adjusted R-squared	0.862236	S.D. dependent var		0.339875
S.E. of regression	0.126150	Akaike info criterion		-1.176568
Sum squared resid	0.302362	Schwarz criterion		-1.027790
Log likelihood	15.94225	F-statistic		66.71730
Durbin-Watson stat	1.730146	Prob(F-statistic)		0.000000

Source: World Bank Staff calculations

Figure A3.4: Actual, Fitted and Residuals



Source: World Bank Staff calculations

Table A3.5: Residual Stationarity

Null Hypothesis: RESID01 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic based on SIC, MAXLAG=4)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.101883	0.0057
Test critical values: 1% level	-3.831511	
5% level	-3.029970	
10% level	-2.655194	

*MacKinnon (1996) one-sided p-values.

Source: World Bank Staff calculations

Table A3.6: Regression of PIT on Income

Dependent Variable: LOG(PIT)

Method: Least Squares

Date: 05/24/06 Time: 17:50

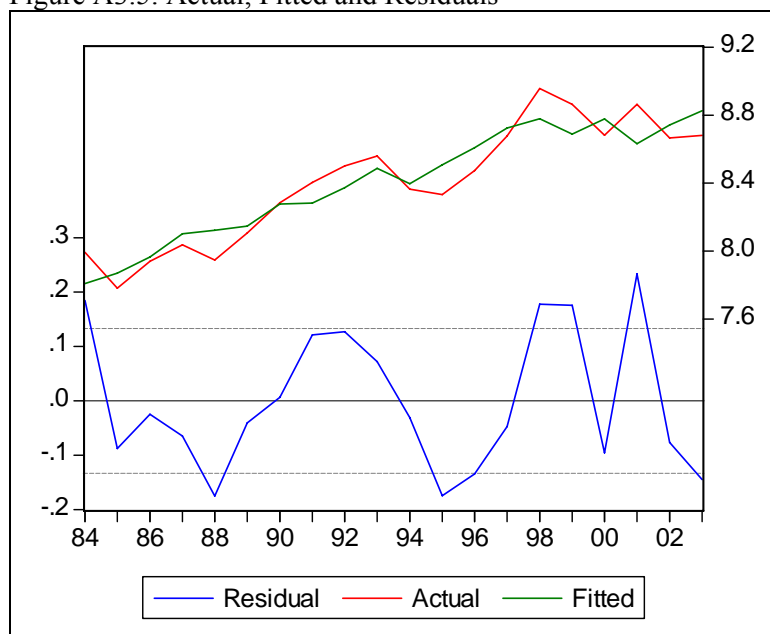
Sample: 1984 2003

Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-8.290114	1.585252	-5.229526	0.0001
LOG(GNP)	1.460238	0.138625	10.53372	0.0000
R-squared	0.860421	Mean dependent var		8.405536
Adjusted R-squared	0.852667	S.D. dependent var		0.346960
S.E. of regression	0.133177	Akaike info criterion		-1.099630
Sum squared resid	0.319252	Schwarz criterion		-1.000057
Log likelihood	12.99630	F-statistic		110.9593
Durbin-Watson stat	1.570086	Prob(F-statistic)		0.000000

Source: World Bank Staff calculations

Figure A3.5: Actual, Fitted and Residuals



Source: World Bank Staff calculations

Table A3.7: Residual Stationarity

Null Hypothesis: RESID01 has a unit root

Exogenous: Constant

Lag Length: 3 (Automatic based on SIC, MAXLAG=4)

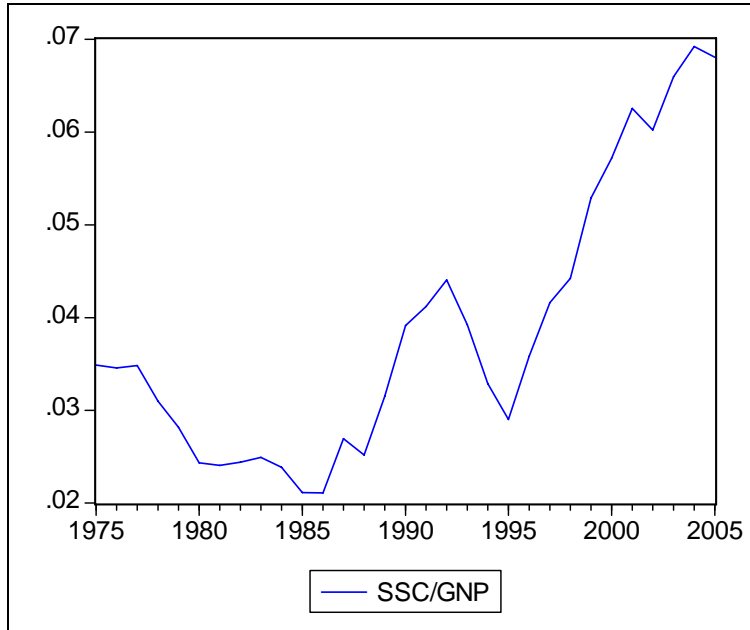
	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.434567	0.0037
Test critical values:		
1% level	-3.920350	
5% level	-3.065585	
10% level	-2.673459	

*MacKinnon (1996) one-sided p-values.

Source: World Bank Staff calculations

Social Security Contributions

Figure A3.6: SSC as a Ratio to GNP



Source: World Bank Staff calculations

Table A3.8: Regression of SSC on Income

Dependent Variable: LOG(SSC)

Method: Least Squares

Date: 06/02/06 Time: 12:28

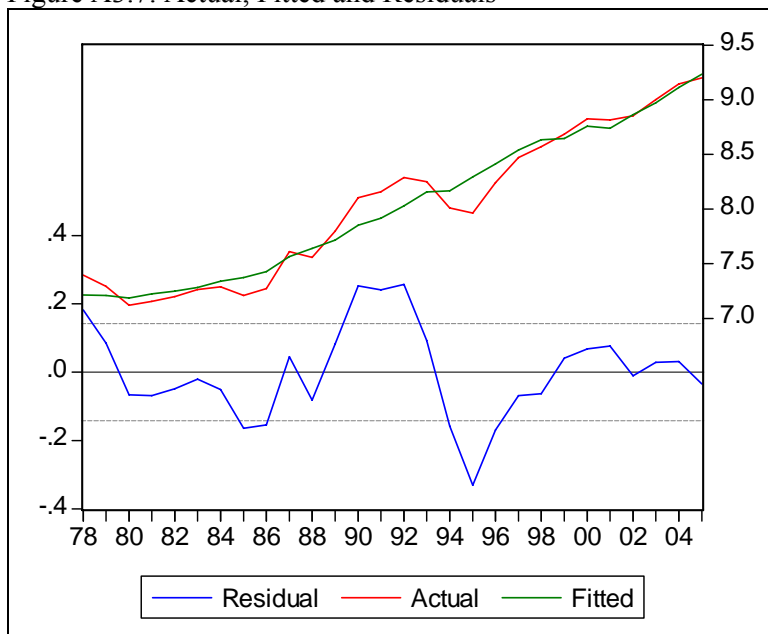
Sample: 1978 2005

Included observations: 28

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.649974	2.795110	-0.590307	0.5603
LOG(GNP)	0.815429	0.253353	3.218549	0.0036
SSC_T1	0.062682	0.012469	5.027038	0.0000
R-squared	0.960094	Mean dependent var		8.027606
Adjusted R-squared	0.956902	S.D. dependent var		0.684470
S.E. of regression	0.142097	Akaike info criterion		-0.963658
Sum squared resid	0.504788	Schwarz criterion		-0.820922
Log likelihood	16.49122	F-statistic		300.7369
Durbin-Watson stat	0.674616	Prob(F-statistic)		0.000000

Source: World Bank Staff calculations

Figure A3.7: Actual, Fitted and Residuals



Source: World Bank Staff calculations

Table A3.9: Residual Stationarity

Null Hypothesis: RESID01 has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic based on SIC, MAXLAG=6)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.250778	0.0282
Test critical values: 1% level	-3.711457	
5% level	-2.981038	
10% level	-2.629906	

*MacKinnon (1996) one-sided p-values.

Source: World Bank Staff calculations

ANNEX IV

Tax performance: A Regression Model¹³⁵

There has been only limited effort to develop comprehensive tools for assessing tax performance across countries so far. Typically, there are two main approaches used to measure a country's tax effort. In its simplest form comparisons can be based on differences between the effective tax rates and the standard tax yield following the methodology developed in Tanzi (1981), Schaffer and Turley (2000). An alternative is to calculate a tax effort index as the ratio of actual tax share to the predicted (or potential) tax share (regression approach). The predicted tax ratio is determined from regression relating tax shares to various explanatory variables that serve as proxies for tax bases or other factors that might affect country's ability to tax.

Following recent tax effort literature (e.g., Stotsky and WoldeMariam (1997), Piancastelli (2001), Eltony and Nagy (2002) Bird, Martinez-Vazquez and Torgler (2004) and Hudson and Teere (2004)) a stochastic model is used for estimating tax revenue, where T/Y is the tax ratio and X_i ($i = 1 \dots n$) represent various independent variables expected to influence the tax ratio, while U is the error term:

$$T/Y = f(X_i \dots X_n, U)$$

The independent variables employed in the basic model are similar to those used in the most recent literature: gross national product per capita, the ratio of trade to GDP (imports plus exports over GDP), the share of the mining sector and the agricultural sector in GDP, and population growth. An overview of the variables applied in previous empirical studies is provided in the table below. Other variables, such as external debt, CPI, rural population etc, are expected to check robustness of the base results. A time trend is intended to capture any overall trend in taxation.

The analysis uses panel data for 57 developed and developing countries, including 26 ECA and 6 non-ECA comparator countries over the period 1995-2004. The choice of sample is motivated by the need to obtain a data set composed of countries with similar characteristics to ECA and comparator countries, as well as data availability of information. Data were obtained from World Development Indicators, IMF Regional Fiscal Data Set, IMF Country Profile Chapter IV, Schneider and Klinglmaier 2003 and the Government Finance Statistics from MOFs in respective countries. A set of 57 countries was used, comprising three groups: 10 in the lower middle income group¹³⁶, 16 in the upper middle income group and 31 in the higher income group¹³⁷, as defined by the World Development Indicators 2004.

¹³⁵ This annex draws on empirical work currently conducted for a World Bank study on Public Finance Policies and Growth in Europe and Central Asia.

¹³⁶ \$825-\$3,255 GNI per capita

¹³⁷ above \$10,065 GNI per capita (31 countries in our sample)

Table 1 Overview of empirical findings in tax effort studies

Variable	Piancastelli (2001)	Torgler (2004)	WoldeMariam (1997)	Grigorian (2005)	.Teera, 2004	Eltony (2002)
1. Economic development						
GDP per capita	+	+/-	+	+	+/-	+
Population density					+	
Population growth		-				
Urban Population				+		
2. Economic structure						
Agriculture, value added as % of GDP	-	+	-	-	-	-
Manufacturing, value added as % of GDP	+		+		+/-	
Mining, value added as % of GDP			-			-
Services, value added as % of GDP GDP	+					
3. Openness						
Import, as % of GDP			+/-			+
Export, as % of GDP			+			-
Trade (Export + Import as % of GDP)	+	-		-	+	
4. Control variables						
External Debt, as % of GDP					-	
Consumer Price Index				-		
Inequality		-				
Aid, as percentage to GDP					+	
Share of Fuel in total export				+		
5. Institutions						
Shadow economy, as % of GDP		-		-	+/-	
Index governance		+				
Regulation to entry		-				
Composite Institutional quality				+		
Tax morale		+/-				
Method of estimation	Fix effect model	OLS	Fix and Random models	Fix effect model	Fixed effects model, Heteroskedasticity-consistent standard errors	Fix effect model

Source: World Bank Staff calculations

The panel data model was estimated with both “fixed effects” (using the least squares dummy variable (LSDV) approach) and “random effects” (applying generalized least squares (GLS) approach). The Hausman test consistently rejects the random effects model in favor of the fixed effects model.

However, in the next step the normal distribution of the error term was rejected and diagnostic tests revealed problems of cross-sectional correlation. To deal with the problem of cross-sectional correlation, the Prais-Winsten estimators¹³⁸ were employed.

Table 2 Panel Regression Outcome (Prais-Winsten estimation), 1995-2004

	EQ1	EQ2 Base	EQ3 Sensitivity	EQ4 Sensitivity	EQ5 Sensitivity	EQ6 Endogeneity	EQ7 Endogeneity
GDP per capita	.001* (.000)	.001* (.000)	.001* (.000)	.001* (.000)	.000* (.000)	.001* (.000)	.001* (.000)
Trade	.059* (.007)	.056* (.006)	.056* (.007)	.051* (.007)	.046* (.010)	.056* (.009)	.025** (.013)
Agriculture	-.137* (.048)	-.113* (.046)	-.112* (.051)	-.149* (.062)	-.185* (.049)	-.104* (.039)	-.224* (.033)
Manufacturing	.098 (.064)					.161* (.082)	.222* (.091)
Population growth	-1.881* (.320)	-1.767* (.309)	-1.729* (.329)	-1.720* (.342)	-1.356* (.373)	-1.643* (.318)	-1.781* (.306)
Dummy lower middle income	-3.368* (1.232)	-3.135* (1.028)	-1.324* (1.119)	-.719* (1.119)		-3.249* (1.161)	0.734 (0.100)
Dummy high income	.438 (.432)	1.028* (.410)	1.618* (.248)	1.691* (.375)		1.467* (.539)	1.598* (.518)
Oil dummy	-5.437* (1.285)	-4.742* (.927)	-5.356* (.966)	-5.147* (.966)	-6.863* (.928)	-5.410* (1.320)	-3.817* (1.312)
Trend	-.151 (.099)						
Population rural			-.008* (.001)	-.008* (.001)	-.010* (.001)		
CPI				-.039* (.015)	-.031* (.019)		
External Debt					-.046* (.012)		
GDP per capita*Manuf.						-.00002* (2.391)	-.000* (1.750)
GDP per capita*Agri.							.000* (5.690)
GDP per capita*Trade							2.740* (4.150)
Const	324.56 (198.52)	20.96* (.867)	22.26* (.867)	25.72* (1.754)	29.59* (2.271)	17.38* (1.386)	16.51* (1.337)
N	485	509	426	426	282	485	485
R-sq	0.59	0.59	0.59	0.60	0.44	0.60	0.63

*significant at five percent level

** significant at ten percent level

Standard errors reported in brackets

Note: external debt variable only available for developing countries.

Source: World Bank Staff calculations

¹³⁸ The method is an alternative to feasible generalized last squares for fitting the linear cross-sectional time –series models when disturbances are not assumed to be independent and identically distributed, and it is preferable to the feasible GLS when the number of observations and time span are limited.

The model performs generally well with estimated coefficients for the explanatory variables in line with the previous findings in the literature (see Table 2). Higher GDP per capita is associated with a higher tax ratio. The structure of the economy seems also to matter. The tax ratio is negatively related to the share of agriculture in GDP and positively related to the share of manufacturing sector in GDP, but the latter variable proved to be statistically insignificant (equation 1). The insignificance of manufacturing is somewhat surprising, although it may potentially be explained by a negative correlation with agricultural share or the fact that the manufacturing share varies across countries dependent on the stage of development. Thus the regression was reestimated with interactive terms between manufacturing and GDP per capita (equation 6) included. Accordingly, manufacturing has become significant. Moreover, the significantly negative coefficient on the manufacturing-GDP per capita interactive term may indicate that as countries develop the importance of manufacturing as a source of tax revenue declines. Moreover, the agriculture sector is much more difficult to tax for less developed countries, as indicated by the significantly positive coefficient on the agriculture-GDP per capita interactive term. A faster rate of population growth leads to a lower tax ratio, while openness is associated with a higher tax ratio. Inclusion of dummy variables controls for differences in stage of development in the sample and reveals that the lower middle income countries have statistically significant lower tax ratio than other countries in the sample. On the contrary, it is observed that high income countries have a statistically significant higher tax ratio than other countries in the sample.

Moreover, in order to get a more realistic picture of a country's taxable capacity vis-à-vis its natural resource base a dummy variable¹³⁹ for important oil producer countries was included. The easiness of taxing natural resource extraction is likely to generate more tax revenue than non-fuel activities. The coefficient for oil dummy has the predicted negative signs and is statistically significant in all equations. Finally, the trend variable is generally negative, indicating that, all else equal, tax ratios are on a downward trend as a result of global tax competition. However, it is not statistically significant (equation 1). A similar exercise was carried out with respect to the indirect and direct taxes collection across countries.

¹³⁹ OIL dummy takes value of 1 if the share of fuel (and related products) in total merchandize exports exceeds 40% is negative and insignificant

ANNEX V

DRAFT TAX BENCHMARKS FOR TAX EXPENDITURES

A tax benchmark identifies the normal tax arrangements that apply to similar classes of taxpayers or types of activity. Tax expenditures are defined as deviations from the benchmark.

The principal criterion of benchmark design is that the benchmark

- represents a consistent tax treatment of similar activities or classes of taxpayers and neither favors nor disadvantages similarly placed activities or classes of taxpayers.
- includes certain tax provisions (such as exemptions, deductions, tax credits, and other tax preferences) to adjust taxable income in order to:
 - comply with the ability-to-pay principle
 - enhance the economic and collection efficiency of taxation
 - simplify or make feasible tax administration with respect to a class of taxpayers or type of activity
- ensures that tax expenditure report provides sufficient information for policy formulation.

In addition, each country will have its own purposes or demands for a tax expenditure report so that the benchmark should reflect such purposes or demands.

The following benchmarks summarize some of the basic features that could be considered forming the benchmarks of the personal income tax (PIT), corporation income tax (CIT), Value-added tax (VAT) and special consumption tax (SCT) in Turkey.

Personal Income Tax Benchmark

- Tax period, calendar year (as given by the personal income tax law)
- Tax unit: individual (as given by PIT law)
- Residents taxed on world wide income, non-residents on income sourced from Turkey
- Taxable net income is gross income reduced by the allowable costs of earning income (allowable deductions)
- Gains and losses realized on movable and immovable property
- Losses carried forward for five years (given by the law)
- Inflation. Tax base is fully adjusted for inflation (as given by the law, since 2004)
- Tax rate schedule and income brackets for individual income earners as applicable to a tax year (as given in the law)
- Final withholding taxes (no declaration of income) (as given in the law)
 - Final withholding on specified types of investment income
 - Final PAYE taxes paid on employment income (including the special tax credit for basic expenditures)
- Provisions to reduce or eliminate double taxation (50% dividend deduction)
- Foreign tax credit: Credit is available to residents for income tax paid or incurred to any foreign country (as given by the law)

- Exemptions provided for persons subject to diplomatic privileges on a reciprocal basis
- Exemption provisions for central and local governments and non-government organizations of a public nature in the context of providing services of a public nature on a non-commercial basis

Corporate Income Tax Benchmark

- Tax period: calendar year /end of the financial period of the company (given by the law)
- Tax unit: legal entity (given by the law)
- Resident entities taxed on world wide income, non-residents on income sourced from Turkey
- Taxable income as calculated on the basis of balance sheet methods
- Gains and losses realized on movable and immovable property
- Tax rate: General standard rates applicable to year (given by the law)
- Valuation: inflation adjustment policies as applicable (given by the law)
- Depreciation: depreciation based on the economic life, using the straight-line method or declining balance method.
- Capital revaluation exemption (given by the law)
- Losses carried forward for five years (given by the law)
- Intercorporate dividends are exempted (given by the law)
- Deductible distributions of surplus of cooperatives as part of tax integration
- Up to 50% deduction of repatriated profits as part of tax integration
- Foreign tax credit: Credit is available to domestic corporations for income tax paid or incurred to any foreign country (as given by the law)
- Tax deferred on capital gains arising from mergers and acquisitions or (detail see the law)
- Tax exemption for income transfer due to corporate restructure or merger (given by the law)
- Exemption provisions for central and local governments and non-government organizations of a public nature in the context of providing services of a public nature on a non-commercial basis

VAT Tax Benchmark

- Tax period: month for domestic deliveries (supplies) and quarter for imports
- Valuation of domestic deliveries and imports (given in the law)
- Timing of recognition of domestic deliveries and imports (given in the law)
- Tax rate: a nominal rate at 18% and a reduced rate (8%) for items on *Annex H* of the EU Directives (see below) that permits VAT at a reduced rate, and super reduced rate (1%).
- Destination-based tax on domestic deliveries and imports (exports and related international transport services are zero-rated)
- Multi-stage tax with deduction of input VAT and refund of excess VAT only in case of exports, and supplies at rates below standard rate; excess input VAT carried forward.
- Exemptions related to normal customs treatment of transit trade, free zones, bonded warehousing, temporary importation, change of residence, etc
- Deferment mechanisms (or equivalent structures) for VAT on imported and domestically supplied machinery and equipment

- Exemption provisions for government and its agencies and non-government organization providing services of a public character and on a non-commercial basis (as specified in the law)
- Exemption for self-employed businessmen, tradesmen and farmers (as specified in the law)
- Exemption of mergers and acquisitions, delivery and rental of non-commercial immovable property; financial sector; delivery of financial instruments.
- Deliveries to persons with diplomatic privileges are fully exempted (zero rated)

Special Consumption Tax Benchmark

- Destination based single stage tax
- Tax period: monthly
- Valuation of imports and domestic deliveries at factory gate, dealer or retail level as specified in law for the different specified commodities
- Timing of payments (as specified in the law)
- Tax rates as specified for lists of goods
 - List I: tax rates specified for petroleum products
 - List II, tax rates specified for vehicles
 - List III
 - tax rates specified for tobacco products
 - tax rates specified for alcoholic products
 - List IV. Tax rate at 6.7% on specified luxury items
- Exemptions for exports and for persons with diplomatic privileges
- Exemptions related to normal customs treatment of transit trade, free zones, bonded warehousing, temporary importation, change of residence, etc
- Exemption for donations to government and its agencies

ANNEX VI

Towards Estimates of Tax Expenditures in PIT and CIT

The following estimates are based on the summary PIT and CIT tax return for 2003. Based on analysis of tax expenditure tables and some added data, there are a number of questions, comments and observations towards estimates of tax expenditures in PIT and CIT.

PIT

1. Little can be gathered from the 2003 PIT return. Out of the YTL 6.393 billion in income, some 29.2% is payable in tax or YTL 1.868 billion. The only tax expenditures that can be identified are in item 26 which gives YTL 16.5 million in deductions for individual insurance and pension premiums (possibly under ITL Articles 89/1-3) and YTL 16.99 million in deductions for donations and grants to health and education organizations (possibly under ITL Articles 89/5-8). These represent small tax expenditures of about YTL 5 million for item 26 and YTL 5.1 million for item 27 respectively as the bulk of these deductions would occur as a result of premiums paid by employees and would be captured under the PAYE. In addition, and importantly, most of the PIT tax expenditures (some 100 provisions of the law identified as tax expenditures) under the income tax law are structured as “exemptions” or “tax holidays” and hence no returns are filed and no data is directly available for tax expenditure estimates.

CIT

2. The CIT summary return data is considerably richer in tax expenditure information, but without (i) use of a tax model and (ii) consideration of the inter-temporal impacts on loss and exemption/deduction/allowance carryovers, it still has limitations. For example, a deduction taken in one period can result in a loss of taxable income in a later period through loss carryovers. These issues are expanded upon below.
3. A general problem with tax expenditures in the income tax arises from the changes effective tax rate depending upon the (a) the income level, (b) the size of the exemption or deduction, and (c) the difference in timing of accrual and realization of the exemption or deduction:

- a. Where there are different tax rates in different tax brackets, the income level of the beneficiary of the exemption or deduction affects the marginal tax rate (MTR) applied to the exemption or deduction. Ideally, a weighted average MTR is required to apply to the amount of the exemption or deduction. This is clearly an issue in estimating tax expenditures in the PIT, including any flow through of dividends and other investment income from the company to personal levels. This is typically solved by calculating tax expenditures using a micro simulation tax model based on a representative sample of taxpayers so that the appropriate weights and MTRs are applied depending on the distribution of taxable income.
- b. The size of exemptions and deductions affects tax expenditure estimates in two ways.
 - i. The MTR is affected by how many tax brackets are covered by the exemption or deduction. This is most important if tax expenditure items are considered collectively rather than individually or one-at-a time. The best-practice tax expenditure convention is to consider each one-at-a-time as a marginal decision. Even then a deduction may straddle one or more tax brackets and an average MTR is applicable. Again the use of micro simulation tax models with a sample of representative taxpayers in terms of taxable incomes and deductions allows the accurate estimation of each tax expenditure item.
 - ii. An exemption or deduction may make a taxpayer move from being taxable to non-taxable such that only part of the exemption or deduction has current cash flow consequences. The tax value of the remainder may be (a) lost forever, (b) captured immediately as a refund or loss carry back against prior year taxable income, (c) carried forward as an identifiable exemption/deduction with or without indexation (for example, in Turkey, unusable investment allowances are carried forward indefinitely with indexation), or (d) carried forward as a general loss of taxable income to be deducted against future taxable income that may arise within a limited time period (such as the next five years, in the case of Turkey). From a tax flow perspective, the potential tax value of an exemption or deduction in the current year is reduced in all cases except (b). In cases (c) and (d) additional tax value may be captured in some future year. Alternatively, the tax flow consequences in the current year arise from a combination of the new deductions in the year plus the carry forwards of deductions taken but not used in prior years. This issue of the timing of when tax expenditures are realized is a major and difficult problem. It is discussed at some length below.
- c. As noted above in b.ii, exemptions and deductions may not be usable in the current year for lack of taxable income. This problem is treated in two different ways as discussed in cases (c) and (d) above. These two types are illustrated in Table 1 as “exemptions to be deducted even when there is a loss,” which generate either traceable carry forwards or general (untraceable) loss carry forwards, and as “exemptions deducted when there is a profit,” which have to be carried forward separately when there is not a profit. The actual cash flow tax expenditure cost of the former is difficult to determine in any current year. In addition to some of the exemptions or deductions not being claimable in the current year, unused amounts from prior years may be carried forward into the current year, and furthermore, the removal of the exemption or deduction in an earlier year

affects the loss carry forwards into the current year and hence affects the current tax value of current exemptions or deductions. The tax expenditure treatment of exemptions that do not cause a loss carry forward (but unused amounts are carried forward separately) are treated subsequently below.

Table 1: Towards some preliminary CIT tax expenditure estimates and identification of issues

	30% of exemption or allowance	Questions, issues, concerns
	<i>YTL millions</i>	
Exemptions to be deducted even when there is loss		
Income from Investment Funds (CTL Article 8/4)	1,671	Correct tax rate? Ideally should be taxed at rate of person holding investment units or shares.
Income from Pre-emptive Rights & Issue Premiums (CTL Art. 8/5)	30	Not all current exemption generates a current tax loss, but prior years exemptions may be currently deductible
Income From Constructing Abroad (CTL Art.8/7)	126	Not all current exemption generates a current tax loss, but prior years exemptions may be currently deductible. Also issue of whether subject to 10% withholding such that tax loss is reduced
C.T.L. Temporary Article 28/a	498	Not all current exemption generates a current tax loss, but prior years exemptions may be currently deductible. Also issue of whether subject to 10% withholding such that tax loss is reduced
Income from Free Trade Areas (Free Zones Law 3218)	89	Not all current exemption generates a current tax loss, but prior years exemptions may be currently deductible. Possibly missing tax returns. Does not include PIT exemptions on labor income
Exempt Income under the Law 4325 for Less Developed Regions	33	Not all current exemption generates a current tax loss, but prior years exemptions may be currently deductible
Income From Technology Develop. Regions	8.8	Not all current exemption generates a current tax loss, but prior years exemptions may be currently deductible
Other Deductions and Exemptions	2,283	Given large size of this exemption, need to identify source of these other exemptions, deductions and allowances.
Carryforwards		
Other Previous Year Loss	4,815	
Previous Year Loss Resulting From Exemptions	236	
Exemptions to be deducted if there is profit		
Realized Invest. Allowance	2,934	Is this all 40% allowances or does it include some higher rate allowances subject to 19.8% withholding tax on the exemption? Does this amount include unused allowances carried forward from earlier years? What are the stocks of unused investment allowances and how much was added to these stocks in 2003?
Provisioned Invest. Allowance	86	
Other Deductions	57	Do be identified

Source: Tax Revenue Administration and World Bank Staff

6. The cash flow tax cost can be broken out into two main components.
- i. The actual amount of the exemption or deduction that can be absorbed in the year against current taxable income. This typically requires a tax micro-simulation model to calculate the amount of the exemption or deduction used in the year. Alternatively, the amount of the current deduction is limited by the amount of total loss carry forwards from the current year to the next year (LCF_{next}). This LCF_{next} is the total of traced and untraced LCF_c and the unused amounts of the taxable income limited deductions (such as the investment allowance) 1,671. If the current deduction exceeds the LCF_{next} , its removal will result in no current tax, but merely a decrease in LCF_{next} .
 - ii. The removal of the exemption or deduction of the tax expenditure type in previous years could have resulted in lower loss carry forwards into the year, and hence the amount of the current exemption or deduction that would have been claimed in (i) above increases. The amount of carry-forwards of unused deductions or exemptions of the same type used in the year. This can be precisely determined if the amount of the unused exemptions or deductions are traceable (or are in type-specific pools carried forward). Otherwise some share of the loss or exemption carry forwards has to be attributed to the type of tax expenditure. Table 1 above shows a tax cost of some YTL 222 millions in exemptions carried forward and claimed in 2003. In addition, some share of the YTL 3.577 billion in general losses carried forward into 2003 may be arising from untraced exemptions and deductions in earlier years rather than economic losses. Where use of carry forwards of traced deductions is known, the impacts of changes in these deductions on the carry forwards of the unused income limited deductions (such as the unused investment allowances) also has to be accounted for. Any tax expenditure estimate has to bring into the picture the total losses carried into the current year as well as the total losses carried forward to the next year,

These effects are jointly analyzed in Table 2. Here the tax expenditure is shown to depend critically on (i) whether the tax payer is tax payable in the year ($T > 0$) or not and (ii) whether any losses are carried forward into the year. A taxpaying person will not be generating loss carry forwards to the next year and will get the full value out of current deductions and will have used up all LCF into the year. The total LCF into the year determines the maximum carry forward of unused deductions into the year and put an upper limit on how much of prior year unused losses can affect the tax flows in the current year. Where no tax is payable in the year and losses are carried forward into the following year, then any increase in current year taxable income because of the removal of a specific deduction, may not will not result in the full value of this deduction being captured as a tax increase to the extent the loss carry forward to the next year first has to be covered before any tax comes payable. Table 2 provides a useful way of cross tabulating the tax returns in order to analyze and estimate the tax expenditures.

Table 2: Tax expenditure (TE) cases for current deduction (D) and marginal tax rate (t in terms of tax payable in year (T), loss carry forward (LCF) and unused prior deductions of the same type (D_{prior})			
		Tax Payable, T = 0	Tax Payable, T > 0
Loss carry forward, LCF = 0		A. Partial TE for cases where $(D - LCF_{next}) t > 0$	B. Full TE = Dt
Loss carry forward, LCF	$D_{prior} > LCF$	C1. Partial TE for cases where $(D + LCF - LCF_{next}) t > 0$	D1. Partial TE = $(D - LCF) t$

> 0	$D_{\text{prior}} < \text{LCF}$	C2. Partial TE for cases where $(D + D_{\text{prior}} - \text{LCF}_{\text{next}}) t > 0$	D2. Full TE = $(D + D_{\text{prior}}) t$
<p>Definitions:</p> <p>LCF = total loss carry-forward from prior to current year of all traceable and untraced losses plus unused deductions carried forward separately</p> <p>LCF_{next} = total loss carry-forward from current to next year of all traceable and untraced losses plus unused deductions carried forward separately</p> <p>D_{prior} = Cumulative amount of unused deductions of same type as D in prior year and each successive earlier year where no tax was payable or loss carry forwards to the next year were generated up to the legal limit for carrying forward losses of the type, generally 5 years except for investment allowances.</p> <p>T = tax payable on the tax base after all exemptions, deductions, allowances and preferential tax credits, but before any withholding, installment or advance taxes are credited against the tax payable.</p>			

Source: World Bank Staff

7. What are the implications of the above analysis of estimating tax expenditures on a cash flow basis? First, that an annual micro simulation model is necessary, but not sufficient to estimate tax expenditures where there are loss carry forwards or losses created by exemptions or deductions. Second, additional information is required to estimate “TE”, namely, total LCF, LCF_{next} and D_{prior} . LCF and LCF_{next} should be knowable for each tax return and should be added to any tax return report. D_{prior} requires the further work of linking tax returns over the years. Finally, it is useful to cross-tabulate estimates of tax expenditures by the taxpayers status in terms of being taxpaying or not (taxes payable in the current year > 0 or not) and whether the taxpayer has total losses carried forward.
8. Some special comments are necessary about the carry forward of unused income-limited deductions and special deductions where any losses generated and carried forward are traced as a special pool of losses:
 - a. In the case of income-limited losses, the actual amount of losses used in the current year from current deductions and unused carry forwards gives the correct TE estimate. It is automatically the sum of $D + \text{LCF} - \text{LCF}_{\text{next}}$.
 - b. In the case of traced deductions, the sum of the current deduction taken (D) plus the amount of any LCF of that type used in the year has to be corrected for any changes in the stock of unused income-limited deductions over the current year to be an accurate estimate. Alternatively, the methodology in table 2 based on the current deduction and changes in the stock of total LCF over the current year can be used.
9. Are these concerns about loss carry forward quantitatively important or not in tax expenditure estimates. Table 3 provides some clues. It is based on the summary tax return data readily at hand for 1998, 1999 and 2003 for companies. It shows that tax losses are extremely high, even excluding the impacts of investment allowances, which are only taken when there is available taxable income and do not generate explicit loss carry forwards. The following is evident:
 - a. Losses in a year vary between 21% and 54% of taxable profits
 - b. Combined current year losses and losses carried forward vary between 83% and 99% of losses
 - c. Loss carry forwards are absorbed relatively slowly. This can be found by comparing the new losses generated in 1998 and 1999 with the losses carried into year 2003 from these years. These indicate that these stocks of loss carry forwards have declined at the rate of 23% per year through use or companies folding. This means that at least 26% of the

original losses are lost because of the five-year carry forward restriction. Overall there is a relatively low probability (less than 23%) that a loss generated in one year will be used in the next.

- d. Losses absorbed in a year reduced between 10% and 33% of taxable income.
 - e. In addition, exemptions that are taken only when there is a profit (essential investment allowances) have eliminated another 27% to 35% of taxable income in the year. Unfortunately, no information is available on the investment allowances created by vintage year and the outstanding stocks of these vintages in order to find out how rapidly they are absorbed. The large size of the investment allowances claimed each year (a similar magnitude to the new losses) would suggest that investment allowance carry forwards are more rapidly absorbed. This coupled with their indexation and indefinite carry forward makes the analysis of the stocks of unused investment allowances a source of serious concerns to both tax revenue and tax expenditure analysis.
10. Next which exemptions or deductions that generate losses are important. From Table 1, the major item of deductions is “other exemptions and deductions” (line 38) generating a direct tax expenditure of about YTL 2.1 billion in 2003. Clearly it would be useful to identify what are the major sources of this large amount of exemptions and deductions?? Aside from this item, a number of other items amongst the exemptions generating losses have other issues as noted in Table 1. The treatment of investment income requires tax integration considerations. Two other items may be subject to withholding taxes that affects the TE estimates. Companies in free trade zones have perpetual tax holidays so that loss carry forwards are of no value until and unless their licenses expire. That leaves the exemptions for companies in less developed regions, technology regions and the large “other” group. To get an upper bound on the potential values, following table 2, the sample of companies in 2003, if divided into those with and without these exemptions, and then into the four cells in table 2 assuming the case of $D_{\text{prior}} > \text{LCF}$, . An accurate estimate would require knowing the exemption claims (D_{prior}) of these companies currently with $\text{LCF} > 0$ in 2003 over the previous 5 years. The LCF itself would be the upper bound on the amount of the exemption carried forward into 2003 . Studies of time series of tax returns is required to find D_{prior} and estimate useful probabilities such as the probability of also claiming the same type of deduction in prior years and also being not-taxpaying and generating LCF.
11. Finally, based on 8 above, the tax expenditure for investment allowances is the dominant item and clearly very important. Table 1 shows a tax expenditure of YTL 3 billion in 2003. The amount of unused investment allowances, which are carried forward indefinitely with indexation is unknown. If the amounts of deductions, losses and loss carry forwards declines in the future these investment allowances could grow in the future as the available taxable income grows, even if the investment allowance were limited or used less. It is important to get estimates of the amount of unused investment allowances by companies broken out into the cross tabulations of table 2.

Table 3 Current Year Income, Losses and Loss Usage and Loss carry Forwards for 1998 - 2003

		Current year					
		1998	1999	2000	2001	2002	2003
		YTL					
1993 Year Loss		59,275,270					
1994 Year Loss		165,811,023	295,132,666				
1995 Year Loss		295,054,163	195,741,720				
1996 Year Loss		523,329,845	377,834,460				
1997 Year Loss		1,554,065,087	859,142,529				
1998 Year Loss			2,130,255,976				816,868,186
1999 Year Loss							2,332,369,545
2000 Year Losses Resulting From Exemptions							470,680,130
2000 Year Other Losses							3,811,251,522
2001 Year Losses Resulting From Exemptions							1,335,827,282
2001 Year Other Losses							15,691,193,068
2002 Year Losses Resulting From Exemptions							1,421,010,998
2002 Year Other Losses							10,694,134,141
Total loss carry forwards into current year	A	2,597,535,388	3,858,107,351				36,573,334,852
Corporate income -- Balance sheet profit		8,533,191,021	11,415,537,880				52,017,055,718
Corporate income -- Balance sheet loss		5,670,315,410	5,342,585,456				12,613,998,868
Loss (40 - 39)	B	2,354,408,557	5,171,942,732				10,020,344,102
Profit (39 - 40)	C	5,959,746,552	9,554,319,132				47,047,726,377
	B/C	40%	54%				21%
	(A+B)/C	83%	95%				99%
Exemptions to be deducted if a profit (52)	E	1,950,500,186	2,566,081,897				10,262,709,944
Total Previous Year Loss to be Deducted (43+44)	F	602,261,610	877,287,536				12,661,978,627
Base for Deductions (42 - 45)	G	5,599,866,084	8,861,448,776				38,210,013,322
	E/G	35%	29%				27%
	F/G	11%	10%				33%

Source: Tax Revenue Administration

ANNEX VII

Classification of Budget Institutions

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

Chart II: Special Budget Institutions	
A. Higher Education Council, Universities And High Technology Institutes	
1.	Higher Education Council
2.	Student Selection and Placement Center
3.	Universities (total of 53)
B. Administrations with Special Budgets	
1-	Undersecretariat for Defense Industries
2-	Atatürk Culture, Language and History High Agency
3-	Turkish and Middle-Eastern Public Administration Institute
4-	Turkish Scientific and Technical Research Council
5-	Turkish Science Academy
6-	Turkish Justice Academy
7-	Higher Education Credit and Dormitories Institution
8-	General Directorate of Youth and Sports
9-	General Directorate of State Theatres
10-	General Directorate of State Opera and Ballet
11-	General Directorate of Foundations
12-	General Directorate of Health on Borders and Coasts
13-	Electric Works Study Administration
14-	Mineral Exploration and Research Institute
15-	General Directorate of Civil Aviation
16-	Turkish Accreditation Agency
17-	Turkish Standards Institute
18-	National Productivity Center
19-	Turkish Patent Institute
20-	National Boron Research Institute
21-	Turkish Atomic Energy Agency
22-	Administration for the Development and Support of Small and Medium Sized Enterprises
23-	Center for Studies on Export Development
24-	Turkish Collaboration and Development Administration
25-	Special Environmental Protection Institution
26-	GAP Regional Development Administration
27-	Privatization Administration
28-	Workshop Agency for Punishment and Execution Institutions and Prisons

Chart III:Regulatory nad Supervisory Institutions	
1-	Radio and Television High Council
2-	Telecommunication Agency
3-	Capital Markets Board
4-	Banking Regulation and Supervision Agency
5-	Energy Market Regulation Board
6-	Public Procurement Agency
7-	Competition Authority
8-	Tobacco, Tobacco Products and Alcoholic Beverages Market Regulation Agency

ANNEX VIII

BASELINE INDICATOR SYSTEM (BIS) FOR PUBLIC PROCUREMENT JOINT ASSESSMENT REPORT FOR TURKEY

In January 2005, the World Bank proposed to Public Procurement Authority (PPA) of Turkey to undertake a joint study on Baseline Indicators System (BIS) for the assessment of the structure of national public procurement system in Turkey. Then, the Ministry of Finance and PPA agreed to implement this system in Turkey to analyze the health of existing public procurement system. The Bank mission visited the PPA in April 2005 to discuss the applicable indicators for Turkey and methodology to be used in this assessment. All parties accepted that a completed rating system would provide a clear and comprehensive picture of the current status of the public procurement system and would also provide a very valuable tool for identifying and prioritizing key areas for further development.

The indicators and the format of the assessment report were discussed and agreed by the Bank and the PPA in April 2005. The assessment was conducted on the basis of four (4) key areas called “pillar” which are composed of twelve (12) indicators (baselines). These twelve (12) indicators are composed of 80 sub-indicators that are considered as desirable standards against which Turkey’s public procurement system is assessed.

It was agreed that all indicators have the same weight and within each indicator, all sub-indicators have the same weight. For indicators with multiple sub-indicators; a “yes” or “no” answer will be provided for each sub-indicator. If over 90% of the sub-indicators are met, then the assessment for that indicator will be “fully achieved”. The agreed standards for the assessment would be as follows:

Over 90% = baseline is fully achieved (FA)

Between 70-90% = baseline is substantially achieved (SA)

Under 70% = baseline is not achieved (NA)

The International Relations and Coordination with EU Department of PPA is assigned to work with the Bank team in this assessment. The team established within the PPA with the help of other related agencies working in the field of public procurement conducted the assessment and submitted the preliminary assessment report to the Bank by the end of May 2005. Each sub-indicator was rated against the scale of “fully achieved”, “substantially achieved” or “not achieved” by the PPA. The summary of ratings of the self-assessment by the PPA is as follows:

Indicator 1: Public Procurement legislative and regulatory framework achieves the agreed standards and complies with applicable obligations = FA

Indicator 2: Existence of Implementing Regulations and Documentation = FA

Indicator 3: Mainstreaming Procedures into Public Financial Management = SA

Indicator 4: Functional Management/Normative Body = SA

Indicator 5: Existence of Institutional Development Capacity = SA

Indicator 6: Efficient Procurement Operations Capacity and Practice = SA

Indicator 7: Functionality of the Public Procurement Market = SA

Indicator 8: Existence of Contract Administration and Dispute Resolution Provisions = SA

Indicator 9: Effective Control and Audit System = SA

Indicator 10: Efficiency of Appeal Mechanisms = FA

Indicator 11: Degree of Access to Information = FA

Indicator 12: Ethics and Anti-corruption Measures = FA

The Bank mission visited PPA to discuss the initial report in June 2005. During the mission, indicator by indicator review and discussions were held down to detail of each sub-indicator with the PPA and the Bank.

Following detailed discussion of ratings; the actions that might be taken by the PPA (or other relevant organizations) to improve the rating that was indicated for substantially achieved or not achieved sub-indicators are identified. Even on indicators rated as fully achieved by the PPA; the discussions enabled the Bank and the PPA to identify implementation issues that are affecting in achieving the full benefit of law and regulations and to look at possible actions to improve performance.

The sub-indicators, where the Bank has comments, need to be addressed further by the PPA in order to be more compatible with international standards and good practices. Therefore, PPA will take actions by giving priority to the “mandatory sub-indicators”.

In February 2006, the draft final report was updated together with the PPA and the Bank based on the progress in the last 8 months and recent developments are incorporated into the assessment table.

Baseline Indicators System – Assessment Table (February 2006)

Indicator No (*)	Indicator	Data Used in Assessment	Self Assessment by PPA	Bank's Comments on Assessment
1	Public procurement legislative and regulatory framework achieves the agreed standards and complies with applicable obligations			
1.1	Scope of application and coverage of the legislative and regulatory framework			
1.1.1 S	Contracting entities at all levels, including government authorities, municipalities, regional authorities and utilities/state-owned enterprise, are covered	Public Procurement Law, Article 2	Fully Achieved Contracting entities except utilities sector are all covered by the Law. But a new draft law on public procurement of utilities sector has already been prepared by PPA.	The Bank remains concerned until the new law for Utilities Sector is enacted.
1.1.2 M	All areas of procurement: work, goods and consulting services, are included	Public Procurement Law, Article 2	Fully Achieved Consulting services procurement is regulated through a separate division in the Law Article 48-52	Public Procurement Authority (PPA) should maintain its oversight on all amendments and new laws which effects public procurement e.g. excluding certain type of services and entities from the scope of law.
1.1.3 M	Procurement using public funds, irrespective of contract value, is included	Public Procurement Law Articles 1, 2, 3	Fully Achieved	The Bank remains concerned about exemptions provided to certain type of services and entities through other laws.
1.1.4 S	The applicable legislative and regulatory framework is structured, consistent and accessible to users and all interested stakeholders	Public Procurement Law, Public Procurement Contract Law, Implementing Regulation	Fully Achieved Everybody can instantly access the website of PPA for all legislative and regulatory framework information on Public Procurement. Official Journal in which the public procurement legislations are issued is thoroughly open to the public as well.	It was agreed that in order to address the needs of international business community, translation of whole legislation into English would continue. With the help of twinning agreement; translation of main procurement legislation into English is completed. The translation is in draft form and unofficial translation is already published in PPA web-site. The translation will be finalized after a detailed review and proof-reading and official translation will be published at the PPA web-site.
1.2	Procurement methods			
1.2.1 M	Stated preference for the use of open, competitive procurement unless otherwise justified in accordance with the legislative and regulatory framework	Public Procurement Law, Articles 5, 18,19,20,21,22	Fully Achieved	Open competitive procurement is not the stated preference as restricted bidding is also a standard alternative selective method to open tendering.

1.2.2 M	International competitive tendering methods defined for specified contracts (e.g. where monetary thresholds exist) that are consistent with international standards	Public Procurement Law, Articles 8, 13, 63	Fully Achieved In conformity with the provisions of public procurement law (PPL), on the initiative of procuring entities, unless adversely decided, procurement market is open to all bidders regardless of nationality. Procurement above specified threshold values have to be open to all international bidders in any case. (with an option for domestic preference)	The thresholds provided in Article 8 regarding international publication of notices are significantly above the EU thresholds. The PPL should be aligned with EU Directives. In 2004, Domestic preference is applied only in 2 % of the contracts awarded (13% in terms of contract value). International bidders may be prohibited to participate to procurements under a certain thresholds value. All public procurements below or above the thresholds should be open to international competitors.
1.2.3 S	Defined basis for the procurement method, if other than open competition	Public Procurement Law, Articles 18,19,20,21,22	Fully Achieved	It is agreed that data on the use of procurement methods will continue to be monitored. It is required that all procuring entities, which may use direct procurement method, are required to complete an “information form” and send to PPA for their records.
1.2.4 M	Negotiated procedures and direct purchasing only under well-defined and justified circumstances, subject to controls	Public Procurement Law, Articles 21,22, 62/1	Fully Achieved	See above 1.2.3 These procurement procedures with restricted competition or no competition at all should be very rarely used and under very specific circumstances.
1.3	Advertising rules and time limits			
1.3.1 M	Mandatory and accessible publication of opportunities for competitive procurement	Public Procurement Law, Articles 13, Annex provision 1 (4964/ Article 41) Implementing regulation	Fully Achieved	The Public Procurement Bulletin is available to all subscribers. The Bank recommends expanding its flexible availability to all interested persons. The advertisements should be made accessible to all national and foreign bidders that are not subscribers of the Bulletin. The annual subscription fee of the Bulletin for both electronic and hard copy is reduced to about \$90 equivalent
1.3.2 M	Mandatory publication of result information on contract awards based on defined thresholds	Public Procurement Law, Article 47	Fully Achieved	The thresholds for the mandatory publication of contract awards are significantly high. In 2004, about 40,000 procurement notices are

				published, whereas only 1,000 contract award notices are published. Other than the mandatory publications; the procuring entities are required by implementation regulations to complete a “procurement result form” for each procurement activity and submit it to PPA within 10 days after signing the contract, which would enable PPA to monitor results of all procurements.
1.3.3 M	Minimum time limits for submission of tenders and applications, which should be consistent with method of procurement, national conditions and, when applicable, international requirements	Public Procurement Law, Article 13, 29, 36 Implementing regulation	Fully Achieved	The thresholds provided in Article 13 regarding time limits for submission of tenders are significantly shorter than the limits provided in EU Directives. The attempts to reduce time limits should be prevented and PPL should be aligned with EU Directives. The draft amendment (prepared in June 2005) of the PPL has a provision about preliminary notices, which would result more shortening of the current time limits.
1.4	Rules on participation and qualitative selection			
1.4.1 M	Fair, predictable and defined rules for participation that rely on qualifications and ability to perform the requirement	Public Procurement Law, Articles 10, 11 Implementing regulation	Fully Achieved	Implementation needs to be monitored to avoid hindering competition.
1.4.2 M	Limited and controlled use of price preferential clauses	Public Procurement Law, Article 63, Implementing regulation	Fully achieved	See above 1.2.2
1.4.3 S	Debarment process if covered, on defined basis, allowing for due process and appeal	Public Procurement Law, Articles 17, 58, Implementing regulation	Fully Achieved Any transaction and operation of public administrations in Turkey is subject for appeal to the administrative courts.	There is no provision in the law guarantees due process or appeal against debarment decisions. The data on the debarment process by various contracting entities should be monitored and consideration to create an appeal mechanism at a lower level than administrative courts, which are back logged and resulting delayed resolutions, should be given.
1.4.4 S	Rules for participation of government-owned enterprise that provide for equal treatment in competitive procurement	Public Procurement Law Article 11, paragraph 9 (as amended by 4964/8) Implementing regulation	Fully Achieved There exists no provision of special treatment for government-owned enterprises participating in any	PPL does not restrict participation of government-owned enterprises to public tenders, except they are not allowed to participate to tenders of the contracting agencies

			competitive procurement.	which are directly related with them. In order to determine if there is any unfair competitive advantage of the state-owned enterprises, the number of contracts awarded to them should be monitored and necessary measures should be considered for equal treatment of all bidders.
1.5	Tender documentation and technical specifications			
1.5.1 S	The minimum content of the tender documentation is specified	Public Procurement Law, Article 27, Implementing regulation	Fully Achieved	No comment.
1.5.2 M	Neutral technical specification with reference to international standards where possible	Public Procurement Law, Article 12, Implementing regulation	Fully Achieved	It is agreed that PPA will prepare and issue a Good Practice Guidance Note on how to prepare neutral technical specifications.
1.5.3 M	Content of tender documentation is relevant to meeting requirement and implementing the process	Public Procurement Law, Articles 27, 28, 29 Implementing regulation	Fully Achieved	No comment.
1.6	Tender evaluation and award criteria			
1.6.1 M	Objective, fair and pre-disclosed criteria for evaluation and award of contracts	Public Procurement Law, Articles 24, 25 and 40 Implementing regulation	Fully Achieved	To minimize implementation problems; amendment to PPL is under consideration.
1.6.2 M	Clear methodology for evaluation of tenders based on price and other fully disclosed factors leading to award of contracts	Public Procurement Law, Article 38, 40 Implementing regulation	Fully Achieved Detailed information on the methodology for evaluation is in the implementing regulation.	To minimize implementation problems; amendment to PPL is under consideration.
1.6.3 M	Requirement to maintain confidentiality during the evaluation process	Public Procurement Law, Articles 9, 17, 36, 37, 60 Public Procurement Contract Law, Article 25 Implementing regulations	Fully Achieved	No comment.
1.7	Submission, receipt and opening of tenders			
1.7.1 M	Public opening of tenders in a defined manner that ensures the regularity of the proceedings	Public Procurement Law, Article 36 Implementing regulations	Fully Achieved	No comment
1.7.2 M	Clear requirement to maintain records of proceedings and process that are available for review/audit	Public Procurement Law, Article 7 Implementing regulations	Fully Achieved	The minutes of public opening announcing the bid prices and existence of required documents as part of bid are provided to all participating bidders.
1.7.3	Requirement to maintain security and confidentiality of tenders prior	Public Procurement Law, Articles 30, 60, 61	Fully Achieved	No comment.

M	to bid opening	Implementing regulations		
1.7.4	Submission and receipt modalities of tender documents are well defined	Public Procurement Law, Articles 36, 30, 31	Fully Achieved	No comment.
M		Implementing regulations		
1.8	Complaint review procedures			
1.8.1	Inclusion of complaint and remedy procedures that provide for fair, independent and timely implementation	Public Procurement Law, Article 53, 54, 55, 56, 57 Regulation on Administrative Applications Against Procurements	Fully Achieved	The time allowed for the contracting authority to respond to complaints submitted by unsuccessful bidders can be reduced to enhance the effectiveness of appeal mechanism. An electronic system is put in place to monitor the current status of the complaint review process.
2	Existence of Implementing Regulations and Documentation			
2.1	Implementation regulations that define processes and procedures not included in higher-level legislation	Regulation on Implementation of services procurement Regulation on Implementation of goods procurement Regulation on Implementation of works procurement Regulation on Implementation of consultancy services procurement Regulation on Administrative Applications Against Procurements	Fully Achieved	It is agreed that PPA will continue to ensure consistency within all related regulation. The entities exempted by Article 3 of PPL prepare their own procurement regulations, with the approval of PPA. The implementation regulations are being updated regularly to provide further clarifications based on the experiences gained.
2.2	Model tender documents for goods, works and services	Annexes of the Implementing Regulations, standard forms to be used during each step.	Fully Achieved	No comment.
2.3	Procedures for pre-qualification	Public Procurement Law Article 20, 21, 48 Implementing Regulations Annexes of the Implementing Regulations	Fully Achieved	No comment.
2.4	Procedures suitable for contracting for services or other requirements where technical capacity is a key criterion	Public Procurement Law 20, 21/e, 48, 49, 52 Implementing regulations	Fully Achieved	No comment.
2.5	User's Guide or manual for contracting entities	Hard copy User's guide Electronic User's guide Website of Public Procurement Authority	Fully Achieved	The Manual should be updated regularly based on amendments in the procurement legislation. As part of the Twinning Agreement; the Manual will be updated to include any changes in the

				procurement legislation.
2.6 S	General Conditions of Contracts for public sector contracts covering goods, works and services consistent with national requirements and, when applicable, international requirements	Public Procurement Contract Law Annexes of the Implementing Regulations Regulation on Inspection and Acceptance General Specifications Annex of the Implementing Regulations	Fully Achieved	No comment.
3	Mainstreaming Procedures into Public Financial Management			
3.1 S	Procurement planning and data on costing is part of the budget formulation process and contributes to multi-year planning	Public Procurement Law Article 5, 62 Public Financial Management and Control Law. No 5018 Articles 9, 13, 15, 16 Amendment to Public Financial Management and Control Law No 5436 (December 2005)	Substantially Achieved Public Financial Management and Control Law have been approved by the Grand National Assembly and become effective on January 2006. The law anticipates yearly basis budget but on the other hand following three years' revenue and expenditure prediction are envisaged.	It is agreed that further studies will be done to provide data on actual cost to support budget formulation. Piloting e-procurement project would help to collect data.
3.2 S	Budget law and financial procedures support timely procurement, contract execution and payment	Public Procurement Law Article 62(b) General Accounting Law Articles 50, 51, 83 PFMC Law Articles 26, 27, 28, 35	Substantially Achieved	No comment.
3.3 S	No initiation of procurement actions without existing budget appropriations	Public Procurement Law Articles 5, 62 General Accounting Law PFMC Law	Fully Achieved	No comment.
3.4 S	Contract execution is subject to budgetary controls to ensure sufficient funding for contract	Public Procurement Law Article 5, 62/a Public Financial Management and Control Law. No 5018 Public Procurement Contracts Law Article 24	Substantially Achieved	This is out of control of PPA and should be considered under broader Public Financial Management System.
3.5 S	Budgeting system provides for timely release of funds to make payments against contractual obligations	Annual Budget Law Article 8 Public Financial Management and Control Law. No 5018 Article 20	Substantially Achieved	The system should enable the timely release of funds after the commitment of funds when award of contracts are approved.
3.6 S	Systematic completion reports are prepared for certification of budget execution and for reconciliation of delivery with budget programming	General Accounting Law Articles 100, 101 PFMC Law Articles 41, 42	Not Achieved	See above 3.1
4	Functional Management/Normative Body			

4.1 S	The status and basis for the functional normative bodies is covered in the legislative and regulatory framework	Public Procurement Law Article 53 Regulation for Public Procurement Authority	Fully Achieved	No comment.
4.2 S	The responsibilities address a defined set of functions that include, but not limited to: providing advice to contracting entities; drafting amendments to the legislative and regulatory framework and implementing regulations; providing monitoring of public procurement; providing procurement information; managing statistical databases; reporting on procurement to other parts of government; developing and supporting implementation of initiatives to improve the public procurement system; and providing implementing tools and documents to support training and capacity development of implementing staff	Public Procurement Law Articles 53, 56 Regulation on Administrative Applications Against Procurements	Fully Achieved	PPA is still in process of consolidating authority in the areas defined in the legislation.
4.3 S	Organisation, funding and staffing and the level of independence and authority (formal power) of the bodies is sufficient and consistent with their responsibilities	Public Procurement Law Article 53 Regulation for Public Procurement Authority	Substantially Achieved	See above 4.2
4.4 S	Responsibilities provide for separation and clarity so as to avoid conflict of interest and direct involvement in the execution of procurement transactions	Public Procurement Law Articles 53, 56	Fully Achieved	No comment.
5	Existence of Institutional Development Capacity			
5.1 S	A system exists for collection and dissemination of procurement information, including tender invitations, requests for proposals and contract award information	Public Procurement Law Article 53 Electronic public procurement control system exists in website of PPA Public procurement bulletin issued periodically by PPA in hard copy and electronically.	Fully Achieved	See above 1.3.1

5.2 S	A sustainable strategy and training capacity exists to provide training, advice and assistance to develop the capacity of government and private sector participants to understand the rules and regulations and the how they should be implemented	Public Procurement Law Article 53	Substantially Achieved PPA provides training programs and sector programs for stakeholders at their request.	It is agreed that PPA will develop a more proactive strategy for capacity development with the help of twinning agreement (such as mandatory training, minimum qualification standards to professionalize procurement staff, on-line certification of staff, awareness campaign etc.). Training of private sector participants is currently under consideration by TOBB and PPA and will start to be implemented soon.
5.3 S	Systems and procedures exist for collection and monitoring of national procurement statistics	Public Procurement Law Article Second paragraph after 53(b) 9 Electronic public procurement control system exists in website of PPA	Fully Achieved	Second paragraph after Article 53(b) 9 provides that PPA requires mandatory supply of required statistics from all contracting entities. PPA will continue to increase the data collection rate.
5.4 S	Quality control standards are disseminated and used to evaluate performance of staff and address capacity development issues	No data	Not Achieved	See above 5.2.
6	Efficient Procurement Operations Capacity and Practice			
6.1 S	The level of procurement competence among government officials within the entity is consistent with their procurement responsibilities	Public Procurement Law Article 6	Substantially Achieved There is no data collected about the level of procurement competence among government officials.	See above 5.2 and 5.4
6.2 S	The procurement training and information programmes implemented for government officials and private sector participants is consistent with demand	Public Procurement Law Article 53.b.3 Regulation for Public Procurement Authority	Substantially Achieved	See above 5.2
6.3 S	The existence of administrative systems for public procurement operations, and information databases, to support monitoring of performance and reporting to and responding to the information needs of other related government systems	Procurement statistics Complain statistics Notice of procurement statistics Updated records keeping for banned contractors (All statistical data reports are prepared for 3 month period and announced via internet and press releases)	Substantially Achieved	Bank will consider providing support to PPA for analysis and application of data to improve procurement performance.

6.4 S	The existence and implementation of internal control mechanisms for the understanding of procurement operations at the contracting level, including a code of conduct, separation of responsibilities as a check/balance mechanism and oversight/control of signature/approval authority	Public Procurement Law Articles 54, 55, 56 Public Procurement Contract Law Article 11 Regulation on Inspection and Acceptance Law on Court of Accounts Inspection and Control Legislations of the Administrations	Fully Achieved	By the effectiveness of PFMC Law, new performance inspection mechanisms will be institutionalized.
6.5 S	The existence of norms for the safekeeping of records and documents related to transactions and control management	General Specifications Annex of the Implementing Regulations	Substantially Achieved	Implementation issues remain.
6.6 S	Provisions exist for delegation of authority to others consistent with capacity to exercise responsibilities	Legislations of the ministries, organisations and institutions.	Substantially Achieved All Ministers may delegate their own authority to the sub level bureaucracy. This is usually ruled by the respective administrative codes of the entities.	Implementation issues remain.
7	Functionality of the Public Procurement Market			
7.1	There are effective mechanisms for partnerships between the public and private sector		Not applicable	Not applicable.
7.2 S	Private sector institutions are well organised and able to facilitate access to the market	TOBB nominates one member of PPA Board. TOBB's sector board (construction) is in close relation with the PPA Board. Private sector is fairly in good position to facilitate & inform the market	Fully Achieved	No comment.
7.3 S	There are no major systematic constraints (e.g. inadequate access to credit, contracting practices, etc.) inhibiting the private sector's capacity to access the procurement market	Major problem is about the difficulties in access to credit market. Prime reason is informalities in company's assets (i.e. informal economy). Another reason is high provision level of non-cash credits (currently 40% of cash credit) that increases costs of letter of guarantees & performance bonds. These are the major issues for some of the small and medium sized companies, but not systematic	Substantially Achieved	This is out of PPA's control, and will be referred to TOBB for study and recommendations to resolve systematic constraints.

		constraints for the entire private sector.		
7.4 S	There are no major constraints that inhibit competition (e.g. technical, labour and other standards)	Public Procurement Law Article 12 Those technical, labour, financial standards stated in Article 10 of PPL are integral part of fair competition.	Fully Achieved	No comment.
7.5	There are clear and transparent rules for determining whether to engage international or national markets, based on a sound development and business logic		Not applicable.	Not applicable.
8	Existence of Contract Administration and Dispute Resolution Provisions			
8.1 S	Procedures are defined for undertaking contract administration responsibilities that include inspection and acceptance procedures, quality control procedures and methods to review and issue contract amendments in a timely manner	Public Procurement Contract Law Regulation on Inspection and Acceptance The existence of Supreme Science Board (Yüksek Fen Kurulu)	Fully Achieved	Implementation issues exist.
8.2 S	Dispute resolution procedures are included in the contract document providing for an efficient and fair process to resolve disputes arising during the performance of the contract	Public Procurement Contracts Law Draft contract annexes of the implementation regulations International Arbitration Law	Substantially Achieved Although there is clear indication at the end of the draft contract annexed to the implementing regulations about dispute resolution by courts, there is no administrative dispute resolution procedure (e.g. arbitration) for disputes arising during the performance of the contract.	More research is needed especially to determine the coverage of existing procedures. International arbitration is applicable for contracts signed with foreign firms, not with national firms. Administrative dispute resolution procedures are being used in private sector contracts, not in public sector contracts. Change in legislation may be required to facilitate efficient dispute resolution process.
8.3 S	Procedures exist to enforce the outcome of the dispute resolution process	Regulation on Administrative Applications Against Procurements Sample form of contracts	Fully Achieved	Any disputes during contract administration are either referred to local courts or international arbitration in accordance with International Arbitration Law.
9	Effective Control and Audit System			
9.1 M	A legal framework, organisation, policy and procedures for internal and external control and audit of public procurement operations exists	Public Procurement Law Article 53 Law on Court of Accounts Public Financial Management and Control Law Articles 63, 64, 68	Substantially Achieved	Subject to proper implementation of PFMC Law with respect to the new control and audit arrangements.

	and operates to provide a functioning control framework	Constitution Article 160 General Accounting Law		
9.2 M	Enforcement and follow-up on findings and recommendations of the control framework provide an environment that fosters compliance	Law on Court of Accounts Article 50, 64 PFMC Law Articles 63, 64	Fully Achieved	See above 9.1
9.3 M	The internal control system provides timely information on compliance to enable management action	Decree Law on Organisation and Mandates of Ministry of Finance, no 178, Article 10, 11, 20, 43	Substantially Achieved When the effective implementation of Public Financial Management and Control Law is taken up, new provisions will be in force on this subject.	See above 9.1
9.4 S	The internal control systems are sufficiently defined to enable performance audits to be conducted	PFMC Law Articles 64, 68	Not Achieved	See above 9.1
9.5 S	Auditors are sufficiently informed about procurement requirements and control systems to conduct quality audits that contribute to compliance	Law on Court of Accounts Article 9 Decree Law on Organisation and Mandates of Ministry of Finance, no 178, Articles 10, 11, 20, 43 PFMC Law Articles 63, 64, 68	Fully Achieved	See above 5.2
10	Efficiency of Appeal Mechanisms			
10.1 S	The existence and operation of a complaint review system that gives participants in the public procurement process a right to file a complaint within the framework of an administrative and judicial review procedure	Public Procurement Law Articles 54, 55, 56, 57 Regulation on Administrative Applications Against Procurements	Fully Achieved	Complaints are not resolved at the initial stage (at the contracting entities) and generally referred to PPA, which delays the contract award for one month and increases the workload of PPA. PPA should develop and provide guidance to the contracting entities to address the complaints from participants.
10.2 S	Decisions are deliberated on the basis of available information and the final decision can be reviewed and ruled upon by a body (or authority) with enforcement capacity under the law	Public Procurement Law Articles 54, 55, 56 Regulation on Administrative Applications Against Procurements	Fully Achieved	No comment.
10.3 S	The complaint review system has the capacity to handle lodged complaints efficiently and a means to enforce the remedy imposed	Public Procurement Law Articles 56, 57 Regulation on Administrative Applications Against Procurements	Fully Achieved	No comment.
10.4	The system operates in a fair manner, with outcomes of decisions	Public Procurement Law Articles 53, 54, 55, 56, 57	Fully Achieved	No comment.

S	balanced and justified on the basis of available information			
10.5 S	Decisions are published and made available to the public	Public Procurement Law Article 53 Official Journal Website of PPA	Fully Achieved	No comment.
10.6 S	Administrative review body or authority is separate from the regulatory body, executing agency and the audit/control agency	Public Procurement Law Article 53 Regulation for PPA	Fully Achieved Administrative review body is not separate from the regulatory body, but is separate from executing agency and the audit/control agency	No comment.
11	Degree of Access to Information			
11.1 M	Access to information by stakeholders in the process is supported by publication and distribution of information through available media with support from information technology when feasible	A registration number is given for all procurements Stakeholders can access information about procurement process and complaints via internet Website of PPA Publication of the Legislations	Fully Achieved	No comment.
11.2 S	Systems exist to collect key data related to performance of the procurement system and to report regularly	“Procurement Control System” project has come into force. Proceedings on “Real Time” reporting system project has been going on.	Fully Achieved	No comment.
11.3 M	Records are maintained to validate data	All records are kept in digital form.	Fully Achieved	No comment.
11.4 S	There is clear legal basis providing access to information to the public	Public Procurement Law Articles 5, 13, 40, 47, 53, 58 and 59 Public Procurement Contracts Law Articles 26 and 27 Secondary legislation 2004 General Communiqué on Public Procurement Daily Public Procurement Bulletin Freedom of Information Act	Fully Achieved	No comment.
12	Ethics and Anti-corruption Measures			
12.1 M	The legal and regulatory framework for procurement, including tender and contract documents, includes provisions addressing the issue of corruption, fraud, conflict of interest	Public Procurement Law Articles 10, 11, 17, 58, 59, 60 Public Procurement Contract Law Articles 25, 26	Fully Achieved	No comment.

	and unethical behaviour and states actions which can be taken with regard to such behaviour (either directly or by reference to other laws)			
12.2 M	The legal system defines responsibilities, accountabilities and penalties for individuals and firms involved in fraud or corruption cases	Public Procurement Law Article 58, 59, 60 Public Procurement Contract Law Article 25, 26, 27, 28	Fully Achieved	No comment.
12.3 M	Evidence of enforcement of rulings and penalties exists	Public Procurement Law Article 58, 59, 60 Public Procurement Contract Law Article 25, 26, 27, 28	Fully Achieved	Implementation issues remain.
12.4 S	Special measures exist for the government to prevent and detect potential fraud and corruption in public procurement (<i>e.g.</i> procurement audits)	Public Procurement Law Article 53, 58 Turkish Criminal Code Law on Fight Against Corruption and statement of property	Fully Achieved	Implementation issues remain.
12.5 S	Stakeholders (private sector and civil society) support the criterion of a procurement market known for its integrity and ethical behaviours	Ethical rules of Professional Institutions, Non governmental Organisation, trade associations.	Fully Achieved	No comment.
12.6 S	Existence of a secure mechanism to report fraudulent, corrupt or unethical behaviour	Public Procurement Law Article 11, 53, 58, 60 Turkish Criminal Code Law on Fight Against Corruption and statement of property Law on Ethical Rules in Public Administration	Fully Achieved	Implementation issues remain.
12.7 S	Existence of Codes of Conduct/Codes of Ethics for participants that are involved in aspects of the public financial management systems that also provide for disclosure for those in decision making positions	Public Procurement Law Article 60 Law on Ethical Rules in Public Administration Turkish Criminal Code Law on Civil Service	Fully Achieved	Signature of ethical contract is required for all public employees. Disclosure of financial assets by the public staff is required every 5 years.

(*): S = Standard sub-indicator
M = Mandatory sub-indicator