Chapter 6
General Government and its Financing[1]

- There were positive developments in the fiscal aggregates in 2006, constituting a significant achievement for budgetary policy. Aided by rapid economic growth and one-off income, and despite the costs incurred by the fighting in the north, the budget deficit was well below both the deficit ceiling and its level in 2005. The general government deficit, measured according to the National Accounts definitions used in developed countries,[2] also declined, to 1.8 percent of GDP, compared with 3.3 percent in 2005 and 6.1 percent in 2003.
- The public debt/GDP ratio plummeted in 2006; after rising significantly at the beginning of the decade it reverted to the level seen in 2000.
- Despite the achievements, security developments in 2006 and social gaps underlined the challenges facing the government in formulating fiscal policy for the next few years.
- The reduction of the deficit and the debt/GDP ratio in recent years derived mainly from the reduced share of public expenditure in GDP; this has fallen by 5 percentage points since 2003 to stand at its lowest level since the late 1960s in 2006. The composition of expenditure has remained virtually unchanged since the beginning of the decade.
- The public debt/GDP ratio has remained high in comparison with the developed countries, but its decline in 2006 has significantly reduced this difference. The continued decline of the deficit/GDP and public expenditure/GDP ratios puts Israel somewhere in the middle of the distribution of the developed countries with regard to these indicators, after many years in which it was at the upper end.
- The tax burden in Israel—especially on wages—is similar to that in the developed countries and is expected to continue declining in the next few years.
- Expenditure by the civilian ministries remained low relative to the budget. Even though this contributes to fiscal control, it impacts on the efficiency of budgetary allocation and the transparency of priorities.
- The main challenge of budgetary policy in the next few years will be to balance the need to continue reducing the public debt/GDP and deficit/GDP ratios—so that fiscal policy can continue to support economic expansion, and interest payments will continue to decline—with the need to respond to both security needs and the rise in poverty in recent years. The expenditure ceiling set by the government and avoidance of tax reductions further to those already resolved, will make it possible in the next few years to achieve a significant reduction of the debt/GDP and deficit/GDP ratios, provided economic growth persists, but the government is yet to submit a program indicating how it will cope with security needs and social gaps in this framework. A detailed long-term budget plan could significantly increase the credibility of the various objectives.

[1] General government comprises the central government, the National Insurance Institute, the local authorities, nonprofit institutions (health funds, the universities, religious seminaries, etc.), most of whose income is from general government, and the National Institutions (the Jewish Agency, the Jewish National Fund, and the World Zionist Organization). Its activity is measured in accordance with National Accounts definitions, which differ from those used in the state budget. For a discussion of the differences between the National Accounts data and the budget, see Box 3.1 in the Bank of Israel's Annual Report for 2004.

[2] Although the Israeli definition does not include indexation differentials on public debt.

1. FISCAL POLICY AND MAIN DEVELOPMENTS IN GENERAL GOVERNMENT ACTIVITY

The public sector deficit declined this year to 1.8 percent of GDP, after reaching 3.3 percent of GDP in 2005 and 6.1 percent in 2003.

The general government deficit declined to 1.8 percent of GDP in 2006, after reaching 3.3 percent in 2005 and 6.1 percent in 2003 (Table 6.1) [3]. The budget deficit plummeted to only 0.9 percent of GDP—2.1 percent of GDP below the targeted upper limit and one percent less than in 2005 (Figure 6.1). The deficit target was attained for the third year in succession, after a decade in which it was missed repeatedly. Moreover, in the wake of its reduction in 2006, the deficit approached its level in 2000, when it was significantly lower than in any year since 1987. The deficit was still higher than the average in developed countries, but even though it has also declined in those countries the gap contracted markedly. About half the decline in the deficit in 2006 derived from the continued reduction of the public expenditure/GDP ratio, despite the cost of the war in the north and the compensation subsequently paid out by the government—amounting to NIS 5 billion. The restrained spending was facilitated by the decline in interest payments, reflecting the smaller deficits and the reduction in interest rates since the 2003 economic stabilization plan, as well as by the slow rise in current transfer payments, after four consecutive years in which they have declined. On the other hand, the growth rate of both civilian and defense public consumption accelerated in 2006. The share of tax revenues in GDP rose by 0.5 percentage points despite the reduction in tax rates, because of rapid economic growth and exceptional non-recurring income of over NIS 4.5 billion.

About half the drop in deficit this year derived from the continued contraction of public expenditure as a share of GDP, despite the costs of the war in the north and the compensation subsequently paid out by the government.

The (gross) public debt to GDP ratio fell sharply in 2006 by 9 percentage points, and reached 87.8 percent of GDP.

The (gross) public debt/GDP ratio fell steeply, by 9 percentage points, to stand at 87.8 percent of GDP at the end of 2006.[4] Several financial and nonfinancial forces were at work in 2006 to reduce this ratio, including rapid economic growth and a low budget deficit alongside higher than planned privatization receipts, the repayment of the public's debts to the government (primarily mortgages) and the reduction of the government's deposits in the Bank of Israel—all these reduced the government's borrowing requirement in order to finance the deficit, so that repayment of bonds exceeded the extent of new issues, both on the domestic market and abroad (Table 6.2).[5] The local-currency appreciation against the US dollar, and the decline during

[3] The calculations in this chapter do not include the 'Bank of Israel profits' item for the following reasons: i) This item is volatile and primarily reflects unexpected changes in the inflation and exchange rates and in global interest rates; ii) The Bank of Israel does not actually forward to the government the 'profits' calculated by the Central Bureau of Statistics (as explained in the Comptroller's section of the Bank of Israel's Annual Report for 2001); iii) In most developed countries, including those of the European Union, it is standard practice to record only the profits which the central bank actually forwards as revenue. Although that item did not affect the size of the deficit in 2006, it does affect the extent of change in comparison with previous years.

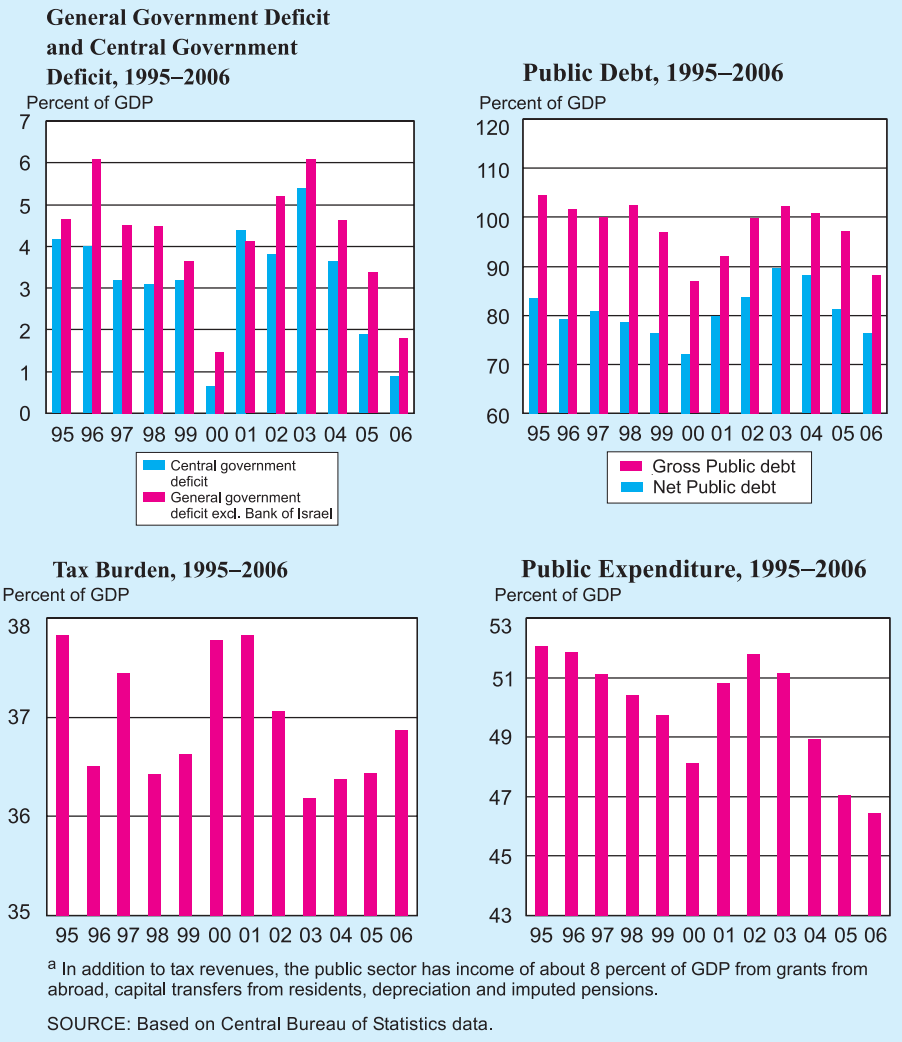
[4] The ratio is calculated on the basis of the revised definitions, as updated in June 2006, according to which nominal GDP is 4 percent higher than in its previous definition. As a result, the debt/GDP ratio prior to 2006 is lower than that computed in previous Bank of Israel reports.

[5] For a detailed account of the financing of the deficit and the composition of the debt, see Section 3 below.

the course of the year of the Consumer Price Index (CPI), to which half of the debt is linked, as well as the 2 percent rise in the GDP deflator, also contributed to the steep decline. The net debt/GDP ratio also dipped—by 5 percentage points—to reach 77 percent of GDP. Nevertheless, the debt is still high by international standards, and the net debt is still above its lowest level ever in 2000 (Figure 6.1). Furthermore, the planned deficit for 2007—2.9 percent of GDP—substantially exceeds its actual level in 2006, and does not facilitate a rapid and ongoing reduction of the debt/GDP ratio.[6] In order to achieve this reduction the government will have to reduce the deficit in line with its targets in the next few years by continuing to rein in the rise in its expenditure and refraining from further reduction of tax rates beyond those determined by law.

Public debt in Israel is still high by international comparison.

Figure 6.1[a]



[a] In addition to tax revenues, the public sector has income of about 8 percent of GDP from grants from abroad, capital transfers from residents, depreciation and imputed pensions.

SOURCE: Based on Central Bureau of Statistics data.

6 Nonetheless, according to current assessments the actual deficit in 2007 will be significantly smaller than planned.

Table 6.1
The Main Components of General Government Receipts and Expenditure, 1995–2006

(percent of GDP)

	Average 1995-1998	1999	2000	2001	2002	2003	2004	2005	2006
Total receipts	**46.7**	**45.4**	**46.0**	**46.6**	**47.3**	**44.3**	**44.1**	**44.0**	**44.7**
Excl. Bank of Israel	**46.4**	**46.1**	**46.6**	**46.7**	**46.6**	**45.1**	**44.2**	**43.7**	**44.7**
From property	1.7	1.1	1.0	1.5	2.4	0.7	1.0	1.3	1.0
Of which: Receipts of Bank of Israel	0.2	-0.7	-0.6	0.0	0.8	-0.8	-0.2	0.2	0.0
Total taxes	37.1	36.6	37.8	37.8	37.1	36.2	36.4	36.4	36.9
Indirect taxes on domestic production	13.6	13.4	12.6	12.7	13.4	13.5	13.3	13.2	12.8
Indirect taxes on civilian imports	4.7	4.3	4.4	4.0	4.0	3.8	4.3	4.3	4.1
Direct taxes, fees, and levies	13.5	13.5	15.2	15.1	13.6	12.8	12.8	13.1	14.2
National Insurance surplus	5.4	5.5	5.6	6.0	6.1	6.2	6.0	5.9	5.8
Grants	3.7	3.8	3.5	3.5	3.9	3.5	2.8	2.4	3.0
Other[a]	4.1	3.8	3.7	3.8	4.0	3.9	3.9	3.7	3.7
Total expenditure	**51.4**	**49.7**	**48.1**	**50.8**	**51.8**	**51.2**	**48.9**	**47.1**	**46.5**
Current expenditure	46.1	45.5	44.3	46.8	47.6	47.3	45.0	43.3	42.8
Domestic civilian consumption	19.4	19.1	18.6	19.6	20.0	20.0	19.5	18.9	18.7
Domestic defense consumption	6.8	6.4	6.3	6.4	7.0	6.8	6.3	6.0	6.1
Defense imports	1.7	1.9	1.6	1.8	2.2	1.8	1.6	1.7	1.8
Direct subsidies	1.1	0.8	0.8	0.9	0.7	0.9	0.8	0.7	1.0
Transfer payments on current account	11.0	11.4	11.3	12.5	12.4	12.0	11.1	10.7	10.4
Interest payments	6.1	5.8	5.7	5.6	5.1	5.9	5.9	5.3	4.8
Current transfer payments	2.1	1.7	1.4	1.4	1.7[b]	1.2	1.6	1.6	1.6
General government investments	3.1	2.5	2.4	2.6	2.6	2.6	2.3	2.1	2.0
Total general government deficit	**4.7**	**4.4**	**2.1**	**4.2**	**4.5**	**6.9**	**4.9**	**3.1**	**1.8**
Total general government deficit excl. Bank of Israel	**-2.9**	**3.6**	**1.5**	**4.1**	**5.2**	**6.1**	**4.7**	**3.3**	**1.8**
Total surplus excl. interest and receipts from property	**-0.3**	**0.3**	**2.5**	**-0.1**	**-1.7**	**-1.7**	**0.0**	**0.9**	**2.0**
Net public debt[c,d]	**80.5**	**76.4**	**72.3**	**79.7**	**83.9**	**89.8**	**88.2**	**81.3**	**76.6**
Gross public debt excl. Bank of Israel[d]	**102.2**	**97.0**	**87.0**	**92.2**	**99.8**	**102.3**	**100.9**	**97.0**	**87.8**

[a] Including transfer payments from the public on the current and capital accounts.

[b] Including capital transfers of NIS 1,523 million to China, in compensation for the cancellation of the Falcon deal.

[c] Divided by GDP at end-of-year prices.

[d] After deducting the local authorities' debt to the central government.

SOURCE: Based on Central Bureau of Statistics data.

Table 6.2
Components of Increase in Gross Public Debt from 2005 to 2006

	(percent of GDP)
Debt at the end of 2005	97.0
Increase in GDP	-6.8
Budget deficit, cash basis	0.9
Redemption of net credit by the public[a]	-0.4
Receipts from privatization	-0.8
Total change in the government's deposits in banks	-0.6
Net allocation of capital	-1.0
Revaluation of local-currency debt[b]	0.0
Revaluation of foreign-currency debt	-1.8
Remainder[c]	0.4
Total debt at the end of 2006	87.8

[a] Including credit extended and principal paid.

[b] The difference between the rise in the CPI during the year and the rise in the GDP deflator.

[c] Adjusted according to issue price, and rounding.

SOURCE: Bank of Israel.

The Second Lebanon War and its repercussions on the budget emphasized the contribution to economic stability made by the rehabilitation of fiscal credibility in recent years.

The war in the north and its repercussions on the budget emphasized the contribution to economic stability made by the rehabilitation of fiscal credibility in the past few years, but also underlined the challenge facing Israel's policymakers in maintaining this credibility and setting priorities for the allocation of public expenditure. The ability of Israel's economy to survive the period of hostilities without significant financial shocks reflected to a great extent the credibility acquired by fiscal policy since 2003, and the trust in the government's commitment to the fiscal targets set. Against this backdrop, the war was perceived as a transient event after which policy would stabilize once again on the path determined beforehand. Notwithstanding, the rapid deterioration into a war situation also stressed the importance of acquiring this credibility given Israel's geo-political situation. In this context the government is confronted with the challenge of bolstering its credibility by making progress in reducing the deficit to levels that will enable the public debt/GDP ratio to decline significantly and the economy to distance itself from the danger of a financial crisis even if the security situation deteriorates once more—especially if this deterioration occurs in a less opportune macroeconomic and global environment than that in which the last conflagration took place.

The rapid deterioration into a war situation stressed the importance of acquiring fiscal credibility given Israel's geopolitical situation.

The fighting in the north also underlined the need to decide on budget priorities in order to maintain the fiscal framework determined by the government—declining deficit targets and a reduction in tax rates in line with existing legislation. Before the hostilities erupted the assumption underlying the budget for the next few years

The war in the north underlined the need to decide on budget priorities in order to maintain the fiscal framework determined by the government.

The adoption of a long-term budget plan that reflects decisions about priorities will contribute to the credibility of targets, provided it is accompanied by a demonstration of the ways to meet these targets.

had been that defense spending would rise by less than civilian expenditure, if at all, thereby freeing resources for social welfare needs. In the wake of the war, however, defense expenditure is set to rise in the next few years, and a debate is currently being held regarding the expected size of the defense budget in the near future. When this debate ends it will be necessary to reach a decision about the extent of the sources expected to be allocated to the defense budget vis-à-vis what is allocated to social needs, which have grown in recent years, focusing particularly on the wider income gap which reflects inter alia the effect of the fiscal policy adopted since mid-2002. In order to continue bolstering the credibility of fiscal policy the government will have to formulate plans which will demonstrate its ability to cope with these problems within the budget framework it has adopted. The adoption of a long-term budget plan that reflects decisions about priorities will contribute to the credibility of targets. This will be the case provided the budget plan is accompanied by a presentation of the ways in which the targets will be attained while improving the quality of services in accordance with the rise in the standard of living as well as with costs that are consistent with the framework. A framework of this kind should also clarify the flexibility that remains in the budget for contending with unexpected developments during the period concerned. It is important to recognize that if the government aspires to attain the public expenditure/GDP and deficit/GDP ratios at levels similar to those in the developed countries, given the current level of defense expenditure, this means that the resources available for civilian purposes will be smaller than in those countries.

In the last four years public expenditure as a share of GDP has fallen by a cumulative 5 percentage points, and has reached its lowest level since the late 1960s.

After a marked rise in public expenditure in 2000–2002 (Figure 6.1), expressed in a 3.7 percentage point increase in its share of GDP, it has declined in the last four years by a cumulative 5.3 percentage points, to stand at its lowest level since the late 1960s. However, the real growth rate of public expenditure has not been uniform throughout this period: in 2003 and 2004 public expenditure excluding real interest dipped, but rose by 1.6 in 2005 and by 5.5 percent in 2006 (Table 6.3).[7] An analysis of the factors behind the accelerated rise in public expenditure in 2006 shows that it reflected primarily the effects of the war on the budget—and in the context of the rapid growth rates and declining debt-servicing costs this increase still enabled the further reduction of the share of public expenditure in GDP. However, the experience of the not-so-distant past—especially of the year 2000 and the mid-1990s—has proved that an accelerated increase in public expenditure at times of economic expansion can cause a budget crisis when the next decline occurs in the business cycle. It is important, therefore, that once the initial adaptation of expenditure to the one-off needs of the war has taken place, the government restores the growth rate of public expenditure to the levels that it has set. The government will find it difficult to continue adhering to the budgetary aggregate targets in the next few years if civilian public expenditure

The government will find it increasingly difficult to achieve its budget-aggregate targets in the coming years if civilian public expenditure continues to grow at a real rate of 4.8 percent as it did this year.

[7] An increase in public expenditure of more than 1 percent does not flout the legal limit for the increase in government spending, because this limit is set in relation to the budget of the preceding year and not to actual expenditure. Since in previous years expenditure was significantly lower than the budget, it was possible to increase it in 2006 by more than 1 percent without exceeding the limit.

continues to rise at a real rate of 4.8 percent, as was the case in 2006, especially since no additional real decline in per capita transfer payments is expected.

Table 6.3
Growth Rates of Public Expenditure in Israel, 1994-2006

(percent, deflated by implicit price index of business-sector product)

	1994-1999[a]	2000-2001	2002	2003-2004	2005	2006
	(growth rate, annual average)					
Total public expenditure	4.3	5.9	1.3	0.2	0.7	4.5
Of which: Interest payments[b]	2.4	3.0	-8.2	10.0	-5.2	-3.6
Total primary public expenditure	4.5	6.2	2.5	-0.9	1.6	5.5
Of which: Current primary expenditure	6.0	6.7	2.3	-0.9	1.7	5.7
Current primary civilian expenditure	7.3	7.3	0.0	0.2	1.3	5.1
Public consumption	6.2	5.6	4.6	-0.7	2.4	5.8
Public consumption excl. defense imports	7.3	5.7	3.2	0.5	1.6	5.5
Civilian consumption	9.2	6.2	1.4	1.3	1.8	4.8
(Per capita civilian consumption)	6.4	3.6	-0.6	-0.5	0.1	3.0
Wage expenditure	5.0	6.2	0.1	1.1	-0.3	4.1
Purchases	21.7	6.4	2.6	0.2	4.2	5.3
Domestic defense consumption	2.6	4.9	8.3	-2.1	0.7	7.5
Wage expenditure	4.1	5.0	3.1	-2.4	-1.5	5.2
Transfer payments on current account	6.2	9.6	-1.3	-2.3	0.8	3.1
(Per capita transfer payments on current account)	3.6	6.9	-3.2	-4.0	-1.0	1.3
General government investment	-0.3	5.9	0.1	-3.0	-3.4	2.6
Of which: Transport infrastructure	-1.0	4.3	23.3	13.2	28.5	1.6
Transfer payments on capital account	-4.8	1.9	4.8	-0.9	-0.2	3.4

[a] Since 1995, including expenditure due to the National Health Law.

[b] The decline in interest payments in 2002 and their rise in 2003 reflect mainly the effect of changes in the rate of inflation on the CBS method of calculating the interest rate.

SOURCE: Based on Central Bureau of Statistics data.

A reduction in tax rates lowered tax revenues in 2006 compared to 2003 by NIS 15 billion.

While the expenditure/GDP ratio has declined significantly since 2003, the share of revenue, especially tax receipts, in GDP has remained virtually unchanged.[8] This stability reflects two opposing effects: on the one hand, the rapid growth as well as the composition of demand served to increase revenues more rapidly than GDP, while on the other, the reductions in tax rates, which accounted for a decrease in revenue by NIS 15 billion in 2006 compared with 2003 (including the reduction in National Insurance payments), served to reduce them (see Section 5 below). Note that the effect of the tax reductions is calculated on the basis of the assumption that by themselves they

[8] Excluding exceptional non-recurring revenue of 0.7 percent of GDP in 2006.

would not have affected economic growth. However, the analysis in Box 6.2 indicates that the reduction of corporation tax had a positive effect on economic growth, while another study shows that there is a negative relation between marginal tax rates on wages and the supply of hours worked in Israel,[9] which could contribute to growth and offset part of the loss of revenue.[10] The main factor which served to increase revenue was profits taxation, which rose by 2.3 percent of GDP from its zenith in 2003 (Table 6.A.12). This increase reflected primarily the powerful impact of the rise in the profitability of companies and self-employed persons on revenue, as the emergence from the recession firmed. Receipts from these taxes rose by 26 percent in real terms in 2006, despite the reduction in corporate tax rates and in the tax on the profits of self-employed persons.

The sharp drop in the public debt to GDP ratio in 2006 contributes greatly to reducing the risk that investors—both Israelis and foreigners—attribute to the Israeli economy.

The sharp drop in the debt/GDP ratio in 2007 made an important contribution to reducing the country risk attributed to Israel by both domestic and foreign investors,[11] as this ratio and its development are key indicators of country risk. Against the backdrop of the high level of this ratio in Israel compared with that common in the developed economies (Table 6.4), the marked narrowing of the gap in 2006 is highly significant, particularly in light of the developments in the security arena which stressed Israel's geopolitical risk. Although the gap between Israel and the OECD average is still about 20 percent of GDP, the stabilization of the downward trend, if this is maintained, is consistent with the European Union's Stability and Growth Pact (and the Maastricht Agreement which preceded it). Nevertheless, the reduction of the debt/GDP ratio in the last two years is merely an initial—albeit significant—step on the long road the government must take in order to attain the levels accepted in the developed countries. Israel's age-composition, which is younger than that of the developed countries,[12] and the convenient term-structure of the debt make it possible to choose a slower path of convergence to these levels. However, because of Israel's security risks—and their economic effects—the uncertainty ascribed to its ability to reduce the debt burden is greater than in other countries. This accounts for the paramount importance of making

Because of Israel's security risks—and their economic effects—the uncertainty ascribed to its ability to reduce the debt burden is greater than is the case with other countries.

[9] A. Brender and L. Gallo (2007), 'The Effect of Changes in Wages, GDP, and the Demographic Characteristics of Workers on Hours Worked,' Bank of Israel, Research Department, Discussion Paper (Hebrew).

[10] For a discussion of the findings regarding the effect of the tax burden on GDP in Israel, see Y. Lavi and M. Strawczynski (2001), 'The Effect of Policy Variables and Immigration on Business-Sector Product and its Components—Factor Inputs and Productivity—in Israel: 1960–1995,' Bank of Israel Review 73. For a review of the findings worldwide, see: M. Rider (2006), 'The Effect of Personal Income Tax Rates on Individual and Business Decisions—A Review of Evidence,' Andrew Young School, Working Paper 06-15.

[11] The gap between the net public debt/GDP ratio (adjusted for financial assets) in Israel and that in the OECD countries is greater than that between the gross debt/GDP ratios. However, international comparisons of net debt are unreliable because of intercountry differences in the level of information, extent of coverage, and definitions. For these reasons the gross debt was chosen as the criterion in the Stability and Growth Pact of the European Union.

[12] For a discussion of the influence of expected demographic developments in Israel until the year 2020 on government spending, see Kobi Braude (2003), 'The Influence of Demography on Long-Term Public Expenditure,' Economic Quarterly, 50, December (Hebrew).

Table 6.4
The Overall Deficit, the Primary Deficit, and the General Government Debt Burden in Israel and OECD Countries, 1992-2006

	General government deficit (-)			Primary general government deficit(-)			Total general government debt (gross)			Real increase in per capita public consumption
	1992-94[a]	2005-06[a]	Change	1992-94[a]	2005-06[a]	Change	1995	2006	Change	1995-2006
	(% of GDP)			(% of GDP)			(% of GDP)			(percent)
Israel[b]	**-4.6**	**-2.6**	**2.1**	**1.0**	**1.4**	**0.4**	**104.5**	**87.8**	**-16.7**	**0.0**
Greece	-11.4	-3.9	7.5	0.7	0.3	-0.4	111.9	120.6	8.7	2.6
Sweden	-9.8	-4.5	5.3	1.5	-0.4	-1.9	121.8	120.8	-1.0	1.2
Italy	-9.8	2.8	12.7	-10.1	2.3	12.4	82.0	56.0	-26.1	0.7
Britain	-8.2	1.2	9.4	-2.9	2.3	5.2	101.6	68.0	-33.6	1.3
Canada	-7.0	-3.2	3.9	-4.5	-1.2	3.3	52.4	47.9	-4.5	2.0
Belguim	-6.8	2.5	9.3	-7.3	2.6	9.9	65.3	48.2	-17.1	1.4
Finland	-6.7	0.0	6.7	3.1	4.0	0.9	135.4	91.2	-44.3	1.5
Spain	-6.5	-5.3	1.2	0.7	-2.4	-3.1	68.8	74.3	5.5	1.9
Portugal	-5.7	1.2	6.9	-1.4	2.7	4.2	68.8	46.8	-22.0	3.1
France	-5.3	-2.8	2.4	-2.6	-0.4	2.2	62.6	75.3	12.7	1.0
Australia	-5.3	2.1	7.3	-1.9	3.2	5.2	41.9	15.0	-26.9	2.0
Austria	-4.8	-3.0	1.8	-1.3	-0.9	0.4	70.7	60.9	-9.8	1.0
US	-3.7	-1.5	2.3	-0.7	0.6	1.3	69.2	69.1	-0.1	1.3
The Netherlands	-3.3	-0.4	3.0	0.8	1.2	0.4	86.8	59.4	-27.5	2.1
Germany	-3.2	4.0	7.2	0.9	5.4	4.5	80.0	39.7	-40.3	1.5
Denmark	-2.6	-2.8	-0.2	-0.1	-0.4	-0.3	55.7	71.3	15.6	0.8
Ireland	-2.6	1.0	3.6	2.3	0.9	-1.3	81.2	32.5	-48.7	4.0
Japan	-1.9	-4.9	-3.0	-0.7	-3.6	-2.8	87.7	176.2	88.6	2.2
Norway	-1.0	17.7	18.8	-3.8	13.8	17.6	40.6	48.1	7.5	2.1
New Zealand	-0.1	3.9	4.0	2.0	3.3	1.3	51.3	29.8	-21.6	2.1
OECD average[c]	-5.3	0.2	5.5	-1.3	1.7	2.9	76.8	67.6	-9.2	1.8
EU average[c]	-6.0	-0.9	5.1	-1.2	1.1	2.3	81.6	68.1	-13.5	1.8
Average of countries with large deficit[c,d]	-7.5	-0.9	6.6	-2.3	1.2	3.4	83.0	69.5	-13.5	1.7

[a] Average.

[b] Deficit data for Israel do not include the Bank of Israel or indexation differentials on the public debt.

[c] Arithmetic mean of all countries in the group.

[d] Average of countries whose deficit in 1993 was larger than Israel's.

SOURCE: Based on OECD Economic Outlook, 80, November 2006, and CBS data.

rapid progress and demonstrating the commitment to reducing the debt/GDP ratio. As the economy distances itself, both chronologically and statistically, from the period when the threat of a financial crisis was imminent (2002 and 2003), the credibility of policy becomes entrenched, and developments in 2006 expressed this. The fiscal measures that were adopted and the credibility attributed by investors to the fiscal targets set by the government are among the chief factors behind the decline in the risk premium and interest rates on the public debt in the last two years,[13] thereby also contributing to reducing debt-servicing costs and freeing resources for other needs. Since the reduction of the deficit in the last two years was quicker than expected—and than the targets set by the government—it appears to have also contributed to raising the saving rate, thereby increasing the current account surplus on the balance of payment and reinforcing the local currency.[14]

The fiscal measures that were adopted and the credibility attributed by investors to the fiscal targets set by the government are among the key factors behind the decline in the risk premium and interest rates on the public debt in the last two years.

The new government which took office in mid-2006 altered the fiscal target set by its predecessor. The two main components of the change were an increase in the real growth rate of the expenditure ceiling in the budget from 1 percent a year to 1.7 percent, and the determination of a deficit ceiling of 1 percent of GDP for 2009. Although the higher expenditure ceiling hampers the reduction of the deficit, this does not seem to have had an adverse effect on the credibility of the government's commitment to fiscal stability, as the 1 percent a year ceiling was regarded as too difficult to implement in anything but the short run.[15] The renewed commitment to the restraint of expenditure as soon as the new government took office, and its inclusion in the basic policy guidelines, may have contributed to this credibility. Moreover, the definition of a low deficit ceiling (about 2.7 percent of GDP according to the common international definition), in accordance with the expenditure ceiling, removed one of the main causes of uncertainty in the previous path—the relatively high deficit ceiling of 3 percent of GDP (about 4.7 percent of GDP according to the common international definition), enabling taxes rather than the deficit to be significantly reduced.

It is important that the government adheres to the targets it set when it was established, and does not return to the behavior of the pre-2003 period, when budget targets were changed almost yearly.

Although the experience of 2006 indicated that the markets regard the government's commitment to the fiscal aggregate targets credible, eventually the government will be judged by its actions. For this reason, it is important that it adheres to the targets it set when it was constituted, and does not return to the behavior that was evident in the period prior to 2003, when budget targets were changed almost yearly.[16] In

[13] For an analysis of the effect of the budget deficit and deficit targets on interest rates and the public debt, see: H. Ber, A. Brender, and S. Ribon (2003), 'Does Fiscal Policy Affect Government Bond Yields? Evidence from Israel in the 1990s,' Economic Quarterly, 50 December (Hebrew).

[14] An increase in government saving (the reduction of the deficit) is generally expected to be accompanied by an equivalent decline—partial or full—in private saving. When the reduction of the deficit is unexpected—or perceived as temporary—the offset is relatively small, and so the saving rate (i.e., the sum of public and private saving) is expected to rise.

[15] In the short run the previous ceiling enabled expenditure to rise significantly, because expenditure has been below the budgeted amount in the last few years.

[16] The targets for 2005 and 2006 were also changed, because of the cost of the Disengagement from Gaza. For an account of the frequent changes in targets in the previous decade, see Box 3.1 in this chapter in the Bank of Israel's Annual Report for 2001.

the present situation, too, the government targets are changed almost every year for various reasons, and the government which was formed in 2006 has already raised the upper limit on expenditure increases for 2007 and 2008, relative to the targets set, because of the cost of the war in the north. The war appears to have been perceived as an exceptional development which justifies departure from the path just a few months after it was adopted by the government—particularly in view of the credibility acquired since mid-2003. Nonetheless, further changes are apt to undermine the credibility acquired to date and to lead to an increase in the risk premium and the interest on the government debt—all the more so if these changes are made in a less accommodating macroeconomic environment than that prevailing in 2006. Another development in 2006 which contributed to the reduction of Israel's country risk was the extension of the guarantees arrangement with the US government until the end of 2011, thereby reducing the economy's vulnerability to financial crises.

The reduction of the deficit in 2006, for the first time in many years, significantly reduced the difference in deficit size between Israel and the OECD countries, though Israel's deficit is still higher than the OECD average.

Since Israel's growth rates in the last few decades have not been significantly higher than those of the developed countries,[17] it will not be possible to further reduce the gap in the debt/GDP ratio between Israel and those countries as long as Israel's general government deficit is not lower than it is in those countries. The reduction of the deficit in 2006 reduced the gap in this respect between Israel and the OECD countries,[18] for the first time in many years, even though Israel's deficit is still higher than theirs. While according to common international definitions Israel's general government deficit stood at 1.8 percent of GDP in 2006 (Table 6.5), the OECD countries had an average budget surplus of 0.4 percent of GDP.[19] A comparison over time is not flattering to Israel either: at the beginning of the 1990s Israel's deficit was lower than that in the OECD countries, but at present it is higher (Table 6.4).[20]

The reduction of the general government deficit/GDP ratio in 2006 corresponded with the continued recovery of economic activity. Since the extent of the general government deficit is directly influenced by the development of GDP, primarily by means of tax revenues, it is customary to examine the development of the cyclically-adjusted deficit, the calculation of which is based on the assumption that the economy

[17] The gap in the growth of GDP in the last decade was about half a percent a year.

[18] The comparison relates to the twenty veteran members of the OECD whose per capita GDP is above $10,000 a year, and for which there are data for the last fifteen years. The comparison with the EU countries relates to the fourteen countries which were members before 2003, excluding Luxembourg.

[19] In the transition from Israel's definition of the general government deficit to the international definition it is necessary to add the indexation differentials on the general government's local-currency debt. There is no supplement in 2006 because the CPI in Israel did not rise during the year; with inflation at 2.0 percent—in the middle of the range defined as price stability—the supplement is about 1.2 percent of GDP.

[20] The choice of 1992–1994 as the base period reflects the start of the fiscal adjustment period in Europe, in the wake of the Maastricht Accord, and the end of the extensive expenditure on absorbing the influx of immigrants in Israel. The cyclically-adjusted deficit is biased upwards at the beginning of the period as the large-scale expenditure on immigrant absorption ended only in 1994.

Table 6.5
Principal Fiscal Aggregates by Common International Definitions: Israel,[a] OECD and EU Countries, 1999-2006

	1999	2000	2001	2002	2003	2004	2005	2006
General government deficit (-)								
Israel[b]	-4.4	-1.5	-4.9	-9.1	-5.3	-5.5	-4.8	-1.8
Israel, local National Accounts definitions	-3.6	-1.5	-4.1	-5.2	-6.1	-4.7	-3.3	-1.8
OECD average[c]	-0.1	1.5	0.1	-0.9	-1.3	-0.8	0.0	0.4
EU average[c]	-0.4	1.0	-0.5	-1.4	-1.9	-1.5	-1.1	-0.8
General government expenditure								
Israel[b]	50.6	51.1	51.8	56.3	50.2	49.8	48.7	46.5
OECD average[c]	45.5	44.0	44.7	45.1	45.6	45.1	44.7	44.5
EU average[c]	47.9	46.3	47.0	47.4	48.1	47.8	47.5	47.3

[a] The data for Israel were brought into line with the accepted international definition: indexation differentials (accrual basis) on the shekel debt (indexed to the CPI and unindexed) were added to the general government's deficit and expenditure as defined in the National Accounts, and indexation differentials on the public's debt to the government were deducted from the deficit.

[b] The deficit increase and small expenditure decrease in 2004 reflect the influence of the rise in the inflation rate in that year in increasing the indexation differentials on the public debt.

[c] Arithmetic mean of the countries listed in Table 6.4.

SOURCE: Based on OECD Economic Outlook, 80, November 2006, and CBS data.

The cyclically-adjusted public sector deficit declined by 1.4 percent of potential GDP in 2006, completing a reduction of 3.3 percent since 2002.

is functioning at full employment.[21] In Israel there is an additional need to adjust the calculation for inflation, because of the unique way debt-servicing payments are recorded in the National Accounts and the budget, since deflating nominal interest by the rate of price increases causes the interest calculated to fluctuate when the rate of price increases shifts.[22]

According to this calculation, general government's cyclically-adjusted deficit declined by 1.4 percent of potential GDP in 2006, completing a 3.3 percent of GDP reduction since 2002 (Table 6.6). The reduction of the cyclically-adjusted deficit in 2006 reflects the decline in the share of expenditure in GDP, the effect of which

[21] The calculation of potential GDP here is based on the average increase in per capita GDP since 1973, which is 1.5 percent a year (the working-age population rose at a similar rate to the general population). According to this calculation, in 2006 GDP grew by 1.6 percent more than potential GDP, and the cumulative deviation of GDP from its potential level decreased by 3.3 percent; this is based on the assumption that GDP had been equivalent to its potential in 1997. The calculation of the 'cyclically-adjusted' deficit is based on the assumption that tax revenues increase proportionately to GDP, and that total non-tax expenditure and income are not sensitive to changes in GDP. For a detailed discussion of the method of calculation, see Section 2 in Chapter 5 of the Bank of Israel's Annual Report for 1999.

[22] In its calculation of the debt-servicing costs of the public sector, the CBS adjusts the interest rate paid on the unindexed local-currency debt for the actual increase in prices; if prices fall this rate is not added to the interest rate. In calculating the cyclically-adjusted deficit we assume a 'normative' inflation rate of 2.0 percent.

Table 6.6
The Cyclically Adjusted Deficit of the General Government, 1999-2006[a]

(percent of potential output)

	1999	2000	2001	2002	2003	2004	2005	2006
Overall deficit	-4.4	-3.7	-4.7	-4.6	-3.7	-3.1	-2.7	-1.3
Domestic deficit	-4.6	-4.7	-5.8	-4.1	-4.1	-3.0	-2.3	-1.5
Overall deficit by international definitions[b]	-5.4	-4.7	-5.8	-5.9	-5.0	-4.4	-3.9	-2.4

[a] Interest payments were calculated assuming that the rate of inflation during the year was 2 percent, and not according to the actual inflation rate.

[b] The overall deficit was brought into line with the accepted international definition by adding indexation differentials (accrual basis) on the shekel debt (indexed to the CPI and unindexed).

SOURCE: Based on Central Bureau of Statistics data.

exceeded that of the cut in tax rates on tax receipts.[23] General government's cyclically-adjusted domestic deficit dipped by 0.8 percent of GDP in 2006, falling by a total of 2.6 percent of GDP since 2002. According to this index, which roughly reflects the direct influence of general government activity on demand in 2006, it served to reduce demand.[24] However, the possibility cannot be dismissed that in fact the entrenchment of fiscal restraint contributed to the rally in economic activity, or at least offset a significant part of the direct negative effect on demand by reducing the deficit. This occurred via its contribution to confidence in the economy of both consumers and investors as well as to the decline in interest rates, after the fiscal crises of 2002 and 2003.[25] Various studies undertaken elsewhere in the world have in fact found that in recent decades the direct effect on GDP of a rise in government spending or a reduction in taxes is small in the short run, and its direction is not clear.[26] Hence, fiscal policymakers, especially in countries with a large debt and deficit, must contend not only with choosing between improving present welfare (by increasing public consumption and correcting market failures) and reducing the burden on future generations (by reducing the public debt

[23] Non-recurring expenditure in 2006—largely in the defense sphere and compensation for war damage incurred as a result of the fighting in the north—was similar in extent to the exceptional non-recurring income.

[24] Lavi and Strawczynski, for example, demonstrate that a reduction of the deficit by reducing public consumption leads to a decline in demand in the short run even after the expansionary effect of private expenditure has been offset. See, Y. Lavi and M. Strawczynski (2003), 'Does Fiscal Expansion Increase Aggregate Demand and Economic Activity in Israel? An Empirical Examination for 1960–2000,' Economic Quarterly, 50, December (Hebrew).

[25] For a more detailed discussion of the possibility that the reduction of the deficit since 2003 contributed to the acceleration of economic activity, see Box 3.2 in the Bank of Israel's Annual Report for 2003.

[26] In an article examining the effect of the expansion of public expenditure and tax cuts on GDP, Perotti found that even in advanced economies, where this effect is expected to be relatively great, it is small and sometimes negative. In his article he also reviews studies which examined a wider range of countries, finding many instances in which fiscal restraint in fact served to increase GDP in the short run, and vice versa. R. Perotti (2005), 'Estimating the Effects of Fiscal Policy in OECD Countries,' CEPR Discussion Paper 4842, January.

and developing the infrastructure), but also with the question whether an expansionary policy will increase present welfare at all.

In addition to the question of how to interpret the effect of the development of the cyclically-adjusted deficit it is important to stress that calculations of this deficit are very sensitive to the estimation of potential GDP and assumptions about the intensity of the impact of tax receipts and public expenditure on the size of GDP. On the one hand, the response of tax receipts to a rise in GDP at a period of emergence from a recession is generally stronger than it is at a later stage—although in the current emergence from recession this effect may have come to an end. On the other hand, the calculation assumes that public expenditure will not change when the gap between GDP and its potential level is closed, an assumption that does not fit Israel's past experience: it was found that every 1 percent rise in business-sector product leads to a rise of just under half a percent in public expenditure.[27] This correlation reflects wage increases in the general government at times of prosperity, the linkage of part of National Insurance benefits to the average wage in the past, the greater demand for public goods when the standard of living rises, and the tendency of politicians to increase expenditure when tax receipts rise. Consequently, convergence to the cyclically-adjusted deficit at a time when the gap between actual and potential GDP is narrowing depends on continuing to restrain expenditure during a period of growth. Note in this context that estimations of potential GDP in the world are 'notorious' for the marked changes that are made in them retroactively.[28]

2. GENERAL GOVERNMENT EXPENDITURE AND ITS COMPOSITION

Public expenditure as a share of GDP fell by 0.6 percent in 2006, reaching 46.5 percent of GDP, its lowest level since 1969.

The share of public expenditure in GDP fell by 0.6 percentage points in 2006 to stand at 46.5 percent of GDP. This is its lowest level since 1969, and attests to the impact of the fiscal adjustment made in the last three years. Since 2003 the share of public expenditure in GDP has contracted by 5 percentage points, with a real decline (deflated by business-sector product prices) in primary expenditure in 2003 and 2004, and a moderate increase, at a rate similar to that of population growth, in 2005 (Table 6.3). In 2006 the growth rate of expenditure accelerated to 4.5 percent, and when interest payments—which fell—are deducted, to 5.5 percent. The accelerated increase reflected mainly the expansion of public consumption, especially defense spending—which had moderated the rise in expenditure in the previous three years. The real growth rate of current transfer payments (mainly National Insurance benefits) exceeded that of the population in 2006, after four years of a real per capita decline. Note, however, that in the category of transfer payments, per capita National Insurance benefits fell in 2006 too, their share in GDP declining by 0.25 percentage points (Table 6.A.14).

The growth rate of expenditure accelerated this year to 4.5 percent, and the growth of primary expenditure accelerated to 5.5 percent.

[27] See M. Strawczynski and J. Zeira (2006), 'Cyclicality of Fiscal Policy in Israel,' paper presented at the Bank of Israel Conference in December.

[28] See International Monetary Fund, World Economic Outlook, October 1999, Chapter III.

The increase in defense spending reversed the process that was set in motion in 2002, when this category reached 9.2 percent of GDP. Since then defense expenditure declined to stand at 7.7 percent of GDP in 2005, constituting an important element in the process of fiscal stabilization. Although defense expenditure rose considerably in 2006 because of the fighting in the north, the war had a moderate effect on the defense expenditure/GDP ratio because of the rapid GDP growth. Moreover, a large part of the repercussions of the war on defense expenditure—including restocking supplies, which were depleted in the course of the hostilities—was deferred to 2007 and 2008, and hence is not yet reflected in recorded government expenditure. The increase in defense expenditure which has already been agreed will prevent a further reduction in the defense expenditure/GDP ratio, at least in 2007. In addition to the decisions which have been made, an extensive debate is being held on the framework of the defense budget in the next few years, the outcome of which will have significant implications for the future composition of general government expenditure. If it is decided to increase the defense budget this means that in the framework of a future rise in expenditure (an annual rate of 1.7 percent excluding the costs of replenishing the army stocks and the disengagement costs) it will not be possible to increase civilian expenditure beyond the rate of population growth, and perhaps even less than that.

A large part of the repercussions of the war on defense expenditure—including replenishing supplies, which were depleted in the course of the hostilities—was deferred to 2007 and 2008, and hence is not yet reflected in recorded government expenditure.

Current transfer payments (mainly National Insurance benefits) rose by 3.1 percent in 2006 after an average annual decline of 2.3 percent in 2003 and 2004, and a small 0.8 percent increase in 2005. On a per capita basis transfer payments have fallen by 11 percent in real terms since 2002, offsetting most of their real rise in 2000 and 2001. As a share of GDP their decline was even steeper, and they returned to their level at the end of the 1980s. This counteracted the entire increase in their burden, which had grown in the second half of the 1990s and at the beginning of the present decade, constituting a key element in the rapid expansion of public expenditure, inter alia because of the effect of the influx of immigrants. Some National Insurance benefits rose in real terms in 2006: child and maternity allowances increased by 8.3 percent, disability benefits by 5.5 percent, and old age pensions by 3.4 percent. Concurrently, there was continued real erosion of expenditure on unemployment and income support, which have fallen by over 40 percent since 2002. The increase in child allowances in 2006 appears to flout the trend of trimming support for the working-age population which is not in work. Although most of the increase reflects the implementation of the decision that part of the cut in child allowances in previous years would be temporary, there was mounting pressure to increase these allowances as a means of alleviating poverty, partly because the government had not developed alternative instruments for focusing aid on low-income families whose members were working.

On a per capita basis, real transfer payments have fallen since 2002 by 11 percent.

Expenditure on unemployment and income support has fallen more than 40 percent since 2002.

The policy measures introduced since 2002 have increased inequality in income distribution, at least in the short term.

The policy measures introduced since 2002 have increased inequality in income distribution, at least in the short term.[29] Although the extent of acceptable inequality is primarily a socio-political issue, it also has economic implications which have to be dealt with. One of these is in the area of social mobility: if inequality prevents people from low socio-economic strata and their children from acquiring the human capital that is commensurate with their abilities, this impairs economic efficiency to an extent which goes beyond social preferences.[30] Another implication is for the credibility of the fiscal policy path. In a society in which a large part of the population perceives poverty and/or inequality as undesirable, an increase in them—and in public awareness of this—increases pressure on the government to act to reduce them. If the government does not develop efficient tools to contend with this problem, the build-up of political pressure could lead to the adoption of readily available policy instruments, even if they are not the most efficient. In the case of Israel, this could, as stated, find expression in the reversal of the policy measures adopted in the last few years, thus reverting to the path involving a rapid rise in transfer payments to the general population; the increase in some of the benefits paid to the working-age population in 2006 may indicate that this is precisely what is happening.

If the government does not develop efficient tools to alleviate poverty, the build-up of political pressure could lead to the adoption of readily available policy instruments, even if they are not the most efficient.

The likelihood that social gaps will impel the government to increase benefits which are not dependent on work is particularly great if the declared policy is to act to improve the situation of individuals in the lower socio-economic strata by means of the labor market, while in effect many workers are unable to escape from poverty—a situation which according to several indicators has characterized Israel in the last 15 years.[31] Thus, from 2004 to mid-2006—a period of rapid expansion—the incidence of poverty among families with at least one wage-earner rose from 10.8 to 11.9 percent, and among families with one wage-earner it rose from 20.8 to 22.6 percent. One way of coping with the problem of poverty in the working population is by means of policy measures which focus on extending assistance to those groups which the state wishes to help—individuals from low socio-economic strata who are in the labor market.

From 2004 to mid-2006—a period of rapid growth—the incidence of poverty increased among families with one wage-earner from 20.8 percent to 22.6 percent.

[29] For a detailed analysis of these effects, see Chapter 8 below, and also Leah Achdut, Miri Endblatt, Zvi Zussman, and Rafaela Cohen (2005), 'Social Aspects of the State Budget, 2001–2006,' paper presented at the First Annual Conference on the Economic and Social Program, the Van Leer Institute (Hebrew). That analysis does not take into account the effect of the capital gains tax which was introduced in 2003.

[30] Unfortunately, the available data do not answer the question regarding the extent to which this subject constitutes a problem in Israel. A study which examines this subject for the 1983–1995 period shows that over a ten-year period about two-thirds of the population defined as poor emerges from poverty, but the rate is lower for adults with a low level of education, and among Arabs (even adjusting for the effect of education) it is significantly lower. See Moshe Shaio and Michael Vaaknin (2000), 'Continuing Poverty in Israel: Initial Results from the Paired File of the Population and Housing Censuses, 1983 and 1995,' in Towards a New Welfare State in Israel, Maurice Falk Institute of Economic Research (Hebrew). Zussman and Romanov find that the mobility of persons from a low income to a higher one in Israel is similar to that in other countries. N. Zussman and D. Romanov (2000), 'Mobility in Income from Individual Effort and Employment in Israel, 1993–1996,' Economic Quarterly 47(4), 566–596, December (Hebrew).

[31] See the Israel Democracy Institute (2006), 'From Welfare to Work: Economic Policy to Stimulate Economic Growth and Recovery,' Policy Studies 62, July (Hebrew).

Israel spends less than the developed countries on programs to actively encourage employment.[32] Assistance of this kind, in combination with a plan to increase the wages of low-income workers via a government grant (earned income tax credit), could conceivably constitute a new policy instrument making it possible to direct government aid to low-income workers and reduce the risk of returning to the policy of the decade which preceded the 2003 economic stabilization plan.[33] However, for a program of this kind to be effective it must be introduced with a significant budget and formulated so as to ensure that most of its budget reaches the target group.[34]

Another difficulty in establishing the changes in welfare policy of the last few years stems from the fact that making the conditions for aid more stringent applies to all clients of the welfare services, as Israel does not yet have a system that can reliably distinguish between those who can work and those who choose not to. Developing systems that can make this distinction as efficiently as possible, as has been done in some developed countries in the last decade, could improve the substitutability between guarding the public purse and fiscal stability, on the one hand, and the desire to extend aid to those who genuinely need it, on the other. In the last two years the Mehalev ("Wisconsin") program, which has been introduced in Israel on a trial basis, has aimed at improving this ability by helping the working-age population to find work, but it is too soon to tell if the experiment has succeeded. Meanwhile several changes have been made in the system in order to help participants and bring its characteristics closer to those in other countries.[35]

Israel spends less than the developed countries on programs that actively encourage employment.

The contribution of fiscal policy to sustainable economic growth and public welfare depends not only on the size of the deficit and the size of public expenditure but also, to a great extent, on the efficient allocation of budgets intended to correct market failures in the supply of public goods, as well as on measures which support increased productivity, and on changes in income distribution in accordance with social values. Since the decision regarding the composition and size of expenditure must reflect the public's preferences and values, and excessive public expenditure could have an adverse effect on economic activity by increasing the tax burden and the public debt, the priorities determined by the government in its budget proposal are very important.

The contribution of fiscal policy to sustainable economic growth and an improvement in the level of welfare depends not only on the size of the deficit and the extent of public expenditure but also on the efficient allocation of budgets.

[32] See A. Brender, A Peled-Levi, and N. Kasir (2002), 'The Government's Policy and Labor-Force Participation Rates of the Prime Age Population—Israel and the OECD countries in the 1990s,' Bank of Israel Review 74, November (Hebrew), and the International Monetary Fund, 'Active Market Policies' in Israel: Selected Issues, country report 05/134, April 2005.

[33] For a discussion of the possible effects of an 'earned income tax credit' program in Israel, see: A. Brender and M. Strawczynski (2006), 'Earned Income Tax Credit in Israel: Designing the System to Reflect the Characteristics of Labor Supply and Poverty,' Israel Economic Review, 4 (1), April.

[34] The government decision of February 2007 states that as of 2007 an earned income tax credit program will be introduced in Israel, as will a program to share in the cost of day care centers for low-income families with two wage-earners. However, the earned income tax credit program will be introduced gradually, so that only in 2010 will it cover the entire country and provide aid amounting to NIS 750 million a year. The extent of expenditure for the years before 2010 has not been set.

[35] For a detailed account of the Mehalev Program, see Chapter 5 in the Bank of Israel's Annual Report for 2005.

The government has refrained to a considerable extent from making decisions which significantly alter the priorities of civilian expenditure, as is expressed in the overwhelming share of 'across-the-board cuts' in the adjustments made to the budget.

Developments in 2006 underscored the need to set priorities. After three years of expansion and a marked improvement in the budget aggregates, in its policy guidelines and initial measures the new government highlighted the importance of tackling social inequality, which had been buttressed as a result of the fiscal policy of the last few years. However, the Second Lebanon War once again placed defense needs at the top of the public agenda, leading to a marked increase in requirements in this sphere. The government chose initially to raise the upper limit on expenditure for the next two years, as the expenditure which was decided on—replenishing the IDF's stocks—is one-off and exceptional, but the government concurrently set up a team to examine the size of the defense budget needed in the next few years. If the team's recommendations from the defense standpoint involve increasing expenditure the government will have to decide on its priorities between increasing risks in the areas of defense, social welfare, or the macroeconomy, e.g., by expanding expenditure and tax rates.

Even after the decisions about the budget framework and its allocation between civilian and defense expenditure have been made, the government plays an important part in determining priorities regarding the use made of the amounts allocated in each area. The problematic nature of the limited civilian supervision of defense expenditure assumed prominence in 2006, and it is possible that greater exposure of the strategic components of the defense budget to entities outside the defense system could help to improve decision-making processes. Concomitantly, the government has also refrained to a considerable extent from making decisions which significantly alter the priorities of civilian expenditure, as is expressed in the overwhelming share of 'across-the-board cuts' in the adjustments made to the budget. An ex post examination of priorities in the composition of public expenditure, as indicated by the development of government spending in the last few years, shows that despite the major changes in its extent—a rapid rise until 2002 and subsequent decline—its composition (excluding interest) has hardly altered since the late 1990s (Table 6.7). Although the share of one component or another occasionally changes for short periods, as a result of exceptional developments such as the security situation in 2001–2003 or the increased share of National Insurance benefits in 2001, over the course of several years the composition remains fairly stable. In particular, the share of expenditure on education and health, areas which are often cited as requiring greater priority, has hardly altered throughout the period.[36] This does not necessarily attest to the need to increase spending in these areas, and certainly not before appropriate plans have been developed for improving their efficiency, but rather indicates that there is some inconsistency between pronouncements about priorities and actual budgetary allocations.

Despite great changes in the size of public expenditure—rapid growth up to 2002 and decline thereafter—its composition (excluding interest) has hardly altered since the late 1990s.

One of the factors restricting the ability to change the composition of government expenditure is the short-term view taken when deciding on the budget framework.

One of the factors restricting the ability to change the composition of government expenditure is the short-term framework in which decisions about the budget are made. Since each year there is considerable inflexibility regarding the components of the budget, when expensive reforms are considered they encounter the barrier of lack

[36] For a detailed discussion of the problematic nature of the analysis of expenditure composition see Chapter 3 in Bank of Israel, Annual Report, 2004.

Table 6.7

Composition of General Government Expenditure by Type of Expenditure[a], 1999–2006

(percent of total government expenditure, excluding financing expenses)

	1999	2000	2001	2002	2003	2004	2005	2006
A. Public items								
1. Defense	19.2	18.6	18.2	19.7	19.2	18.4	18.7	19.1
2. Government services[b]	9.1	8.9	8.9	9.1	9.7	9.6	9.9	9.8
B. Welfare expenditure								
Total welfare expenditure	61.3	62.4	63.2	61.3	61.4	61.3	61.6	60.8
1. Education	17.5	17.8	17.8	17.4	17.3	17.5	17.3	16.8
2. Health	12.0	11.7	11.5	11.3	11.7	11.6	11.9	12.2
3. Housing and community services[c]	2.6	2.0	2.2	2.0	2.1	1.7	2.1	2.0
4. Sport and religion	2.9	2.9	2.8	2.6	2.5	2.6	2.6	2.4
5. Social insurance and welfare[d]	26.4	28.0	28.9	27.9	27.8	27.9	27.7	27.4
C. Economic services[e]								
Investment in transport infrastructure[f]	1.7	1.7	1.5	1.9	2.2	2.4	2.4	2.5
Other[g]	6.6	6.3	6.1	5.7	5.2	5.8	4.7	5.2
D. Quality of environment	2.1	2.1	2.1	2.3	2.4	2.6	2.6	2.5

[a] This table is based on Central Bureau of Statistics calculations following the definitions used in the National Accounts. Expenditure in each item includes current expenditure and investment.

[b] Including general administration, foreign relations, public order, police and justice.

[c] Including mortgage subsidies.

[d] Including transfer payments to households and welfare services.

[e] Including economic administration, agriculture, forestry, fisheries, quarries, manufacturing, construction, electricity, gas, water, roads, transport, communications, and the subsidy component in loans to the business sector, and general research.

[f] Including investment in construction of roads, in the railways, seaports and airports. Investment in roads does not include investment by Derech Eretz Highways Ltd.

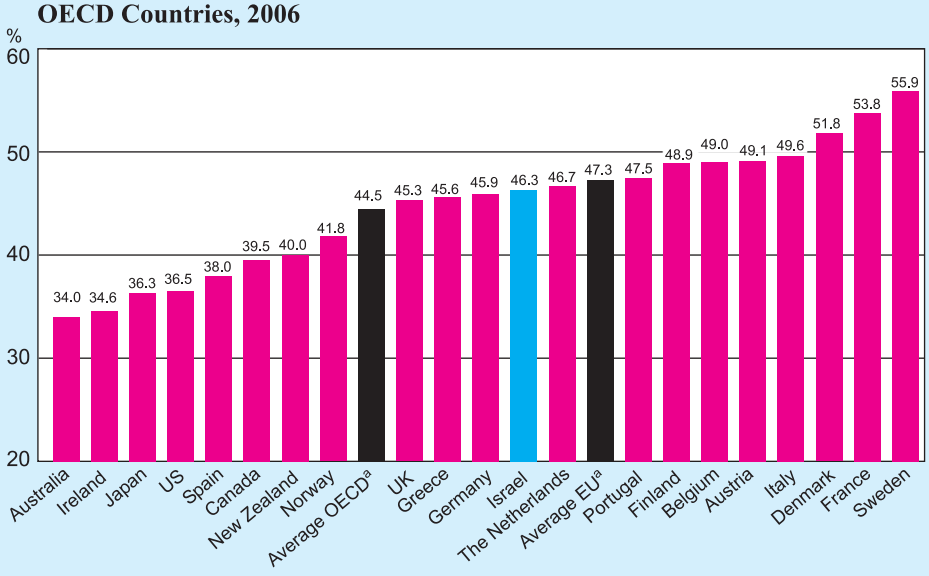
[g] Including subsidies of public transport, agriculture and domestic production, transfer payments on the capital account, the Industry Research Fund, and fuel subsidies.

SOURCE: Based on Central Bureau of Statistics data.

of available funds because the purpose of large segments of the budget has already been determined for the coming year. A long-term budget framework, alongside long-term plans in several strategic spheres, would provide greater flexibility, as a large part of the expenditure determined in the short run can be gradually reduced over longer periods, thereby making it possible to divert sources to other purposes without breaching the budget framework.

The decline in the public expenditure/GDP ratio in recent years markedly narrowed the gap which had emerged between Israel and the developed countries in the previous decade (Table 6.5). In eight of the twenty countries in the reference group the public expenditure/GDP ratio is higher than Israel's, while in another four it is similar (Figure 6.2). Part of Israel's defense expenditure (about 2 percent of GDP) is financed on a

Figure 6.2
Share of General Government Expenditure in GDP; Israel and OECD Countries, 2006



[a] Arithmetic mean of the OECD/EU countries shown in this figure.

SOURCE: Based on OECD and Central Bureau of Statistics data.

permanent basis by the US government, and this further narrows the gap. One of the implications of Israel's level of expenditure, alongside the significantly greater defense burden than is the case in other developed countries, is that the extent of available resources for civilian public spending is smaller in Israel. Nevertheless, as regards Israel's attractiveness on a global level, its defense expenditure—however justified—does not enable general government expenditure to be increased without impacting on the economy's competitiveness, because Israel's defense expenditure buys a product—security—from which countries which compete with it benefit without incurring any budgetary outlay.

Though total expenditure on public consumption in Israel and the OECD countries rose by fairly similar rates in the past decade, the availability of services increased in those countries but not in Israel.

Real per capita public consumption in Israel has not changed in the last decade, indicating that the quality and quantity of services has been static, while in the OECD countries it has risen by 1.8 percent a year (Table 6.4). On the other hand, the relative price of the public services has risen more quickly in Israel than in those countries, even though wage restraint in Israel reduced the gap in recent years.[37] As a result of this, even though total expenditure on public consumption in Israel and the OECD countries rose by fairly similar rates (in terms of the GDP deflator), the availability of services increased in those countries but not in Israel.[38] This comparison underlines the

[37] The price of public expenditure relative to that of GDP in Israel rose by an average of 2.5 percent a year throughout the period, compared with less than 1 percent in the OECD countries. However, in the last five years Israel's growth rate has been only 1 percent.

[38] The public consumption/GDP ratio in Israel declined by 1 percent over the period, and by 0.6 percent in the OECD countries.

importance of increasing the efficiency of the public services as a tool for containing the expansion of public expenditure. In the long run the government cannot base the reduction of its expenditure/GDP ratio on a lower rate of increase in the wages of its employees than in those in the business sector. This is particularly the case because the level of wages in the general government is the same at present (according to the characteristics of employees) as it is in the business sector.[39] Consequently, the government must develop instruments which will enable it to increase its operational efficiency at rates that are as close as possible to those in the business sector, so that the demand for an increase in public services will be met by more efficient factor utilization. An alternative method could be by transferring a growing share of the supply of services to the private sector by means of competitive tenders (outsourcing), while the general government finances them. However, attaining savings via these processes depends to a great extent on the success of the civil servants who are responsible for the tenders in conducting them in such a way as to bring about genuine savings and impose the terms of the tenders—a result which is by no means guaranteed. The developments of the last decade in Israel do not point to a significant increase in the resort to outsourcing, as the distribution of expenditure on civilian public consumption between the wages of general government employees and purchases from external entities has remained virtually unchanged.[40]

Developments in the past decade in Israel do not point to any significant increase in outsourcing in the public sector.

Processes for improving the efficiency of the services provided directly by general government can be based, as is the case in other countries, on greater utilization of computers to reduce the public's need to attend government offices in order to obtain services, but in those cases care should be taken to ensure that this does indeed give rise to the savings in manpower and floor-space that technology allows. It is also possible to make savings and ease the burden on the public by combining duplicate tax administrations, such as income tax, National Insurance payments, and the TV license fee. This can be done even without having to combine these tax rates. Since, however, most of the expenditure on public consumption is in the areas of defense, education, and health, reforms which will increase the efficiency of their core activities will be crucial for maintaining the budgetary framework while improving the quality of their services.[41] Since these reforms generally require considerable time to plan and implement, the government would be well advised to present clear long-term working plans for attaining this objective in order to entrench the credibility of its fiscal targets in the long term and allay fears that the demand for increased public services will be met by deviating from these targets.

[39] A comparison of the hourly wage in the general government and the business sector, taking education, age, and other demographic factors into consideration, does not produce any difference between the two sectors since the late 1990s. In the last few years new workers in the general government are not entitled to an unfunded pension either. For a detailed comparison, see Brender and Gallo (2007), op.cit.

[40] This share was 58 percent in 1995 and 55 percent in 2006.

[41] For a discussion of possible reforms in the health system, see Chapter 8 below. Possible reforms of the education system are discussed in Chapter 8 of the Bank of Israel's Annual Report for 2004, and other reforms in Box 6.3 of the Annual Report for 2005.

One of the spheres in which there is significant potential for increased efficiency in the general government is that of the local authorities. There are currently more than 260 local authorities in Israel, and the government endeavors to closely monitor the activities of each and every one of them. The laws and regulations which apply to the local authorities require permits to be obtained from the various arms of central government for both minor and major activities, and naturally in actual fact such close supervision is not feasible. In addition, the existence of formal supervision makes it possible for some heads of local authorities to abdicate responsibility for mishaps which come to light in their area. Since many of the local authorities—in particular, most of the large ones—are run in a satisfactory manner, they can be given most of the power needed to supply the requisite services to their residents, while at the same time deciding on the level of municipal tax rates required to finance this, subject to the provisions of the law. 'Releasing' these local authorities will free the resources of the supervisory bodies in the Ministry of the Interior to deal more intensively with those authorities (mainly small ones) which are not well run and do not supply their residents with the services to which they are entitled, and in some cases do not even pay their employees. At the beginning of 2007 the Minister of the Interior announced his intention of acting to this end. Implementing and expanding this policy can make an immense contribution to increasing the efficiency of this segment of general government, which is responsible for one fifth of primary civilian public expenditure (Table 6.A.9).[42]

Since many of the local authorities—in particular, most of the large ones—are run in a satisfactory manner, they can be given more power to manage their affairs.

3. THE PUBLIC DEBT AND THE FINANCING OF THE DEFICIT

a. The gross public debt and the debt/GDP ratio

The public debt to GDP ratio plummeted by 9 percentage points in 2006 to reach 87.8 percent at the end of the year.

The public debt/GDP ratio plummeted by 9 percentage points in 2006 to reach 87.8 percent at the end of the year. About 98 percent of the public debt is government debt, and the rest is the debt of the local authorities,[43] which remained at the same level as in 2005. The government debt/GDP ratio also fell steeply in 2006 and stood at 85.7 percent at the end of the year, its lowest rate in the last decade except in 2000 (Table 6.A.18). The decline in the debt encompassed both the internal debt, which is held by residents of Israel and dipped by 3.2 percent, and the external debt, which is owed to nonresidents and fell by 1.8 percent, due to the local-currency appreciation against the dollar.

[42] For a detailed account of the plan to disperse authority to the strong local authorities and reinforce supervision of the weaker ones, see E. Razin and A. Brender (2004), Reforming Local Authorities: Decentralizing the Deserving and equipping the Weak,' Israel Democracy Institute, position paper 55 (Hebrew).

[43] The debt of the local authorities both to the banks and in the form of bonds, less loans they received from the government via the banks.

In 2006, as in 2005, net domestic borrowing was negative and amounted to NIS 0.9 billion, about NIS 10 billion below the planned amount. In the nontradable debt there were surplus yields on issues of NIS 7.2 billion, in the wake of the reform of the pension funds, which went into effect in January 2004 and according to which issues of earmarked bonds will end once they constitute 30 percent of a fund's total assets.[44] On the other hand, net domestic tradable capital raised was positive in 2006, albeit amidst a decline in gross capital issued.

In 2006, as in 2005, net domestic borrowing was negative.

b. The composition of the debt

The internal debt/total debt ratio has remained essentially unchanged in the last decade, and stood at 74.3 percent at the end of 2006. Until 2000 the internal debt was in local currency while the external debt was in foreign currency. Globalization and the removal of restrictions on the foreign-currency market served to increase the share of residents' holdings of foreign-currency-denominated government bonds, bringing it to 5 percent of the total foreign-currency-denominated debt by the end of 2006, while nonresidents' holdings of local-currency government bonds rose concurrently, particularly at the end of 2006, when market makers began to operate (Box 1 in Chapter 4). These holdings amounted to 3 percent of the local-currency debt, compared with only 0.8 percent at the end of 2005.

Nonresidents' holdings of government bonds in Israeli currency amounted to 3 percent of the local-currency debt at the end of 2006, compared with only 0.8 percent at the end of 2005.

The most prominent feature of the debt in the last three years has been the increase in the share of issues of unindexed fixed-interest bonds, the globally most widely issued and traded debt instrument, making it the principal borrowing instrument, in the context of a low inflation environment. About 80 percent of total domestic (gross) tradable borrowing in 2006 was via this instrument, a 22 percentage-point increase over 2005 and a peak since it was first issued in 1995 (Table 6.A.19). However, the share of these bonds in total debt is low, and amounted to 18.2 percent in 2006, compared with 16.2 percent in 2005 (Figure 6.3), due to short-term issues in the initial years. In September 2006, when the first market makers began operating, the involvement of nonresidents in investments, and particularly in unindexed fixed-interest bonds,[45] increased also because the interest rate was expected to decline, alongside an increase in turnover and liquidity in the domestic market. The advantages of the unindexed fixed-interest debt are that it is a pre-set, known cash flow and helps to reduce indexation in the economy, thereby contributing to monetary stability.

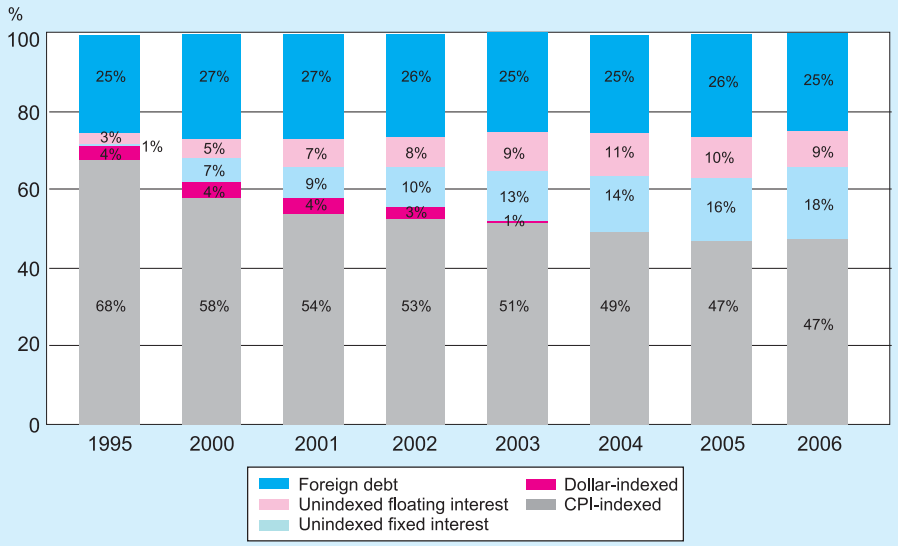
The most prominent trend in debt management in the last three years has been the increase in the share of issues of unindexed fixed-interest bonds.

The cost of borrowing was brought down by the process of disinflation until 1999 and the stabilization of prices since then, alongside the high level of fiscal restraint in the last few years, expressed in the reduction of net government and the decline in yields in Israel alongside that in yields abroad. The price of net domestic borrowing,

[44] Thus, the next issue is expected to take place in 2012. In addition, a fund must henceforth invest at least half its assets in tradable government bonds.

[45] The average holdings of nonresidents in Shahar bonds increased four-fold over the average in the preceding two years, to stand at $ 3 billion at the end of 2006.

Figure 6.3
Composition of Government Debt, 1995–2006



SOURCE: Based on data from Bank of Israel, OECD and Central Bureau of Statistics.

Since October 2004 there have been no bond issues in the framework of the US government guarantees, but the fact that they exist, and that their framework was extended till 2011, reduces the cost of borrowing on international markets.

Government issues in global markets play an important part in exposing Israel's economy to foreign investors, reducing dependence on foreign governments, expanding borrowing sources, and creating a series of benchmarks which help Israel's private sector to raise capital abroad.

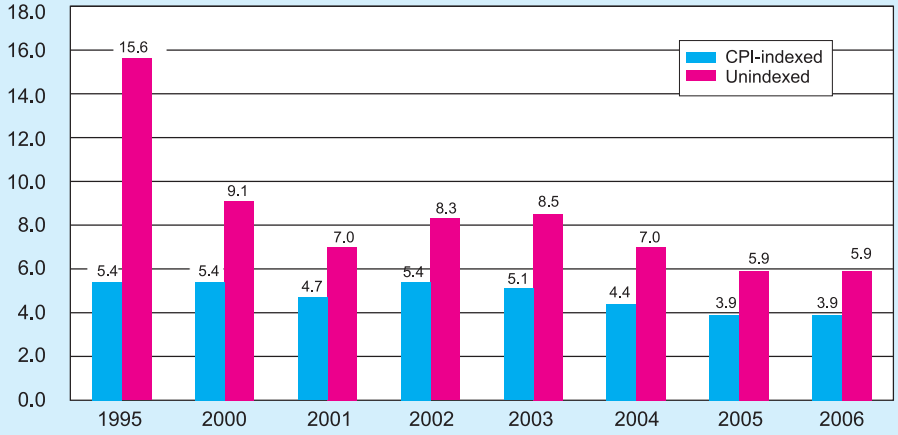
whether CPI-indexed or unindexed, was similar in 2005 and 2006 to its lowest levels in the last decade—3.9 and 5.9 percent respectively (Figure 6.4).

The vast majority of the foreign-currency debt is held by nonresidents. Its tradable part includes government bonds issued on international markets under US government guarantees (about 47 percent), and bond issues in the capital market not under the US government guarantee arrangement (about 13 percent). The nontradable part includes the State of Israel Bonds (about 32 percent), and loans from the governments of the US and Germany, as well as from foreign banks. Since October 2004 there have been no bond issues in the framework of the US government guarantees, but the fact that they exist, and that their framework was extended till 2011, reduces the cost of borrowing on international markets.

Government issues in global markets, apart from net borrowing, play an important part in exposing Israel's economy to foreign investors, reducing dependence on foreign governments, expanding borrowing sources, and creating a series of benchmarks which help Israel's private sector to raise capital abroad. Since 1995 there has been a free issue (without US government guarantees) of bonds on international markets at fixed interest every year. The spread of borrowing costs on 10-year issues from the benchmark yield on the issue day has declined since 2000 to stand at 64 basis points of the German interest rate in 2005 and at 98 basis points of the US interest rate in 2006.

Since 92 percent of the foreign-currency debt is denominated in US dollars, the government debt is exposed to currency risk which could harm the availability and

Figure 6.4
Price of Borrowing in Shekels, 1995-2006



SOURCE: Based on OECD and Central Bureau of Statistics

price of net government borrowing.[46] In 2006, as a result of ongoing local-currency appreciation vis-à-vis the dollar, the external debt, which rose by 6.5 percent in dollar terms, fell by 1.8 percent in shekel terms—the reverse of the situation in 2005, when the debt rose by 0.3 percent in dollar terms and by 7.2 percent in local-currency terms as a result of depreciation. The exposure of Israel's economy via issues abroad to foreign investors makes it advisable to vary the sources of the external debt and to reduce currency risk. Beyond currency variation, which is attained by issues in different currencies in order to gain exposure to different audiences, foreign investors are exposed to the Israel government's shekel borrowing. Furthermore, the use of foreign-currency financial derivatives such as swaps also reduces currency risk.

c. The term to maturity of the debt

The average term to maturity of the government debt is an index of its stability: the longer it is, the more stable is the perception of the debt and the financial position of the government, as a longer borrowing horizon allays fears of extensive debt recycling because of a temporary financial crisis in the market. The term to maturity of the issued debt is one of the indicators of investors' confidence in the government, although extending the term to maturity of the debt involves costs.

The term to maturity of the outstanding debt continued to fall in 2006 for the third year in succession, to stand at 6.5 years at the end of the year: the decline encompassed

[46] For a discussion of the government's exposure to the exchange rate, see: Y. Haim and R. Levy, 'Using the Balance Sheet Approach for Financial Stability Surveillance: A framework for Analyzing Exchange Rate Risk and its Application to Israel,' Bank of Israel, Financial Stability Area, Discussion Paper, January 2007 (Hebrew).

both the local-currency and the foreign-currency-denominated debts (Table 6.A.20), despite the rise in the term to maturity of the issued debt in the wake of negative net borrowing.

Following the reform of the pension funds, the term to maturity of the outstanding nontradable debt declined, and is expected to continue falling until the year 2012. The term to maturity of the tradable local-currency debt rose, on the other hand, because of the extended term to maturity of the debt in the unindexed fixed-interest component, which was offset to some extent by the initial issue of two-year bonds in March 2006. This bond is intended to efficiently manage the government's cash flow, and could reduce borrowing costs, as the shorter the term to maturity, the lower are the inflation risk and borrowing costs. In 2007 the government plans to issue unindexed fixed-interest bonds for terms of between two and four months, which will lead to greater flexibility in managing the government debt and further reduce borrowing costs as part of the change in the composition of the government debt.

The low government deficit, which reduced the government's borrowing requirement, and the steep drop in yields on bonds in the second half of 2006, alongside the decline in global yields, brought the government's financing costs down, creating conditions appropriate for the extension of the local-currency debt. Given the low inflation environment which has prevailed in Israel since 1999, the market's need for CPI-indexed bonds has declined, and the indexed debt is issued only for long-term saving needs. Until 2006:I CPI-indexed bonds were issued for terms of 10 and 20 years. In June 2006 a 30-year term series was issued for the first time, as is the practice in the US, Canada, Italy, and France. In the UK a 60-year CPI-indexed bond is issued. In November 2006 a 20-year unindexed fixed-interest bond was issued for the first time, providing an answer to entities undertaking long-term commitments, as is customary elsewhere in the world, thus contributing to the efficiency of Israel's capital market. The market yield on this bond was similar to that on 10-year unindexed bonds, attesting to the high credibility of fiscal and monetary policy.

The low government deficit, which reduced the government's borrowing requirement, and the steep drop in yields on bonds in the second half of the year, alongside the decline in global yields, brought the government's financing costs down, creating conditions appropriate for the extension of the local-currency debt.

4. GOVERNMENT BUDGET AND DEFICIT OBJECTIVE[47]

The government deficit for 2006 totaled 0.9 percent of GDP, as noted—under the ceiling of 3 percent set by the government, and one percent of GDP less than the deficit in 2005. The reduction in the deficit in 2006 reflects a sharp real increase in revenue

The government deficit in 2006 totaled 0.9 percent of GDP, below the ceiling of 3 percent set by the government, and 1 percent (of GDP) less than in 2005.

[47] This year's government budget does not present the compensation payments to civilians following the fighting in the north as an expense, but as a reduction of income. This is in accordance with a decision of the Finance Committee that receipts from Property Tax collected this year will be transferred to the compensation fund. The decision does not influence the size of the deficit, but only the reported level of income and expenditure. In order to maintain the consistency of the analysis with the presentation of the budget, the discussion in this section and the following section is based on the official presentation of the data; when relevant, however, reference will be made to the data in accordance with their economic substance. In the national accounting data, compensation payments are naturally presented as an expense.

of 5.7 percent, alongside a more moderate increase in expenditure—2.7 percent. Excluding the accounting offset for the transfer to the compensation fund, revenue rose by 7.1 percent, and income from taxation rose by 8.3 percent. Compared to the budget, the entire discrepancy between the deficit ceiling and the actual performance may be explained by the fact that revenue was higher than forecast in the budget, due in part to more rapid growth than was anticipated, and in part to one-off revenues on account of the Iscar transaction and the "conceptual sale" of assets at the end of 2005. Surpluses of the National Insurance Institute were also NIS 1.2 billion (9 percent) higher than forecast in the budget,[48] due mainly to the rapid increase in real salaries. Total expenditure, excluding the compensation payments as explained, was in accordance with the budget. However, a significant difference may be seen between the development of civilian expenses, which were substantially lower than in the original budget, and the development of the defense budget, which was substantially higher. The share of government expenses in GDP fell by 0.9 percent by comparison to 2005 thanks to the rapid growth in output; since 2003 this rate has fallen by 3.5 percentage points (Table 6.8). Following the increase in defense expenditure this year, almost the entire reduction in the share of expenses in GDP since 2003 has been in civil expenses; approximately one-fourth of this comes from interest payments.

Defense spending was about NIS 7 billion higher than in the original budget, while civilian expenditure was about NIS 6 billion (or 4.7 percent) lower than budgeted, a similar gap to the previous year.

While total government expenditure this year was in line with the budgeted figure, this outcome reflects the impact of the war in the north on budget implementation. Defense expenditure was approximately NIS 7 billion higher than the original budget,[49] while the expenditure of the civilian ministries was NIS 6 billion (4.7 percent) lower than the budgeted amount, a similar gap to that recorded in the previous year (Table 6.9). These figures reflect the ongoing phenomenon of low expenditure relative to the budget that has emerged since mid-2003; this year, this phenomenon provided a safety valve enabling the increase of defense expenditure without breaking the expenditure ceiling. The impact of the fighting and the defense expenditure on the course of expenditure this year is evident when the year is divided into halves: During the first half, expenditure was lower than the expected course in accordance with the budget framework and the seasonal distribution of expenditure, by some NIS 3.5 billion (including adjustments on account of the delay in approving the budget). In the second half, by contrast, expenditure was higher than the course by the same amount and, as noted, the composition of expenditure differed from that in the budget. As has been the case in election campaigns in Israel over the past decade, there were no signs this year that government expenditure was increased in an exceptional manner during the period prior to the elections.[50]

[48] For an explanation of the recording of the activities of the National Insurance Institute in the government budget, see Box 3-3 in the analogous chapter of the Bank of Israel report for 2002.

[49] Adjusted to expense items that are not included in the defense budget in the presentation of the budget but are included therein in the implementation data.

[50] For discussion of the connection between election campaigns and government expenditure, see Box 6.4 in the Bank of Israel Annual Report for 2005.

Table 6.8
Central Government Deficit,[a] Revenue and Expenditure, 1998–2006

(percent of GDP)

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Government domestic deficit ceiling[b]	2.6	4.0	2.8	0.5	4.1	2.3	3.4	2.8	2.0
Actual government domestic deficit	2.7	2.7	0.5	3.4	3.4	5.2	3.1	1.1	0.2
Overall government deficit ceiling[c]	2.8	3.1	3.6	1.8	3.9 4	3.0	4.0	3.4	3.0
Actual overall government deficit	3.1	3.2	0.7	4.4	3.8	5.4	3.7	1.9	0.9
Total revenue, net[e]	**35.9**	**37.0**	**35.2**	**33.6**	**34.5**	**32.5**	**32.8**	**33.4**	**33.6**
Taxes and imposts	28.4	28.5	29.7	29.6	28.8	27.7	27.8	28.0	28.3
Interest, profits, royalties, revenue from land sales	2.1	1.8	1.6	1.2	1.3	1.0	1.1	1.3	1.0
Realized Bank of Israel profits	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loan from NII	1.4	1.3	1.4	0.8	1.5	1.8	2.0	2.1	2.2
US government grants	3.1	2.5	2.3	2.0	2.9	2.0	1.9	2.0	2.1
Total expenditure, net[e]	**38.1**	**37.3**	**35.8**	**37.8**	**38.1**	**38.0**	**36.4**	**35.4**	**34.5**
Of which: Interest, repayment of principal to NII, and credit subsidy	7.0	6.6	6.6	6.7	6.5	7.4	7.0	6.8	6.6
Defense expenditure, net	8.9	8.4	8.1	8.6	9.3	8.7	8.3	8.3	8.5
Total primary expenditure excl. defense	22.2	22.2	21.0	22.5	22.4	21.9	21.1	20.3	19.3

[a] Revenue and expenditure in 2006 do not include NIS 3 billion transferred to the Compensation Fund and paid as compensation to the public for damage due to the war in the north.

[b] The difference between the planned and the actual deficit includes 0.15 percent of GDP revenue which are recorded as domestic revenue when the budget is being prepared, but as foreign revenue in expenditure data.

[c] From 2001, the deficit ceiling specified by law.

[d] The target set in the middle of 2002. The target set when the budget was approved by the Knesset (parliament) was 3.0 percent of GDP.

[e] Excluding expenditure contingent on revenue, and revenue used to finance contingent expenditure.

SOURCE: Based on the National Budget Summary and Central Bureau of Statistics data.

The low rate of expenditure of the civilian ministries relative to the budget, which was again seen this year, is probably the result of the hundreds of decisions made to change the composition of the budget, and of changes to the laws and regulations determining the operation of the ministries adopted since mid-2003. The result has been the creation of surpluses in some expenditure items in the budgets of the ministries; in order to use these funds, they must be transferred to other items. Since the number of budget items in each ministry and unit is large, and many of the internal transfers require authorization from the Ministry of Finance (or, in many cases, its agreement to seek the authorization of the Knesset Finance Committee), the rate of expenditure is slowed.[51] Moreover, the determination not to deviate from the deficit

[51] For an international comparison relating to the number of budget items in Israel, see A. Ben-Bassat and M. Dahan (2007), The Balance of Power in the Budgeting Process, Israel Democracy Institute (Hebrew).

Table 6.9
Components of Deviation from the Original 2006 Budget

		2006		
	2005 Actual	Original budget	Actual	Difference between budget and actual
	(NIS billion, net, excluding credit)			
Deficit (–)	-11.0	-17.2	-5.5	11.7
Domestic	-6.3	-11.2	-1.6	9.6
External	-4.7	-6.0	-3.9	2.0
Revenue	195.3	198.7	210.6	11.9
Of which: Domestic	181.5	187.0	195.7	8.8
Taxes[a]	163.1	169.2	177.3	8.1
Loan from NII	12.4	12.4	13.6	1.1
Other[b]	7.7	5.5	6.2	0.7
US government grants	11.5	11.6	13.4	1.8
Expenditure[a]	206.2	215.9	216.1	0.2
Domestic	187.8	197.0	197.3	0.3
Abroad	18.4	18.9	18.8	-0.1
Defense[c]	51.6	46.6	53.5	6.9
Interest, repayment to National Insurance and credit subsidy	39.6	42.2	41.5	-0.7
Civilian ministries and transfer payments[c]	115.0	127.11	121.1	-6.0

[a] Including VAT on defense imports. Not including NIS 3 billion transferred to the Compensation Fund.

[b] Income from interest, land sales, royalties, dividends, and other income.

[c] NIS 3.7 billion included in the budget reserve in the budget book and NIS 1 billion budgeted in the Prime Minister's Office for the disengagement from Gaza are shown here in the original budget column as part of the defense budget.

SOURCE: Based on data of the Accountant General regarding the performance of the 2006 budget.

objective means that these transfers are approved only at the end of the year, when it emerges that the level of income enables compliance with the deficit objective, or, as was the case in 2006, when it emerges that expenditure is not required in other items. By this stage, however, it seems that the ministries found it difficult to spend some of the delayed sums. This process was reflected in 2004 and 2005 in a high percent (over 14 percent) of annual expenditure incurred by the civilian ministries in the month of December. This year, this figure fell to 12 percent, probably because part of the funds accumulated in the budgets of these ministries was frozen in order to enable the increase of defense expenditure while maintaining the expenditure ceiling. This modality of action impairs the operational efficacy of the government; the rapid execution of expenditure toward the end of the year on the basis of the accumulated unused sums leads to the inefficient use of resources.

Rushed government spending at the end of the year, based on the underutilized sums accumulated, leads to inefficient use of resources.

Control of expenditure is extremely important in maintaining the expenditure ceiling and the deficit objective as set by the government. However, this process should be implemented in a more transparent manner. It is important to emphasize that the partial expenditure of amounts included in the budget is not contrary to the Budget Law, which establishes expenditure ceilings detailed according to ministries, units, and actions. There is no logic in spending the full allocation by an entity that does not require this amount. At the same time, however, the size of the shortfall between the budget of the civilian ministries and actual implementation in recent years may reflect deficiencies in the budgeting process. If budgets are allocated to items where they are not required, or where those responsible for execution cannot use them, it may be that it would have been better not to allocate these sums from the outset, so that the budget could more accurately reflect the expected behavior and priorities of the government. A significant component in enhancing transparency during the presentation of the budget to the Knesset and the government is the summary of the reserve items included in the budgets of the various ministries (as distinct from the budget reserve item presented separately during the presentation of the budget, of which only small sums generally remain by the time the budget is approved). In the 2007 budget, for example, these items totaled over NIS 4 billion. The unfreezing of much of this amount depends on macroeconomic developments such as the rate of increase of prices, the forecast for which may vary between the date of initial preparation of the budget and the date of its approval. The summarized reporting of budget items that have a low level of utilization on an ongoing basis could also help the decision makers on the political level to reach more informed decisions regarding the structure of the budget.

Disclosing the reserve items in individual government ministries when presenting the budget would increase transparency.

One of the areas in which government involvement in economic activity is particularly important is the field of infrastructure, and particularly transport infrastructure. After a long period during which government expenditure in this field was lower than required, expenditure in this area has risen substantially in recent years; in 2006, the figure maintained the high level attained in 2005. According to the budget, investments in transport were expected to increase further in 2006; however, due to difficulties in implementation by the relevant agencies, and the changing priorities following the war in the north, a sum of approximately NIS 1 billion was cut from these investments. The investment in transport infrastructure is based mainly on companies and government agencies financed from the government budget or subject to its inspection. In recent years, a significant effort has been made to base the government's undertakings in the field of transport on long-term plans by signing a financing agreement with Israel Rail; approving a long-term plan for investment in roads; and signing an agreement to end the subsidizing of the Egged bus company over a period of ten years, alongside the opening of some of the lines it currently operates to competition. Over the coming years, however, investments will be required on a larger level in order to adapt the infrastructure to meet the needs of the economy. With

After years where government spending on infrastructure was lower than required, this expenditure has increased considerably in recent years.

this in mind, it is important that the government include in long-term planning the expected expenditure for assistance in additional important projects, such as the light rail projects in Tel Aviv and Jerusalem.[52]

5. TAX REVENUE

Government revenues from taxes in 2006 were NIS 11 billion (or 6.5 percent) higher than budgeted.

Government tax revenue in 2006 was NIS 11 billion (6.5 percent) higher than forecast in the budget (when the accounting transfer to the compensation fund is included in income), despite the fact that during 2006 Value Added Tax rates were reduced in a manner that cut revenues by approximately NIS 1.5 billion in comparison to the original forecast. The increase in tax revenue above the original forecast was possible due to exceptional one-off income of NIS 5 billion, and to a higher growth rate than was forecast in the budget, contributing approximately NIS 4 billion to surplus income. The remainder of the discrepancy may be explained by the growth in GDP, positive developments in the financial sector, and the enhanced efficiency of collection. The substantial discrepancy between actual tax revenue and the budget forecast this year once again underscores the inherent uncertainty of tax forecasts, due mainly to the difficulty in anticipating the macroeconomic variables that influence revenue; this difficulty exists even when the economic connections between the variables and income are known. Alongside the aspiration to provide as precise macroeconomic forecasts as possible, it may be that during the decision-making process relating to the budget, the risks accruing from the difficulty in accurately forecasting these variables should also be presented, so that the decision makers can determine the direction and strength of the risks they are willing to take in reaching their decisions (Box 6.1).

Box 6.1
Analyzing uncertainty in tax revenue forecasts

The forecast of tax revenues is a central component in preparing and analyzing the national budget. Until recently the Ministry of Finance's forecasts were based on simple models which assumed unitary elasticity of income vis-à-vis real GDP (Budget Books, 1992–2000), adjusting for the influence of legislative changes, and sometimes supplemented by an estimate of the effect of efforts to enhance tax collection. In the last few years the analytical framework has been

[52] For detailed discussion see the Transport and Communications section, Chapter 2.

expanded, and the models have focused on point estimates of revenues. These models are better able to explain tax revenues ex post, but the question arises whether they are an effective tool for predicting revenues, because forecasts of revenues (adjusted for legislative changes) include two kinds of error: the forecasting error inherent in the actual model and the error in predicting the variables in the model on which the revenue forecast is based. The second element is less important for ex post analyses of revenues but is crucial in making forecasts.

In the last decade the subject of forecast risk has been discussed in the macroeconomic and financial literature, stressing the analysis of the distribution of expected values of the dependent variable and the forecast risk. The best known example of this is in the fan chart of the Bank of England, which presents the central bank's model of inflation not only in terms of a point estimate but also in those of the probability distribution of the point forecast error at various densities.[1] This is because the 'price' of deviations in different densities and directions is not necessarily symmetrical, and it is therefore important to understand the risks to which users of forecasts are exposed. This rule also applies to forecasts of tax revenues. A forecast that presents only a point estimate does not make it clear to policymakers that they are exposed to the risk that actual revenues will deviate from the predicted path, and this could lead to a fiscal crisis. If, for example, the costs of large deviations are significantly greater than those of small errors, or the damage resulting from a shortfall in revenues is greater than that of a surplus, policymakers may choose to introduce measures intended to reduce the probability of errors of that kind even if the point estimate does not indicate any problem in attaining the budget targets.

An example of an analysis of this kind may be derived from the Bank of Israel's tax model.[2] The model uses quarterly data for the 1991–2005 period, estimating the long-term relation between GDP and tax revenues and the deviations from the long-term relations between the variables that reflect the principal tax bases—wages and imports—and GDP. The model also includes estimates of activity in the housing market and variables reflecting the activity of the financial sector, using them to produce an annual forecast of tax revenues adjusted for legislative changes. The model explains 98.5 percent of the variance of tax revenues adjusted for legislative changes: the long-term relation between

[1] For a more extensive discussion, see: K.F. Wallis (2004a). 'An Assessment of Bank of England and National Institute Inflation Forecast Uncertainties,' The National Institute Economic Review, No. 189 64–7; M. Clements (2004). 'Evaluating the Bank of England Density Forecast of Inflation,' The Economic Journal, No. 114, 844–66.

[2] A. Brender (2001). Estimates of the Tax Revenue Function in Israel, Discussion Paper February 2001, Bank of Israel, Research Department (Hebrew).

GDP and tax revenues explains 89 percent of the variance, and the rest is explained by the short-term relations between tax revenues and the various tax bases. Table 6.1.1 shows that the ex post precision of the model is very high: in the 2000–2006 period the absolute deviation of the forecast did not exceed NIS 1.4 billion (one percent of actual revenues), and the average absolute deviation was only NIS 738 million (about half a percent of revenues)—much lower than one standard deviation of tax revenues without legislative changes.

Using the Bank of Israel's 'inflation fan' method and the fan chart developed by the Bank of England, the probability distribution of forecast error in tax revenues was calculated on the basis of the Bank of Israel's tax model. Since the tax model explains the development of tax revenues with considerable accuracy—when the explanatory variables are already known—the distribution was calculated on the assumption that the empirical model was reliable and the values of the explanatory variables were the source of uncertainty. This uncertainty stemmed from the fact that in most cases the values of the explanatory variables are not known at the time the forecast is prepared but are based on predictions. Additional uncertainty derives from the relations between the explanatory variables. Uncertainty is calculated in this technique by means of the matrix of variances and covariances of the explanatory variables included in the tax model, taking errors in predicting these variables into consideration. The matrix was calculated using the historical data for the 1991–2005 period. In this way the fan chart presents the risks embodied in the forecast and not just the actual forecast. The estimation of the error in predicting the explanatory variables was based on the forecasts of the variables actually used in preparing the budget in the various years. Thus, for example, it was forecast GDP—the variable with the principal explanatory ability in the model—that featured in the national budget until 2002 and in subsequent years in the forecast published by the Bank of Israel when the budget was presented to the Knesset. For the variables that were not predicted directly in the years before the tax model was developed we substituted predictions calculated on the basis of the formula used to predict those variables in subsequent years.

A comparison of the forecasts obtained in this way shows that the average absolute error of the model in the 2000–06 period was 3.3 percent of total revenues (Table 1). The three variables whose contribution to the forecast error was the greatest were the mergers and issuances to parties at interest abroad, credit that was indexed to foreign currency, and sales of new homes. According to the model and the forecast values of the explanatory variables, the expected level of tax revenues in 2007 is NIS 182 billion. The probability that tax revenues will fall below the forecast by NIS 3.2 billion (half a percent of GDP)—as calculated on the basis of the uncertainty deriving from the

prediction of the explanatory variables—is 30 percent,[3] and the probability that there will be a shortfall of NIS 6.4 billion (1 percent of GDP) is only 14 percent. These probabilities can assume considerable importance in the decision-making process, particularly at times when the credibility of the government's commitment to the budget targets is low. At such times the cost to the economy of departure from the budget targets could be high, and hence decisions about legislative changes with regard to taxes, for example, must also take the risk of deviating from the target into account.

Table 1

The Accuracy of the Tax Model based on Actual Values of the Independent Variables and on their Forecast Values at the end of the Previous Year

	Actual revenue[a]	Post factum forecast by the model[b]	Post factum deviation	Forecast by the model[c]	Error of the forecast	Post factum deviation	Error of the forecast
	(NIS million at 2005 prices)					(Percent of revenue)	
2000	147.5	146.5	-0.9	139.1	-8.4	-0.6	-5.7
2001	148.5	148.9	0.4	155.9	7.4	0.3	5.0
2002	139.0	138.9	-0.1	148.7	9.7	0.0	6.9
2003	134.3	133.2	-1.1	136.8	2.5	-0.8	1.9
2004	145.0	146.4	1.4	143.8	-1.2	1.0	-0.8
2005	155.9	155.3	-0.7	154.1	-1.8	-0.4	-1.1
2006	167.8	167.3	-0.6	163.6	-4.2	-0.3	-2.5

[a] In 2006 the Iscar deal was included in the change in legislation.

[b] The forecast by the model, as estimated to the end of the year prior to the year of the forecast, given the actual values of the independent variables.

[c] The forecast by the model, as estimated to the end of the year prior to the year of the forecast, based on the forecast values of the independent variables.

[3] In the forecast for 2007 the probability of an upward error to the same extent is identical.

By comparison to 2005, tax revenues (excluding value added tax on defense imports) rose by a real rate of 8 percent, totaling NIS 179 billion (including income transferred to the compensation fund). A similar growth rate is seen when changes in tax rates (which reduced income by approximately NIS 4.5 billion (2.5 percent),[53] and the exceptional one-off income are taken into account. An examination of the real development of collection in 2006 by means of the tax model of the Research Department[54] shows that the growth in income this year—excluding the impact of legislative changes—was consistent with the explanation derived from the model

[53] Legislative amendments include both changes introduced during 2006 and the impact of changes in previous years on revenues in 2006.

[54] For a full description of the model, see: A. Brender, Estimates of the Tax Revenue Function in Israel, Bank of Israel, Research Department, Series of Articles for Discussion 2001.02, January 2001. As explained therein, the contribution of each of the explanatory variables reflects not only its behavior on a specific tax base, but also the correlation between the variables and other tax bases.

variables. According to these variables, an increase in income of 8 percent is explained by the following factors: (1) The increase in GDP—including the change in the ratio of the GDP deflator to the Consumer Price Index and the breakdown of growth over the year—contributed 7.8 percent to the increase in revenue; (2) The rise in real wages, which was lower than the increase explained by the increase in GDP, acted to reduce revenues by 0.2 percent;[55] (3) The scope of import of consumer products was as expected in accordance with its long-term correlation with GDP and, accordingly, did not make any additional contribution to the increase in revenue; (4) The slow increase in sales of new apartments had a negative effect of 0.2 percent on the growth rate of revenues. The financial variables in the model explain the increase of 0.6 percent in revenue this year. This composition of the increase in revenue does not indicate any temporary components raising concern regarding a possible decrease in revenue in the coming years (with the exception of the one-off transactions, which were removed from the base from the outset); this in contrast to the situation in 1994, 1995, and 2000, for example.

In a breakdown of growth in tax income, there are no signs of temporary components that raise the fear of a significant fall in income in the years to come; in contrast, for example, to the years 1994, 1995 and 2000.

The reduction in tax rates in 2006 was part of an ongoing government program, rather than a one-time step due to the increase in income caused by growth. Over the past three years, the government has cut tax rates by a cumulative amount of approximately NIS 15 billion. The reductions in taxes during this period were not limited solely to the current period, but also included a further reduction in the income tax rates on salaries (including National Insurance Institute fees) and profits scheduled through 2010 so that, by that year, the net reduction in taxes will total approximately NIS 25 billion by comparison to 2003. The statutory tax index fell this year by 2.8 percent; over the past three years, it has fallen by a cumulative 13 percent.[56] In addition, the changes in the tax system have also included steps to rationalize the direct taxation system and, in particular, to reduce the discrepancies in tax rates between different types of income from capital. Total changes in the tax system through 2010—on the basis of the existing legislation—are expected to result in the reduction of taxes on the scale of NIS 35 billion, alongside an increase in other taxes on the scale of NIS 10 billion. This policy may contribute to growth by reducing the tax burden, as explained above, but also by enhancing the efficiency of the tax system and by eliminating some irritating taxes such as the stamp duty. The elimination of additional exemptions and tax distortions, such as the low tax valuation of vehicles provided by the employer—while using the receipts to cut the general tax rates will further enhance the efficiency of the tax system.

Up to 2010, the net reduction in taxes compared to 2003 will total NIS 25 billion.

Despite the reduction in tax rates, the tax burden—defined as the ratio of total tax payments to GDP—remained almost unchanged in 2006 (excluding exceptional one-off income), and continued to occupy the lower section of the narrow band

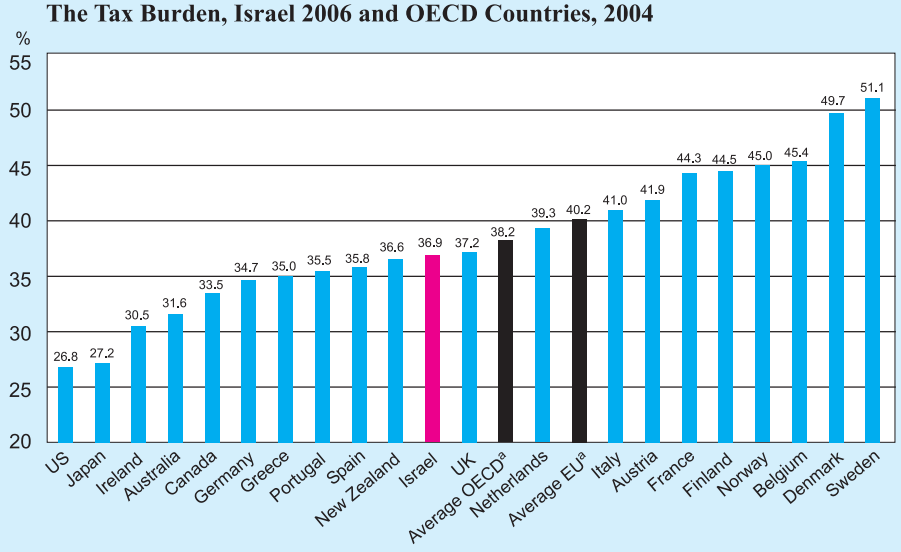
[55] Salaries and the import of consumer products are included in the model as deviations from the long-term estimated connection between these variables and GDP.

[56] For an explanation of the calculation of this index, see: K. Flug and M. Strawczynski (2006), Sustainable Growth and Macroeconomic Policy Performance in Israel, an article presented at the annual conference of the Bank of Israel's Research Department.

The tax burden in Israel lies in the center of the distribution among developed countries.

within which it has fluctuated since the late 1980s (Figure 6.1 and Table 6.A.11). The stability of the tax burden despite the reduction in tax rates reflects the impact of the recovery in economic activity on tax revenues. However, this impact can be expected to moderate as growth stabilized; accordingly, it can be anticipated that the reductions in tax rates in the coming years will lead to an ongoing reduction in the tax burden. This will permit the Israeli economy to continue to improve its competitiveness relative to the developed nations.[57] Even today, the tax burden in Israel falls in the middle of the distribution of the developed nations (Figure 6.5); accordingly, any progress in this process will draw Israel to a lower level than most of these countries. This is particularly true given the halting of the process of tax rates reductions in many of these countries.[58] As shown by the analysis in Box 6.2, the reduction in corporate tax rates in Israel, according to the program, will reduce the effective rate of this tax in Israel by a greater degree than has been the case in recent years in the developed nations.

Figure 6.5
The Tax Burden, Israel 2006 and OECD Countries, 2004



[a] Arithmetic mean of the OECD/EU countries shown in this figure.
SOURCE: Based on OECD and Central Bureau of Statistics data.

[57] According to the tax model of the Research Department, the rate of increase of government income from taxes in the long term is 1.1 percent for each percentile of increase in GDP. Accordingly, without changes in the statutory tax rates, the tax burden is expected to rise slightly when GDP grows.

[58] In some OECD nations, a reduction in corporate tax rates is continuing; in many cases, however, this is accompanied by changes in tax regulations designed to maintain the level of income from this tax (Box 6.2).

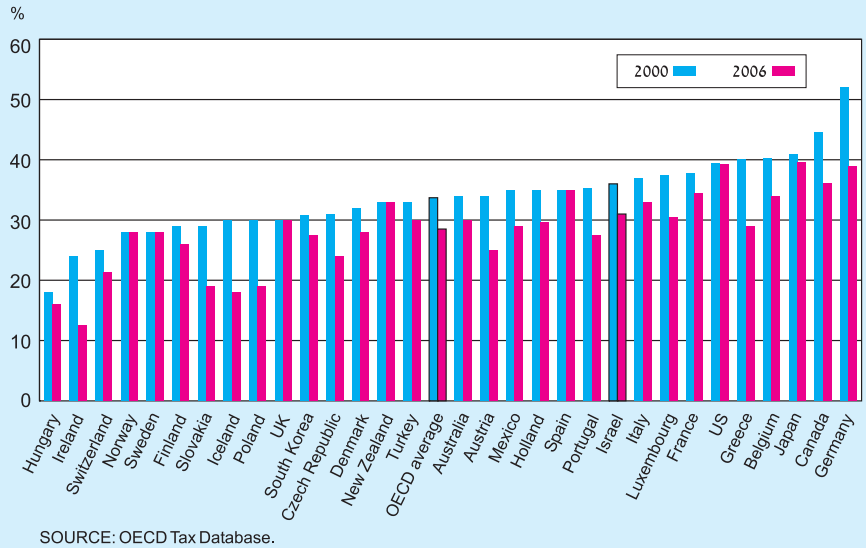
Box 6.2
Corporation tax—effective and statutory, Israel and the OECD countries

As part of the tax reforms that were implemented in Israel during recent years, a decision was taken to gradually reduce the rate of corporation tax. In 2003, the rate of this tax was 36 percent. In 2006 it was down to 31 percent and in 2010, in accordance with current legislation it will be reduced to only 25 percent. Two main claims have been cited in support of this development: (1) The economy is subject to global competition and because of the tax cuts in other countries, we need to reduce the rates of taxes such as these. This is despite the fact that a reduction in the rate of corporation tax, in contrast to cuts in tax on consumption and like a reduction in tax on labor, is regressive and increases the inequality in the distribution of income in the economy. (2) A reduction in corporation tax encourages investments and growth in the economy. These two claims are examined in this box.

The reduction in corporation tax rates in the developed countries

Many OECD countries reduced their statutory rates of corporation tax in recent years (Figure 1). However, a comparison of tax rates cannot be based on this rate alone, which is the legal and official rate collected by the government from firms' profits that are calculated according to the accepted principles in the

Figure 1
Statutory Corporation Tax in Israel and OECD Countries, 2000 and 2006



SOURCE: OECD Tax Database.

country in question. This is because the rate of tax that is actually charged (the effective rate) is affected not only by the statutory rate, but also by the tax base (the manner of a calculating profits and the taxable part of a company's profits––taxable income) and by business cycles. In the majority of cases, the effective rate of tax is lower than the statutory rate of tax. This is due to discounts and exemptions, which change the tax base, and to the right to offset losses from previous years. Countries also differ in their manner of calculating the profits that constitute the tax base and as result, in the effective tax which companies pay when the statutory rates of tax are identical. Accordingly, the contraction of the differentials in the statutory rates of tax between countries cannot be taken as indicating that their effective rates of tax have converged as well.

Figure 1 shows that the statutory corporation tax in most OECD countries has been reduced considerably: The average rate in these countries fell from 33.7 percent in 2000 to 28.5 percent in 2006. It can also be seen from the diagram that the variability in the rates of tax is relatively high, and that it has risen slightly over the past six years. This finding indicates that in spite of globalization—and in the eurozone the adoption of a common currency—no convergence to a uniform rate of tax occurred in that period. In Israel, the statutory rate of the tax fell by 5 percentage points during those years, similar to the average decrease in the OECD countries, and is currently 2.5 percentage points higher than their average rate. This differential is expected to contract in 2010, since most of the reductions in the tax in these countries were made in the previous decade, with the result that the pace of decrease in the tax rate is expected to slow. In addition the decrease in the rates of corporation tax in Israel during recent years was not accompanied by any substantial changes in the tax base. This was in contrast to most of the OECD countries, which increased their tax base[1] at the same time as they reduced the statutory rate of tax. Notable cases in this respect are Germany, Holland, Denmark, Ireland, Norway and Slovakia, where the expansion of the tax base was reflected by a decrease in the deductions recognized under the law and the abolition of exemptions and benefits that were valid before the reforms. As a result, the (cyclically-adjusted) effective rate of the tax changed less, if at all. In practice therefore, the decrease in the effective rate of the tax that was decided in Israel is more aggressive than elsewhere. An international comparison over 15 years (1989-2004—a relatively long period that includes a number of business cycles) shows that the development of the rate of corporation tax charged from product in Israel has been similar to the development of this tax rate in the OECD countries.[2] As

[1] OECD Revenue Statistics, 1965-2004.

[2] The rate of corporation tax collected in the OECD countries accounted for 2.7-3.5 percent of GDP in the years 1989-1990, and 1999-1990 respectively, compared with parallel rates of 3.1 and 3.7 percent in Israel.

stated, this is in contrast to the statutory corporation tax, which was higher in Israel both at the beginning and at the end of the comparison period.

One of the indices used for calculating the effective tax is the EATR—Effective Average Tax Rate,[3] which consists of a number of macroeconomic variables, including the statutory corporation tax, and the objective of which is to quantify the perturbation of rebated taxes to be expected from investment compared with a non-tax situation. Taken into account in the index are all the relevant laws in the country in question—including the tax base, discounts on inventory, the nominal interest rate, inflation and taxes on profit, capital and assets. Since most of the parameters comprising this index are administrative, the index is scarcely affected by business cycles. It was found that this index has a greater effect than the statutory corporation tax on the attractiveness of a particular country as perceived by potential foreign investors. Even though the statutory rate of tax is correlated to the effective rate of tax as measured in this way (with a correlation coefficient of over 0.65), the relationship between it and the effective rate of tax is not one-to-one, mainly because of the account taken of the effective tax in the tax base. An examination of the relationship between the change in the statutory corporation tax and the change in the effective rate of tax during the years 2000-2003 shows that the statutory rate of tax fell in those years by more than twice the rate of decrease in the effective rate of tax. This finding reflects the expansions in the tax base that were adopted concurrent with the reduction in the statutory tax.[4] Ireland, Germany and Italy provide striking examples of the difference in the definitions: In Ireland, the statutory corporation tax fell by over 11 percentage points although the effective tax increased. In Italy, a similar process occurred when the statutory corporation tax fell by 3 percentage points. In Germany, this tax fell by nearly 12 percentage points while the effective tax dropped by only 3 percentage points. The difference between the statutory and effective rate of tax also reflects the absence of a relationship between the statutory rate of tax and the percentage of corporation tax to GDP in the studies that were conducted, both in a transverse comparison between countries and in a comparison of the rate of change in corporation tax with the rate of change in the percentage of the tax to GDP within each country. This is particularly apparent in the case of Ireland, Germany and Iceland, which although they reduced their statutory rate of tax by more than 10 percentage points, did not record any major decrease in the percentage of the tax to GDP. As stated, this

[3] Evaluating Tax Policy for Location Decision, 2003, Michael P. Deverux and Rachel Griffith, International Tax and Public Finance.

[4] The effective rate of tax under this definition was scarcely affected by changes in activity cycles between the years 2000 and 2003.

is largely due to parallel changes that were made in the calculation of the tax base.

In Israel, the statutory corporation tax has fallen gradually and consistently since the 1985 economic stabilization program. Corporation tax fell from 61 percent to 45 percent in 1987, to 36 percent between the years 1990-1996, and since 2004 has been expected to gradually decrease to 25 percent by 2010. It should be noted that during the period of cuts in the tax during the 1990s, receipts of corporation tax continued to rise, and its rate increased by one percent of GDP. Concurrent with the more rapid growth in the number of active companies, this figure reflects legislative changes. The most notable developments in this respect were the change in the method of calculating appreciation[5] from the years 1991 to 1993, the implementation of the Income Tax (Adjustments by Reason of Inflation) (Temporary Provision) Law,[6] 5745–1985 and the determination of a uniform, calendar tax year, which reduced delays in tax payments. The present reduction is not accompanied by legislative changes in the tax base, and is therefore more aggressive than the past reductions.

The effect of corporation tax on investment in Israel

In order to ascertain whether the rates of corporation tax have affected decisions on investment in the capital of firms in Israel, an examination was made of equations in which the explained variable is the ratio of investment per business-sector employee during the years 1980-2005. The effective tax in Israel is estimated as the ratio of total corporation tax receipts to the return on gross capital—an approximation to the base from which corporation tax is charged. As in a similar calculation that was presented in Box 2.1 in the Bank of Israel Annual Report for 2005, a long-term negative (co-integrative) relationship was found between the rate of corporation tax and the ratio of investment per employee.[7] This means that in the long run, a lower rate of

[5] Since an increase in the rate of appreciation preempts its recognition as an expense for tax purposes, it has the effect of reducing collection in the initial stage and in increasing it in the subsequent stage.

[6] The new law as compared to the old law classified, *inter alia*, machinery and equipment as a fixed asset and prescribed a different method for processing securities traded in the stock market. The change in the law led to a large increase in companies' taxable income from the year when it was implemented.

[7] The relationship was also found to be significant when the rate of tax taken into account is the historical as well as effective rate. The variables included in the equation on the corporation tax rate side were the log of per capita business-sector GDP with a lag of a year (a figure reflecting the effect of income on saving), the log of the ratio of capital to employee with a lag of a year and a half (a figure reflecting the effect of convergence to a state of robustness). The coefficients of these parameters proved to be in the direction expected—positive and negative respectively.

corporation tax is correlated with a higher level of investment per employee, and thereby supports growth in the economy and an increase in product per employee. In the equations that examined the relationship between the change in investment per employee and changes in tax rates in the short run (error-correction), it was found that the relationship between changes in the effective tax and changes in investment per employee is significant and negative, as expected.[8]

To conclude, during the coming years corporation tax in Israel will be reduced more than in most developed countries. This is mainly due to the fact that in Israel, the reduction has not been accompanied by parallel legislative changes that will increase the tax base in accordance with which these rates are calculated. The effects of this reduction reflect the substitutability between two policy objectives: On the one hand, it is expected to increase the gaps in the distribution of income more than the reductions that were made in the OECD countries. On the other hand, it is expected to support more rapid growth and an increase in product per employee due to its positive impact on non-financial investment in the economy.

[8] Included in the short run apart from the change in tax rates were the change in the real interest rate, the change in scrap value, the change in the number of victims of terrorism, the change in the number of immigrants, the remainder from the long run and an auto-regressive variable. In order to ensure that reverse causality deriving from an increase in return on capital at a time of higher growth is not implied when ascertaining the negative relationship between the level of investment and the rate of tax, we included the rates of tax in the equations with a lag, and controlled the rate of change in per-capita GDP for the same time range.

Currently, taxes as a share of wage in Israel are lower than in the developed countries at almost every income level.

A key component in the reduction of tax rates in recent years is the reduction in tax rates on labor. The tax reform introduced in 2003 led to a significant reduction in tax rates for most salary brackets; the additional reform at the end of 2005 enhanced this reduction, both at present and for the period through 2010. As a result of the tax reductions already implemented, the percent of tax payments out of salaries in Israel is already lower than in most of the developed nations for almost all salary brackets (Table 6.10). After the expected reductions over the coming years, the gap can be expected to widen still further.[59] The comparison also shows that the structure of the tax function in Israel differs from that in the developed nations. The function in Israel is steeper; in other words, workers at low salary levels pay much lower tax rates in Israel than in other countries. The tax rates at these levels are so low in international

[59] For details of the international comparison of tax rates on salaries, see: A. Brender, Tax Rates on Income from Work in Israel in an International Perspective 2006-2007, Bank of Israel, Position Paper, April 2007.

Table 6.10
Income Tax Rates in Israel and the Developed Countries[a]

Income (percent of per capita GDP)	Israel 2007	OECD average	EU average[b]	Gap between Israel and the OECD	Gap between Israel and the EU	Israel's rating in the peer groupc
	Average tax rate (percent of income)					
Single earner						
50	3.5	18.8	19.5	-15.3	-16.0	29
75	11.1	23.5	25.4	-12.4	-14.3	28
100	16.5	26.5	28.9	-10.0	-12.3	28
133	22.6	29.6	32.3	-7.0	-9.7	26
166	26.9	31.9	34.9	-5.1	-8.1	22
200	30.3	33.8	36.7	-3.5	-6.5	19
400	39.1	38.9	42.6	0.2	-3.5	13
1000	44.5	42.8	46.1	1.7	-1.6	10
Married +2						
50	3.5	9.6	12.2	-6.1	-8.7	22
75	11.1	16.7	19.8	-5.6	-8.8	21
100	16.5	20.6	23.8	-4.1	-7.3	18
133	22.6	24.6	27.9	-1.9	-5.3	17
166	26.9	27.2	30.7	-0.3	-3.8	14
200	30.3	29.4	32.9	0.9	-2.6	12
400	39.1	36.1	40.0	3.0	-0.9	10
1000	44.5	41.5	44.8	3.0	-0.3	7
			Marginal tax rate (percent of extra income)[d]			
Single earner						
50	3.5	29.4	33.3	-25.9	-29.8	29
75	33.0	33.4	36.7	-0.4	-3.7	16
100	33.0	37.9	42.6	-4.9	-9.6	21
133	41.0	39.9	44.4	1.1	-3.4	16
166	47.0	42.2	45.9	4.8	1.1	8
200	47.0	44.6	48.5	2.4	-1.5	10
400	48.0	44.8	48.5	3.2	-0.5	9
1000	48.0	45.8	48.6	2.2	-0.6	9
Married +2						
50	3.5	27.1	33.0	-23.6	-29.5	29
75	33.0	31.8	35.2	1.2	-2.2	14
100	33.0	35.1	40.0	-2.1	-7.0	17
133	41.0	36.6	41.5	4.4	-0.5	11
166	47.0	38.4	42.2	8.6	4.8	7
200	47.0	44.0	46.5	3.0	0.5	11
400	48.0	44.5	47.6	3.5	0.4	8
1000	48.0	45.8	48.6	2.2	-0.6	9

[a] Simple average of a group of 28 developed countries in 2006. Tax rates include taxes imposed by all authorities, including compulsory payments to the National Insurance Institute and municipal taxes on income. In the US, tax rates are calculated separately for residents of Texas, California and the City of New York.

[b] Simple average of the 15 EU countries.

[c] The country with the highest tax rate is rated number 1.

[d] The additional tax payment resulting from a wage rise of one currency unit.

SOURCE: Based on OECD data, data from the tax bases of the various countries, and Price Waterhouse Coopers, Individual Taxes 2006.

terms that even at the higher income levels, at which the marginal tax rate in Israel is similar to that in the EU countries (and higher than the average for the OECD nations), the average tax rate in Israel (the portion of salary paid as tax) remains low. The income level at which marginal tax rates in Israel are significantly higher than in the developed nations is the bracket NIS 10,000–16,000 a month; even in this bracket, however, the average tax in Israel is lower than in these nations. This tax structure encourages entry into employment, but reduces the gain from increasing the number of hours worked or investing in human capital among those workers in income brackets in the upper one-third of the distribution of salaries. From a broader perspective, it emerges that in the past tax rates in Israel were similar to the average for the European Union; today, however, the tax burden in Israel is significantly lower than in these countries, and is closer to the level of the Anglo-Saxon countries.

The structure of tax on labor in Israel provides an incentive to join the labor force, though it reduces the compensation for increasing the number of hours and human capital among workers whose income is in the top third of the wage distribution.

6. ANALYSIS OF THE GOVERNMENT BUDGET FROM A LONG-TERM PERSPECTIVE

a. The 2007 budget

Following the significant progress in improving the fiscal aggregates in 2006, beyond the level forecast at the beginning of the year, the challenge facing the government in this field in 2007 was to avoid any significant backslide and to stabilize the foundation for bringing fiscal aggregates in line with the objectives set for the coming years. This is a particularly demanding challenge given the high costs for the re-equipment of the IDF following the war in the north and the large one-off component included in revenue in 2006. However, the growth rates in expenditure in the 2007 budget relative to the 2006 performance, are relatively high (Table 6.11), particularly for the expenditure of the civilian ministries and for transfer payments. Given the levels of implementation recorded for these items over the past two years, these items may include significant "cushion" vis-a-vis the expected implementation. Macroeconomic developments since the preparation of the budget in the summer of 2006 also support the possibility that 2007 will end with a lower deficit than planned: The expected real growth rate in 2007 has risen by more than one percentage point since the budget forecast, whereas the expected increase in prices has fallen by almost 1.5 percent. The significance of this is that the overall forecast for revenue remains almost unchanged, and is consonant with the macroeconomic developments, while the expected level of expenditure is lower than that budgeted, so that it will not be necessary to unfreeze a substantial part of the price reserve in the budget.[60] This assumes that the government

Macroeconomic developments since preparing the budget in the summer of 2006 support the possibility that 2007 will end with a lower deficit than planned.

[60] For further details and an explanation of the method of calculation of the expenditure ceiling in the 2007 budget, see: Bank of Israel (2006), Economic Developments in Recent Months, 115 April 2006 through September 2006 (November).

Table 6.11
The Government's Net Revenue and Expenditure in 2006 and in the 2007 Budget[a]

	Actual 2006	Budget 2007	Real Change[b]
	(NIS billion)		(percent)
Income excl. credit	**210.6**	**208.7**	**-1.0**
Taxes	177.3	180.8	1.8
National Insurance	13.6	12.1	-10.8
Grants	13.4	11.0	-18.1
Other	6.2	4.8	-23.2
Expenditure excl. credit	**216.1**	**224.6**	**3.8**
Of which: Excl. interest and NII prinicipal	174.6	182.3	4.3
Defense[c]	53.5	52.6	-1.8
Civilian	121.1	129.7	7.0

[a] Actual 2006 data do not include the amounts deducted from revenue used to pay compensation to the public for damage due to the war in the north.

[b] Assuming that the average CPI in 2007 will not differ from that in 2006.

[c] In 2007 including NIS 3.7 billion from the budget reserve.

SOURCE: Based on data from the Accountant General, the Ministry of Finance (mof.gov.il).

and the Knesset will not decide to increase some expenditure items further on the basis of the unutilized surplus. However, according to the accepted international definitions, the expected deficit in 2007 is approximately 4 percent of GDP—much higher than in the developed nations.[61]

b. The analytical framework and assumptions

The significant progress achieved by the government in reducing the deficit since 2003, and the sharp fall in the ratio of debt to GDP over the past two years, support a course of sustainable growth. Moreover, the basic policy guidelines of the government also established a downward course for the deficit, reaching one percent of GDP by 2009. The government also adopted a ceiling for the increase in expenditure; if maintained, this will enable the reduction of the deficit to the target set for 2009; if continued thereafter, this will enable additional significant reductions in 2010 and 2011. This will particularly be the case if the government avoids additional tax cuts beyond those already legislated. This will contribute to accelerating the reduction of the debt to GDP ratio, and to the distancing of the economy from the high levels of

[61] A substantial part of the increase by comparison to 2006 (approximately 1.2 percent of GDP) is due to the impact of the expected return of inflation to the middle of the target range on the indexation component of interest payments which is included in government expenditures in accordance with this definition.

debt seen in recent years, which have limited the options available to the government in responding to negative economic and security developments.

In order to examine the expected development of the budget aggregates for the period 2007-2011 in accordance with the government objectives and alternative policy courses, we used a model for the medium-term analysis of the budget based on the course of development of the fiscal variables in the past.[62] The model includes estimates of the budgetary ramifications of the government's decisions on specific steps in 2007-2011, and examines the expected development of the budget aggregates if these are realized.[63] The forecast is based on numerous assumptions as detailed below. In order to examine the sensitivity of the conclusions to changes in these assumptions, the analysis is also presented on the basis of alternative assumptions.

Key assumptions used in the medium-term forecast for the development of the budget

- Real GDP will increase by 5 percent in 2007, and by an average of 3.7 percent per annum in 2008-2011. The expected growth rate is based on a more rapid growth in employment than in the workforce, so that unemployment will fall to its natural rate (between 6 and 6.5 percent) by 2010, and on an annual increase of 1.25 percent in GDP per employee, similar to the average for the past 30 years.
- In 2008, the expenditure ceiling will be adjusted to the discrepancy between the assumed price increase in the 2007 budget and that currently forecasted.
- Expenditure on account of the Disengagement Plan will end in 2007.
- The base for the defense budget will not increase in real terms through 2011, and the one-off expenses decided in 2006 will be implemented as planned in the budget.
- The increase in the population and its composition will be in line with the demographic forecasts of the Central Bureau of Statistics.[64]
- Real salaries in the economy will increase from 2008 at an identical rate to the increase in GDP per employee.
- Real yield on bonds issued by the government from 2007 will be 4.0 percent, similar to the average over the past decade (6.5 percent for non-linked 10 year bonds). Since the interest rate we assume is slightly higher than the growth rate, a small surplus (approximately 0.3 percent of GDP) is required in the

[62] For a detailed description of the analytical framework, see: K. Braude and A. Brender, The Impact of the Economic Plan on the Government Budget, 2003-2008, Bank of Israel, July 2003.

[63] In 2007, the analysis is based on the budget proposal, adjusted to the macroeconomic changes since its preparation. However, on the basis of developments to date it seems that the deficit this year may be significantly lower than the forecast, even after this adjustment.

[64] In accordance with: Central Bureau of Statistics (2004), Forecasts for the Population of Israel through 2025, Special Publication 1238.

primary budget to prevent an ongoing increase in the ratio of debt to GDP.

- The government will maintain its decisions to freeze personnel and nominal budgets in the public sector. Accordingly, the rate of increase of public consumption prices (excluding education and health) will be similar to that of the GDP deflator.[65]
- The activation of various private laws the implementation of which has been delayed in the past, and which are due to take effect over the coming years, will be postponed once again.
- Civilian aid from the US government will end in 2007, and defense aid will stabilize at $2.4 billion a year.
- Income from taxes, excluding legislative changes, will increase from 2008 on, with elasticity of 1.08 relative to the rise in GDP, similar to the increase in this income over the past 15 years. Income in 2007 was estimated on the basis of the tax model of the Research Department as detailed above.
- The tax reform and the reductions in other taxes, including the reduction in payments by employers and self-employed workers to the National Insurance Institute, will be implemented as planned.
- The exchange rate of the shekel to the dollar will be NIS 4.4 at the end of 2007, NIS 4.6 at the end of 2008, and NIS 4.8 at the end of 2009 and thereafter.[66] The Consumer Price Index will rise by 2 percent a year.
- Expenditure on education and health will increase in keeping with the changes in the size and composition of the relevant populations. The quantitative increase in these services for each recipient of services[67] will be in accordance with the increase in GDP per employee. Productivity will not change, while the rate of increase of salary to employee in education and health will be similar to that of the average wage in the economy.[68]
- Indexation increments on government bonds issued from 2001, and on bonds that will be issued over the coming years, will be recorded in the state budget as expenditure on redemption.
- No further privatizations will be executed over the coming years.[69]
- The balance of issues by means of guarantees from the US government will be

[65] The rate of increase of public consumption prices over the past thirty years has been higher than that of the GDP prices by an annual average of 1.5 percent. (The outcome is similar for the last 20 years).

[66] Changing the assumed exchange rate at the end of 2007 to NIS 4.3 will reduce the debt to GDP ratio as of the end of 2007 by 0.4 percent.

[67] For example, for each student in elementary education. This assumption is illustrative and is also intended to reflect the increase in the number of the recipients of the service due to legislative changes, such as extending the Free Education Law to pre-compulsory ages.

[68] This assumption is consonant with the rate of increase of expenditure per student in elementary and high school education for the period 1976-2004.

[69] This is a working assumption. The government is planning several further privatizations; if realized, these will reduce the public debt alongside a reduction in income from dividends and royalties. The privatization of the Oil Refineries is included in the forecast.

deployed evenly over the period 2007-2011. The "scoring" costs incurred on account thereof will be recorded in the budget over a period of 20 years.

Decisions on the size of the defense budget are made each year with the prime minister, as was the case for the 2007 budget.

One policy variable with a key impact on the forecast is the level of the defense budget over the coming years. The decisions regarding the defense budget are made almost every year in a discussion chaired by the prime minister; this was also the case with regard to the 2007 budget. Following the war, the defense establishment presented budgetary demands on a substantial scale, in addition to those already approved; these are currently being discussed by a committee examining the required course of expenditure. Since it is impossible at this juncture to forecast how and to what extent the defense budget will be influenced by the outcome of these discussions, the current analysis is based on the existing decisions, and on the assumption that beyond these decisions the real size of the defense budget will be maintained through 2011. The horizontal cuts as decided by the government will be offset from this total, as will the construction costs of the Separation Fence, once this is completed. An alternative analysis is also presented below examining the ramifications of the acceptance in full of the budgetary demands raised by the defense establishment.

c. The basic scenario—maintaining the expenditure ceiling

This scenario assumes that the government will increase its expenditure in 2007-2011 in accordance with the established ceiling, by 1.7 percent a year, in addition to the one-off expenditure as determined in 2007 and 2008. In accordance with the forecast for expenditure, based on decisions already made by the government with regard to specific steps, it seems that the scope of additional steps required in order to meet this objective in 2008 is approximately NIS 4 billion (Table 6.12); however, about half this sum reflects the required amendment to the expenditure ceiling for 2008 because prices in 2007 are projected to be lower than forecast in the budget. Accordingly, if the government does not increase the expenditure base by means of the utilization of the price reserve in 2007, the required adjustment will be only NIS 2 billion. In 2009, a further reduction of expenditure of approximately NIS 2 billion is required. In accordance with this analysis, only a small further reduction will be required in 2010, while in 2011 a more substantial one of approximately NIS 3 billion will be required, in part since the government has not yet determined specific measures for this year.

Compliance with the expenditure ceiling, given the growth rates assumed in this scenario, will permit a substantial reduction in the share of government expenditure in GDP. In 2011, government expenditure is expected to reach 32.5 percent of GDP, 4.5 percentage points less than in 2006 and eight percentage points less than in 2003. The substantial reduction in the share of public expenditure in GDP will enable the ongoing reduction of the deficit, after the temporary increase forecast for 2007 (particularly if it is assumed that the budget will be expended in full)—this despite the substantial reductions in tax rates as decided by the government and the Knesset, which will

Table 6.12
Expected Path of Principal Budget Aggregates, According to Various Scenarios, 2003-11

(percent of GDP)

	2003	2004	2005	Estimate for 2006	Forecast 2007	2008	2009	2010	2011
Maintaining the expenditure target									
Revenue excl. credit	35.5	35.3	35.6	36.1	33.8	33.5	33.2	32.9	32.9
Of which: Tax revenue	27.7	27.8	28.0	28.8	27.5	27.2	27.0	26.6	26.7
Expenditure excl. credit	40.9	39.0	37.4	37.0	36.1	34.6	33.6	32.9	32.5
Deficit (-) excl. credit	-5.4	-3.7	-1.7	-0.9	-2.4	-1.1	-0.4	-0.1	0.4
Gross public debt	102.3	100.9	97.0	87.8	84.7	82.5	79.8	76.2	72.8
of which Government debt	99.7	98.5	94.8	85.7	82.8	80.7	78.1	74.5	71.2
Gap between foreseen expenditure and expenditure target[a]	...	...	...	...	...	0.7	0.3	0.1	0.4
Maintaining expenditure target, with 3% growth rate from 2007									
Expenditure excl. credit	40.9	39.0	37.4	37.0	36.8	35.6	34.8	34.4	34.0
Deficit (-) excl. credit	-5.4	-3.7	-1.7	-0.9	-3.1	-2.2	-1.7	-1.7	-1.2
Gross public debt	102.3	100.9	97.0	87.8	87.0	86.4	85.6	83.9	81.9
Increasing defense budget as requested by the Min. of Defense (from 2007)									
Expenditure excl. credit	40.9	39.0	37.4	37.0	36.6	35.8	34.0	33.3	32.9
of which civilian expenditure excluding net interest	22.4	21.7	20.7	20.2	20.7	19.7	19.4	19.3	18.9
Civilian expenditure excluding net interest, adhering to expenditure ceiling	22.4	21.7	20.7	20.2	20.2	18.6	19.0	19.0	18.6
Deficit (-) excl. credit	-5.4	-3.7	-1.7	-0.9	-2.8	-2.3	-0.7	-0.5	0.1
Gross public debt	102.3	100.9	97.0	87.8	85.1	84.0	81.6	78.2	75.1
Gross public debt, with 3% growth	102.3	100.9	97.0	87.8	87.4	88.0	87.6	86.2	84.5

[a] Assuming that the steps taken in previous years were permanent.

SOURCE: Based on Bank of Israel data.

If the government keeps to its expenditure ceiling, the deficit is expected to fall by 1 percentage point in both 2008 and 2009, and to reach below 1 percent of GDP in 2009, in line with the target.

reduce the portion of tax payments in GDP by 2 percent through 2011,[70] bringing the tax burden in Israel to a level lower than that in most of the developed nations. According to this scenario, the deficit is expected to fall by one percent of GDP in 2008 and by one percent in 2009, reaching a level of less than one percent of GDP in 2009 in line with the target. In 2010 the budget is expected to be balanced, alongside the settling of the unemployment rate at some 6.5 percent. The reduction in the deficit will also enable a reduction in the ratio of public debt to GDP on an ongoing basis (Figure 6.6), to 80 percent in 2009 and 73 percent in 2010. This decline will contribute, among other factors, to a reduction in interest expenses, so that by 2011 these will be lower by

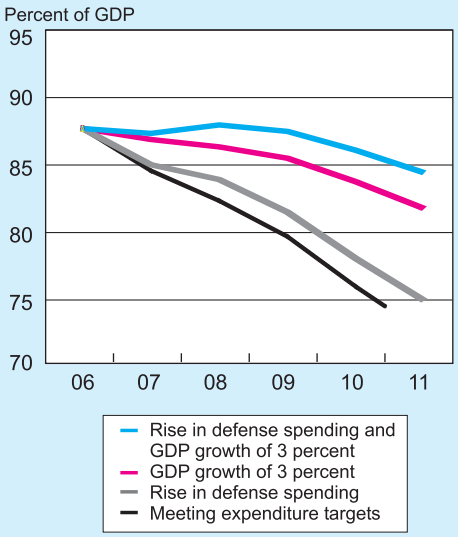
[70] Approximately one-third of this decline is due to one-off income on a substantial scale in 2006.

0.6 percent of GDP compared to 2006.[71] The actualization of this scenario naturally depends on the implementation of the existing government decisions regarding the restriction of the growth rate of expenditure, and on the adoption of new measures enabling the maintenance of this expenditure ceiling in the period 2008-2011. Since the government will be unable to restrict the increase in the salary per employee in the civil service to a level lower than that in the business sector on an ongoing basis, it is important to plan at this stage steps enabling the reduction of the relative size of the public sector and employment therein for the period 2008 and thereafter. This should form part of a long-term framework including structural changes to enhance the efficiency of the public sector; steps to increase the efficacy of the public service budgets and transfer payments in securing policy goals; and the definition of priorities regarding fields in which the government will continue to be involved.

d. Alternative scenarios

In order to estimate the sensitivity of the long-term forecast to assumptions regarding the growth rate and policy courses, two alternative scenarios were examined. The first scenario assumes that the growth rate of GDP for each of the years 2007-2011 will be just 3 percent. According to this scenario, the deficit in 2007 will reach 3.1 percent of GDP, and in 2011 1.2 percent of GDP, even if the government does not deviate from the expenditure objective. In this case, the ratio of public debt to GDP is expected to fall by just two percentage points through the end of 2009, and to reach 82 percent by the end of 2011 (Figure 6.6). This analysis emphasizes the vulnerability of policy outcomes to macroeconomic developments.

Figure 6.6
Public Debt Trend in Various Scenarios, 2006-11



SOURCE: Bank of Israel.

The second scenario is an extreme one in which the demands of the defense establishment to increase its budget are accepted in full, alongside a concomitant increase in the expenditure ceiling beginning in 2007. These demands include a fixed increase of the defense budget by NIS 3 billion a year (beginning in 2008), as well as a one-off increase of NIS 9.6 billion spread over 2007 and 2008. (The analysis assumes that this figure includes the additional sum of NIS

[71] Interest payments in 2011 include, according to this scenario, exceptional indexation differentials payments of 0.2 percent on account of a linked bond issued in 2001 and due for redemption in 2011.

1.9 billion already provided in the 2007 budget). Acquiescing to these demands—even if we ignore the potential damage this would cause to the growth in GDP and their possible impact on increasing interest rates in the economy—will increase the deficit to 2.8 percent of GDP in 2007 (approximately 4.5 percent of GDP according to the common international definitions), and to 0.7 percent in 2009. The ratio of public debt to GDP will fall to 87 percent by the end of 2008, and to 75 percent in 2011—a more moderate decline than in the base scenario. If this increase is accompanied by a slowdown in growth to 3 percent a year across the period, the deficit will reach 1.8 percent of GDP by 2011, and the public debt to GDP ratio will be 85 percent in that year. An alternative scenario whereby acquiescence to the demands of the defense establishment is mirrored by a reduction in civilian expenditure, while maintaining the expenditure ceiling, shows that this would lead to a reduction of primary civilian expenditure during the period by an average of 0.5 percent of GDP per annum (approximately 3 percent of expenditure in these items), in addition to the substantial fall in their weight in GDP as structured by the current expenditure ceiling. In real terms, primary civilian expenditure will rise, in accordance with this scenario, by an average of less than two percent a year between 2006 and 2011, as compared to an increase of 2.5 percent in the base scenario.

Meeting its budget targets in 2007-2011 will allow the government to reduce both the public debt/GDP ratio and public expenditure as a share of GDP considerably, while bringing the debt/GDP ratio significantly nearer to levels prevalent in the developed countries.

These scenarios show that compliance with the budget objectives for 2007-2011 will enable the government to secure a significant reduction in the debt to GDP ratio and of the weight of public expenditure in GDP; the ratio of debt to GDP, particularly toward the end of the period, will approach the levels in the developed nations. Moreover, the tax reductions already approved are expected to lead to an ongoing reduction in the tax burden; this will be reliable provided the expenditure ceiling is maintained. However, securing these objectives is conditional on compliance by the government with the budgetary objectives it has set and sensitive to the macroeconomic environment in which the economy operates. In particular, the analysis shows that if it is decided to accept a large portion of the demands by the defense establishment to increase its budget, the risks relating to the course of decline of the debt in the economy will rise substantially; alternatively, the government will be required to reprioritize the budget, significantly reducing the expected scope of civilian expenditure over the coming years.