Chapter 6
General Government and How It Is Financed[1]

- In 2005, the government deficit was substantially lower than the deficit ceiling and the 2004 deficit. The general-government deficit, measured according to the National Accounts rules,[2] also declined, to 2.9 percent of GDP as against 4.9 percent in 2004 and 5.9 percent in 2003.
- The public-debt/GDP ratio fell considerably in 2005, for the first time since 2000.
- The deficit and debt/GDP ratio decreases traced mainly to a decline in the share of public expenditure in GDP. This indicator has fallen by 5 percentage points since 2002 and was below 50 percent in 2005 for the first time since 1970.
- The ratios of public debt, deficit, and general-government expenditure to GDP remained high by the standards of developed countries, although the decreases have narrowed the gaps. In contrast, Israel's tax burden, especially in respect to wage taxation, resembles the accepted levels in these countries and is expected to continue falling in the coming years.
- By honoring the cap on expenditure increases and avoiding tax cuts beyond those already decided upon, the government will be able to lower the debt and deficit ratios to GDP appreciably over the next few years, if growth continues. The increase in general-government employment relative to total civilian employment in 2005, however, indicates that staying within the expenditure ceiling in the long run will be a challenge.
- If the 2006 budget will be based on the current legal deficit ceiling of 3 percent of GDP, primary government civilian expenditure will increase significantly relative to 2005 performance, holding the decline in the debt/GDP ratio to a moderate extent. Adopting a lower expenditure trajectory will allow the government to distance itself more quickly from the current debt level, which exposes the economy to risks in the events of adverse developments in the global economy and the security situation. Such a trajectory would also give the government more latitude in the future in smoothing the effects of external and security shocks on economic activity.

[1] General government is made up of the central government, the National Insurance Institute, municipal authorities, nonprofit institutions (health funds, universities, religious academies, etc.), that derive most of their income from general government, and the National Institutions (the Jewish Agency for Israel, the Jewish National Fund, and the World Zionist Organization). Its activity is measured in accordance with the National Accounts definitions, which differ from those used in the state budget. (For discussion of the methods of computation and the differences between the National Accounts data and the budget, see Box 1 in the Bank of Israel *Annual Report* for 2004.)

[2] The calculation in Israel does not include indexation differentials on the public debt.

1. MAIN DEVELOPMENTS IN GENERAL-GOVERNMENT ACTIVITY AND FISCAL POLICY

The general-government deficit declined to 2.8 percent of GDP as against 4.9 percent in 2004 and 5.9 percent in 2003.

The general-government deficit fell to 2.9 percent of GDP in 2005 as against 4.9 percent in 2004 and 5.9 percent in 2003 (Table 6.1).[3] The budget deficit plunged to 1.9 percent of GDP—1.5 percent of GDP less than the legal ceiling and 2.0 percent of GDP under the 2004 level (Figure 6.1). The deficit target was attained for the second consecutive year. Furthermore, the decline in 2005 brought the deficit to a lower level than in each of the past fifteen years with the exception of 2000. Still, the deficit remained higher than the standard among developed countries. The decrease in 2005 reflected a 2 percentage-point decline in public expenditure in GDP, occasioned by a moderate real increase in expenditure (not including interest) after two years of decline in this parameter. The decrease in the public expenditure/GDP ratio was evident in all expenditure components—public consumption, transfer payments, interest outlays, and capital account. Moreover, real per capita civilian public consumption decreased slightly in 2005 and real per capita transfer payments fell for the fourth consecutive year. The deficit reduction, the acceleration of growth, the funding of much of the deficit by sales of equity in public-sector corporations, and the payback to the government of loans taken by the public (mainly housing loans) made it possible to lower the gross public-debt/GDP ratio by 3.8 percentage points and the net debt ratio by 5.3 percentage points, even though the currency depreciation and the increase in the Consumer Price Index had upward effects on the ratios. Nevertheless, Israel's debt/GDP ratio remains high both by international standards and relative to the historically low levels that were attained in 2000 and 2001. Furthermore, the programmed deficit for 2006—3 percent of GDP—substantially exceeds the actual deficit in 2005 and is too large to allow the debt/GDP ratio to decline rapidly and protractedly. To bring such a decline about, the government will have to cut the deficit by continuing to restrain the increase in its spending and avoiding further tax cuts for the next few years.

The budget deficit plunged in 2005 and the deficit target was attained for the second consecutive year.

The deficit fell in 2005 because the share of public expenditure in GDP declined by 2 percentage points.

The gross public-debt/GDP ratio declined by 3.8 percentage points and the net debt ratio by 5.3 percentage points.

After restoring fiscal credibility by means of its economic recovery plan and budget performance in 2004, the government in 2005 faced the challenge of cementing this credibility.

After restoring fiscal credibility by means of its economic recovery plan and budget performance in 2004, in 2005 the government faced the challenge of cementing this credibility by lowering the deficit further, to levels that would facilitate a significant decrease in the public debt/GDP ratio and distance the economy from the menace of financial crisis even in the event of a slowdown in global growth or a deterioration of security—not to mention honoring its commitment to lower the tax burden in the years to come. The main device for the attainment of these goals is restraint in the increase

[3] Including the volatile component of "Bank of Israel profits"—mainly a reflection of unforeseen changes in the inflation rate, the exchange rate, and interest rates abroad—the deficit was 2.7 percent of GDP. However, since the Bank of Israel does not actually forward to the government the "profits" that the Central Bureau of Statistics calculates (as explained in the comptroller's section of the Bank of Israel Annual Report for 2001), and since it is standard practice in most developed countries, including those of the European Union, to record only profits actually transferred by the central bank as government revenue—the deficit discussed in the rest of the analysis does not include the Bank of Israel.

Table 6.1
The Main Components of General Government Receipts and Expenditure, 1995–2005

(percent of GDP)

	Average 1995-1998	1999	2000	2001	2002	2003	2004	2005
Total receipts	**48.8**	**47.3**	**48.3**	**48.8**	**49.8**	**46.3**	**46.1**	**46.4**
Excl. Bank of Israel	**48.6**	**48.1**	**48.9**	**48.8**	**49.0**	**47.2**	**46.3**	**46.2**
From property	1.8	1.1	1.0	1.5	2.5	0.7	1.2	1.6
Of which: Receipts of Bank of Israel	0.2	-0.7	-0.7	0.0	0.8	-0.9	-0.2	0.2
Total taxes	38.8	38.3	39.7	39.6	39.0	37.9	38.1	38.3
Indirect taxes on domestic production	14.3	14.1	13.4	13.4	14.1	14.2	14.0	13.9
Indirect taxes on civilian imports	4.9	4.4	4.6	4.2	4.2	3.9	4.5	4.5
Direct taxes, fees, and levies	14.0	14.0	15.9	15.7	14.3	13.3	13.3	13.7
National Insurance surplus	5.6	5.7	5.9	6.2	6.4	6.4	6.3	6.3
Grants	3.9	3.9	3.6	3.7	4.1	3.6	2.9	2.6
Other[a]	4.3	4.0	3.9	4.0	4.3	4.1	4.0	3.9
Total expenditure	**53.4**	**51.6**	**50.2**	**52.7**	**54.1**	**53.0**	**51.2**	**49.1**
Current expenditure	48.0	47.2	46.3	48.6	49.7	49.1	47.1	45.2
Domestic civilian consumption	20.1	19.7	19.3	20.3	20.8	20.6	20.2	19.5
Domestic defense consumption	7.1	6.6	6.6	6.7	7.3	7.1	6.6	6.3
Defense imports	1.7	2.0	1.7	1.9	2.4	1.9	1.6	1.8
Direct subsidies	1.1	0.9	0.9	0.9	0.8	0.9	0.9	0.8
Transfer payments on current account	11.4	11.9	11.9	13.0	13.0	12.6	11.7	11.3
Interest payments	6.4	6.0	5.9	5.8	5.4	6.1	6.1	5.6
Current transfer payments	2.2	1.8	1.5	1.5	1.7 [b]	1.3	1.7	1.4
General government investments	3.2	2.6	2.5	2.7	2.7	2.7	2.5	2.4
Total general government deficit	**4.6**	**4.2**	**2.0**	**4.0**	**4.3**	**6.7**	**5.1**	**2.7**
Total general government deficit excl. Bank of Israel	**-2.8**	**3.5**	**1.3**	**3.9**	**5.1**	**5.9**	**4.9**	**2.9**
Total surplus excl. interest and receipts from property	**0.0**	**0.6**	**2.9**	**0.3**	**-1.4**	**-1.3**	**-0.1**	**1.3**
Net public debt[c,d]	**84.0**	**79.7**	**75.6**	**82.9**	**87.1**	**93.2**	**91.7**	**86.4**
Gross public debt excl. Bank of Israel[d]	**106.6**	**100.9**	**91.1**	**96.0**	**104.7**	**106.7**	**105.7**	**101.9**

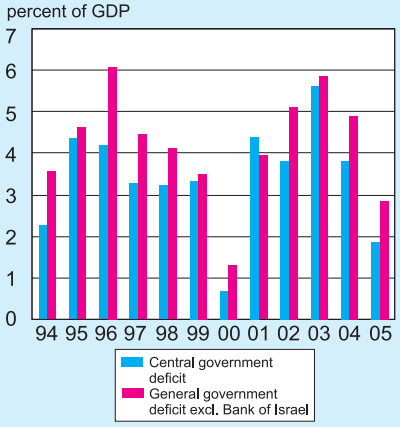
[a] Including transfer payments from the public on the current and capital accounts.
[b] Including capital transfers of NIS 1,523 million to China, in compensation for the cancellation of the Falcon deal.
[c] Divided by GDP at end-of-year prices.
[d] Excluding the local authorities' debt to the central government.
SOURCE: Based on Central Bureau of Statistics data.

of public expenditure. In the past, public expenditure increased at times of growth; therefore, the challenge in 2005 was to contain the growth of public expenditure despite the increase in revenues. The macroeconomic and political-security environment in 2005 was favorable to progress in cutting the deficit: the security situation continued to improve, global economic growth gathered speed, and there were no significant crises in the international financial markets. An opposite effect was exerted by the need to pay for the disengagement plan and concern about the disruption of economic

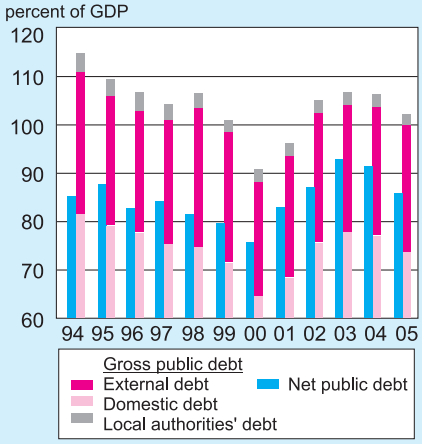
The main device for the attainment of the policy goals was restraint in the increase of public expenditure.

Figure 6.1

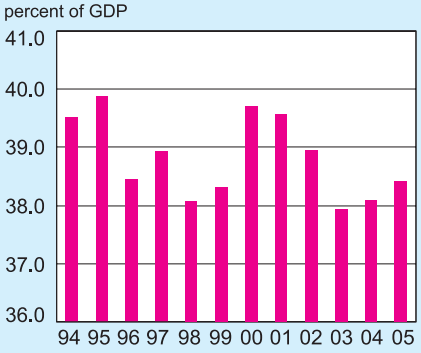
General Government Deficit and Central Government Deficit, 1994–2005



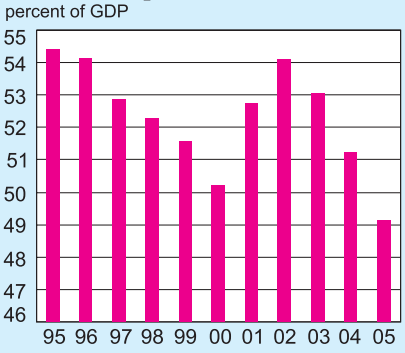
Public Debt, 1994–2005



Tax Burden, 1994–2005



Public Expenditure, 1995–2005



SOURCE: Based on Central Bureau of Statistics data.

To continue buttressing the credibility of fiscal policy, the government will have to create programs that will demonstrate its long-term ability to cope with the country's pressing problems within the budget framework that it has adopted.

activity by domestic and foreign opponents of the plan. Although it attained its targets for 2005, the government, to continue buttressing the credibility of fiscal policy, will have to develop programs that will demonstrate its long-term ability to cope with the country's pressing problems—raising the standard of living of weak population groups, advancing the education system, and dealing with the security threat—within the budget framework that it has adopted. To attain these goals, the government will have to find ways to streamline its activity in order to raise the quality of services commensurate with the improvement in the standard of living while containing costs so that the share of public expenditure in GDP can continue to decline. Several long-term reforms of use in braking the upturn in expenditure have been adopted in recent years, e.g., reforms in the fields of pensions and social benefits. However, care must be applied to ensure that the implementation of these programs remains consistent with the goals that the plans are meant to attain.

In the past three years, the share of public expenditure in GDP declined by 5 percentage points in cumulative terms and slipped below 50 percent in 2005, the lowest level since 1970.

After a perceptible increase in public expenditure in 2000–02 (Figure 6.1)—reflected in a 3.9 percentage-point increase in its share in GDP—the ratio declined in the past three years by 5 percentage points in cumulative terms. Until 2003 public expenditure stayed on the lagged pro-cyclical path that it had typically followed in the past. In 2000 and 2001, the growth rate of public expenditure (adjusted by the business-sector product deflator) accelerated to a rate that surpassed the rapid pace of growth that it had evinced since the mid-1990s (Table 6.2). The increase stopped in the middle of 2002 as GDP contracted that year and in the previous year. In 2004 and 2005, however, the restraint of expenditure continued even though growth resumed. Thus, the public-expenditure/GDP ratio declined rapidly and fell to less than 50 percent in 2005, the lowest level since 1970. This cycle was reflected in all components of current public expenditure (Table 6.1)—current transfers, civilian consumption, and defense expenditure. The main contributing factor behind the decline of the expenditure/GDP ratio at the end of the period compared to 2000 was current transfers (mainly those

Table 6.2
Growth Rates of Public Expenditure in Israel, 1994-2005

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

	1994-1999[a]	2000-2001	2002	2003-2004	2005
	(growth rate, annual average)				
Total public expenditure	4.3	5.8	1.9	0.2	0.5
Of which: Interest payments[b]	2.4	2.9	-7.8	10.2	-4.8
Total primary public expenditure	4.6	6.1	3.1	-1.0	1.2
Of which: Current primary expenditure	6.1	6.6	2.9	-1.1	1.6
Current primary civilian expenditure	7.3	7.2	0.6	-0.0	1.2
Public consumption	6.2	5.4	5.2	-1.0	2.1
Public consumption excl. defense imports	7.3	5.6	3.8	0.2	1.2
Civilian consumption	9.2	6.0	2.0	0.9	1.5
(Per capita civilian consumption)	6.5	3.4	0.0	-0.9	-0.2
Wage expenditure	4.9	6.0	0.7	1.2	-0.1
Purchases	22.4	6.2	3.2	-0.7	3.2
Domestic defense consumption	2.7	4.9	8.9	-2.2	0.4
Wage expenditure	4.2	5.0	3.7	-2.4	-0.2
Transfer payments on current account	6.3	9.6	-0.7	-2.3	1.6
(Per capita transfer payments on current account)	3.7	6.9	-2.7	-4.0	-0.1
General government investment	-0.2	5.9	0.3	-1.1	2.9
Of which: Transport infrastructure	-0.8	4.3	24.0	13.0	13.3
Transfer payments on capital account	-17.9	-6.1	12.8	-0.9	-16.0

[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.

administered by National Insurance), which fell from 11.9 percent of GDP to 11.3 percent[4] due to a real decrease in transfer outlays.

The deficit decline since 2002 fell short of that of the public-expenditure/GDP ratio because the revenue/GDP ratio also declined during the period, reflecting decreases in U.S. Government transfers and the ratio of tax revenues to GDP. Until 2003, the revenue/GDP ratio fell due to the slowdown in activity. After the middle of 2003, as output, imports of consumer goods, and real wages recovered, the growth of tax revenues slowed due to the reduction of tax rates (including rates of National Insurance contributions). In 2005, however, the tax-revenue/GDP ratio rose despite tax cuts that reduced revenues by NIS 3.5 billion. The upturn largely reflected the intensity of the effect on revenues of the increase in earnings of corporations and the self-employed, along with the solidification of the recovery from the recession, which more than offset the impact of the tax cuts. Thus, revenue from taxes on the earnings of corporations and the self-employed increased by 15.7 percent in real terms in 2005, enhancing total revenues by some NIS 5.5 billion even though the reductions in tax rates applying to this income dampened the revenue by about NIS 0.5 billion.

The tax-revenue/GDP ratio rose in 2005 despite tax cuts, mainly reflecting the increase in earnings of corporations and the self-employed.

The deficit decline and the acceleration of growth allowed the (gross) public-debt/GDP ratio to fall significantly, from 105.7 percent at the end of 2004 to 101.9 percent at the end of 2005, after appreciable increases from 2000 to 2002 and a plateau in 2003 and 2004. The government facilitated the decline by financing some of the deficit with receipts from the sale of equities that it had held in banks and in Bezeq. The public also abetted the decrease by paying back much more credit that it owed the government (mainly in housing loans) than it borrowed during the year.[5] The continuation of surplus payback of government loans, occasioned by a decrease in government credit for housing loans, is expected to help draw down the (gross) debt in the next few years. The net debt relative to end-of-year GDP fell to 86.4 percent but remained higher than in the second half of the 1990s, implying that it has not decreased in a decade: the progress attained up to 2000 having been wiped out in subsequent years (Figure 6.1).

The deficit decline and the acceleration of growth allowed the (gross) public-debt/GDP ratio to fall significantly, from 105.7 percent at the end of 2004 to 101.9 percent at the end of 2005.

In view of Israel's high debt/GDP ratio by international standards (Table 6.3) and the absence of progress in reducing it in recent years (Figure 6.1), the decrease in 2005 made an important contribution to reducing the risk that investors—resident and foreign—attribute to the Israeli economy.[6] This is because the debt/GDP ratio and its development are important indicators of country risk levels. One of the main criteria in the Stability and Growth Pact (and in its predecessor, the Maastricht Treaty), for

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[4] The decrease in interest outlays relative to 2000 reflects the effect of the higher rate of inflation in 2005 on the calculation of interest payments in the National Accounts, in which the inflation rate is subtracted from interest payments on the unindexed debt.

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

[6] The gap between Israel and the OECD in the net public-debt ratio (less financial assets) is greater than the gap of the gross debt. However, international comparisons of the net debt are unreliable due to differences among countries in levels of information, extents of coverage, and definitions. For these reasons, the gross debt has been chosen as the criterion in the European Union Stability and Growth Pact.

Table 6.3
The Overall Deficit, the Primary Deficit, and the General Government Debt Burden in Israel and OECD Countries, 1992-2005

	General government deficit (-)			Primary general government deficit(-)			Total general government debt (gross)			Real increase in per capita public consumption 1995-2005
	1992-94[a]	2004-05[a]	Change	1992-94[a]	2004-05[a]	Change	1995	2005	Change	
	(% of GDP)			(% of GDP)			(% of GDP)			(percent)
Israel[b]	**-4.8**	**-3.9**	**0.9**	**1.1**	**0.6**	**-0.5**	**109.6**	**101.9**	**-7.7**	**-0.1**
Greece	-11.6	-5.5	6.1	0.7	-0.4	-1.1	108.7	108.1	-0.6	2.8
Sweden	-9.9	1.3	11.2	-10.1	1.1	11.2	82.2	61.5	-20.7	0.6
Italy	-10.1	-3.8	6.3	1.8	0.6	-1.2	125.5	125.4	-0.1	1.3
Britain	-7.1	-3.1	3.9	-4.6	-1.3	3.3	52.7	46.8	-5.9	2.1
Canada	-8.2	1.0	9.2	-2.9	2.5	5.3	100.8	69.3	-31.5	1.1
Belguim	-6.7	-0.0	6.7	3.2	4.4	1.2	135.2	98.5	-36.7	1.8
Finland	-6.1	2.0	8.1	-6.6	2.2	8.8	65.1	53.3	-11.8	1.8
Spain	-5.7	0.1	5.7	-1.4	1.8	3.2	68.8	49.1	-19.8	3.2
Portugal	-6.6	-4.5	2.1	0.8	-1.8	-2.5	69.9	76.5	6.6	2.1
France	-5.0	-3.4	1.6	-2.4	-1.0	1.4	62.6	76.7	14.1	1.5
Australia	-5.7	1.0	6.7	-2.0	2.5	4.5	43.4	15.3	-28.1	1.8
Austria	-3.7	-1.5	2.2	-0.7	0.7	1.4	69.6	69.2	-0.4	1.2
US	-4.8	-4.2	0.5	-1.3	-2.4	-1.0	74.2	63.8	-10.4	1.2
The Netherlands	-3.4	-1.9	1.5	1.0	-0.0	-1.0	87.0	63.7	-23.2	1.5
Germany	-2.6	-3.8	-1.2	0.1	-1.2	-1.3	55.8	69.9	14.2	0.6
Denmark	-3.2	2.3	5.5	0.0	2.8	2.8	77.6	49.7	-27.9	1.7
Ireland	-2.5	0.3	2.8	2.3	0.5	-1.8	81.2	29.9	-51.3	2.8
Japan	-1.8	-6.5	-4.7	-0.6	-4.8	-4.2	87.0	158.9	71.9	2.6
Norway	-1.0	13.4	14.4	-3.8	9.7	13.5	40.5	51.7	11.2	2.3
New Zealand	-0.7	5.4	6.1	1.5	5.0	3.4	51.7	26.0	-25.7	2.1
OECD average[c]	-5.3	-0.6	4.7	-1.3	1.0	2.3	77.0	68.2	-8.8	1.8
EU average[c]	-6.0	-1.6	4.5	-1.1	0.6	1.7	81.6	69.9	-11.7	1.8
Average of countries with large deficit[c,d]	-7.5	-1.4	6.1	-2.1	1.0	3.1	83.2	70.9	-12.2	1.8

[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, 78, December 2005, and CBS data.

example, is a debt/GDP ratio no larger than 60 percent or a clear downward trajectory toward this fraction. The reduction in 2005, however, is only the first step on a lengthy path that the government has to travel in order to reduce this ratio and bring it into closer alignment with the norm among developed countries. Israel's young age composition

Due to Israel's security risks and their economic effects, the country's ability to reduce its debt burden is considered more uncertain than that of other countries.

The fiscal measures that have been taken and the credibility that investors attribute to the fiscal targets that the government has adopted are among the important factors behind the decreases in Israel's risk premium and interest rates on government debt in the past two years.

relative to the developed countries,[7] coupled with its convenient debt structure, allows it to converge toward these levels more slowly than otherwise. However, due to Israel's security risks and their economic effects, its ability to reduce its debt burden is considered more uncertain than that in other countries. Hence the vast importance of rapid progress that will demonstrate a commitment to reducing the debt/GDP ratio. The more distance, chronological and statistical, that the economy creates from the time when it was at palpable risk of a financial crisis (2002–2003), the more credible its policy becomes. The fiscal measures that have been taken and the credibility that investors attribute to the fiscal targets that the government has adopted are among the important factors behind the decreases in Israel's risk premium and interest rates on government debt in the past two years.[8] Ultimately, however, the government will have to prove its commitment to the targets by performance. Therefore, it is important for the government to continue adhering to them and not to revert to the behavior that was typical of the period up to 2003, in which the budget targets were changed almost every year.[9] A deviation from the targets so soon after they were announced may undermine the confidence that has been gained and cause the risk premium and the interest rate on the government debt to rise again. It is especially important to stabilize the low level of risk attributed to the Israeli economy in preparation for the "day after," i.e., the end of the U.S. loan-guarantees arrangement. A significant contraction of the debt/GDP ratio will also enhance the government's ability to use fiscal policy to smooth the effect of external and security shocks on economic activity without risking a downslide into financial crisis and will help to reduce the interest payments of the government and the private sector.

An important element in buttressing the credibility of fiscal policy in the long term is the set of reforms that have been introduced in recent years in order to solidify the downward path of public expenditure and deflect pressures to increase public expenditure in the long term. These reforms include raising the retirement age, especially in general government; revising the arrangements used to adjust National Insurance benefits, and setting government backing for the pension funds on solid footing. An arrangement for the gradual reduction of public-transport subsidies in the coming decade was also worked out in 2005. However, action should be taken to ensure the performance of the plans in accordance with the goals set. An example of the problematic nature of performance vs. plan is the ongoing decline of the retirement age in the public services despite the declared policy of raising it (Box 6.1).

[7] For a discussion of the effect of the expected demogrphic developments in Israel up to 2020 on government expenditure, see Kobi Braude (2003), "The Influence of Demography on Long-Term Public Expenditure," Economics Quarterly, 50, December (Hebrew).

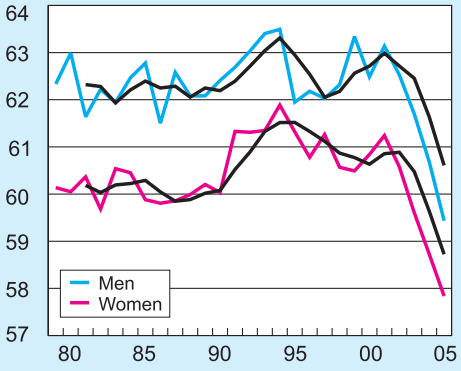
[8] For an analysis of the effect of the government deficit and deficit targets on the interest rates paid on government debt, see H. Ber, A. Brender, and S. Ribon (2004), "Are Fiscal and Monetary Policies Reflected in Real Yields? Evidence from a Period of Disinflation and Declining Deficit Targets," *Israel Economic Review*, Vol. 2 No. 2, December .

[9] The deficit target for 2005 was also raised when the budget was being prepared, from 3.0 percent of GDP to 3.4 percent, due to expenditure related to the disengagement. For a description of the frequent changes in targets during this time, see Box 3.1 in the corresponding of the Bank of Israel *Annual Report* for 2001.

Box 6.1
The decline of age at retirement in the public services since 2000

It has been government policy in recent years to raise the retirement age in general government and the economy at large. The compulsory retirement age in the public services, originally sixty-five for both women and men, is being raised to sixty-seven in a gradual process that began in June 2004. The adjustment traces to actuarial considerations and the wish to increase the labor-force participation rate of persons in the mature age cohorts. Most of the OECD countries have also raised their retirement ages in the past decade.[1] In Israel's public services, however, in contrast to the declared policy, the average actual age upon retirement of both women and men has been declining.

Average Retirement Age, 1979–2005



SOURCE: Bank of Israel.

The question is whether this should have been foreseen due to changes in the age composition of the population. If not, what brought about the decline in the average retirement age? Do these changes in the retirement patterns originate in the choice of retirees who are willing to forgo entitlements that used to be standard upon retirement, be it regular or early? Or is it the result of the implementation of a policy that clashes with the goals presented above?

In Israel's general government, in contrast to the global trend, the average age of retirees did not trend down until recent years. Until 2000, the average retirement age of both women and men had actually been moving upward (see Figure above). That year, the trend turned around and the average retirement age began to decline steeply. Examinations of the retirement data show that the advancement of retirement age is not typical of a specific group of workers. On average, the retirement age has been declining among both sexes, at all levels of schooling, and at all levels of the pre-retirement wage.

Mazar (2006)[2] found that an employee's decision about when to retire is influenced by personal factors (seniority, wage level, schooling, percent of pension accrued, age, preference for leisure, state of health, expectation of wage advancement, percent of pensionable wage in total wage, and job status and

[1] For further detail, see the *Annual Report* for 2003.

[2] Yuval Mazar (2006), *Retirement to Pension in Israel's General Government since the 1980s*, Bank of Israel, Discussion Paper 03.2006 (March) (Hebrew).

ranking) and by factors related to the policy of relevance in the decision to retire (promotion in rank and various grants upon retirement, maximum percent of pension accrual allowed, annual accrual rate, compulsory retirement age, age at which National Insurance benefits may be received, level of National Insurance benefits, unemployment compensation—level, duration, and eligibility terms—and miscellaneous macro variables).[3] These factors are manifested in the expected replacement ratio of an employee upon retirement, defined as the ratio of his/her retirement benefits to his/her wage on the eve of retirement. This ratio is an important indicator for comparison of the advisability of retirement with that of continuing to work.

The parameters that influence the retirement decision have not changed in recent years in any material way that can explain the decline in the average retirement age.

Personal factors: Retirees' seniority continued to increase; thus, it is not the attainment of a certain level of seniority and the accrual of entitlements on account of it that is causing employees to retire early. The rate of pensionable wage in total wage does not seem to have changed in recent years. Furthermore, the composition of retirees in terms of rank and schooling has not changed; such changes might explain a decrease in the retirement age. Thus, the personal factors cannot explain the decrease in the retirement age in recent years.

Policy factors: Formally, none of the parameters of relevance to retirees have changed in recent years. The maximum allowable accrual has remained at 70 percent, the percent of accrual per year of work remains 2 percent, promotion upon retirement has not yet been changed. The cutback in National Insurance benefits and the toughening of the terms for receiving unemployment compensation have certainly not encouraged early retirement. Furthermore, the hiring freeze in general government has given managers less incentive to encourage their employees to retire early. However, the recent reforms may have increased employees' uncertainty about their rights upon retirement, e.g., tax exemptions, prompting them to retire earlier in order to ensure their rights.

The average replacement ratio[4] of retirees by gender has not changed in recent years. Thus, despite the decline in retirement age, retirees' rights have not been perceptibly impaired. In fact, the gap in replacement ratios in favor of those retiring early has increased. Comparison of the replacement ratio of early retirees with that of retirees at standard age shows that the ratio for the former has been higher in all years, even though those who retire at the standard age have more seniority. Thus, special grants gave people an incentive to retire

[3] Obviously, a change in the policy factors will affect the personal factors that prompt an employee to retire. For example, an increase in the maximum allowable rate of pension accrual will change the effect of seniority on one's decision to retire.

[4] Not standardized for retirement ages.

early. On average, the replacement ratio of early retirees is 4.4 percentage points higher than that of those who retire at the standard age. The premium has increased in recent years and has created an incentive that may explain early retirement.[5] An econometric analysis of the replacement ratio points to a significant increase in the early retirement premium in some recent years (albeit at only 1 percent).[6]

Another factor encouraging early retirement is greater generosity in promotion in rank upon retirement. The proportion of early retirees who received increases of two or more ranks upon retirement has climbed conspicuously in recent years and the share of those who received one or no additional rank has declined. No such phenomenon has been observed among those who retire at the standard age. Thus, the incentive to retire early has grown because employees who retire at the legal age are not rewarded as are those who retire early.

One explanation for the contradiction between the policy goal of deferring retirement and the incentivization of early retirement is the government's wish to maintain fairness toward veteran workers in general government ahead of changes in the "rules of the game" that have been announced in recent years. However, the continued practice of giving benefits for early retirement diminishes the validity of this explanation. The explanation for the contradiction is evidently rooted in an attempt to prune general government by means of early retirement and the hiring freeze instead of accomplishing this by means of a focused policy of efficiencies.

[5] A theoretical and econometric analysis has found a positive correlation between the level of an employee's expected replacement ratio and his/her decision to retire early.

[6] The analysis was performed net of the effects of seniority and eve-of-retirement wage.

It will not be possible to close the gap in debt/GDP ratio between Israel and the developed countries unless Israel attains a smaller general-government deficit than that of these countries.

Since Israel's growth rates in recent decades have not surpassed those in developed countries to any significant degree, it will not be possible to close the gap between Israel and these countries in debt/GDP ratio until Israel establishes a lower general-government deficit than that of these countries. Comparison of Israel's deficit with that in the OECD countries[10] shows that it remains high despite the decrease in 2005. Under the common international definitions, Israel's general-government deficit was 4.5 percent of GDP in 2005 (Table 6.4) as against an average of only 0.5 percent in the OECD countries.[11] A long-term comparison also underscores the difference between

[10] The comparison relates to the twenty long-standing members of the OECD that have per capita GDP greater than $10,000 per year and for which data for the past fifteen years are available. The comparison with the EU countries relates to the fourteen countries that were members of the Union before 2003, except for Luxembourg.

[11] To translate the general-government deficit from the Israeli definition to the international one, it is necessary to add the indexation differentials on the local-currency-denominated debt of the general government, which came to 1.6 percent of GDP in 2005. At inflation of 2.0 percent—the middle of the range that has been defined as price stability—the increase comes to about 1.3 percent of GDP.

Table 6.4

Principal Fiscal Aggregates by Common International Definitions: Israel[a], OECD and EU Countries, 1999-2005

	1999	2000	2001	2002	2003	2004	2005
General government deficit (-)							
Israel[b]	-4.3	-1.5	-4.7	-9.0	-5.1	-5.7	-4.5
Israel, local National Accounts definitions	-3.5	-1.3	-3.9	-5.1	-5.9	-4.9	-2.9
OECD average[c,d]	-0.1	1.5	0.0	-0.8	-1.2	-0.6	-0.5
EU average[c]	-0.3	1.0	-0.6	-1.3	-1.8	-1.5	-1.7
General government expenditure							
Israel[b]	52.5	51.1	53.7	58.6	52.0	52.1	50.8
OECD average[c]	45.5	44.1	44.8	45.2	45.6	45.2	45.3
EU average[c]	48.0	46.5	47.2	47.6	48.2	47.9	48.1

[a] The data for Israel were brought into line with the accepted international definition: indexation differentials (accrual basis) on the NIS 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 6.3.
SOURCE: Based on OECD Economic Outlook, 78, December 2005, and CBS data.

Under the accepted international definitions, Israel's general-government deficit was 4.5 percent of GDP in 2005 as against an average only 0.5 percent in the OECD countries.

the beginning of the previous decade, and the OECD countries, which reduced theirs during the same time by 4.7 percent of GDP on average (Table 6.3).[12] However, a significant share of the difference in the deficit level is accounted for by the different stage in the business cycle at which Israel currently finds itself; the cyclically adjusted deficit in Israel and in the OECD countries in 2005, using common definitions, is similar (Table 6.5). Nevertheless, a similar level of cyclically adjusted deficit should not be confused with a similar level of actual deficit, since it is no simple matter to reduce the actual deficit as GDP converges toward its potential level.

The government has acted over the past two years to lower the tax burden, defined as the proportion of tax payments in GDP.

In addition to cutting the deficit, the government has acted over the past two years to lower the tax burden, defined as the proportion of tax payments in GDP. This is because a low tax burden, if the government manages to persuade the public that it

[12] The choice of 1992 as the base period reflects the beginning of the fiscal alignment in Europe pursuant to the Maastricht Treaty and the end of the large expenditure for immigrant absorption in Israel. Israel's cyclically adjusted deficit is skewed upward during this time because its large immigrant-absorption expenditure did not end until 1994.

Table 6.5
The Cyclically Adjusted Deficit of the General Government, 1999-2005[a]

(percent of potential output)

	1999	2000	2001	2002	2003	2004	2005
Overall deficit	-2.6	-1.6	-2.6	-2.6	-1.7	-1.4	-0.5
Domestic deficit	-2.9	-2.3	-3.1	-2.1	-2.4	-1.5	0.0
Overall deficit by international definitions[b]	-3.7	-2.6	-3.8	-3.9	-3.0	-2.7	-1.7

[a] Interest payments were calculated assuming that the rate of inflation growth during the year was 2 percent, 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 NIS debt (indexed to the CPI and unindexed).
SOURCE: Based on Central Bureau of Statistics data.

will persist, may help to encourage sustainable economic growth.[13] Tax rates were cut substantially in 2004–05; the effect of these decreases on tax revenues in 2005 relative to those in 2003 is estimated at NIS 7.5 billion. Furthermore, during 2005 the government stressed even more strongly its commitment to the long-term easing of the tax burden by adopting a new reform, implying further gradual reduction of income-tax rates on wages and earnings until 2010. The reform included additional measures for the rationalization of the direct-tax system and, specifically, the narrowing of tax disparities among different kinds of capital income. The tax cuts included in the reform, coupled with further reductions that were decided upon in 2004 and 2005, are expected to reduce revenues (in net terms, with increases in some tax rates factored in) over the next five years so that the cumulative decrease from 2010 will be about NIS 15 billion per year.[14] The credibility of these tax cuts depends, of course, on maintaining a moderate rate of increase in expenditure, so that the tax cuts not be attained at the cost of an overly slow reduction of the deficit and the debt/GDP ratio.

The tax cuts had an estimated NIS 7.5 billion impact on tax revenues in 2005 relative to those in 2003.

The tax cuts decided on for the next five years are expected to reduce annual revenues starting in 2010 by NIS 15 billion.

Despite the cutback in tax rates in 2004–2005, the tax burden—the ratio of total tax payments to GDP—increased slightly in 2005 after a small upturn in 2004; still, it remained at the bottom of the narrow range in which it has been fluctuating since the late 1980s (Figure 6.1 and Table 6.A.11). The increase in the tax burden since 2003, despite the rate cuts, shows how intensively the recovery of activity has affected tax revenues. In particular, revenues from taxes on corporate earnings and the self-employed increased in the past two years—from 4.6 percent of GDP to 5.7 percent—as did revenue from import taxes, even though the tax rates on these forms of activity were lowered. These developments, however, evidently reflected a

The increase in the tax burden since 2003, despite the tax cuts, shows how intensively the recovery of activity has affected tax revenues.

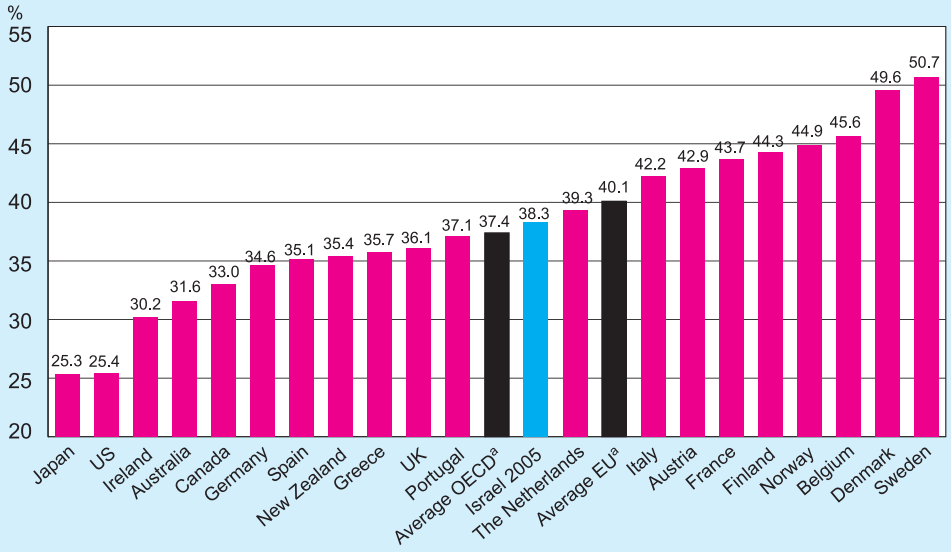
[13] For discussion of this topic and findings about the effect of the tax burden on GDP in Israel, see Y. Lavi and M. Strawczynski (2001), "The Influence of Policy Variables and Immigration on Business Product and Its Components—Factor Inputs and Productivity—in Israel, 1960–1995," *Bank of Israel Review,* 73 (Hebrew).

[14] This does not include a reduction of the rate of Value Added Tax from 16.5 percent to 16 percent, on which no resolution has yet been taken.

Israel's tax burden is not high by the standards of developed countries. Thus, if the process moves ahead, Israel will have a lower tax burden than most developed countries.

nonrecurrent response to the recovery of activity. The upward trend in these earnings will probably slow as the growth rate stabilizes, much as the increase in imports of consumer goods already eased off in 2005. Accordingly, one may expect the tax-rate decreases in the next few years, already decided upon, to set the tax burden on a long-term downward path. This will allow the economy to continue improving its competitiveness vis-a-vis the developed countries.[15] Even today, Israel's tax burden is not high relative to the burden in these countries (Figure 6.2); it rests in the middle of their range. Thus, if the process moves ahead, Israel will have a lower tax burden

Figure 6.2
The Tax Burden, Israel 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.

than most developed countries, especially since most developed countries have halted their tax-rate reduction process and several European countries intend to raise their tax rates.[16] After the cutting of tax rates on wages is applied, Israel's rates will be low by international standards at most wage levels.[17]

[15] According to the Research Department tax model, the long-term rate of increase in government tax revenue is 1.03 percent for each percent of increase in GDP. Therefore, absent changes in statutory tax rates, one would expect the tax burden to increase slightly whenever GDP grows.

[16] Some OECD countries are continuing to lower their corporate tax rates, but often these actions are accompanied by a change in tax regulations so that the level of revenues from this source does not decline. The purpose of these processes is to simplify the tax system and not to reduce revenues.

[17] For an international comparison of tax rates on wages, see Adi Brender (2005), *Tax Rates on Labor Income in Israel pursuant to the Tax Reform: International Perspective*, Bank of Israel Research Department (Hebrew).

The decrease in the general-government-deficit/GDP ratio in 2005 coincided with the continued recovery of economic activity. Since the general-government deficit is directly affected by changes in GDP and, especially, via tax revenues, it is also common to examine changes in the cyclically adjusted deficit, which is calculated on the assumption that the economy is operating at its potential level of output.[18] In Israel, it is also necessary to adjust the calculation to inflation due to the unique method of recording interest payments in the National Accounts and in the budget, because when the pace of price increases is subtracted from the nominal interest rate, the calculated interest rate fluctuates whenever the inflation rate changes.[19]

The cyclically adjusted deficit of general government decreased by 1 percent of potential GDP in 2005 and by more than 2 percent since 2002.

Thus computed, the cyclically adjusted deficit of general government decreased in 2005 by 1 percent of potential GDP, bringing the total decrease since 2002 to more than 2 percent. Since the cyclically adjusted deficit in 2005 was even lower than in 2000 (Table 6.5), the increase of the deficit during this time may be traced to the widening of the difference between actual and potential GDP. Furthermore, according to this indication, the general-government budget net of the effect of the business cycle was nearly balanced in 2005. The decrease in the cyclically adjusted deficit in 2005 reflects the steep cutback in expenditure, which had a greater effect than the decrease in tax rates had on tax revenues. The cyclically adjusted domestic deficit of general government fell by 1.5 percent of GDP in 2005 and by 3 percent of GDP since 2002. According to this index, which approximates the direct effect of general-government activity on demand in 2005, this activity had a dampening effect on demand.[20] However, one cannot rule out the possibility that the restoration of fiscal control contributes to the recovery of economic activity or, at least, offsets much of the adverse direct effect of the deficit-cutting on demand. It would accomplish this by its contribution to consumer and investor confidence and the lowering of interest rates, especially in view of the fiscal crises in 2002 and 2003.[21]

Net of the effect of the business cycle, the general-government budget was nearly balanced in 2005.

The possibility that the restoration of fiscal control contributed to the recovery of economic activity cannot be ruled out.

[18] The calculation of potential GDP in this chapter is based on the average increase of per capita GDP since 1973—1.5 percent per year. According to this calculation, GDP increased in 2005 by 1.9 percent more than potential GDP, reducing the cumulative deviation of GDP from its potential level to 6 percent. This assumes that GDP was equal to potential GDP in 1997. The "cyclically adjusted " deficit is calculated on the assumption that tax revenues increase commensurate with GDP and that total expenditure and non-tax revenues are not sensitive to changes in output. For a detailed discussion of how the computation is performed, see Section 2 in Chapter 5 of the Bank of Israel *Annual Report* for 1999. For further calculations of the GDP gap, see Chapter 2 of this Report.

[19] In calculating the interest expenses of general government, the Central Bureau of Statistics subtracts the actual inflation rate from the interest rate paid on the unindexed domestic-currency debt. In the event of a decrease in prices, the rate of the decrease is not added to the interest rate. Our calculation of the cyclically adjusted deficit assumes a "normative" inflation rate of 2.0 percent.

[20] Lavi and Strawczynski, for example, show that reducing the deficit by cutting public consumption induces a decrease in short-term demand even after the expansionary effect of private expenditure is accounted for. See Lavi and Strawczynski (2005), "The Impact of Fiscal Policy on Private Consumption in Israel with Emphasis on the Fiscal Expectations Approach," *Israel Economic Review*, Vo. 3 No. 1, August,.

[21] For an expanded discussion of the possibility that the deficit reduction in 2003 helped to stimulate activity, see Box 3.2 in the corresponding chapter in the Bank of Israel *Annual Report* for 2003.

Indeed, various studies abroad have found that, in recent decades, the direct short-term effect on output of an increase in government spending or a tax cut is small and of unclear direction.[22] It follows that the crafters of fiscal policy, especially in countries that have large debts and deficits, have to contend not only with choosing between enhancing welfare in the present (by increasing public consumption and correcting market failures) and reducing the burden on subsequent generations (by cutting the public debt and developing infrastructure) but also with the question of whether an expansionary policy can enhance welfare in the present at all.

In addition to the problem of how to interpret the effect of changes in the cyclically adjusted deficit and, specifically, of a decrease in the domestic deficit, it is important to stress that these deficit calculations are very sensitive to the estimate of potential GDP and to assumptions about the intensity of the response of tax receipts and public expenditure to output growth. Therefore, it would be rash to infer from the existence of a balanced cyclically adjusted budget that the actual general-government budget will be balanced if the economy attains its potential output. As developments in Israel in the past two years clearly show, the response of tax revenues to an increase in GDP is usually stronger upon the exit from a recession than it is later on. This effect, however, may already have been exhausted in the current exit from recession. Furthermore, the computation assumes that public expenditure does not change as the gap between actual and potential GDP is being closed. This premise is inconsistent with the experience in Israel, where each percent of increase in business-sector product has been found to induce an upturn of about half a percent in public expenditure (deflated by business-sector GDP prices). This correlation reflects the wage increases in the public sector that take place during periods of upturn, the indexation of some National Insurance benefits to the national average wage (in the past), the increase in demand for public goods when the standard of living rises, and the tendency of the political echelon to increase expenditure when tax revenues expand. Therefore, for the actual deficit to converge to the cyclically adjusted level while the gap between actual and potential GDP is narrowing, spending must be restrained even at a time of growth. In this context, it is worth bearing in mind that potential GDP estimates around the world are also notorious for sizable retroactive changes over time.[23]

The response of tax revenues to an increase in GDP is usually stronger upon the exit from an activity slump than later on. This effect, however, may already have been exhausted in the current exit from recession.

[22] In an article that examines the effect on product of increasing public expenditure and lowering taxes, Perotti finds that even in affluent countries, where intuition suggests that the effect would be quite large, it is small and sometimes negative. In studies that explored a wider range of countries, many cases were found in which a tight fiscal policy actually helped to increase output in the short term, and vice versa. R. Perotti (2005), "Estimating the Effects of Fiscal Policy in OECD Countries," CEPR Discussion Paper 4842, January.

[23] See International Monetary Fund, *World Economic Outlook 1999,* Ch. III.

2. GENERAL-GOVERNMENT EXPENDITURE AND ITS COMPOSITION

The share of public expenditure in GDP was 49.1 percent in 2005, down 2.1 percentage points from that in 2004. This level, the lowest since 1970, attests to the strength of the fiscal adjustment that has been made in the past three years. Since 2002, the public expenditure/GDP ratio has fallen by 5 percentage points, with a real decrease (deflated by business-sector GDP prices) in primary expenditure in 2003–2004 and a mild increase, at a pace similar to that of population growth, in 2005 (Table 6.2). In 2005, the growth of civilian consumption accelerated, especially in its purchases component, whereas domestic defense consumption showed a mild increase that reflected, mainly, the effects of the disengagement plan.[24] The decrease in transfer payments stopped in 2005, but their growth rate was still lower than that of the population, chiefly due to continued real declines in child allowances, unemployment compensation, and income maintenance (Table 6.A.14).

The share of public expenditure in GDP was 49.1 percent in 2005, down 2.1 percentage points from 2004 and the lowest level since 1970.

Current transfers (mainly National Insurance benefits) increased by 1.6 percent in 2005 after an average annual decline of 2.3 percent in the previous two years. In per capita terms, current transfers contracted by 11 percent in real terms in the past four years, offsetting most of the real increase that occurred in 2000 and 2001. The ratio of transfers to GDP declined steeply, returning to the mid-1990s level. Thus, the entire increase in the fiscal burden occasioned by these payments, which accelerated in the second half of the 1990s and the beginning of the current decade and was a major factor in the rapid growth of public expenditure, was reversed. The stanching of the real decline in benefits in 2005 was uneven, mirroring government policies. Benefits for the working-age population contracted considerably; child allowances, unemployment compensation, and income-maintenance benefits slipped in real terms by 7.5 percent (Table 6.A.14). In contrast, old-age and disability benefits increased for reasons including a government decision to raise the rate of the old-age benefit. Thus, the government's declared policy of lowering the rates of benefits for the working-age population, coupled with an increase in support for population groups unable to work, came into sharper focus. The cutbacks for the working-aged have been steep since 2002—child allowances down 45 percent in cumulative terms, unemployment and income-maintenance benefits down 37 percent—and the trend is expected to continue. In contrast, the real increase in old-age and disability benefits in the past two years was compatible with the increase in the population of eligibles, after having outpaced the increase in eligibles at the beginning of the decade.

In real per capita terms, current transfers contracted by 11 percent in the past four years, offsetting most of the real increase that occurred in 2000 and 2001.

Benefits for the working-age population contracted considerably but those for old age and disability increased in 2005.

Child allowances contracted by 45 percent in cumulative terms and unemployment and income-maintenance benefits fell by 37 percent.

These data show that from a historical perspective, the current share of transfer payments in GDP is not low, especially considering the need to reduce the government deficit and the debt/GDP ratio and the absorption of the immigrants of the early 1990s. There is no doubt that some people who need public support, especially those of

[24] The increase in defense expenditure was mitigated somewhat by a decline in hourly wages, after their perceptible upturn in 2004.

Some people who need public support, especially those of working age, have been badly affected in recent years.

working age, have been badly affected in recent years. This happened particularly because the crackdown in terms of assistance was applied to all persons in need of the welfare systems, since the Israeli system still cannot distinguish reliably and efficiently between those who cannot work and those who avoid work by choice. Although the Mehalev ("Wisconsin") welfare-to-work program, meant to alleviate this shortcoming and help the working-age jobless to fit into the labor market, was inaugurated in 2005, it is in its pilot stage for the time being and it is premature to determine the extent of its success.[25] The development of efficient ways to make this distinction may improve the substitution ratio between safeguarding the public exchequer and maintaining fiscal stability, on the one hand, and the wish to provide appropriate help for persons who are eligible for it, on the other. One possible way to support eligibles more generously while reducing the total budget burden is to adopt a policy of greater selectivity in transfer payments. (See Box 6.2.) However, the experience of developed countries in applying this instrument has been varied. Therefore, Israel should adopt it cautiously and in a limited manner, avoiding the creation of disincentives to labor and developing appropriate tools to identify those eligible for benefits.

The development of efficient ways to distinguish between those who cannot work and those who do not wish to may improve the tradeoff between safeguarding the public exchequer and maintaining fiscal stability, on the one hand, and the wish to provide appropriate help for persons who are eligible for it, on the other.

Box 6.2
Selectivity and generosity in social benefits

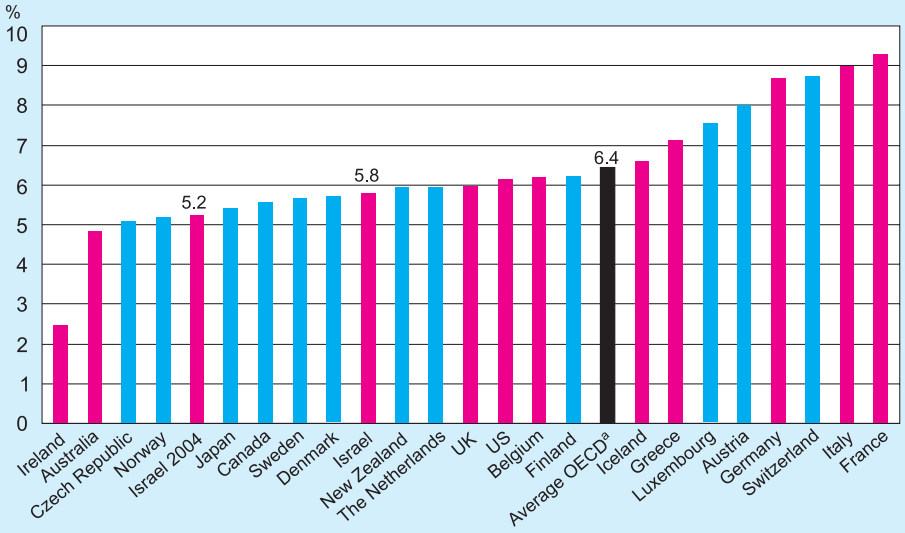
In most countries, benefits are a mainstay of the social-security system. They are distributed in two ways: (1) **selective programs**—in which the benefit includes a fixed basic portion and a selective increase based on measurement of the individual's means against a fixed standard. Benefits are limited to those whose available means fall below the threshold established; and (2) **universal programs**—in which support is set at a flat rate or is pro-rated on the basis of years of work or residency but does not depend on the applicant's income or means. Most universal systems include a supplemental selective level. Examination of old-age and child benefits in Israel and the OECD countries shows that many countries have selective systems and that such systems make it possible to give the indigent more support with no increase in total public expenditure. Although the choice between a selective system and a universal one reflects a wide range of social preferences and practical considerations, the data for the developed countries point to growing selectivity in benefits as a policy tool that allows countries—with the acceptance of the public in many countries—to provide meaningful aid to weak population groups, while restricting the growth in government expenditure. The use of this tool, however, carries the risk of increasing disincentives to labor or income.

[25] For a detailed discussion of the Mehalev program, see Box 5.1.

Old-age benefits[1]

Israel's old-age benefit includes a universal component—16 percent of the average wage for an individual and 26 percent for a couple—and a selective supplement for those whose income (including the pension) is under a certain threshold. According to an index that examines total expenditure for old-age benefits relative to GDP, taking account of the size of the eligible population relative to the OECD average,[2] Israel in 2004 ranked nineteenth among twenty-three countries (Figure 1). An international comparison of the index shows that the average expenditure on old-age benefits in terms of GDP is similar in countries that have selective systems and those whose benefit systems are universal—6.6 percent and 6.4 percent, respectively.

Figure 1
Index of Expenditure on Retirement Allowances as Percentage of GDP (Corrected for Eligibility Criteria), Israel and OECD 2001



[a] Average of OECD countries shown here.

SOURCE: Based on data from OECD and the National Insurance Institute.

We also compared the level of the old-age benefit in terms of percent of per capita GDP.[3] The comparison pertains to a representative individual who accumulated forty years of seniority and retired at the official retirement age.

[1] The analysis was performed in regard to cash benefits only, excluding support in the form of tax benefits and voluntary provisions.

[2] The index was calculated for Israel and twenty-two other countries in 2001 and corrects for differences in age distribution and in retirement age. Poland, Portugal, Slovakia, Mexico, South Korea, and Spain were excluded from the index because their data did not permit differentiation between the primary and secondary pension tiers.

[3] The inquiry was conducted for Israel and the twenty-two OECD countries that appear in Figure 1. The most recent data were from 2003.

The benefit level was calculated from the SSPTW data for 2003 and included the first-tier pension only. In countries where the first and second pension tiers are integrated, the benefit was calculated as the difference between the total pension paid to the individual and the value of the second tier. The comparison showed that for individuals whose labor and pension income is half of per capita GDP, the old-age benefit in selective-system countries is higher than in those with universal systems (Table 1), whereas the opposite is the case for individuals whose income is at or above per capita GDP. Both comparisons indicate that selective systems do better for low-income individuals without increasing public expenditure appreciably.

Table 1: Retirement Allowance (first tier) as Percentage of Per Capita GDP, 2003

	Allowance for individual			Allowance for couple[a]		
	Whose average annual income from wages or pension is equal to					
	Half per capita GDP[b]	Per capita GDP	Twice per capita GDP	Half per capita GDP	Per capita GDP	Twice per capita GDP
Israel 2004[c]	17.4	17.4	17.4	25	25	25
OECD average	19.9	13.5	10.7	34.8	21.5	16.4
Average of countries with selective allowances[d]	23.4	7.7	0.8	46.7	14.1	1.6
Average of countries with nonselective allowances	17.6	17.6	17.6	26.6	26.6	26.6

[a] Assuming one partner has no income.
[b] The level of retirement allowance of a single pensioner whose average annual wage or pension income is half of the per capita GDP in his country of residence.
[c] From July 2002 until April 2005, retirement benefits were reduced, by law, by 4 percent. In May 2005, the allowances were raised to a level 1.5 percent below that of July 2002. The figures presented above are after the reduction. Benefits that include an income supplement were not reduced.
[d] For eligible individuals.
SOURCE: Social Security Programs Throughout the World, OECD (2003, 2004, 2005).

Child benefits

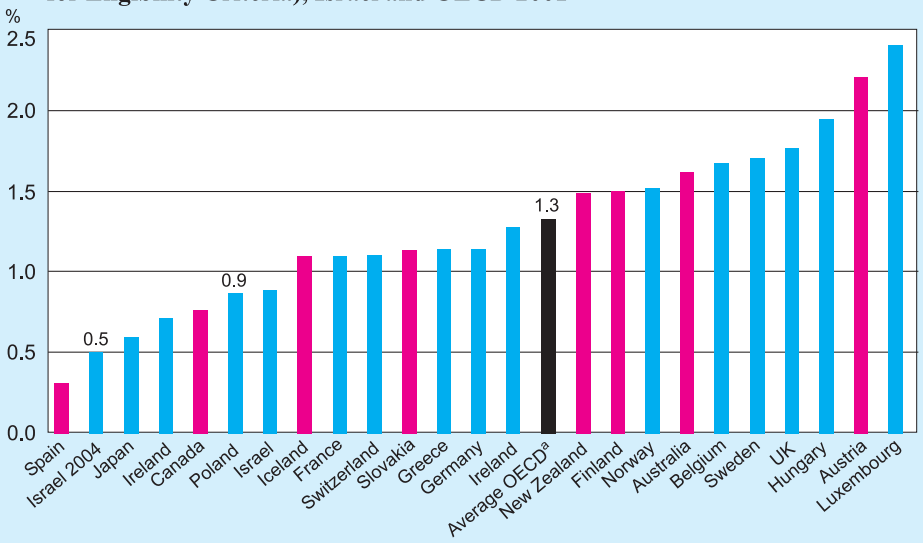
Israel's child allowance is universal, i.e., calculated on the basis of number of children irrespective of income. Comparison of the ratio of child benefits to GDP in Israel with that in OECD countries, adjusting for the share of children in the population,[4] shows that in 2004, due to the reduction in child allowances between 2002 and 2004, Israel ranked twenty-second among the twenty-three countries in child-benefit expenditure (Figure 2)[5]: 0.5 percent of standardized GDP in Israel as against 1.3 percent among the OECD countries.[6]

[4] The share of the 0–18 age cohort in Israel's population was 28.5 percent of the population as against 18.8 percent on average in the OECD countries.

[5] Furthermore, the OECD countries customarily offer parents of children significant tax benefits that do not exist in Israel. (See Box 3.2 in the Bank of Israel *Annual Report* for 2004.)

[6] The index pertains to Israel and twenty-two OECD countries and corrects for differences in age distribution. The Czech Republic, Italy, the Netherlands, and Portugal were excluded from the comparison because their level of benefits could not be calculated. The U.S., Mexico, and South Korea do not pay child benefits.

Figure 2
Index of Expenditure on Child Allowances as Percentage of GDP (Corrected for Eligibility Criteria), Israel and OECD 2001



[a] Average of OECD countries shown here.

SOURCE: Based on data from OECD and the National Insurance Institute.

Comparing expenditure on child benefits and the level of benefits in Israel with these parameters in the OECD countries, we reach similar conclusions: selective systems make it possible to be more generous to needy population groups without increasing public expenditure. The total expenditure on child benefits relative to GDP in countries that have universal systems and those that have selective systems is similar at 1.3 percent. Comparison of the size of the benefit, however,[7] shows that in selective systems the benefit—for those who receive it—is much larger than in countries that pay child allowances on a universal basis. Furthermore, the more children a family has, the wider the disparity (Table 2).

Table 2: Level of Child Benefits as Percentage of Per Capita GDP, 2003

	Single child (aged 4)	Two children (aged 4 and 10)	Three children (ages 4, 10, 15)
Israel 2004	2.3	4.6	9.1
OECD average	5.4	9.7	14.9
Average of countries where allowances are selective[a]	7.0	11.7	17.3
Average of countries where allowances are universal	4.1	8.1	13.0

[a] For those children entitled to allowances.
SOURCE: Social Security Programs Throughout The World, OECD (2003, 2004, 2005).

[7] The comparison pertains to Israel and the twenty-two OECD countries in Figure 2. The most recent data were from 2003. do not pay child benefits.

The policy measures that were adopted in the past three years aggravated income-distribution inequality, at least in the short term.

The policy measures that were taken in the past three years aggravated income inequality, at least in the short term.[26] Although the acceptable extent of inequality is mainly a sociopolitical question, inequality also has economic implications that have to be dealt with. One implication concerns social mobility: if inequality deprives members of weak population groups, and their children, the ability to acquire human capital commensurate with their talents, economic efficiency is impaired. Unfortunately, the data in Israel do not help to answer the question of how problematic that effect is in this country.[27] Another implication concerns the credibility of the path of fiscal policy. In a society where much of the public deems poverty/inequality undesirable, an increase in these parameters—and in the public's awareness of it—brings the government under greater pressure to take remedial action. If the government fails to develop efficient tools to cope with these problems, the buildup of political pressure may result in the embrace of whatever policy tools are available, even if they are not the most efficient. In the case of Israel, this may be manifested in the reversal of the policy measures that have been adopted in recent years, i.e., resuming the rapid upsurge of transfer payments to the public at large. Such a development is especially probable if the declared policy calls for action to ease the plight of members of weak population groups by means of the labor market, while in practice working people who belong to these groups remain poor. According to several indicators, this state of affairs has come about in Israel.[28] One way to tackle the problem is by adopting policy measures that would help the groups that the state intends to encourage, i.e., members of weak strata who participate in the labor market. Israel spends less than the developed countries on programs for the active encouragement of employment.[29] Assistance of this kind, coupled with an earned income tax credit program to raise the wages of low-wage workers, may provide new policy tools for the focusing of government assistance on low-wage workers and lessening the risk of a return to the policy of the decade preceding the 2003 stabilization plan.[30]

If the government fails to develop efficient tools for action against poverty and inequality, the result may be a buildup of political pressure that will lead to the adoption of whatever policy tools are available, even if they are not the most efficient.

[26] For a detailed analysis of these effects, see Chapter 8 and Leah Ahdut, Miri Endweld, Zvi Zussman, and Rafaella Cohen (2005), "Social Aspects of the State Budget: 2001–2006," presented at the first annual conference of the Economic and Social Program at the Van Leer Jerusalem Institute. This analysis does not take account of the effect of the capital-income tax that has been implemented since 2003.

[27] A study that examined the phenomenon in 1983–1995 found that two-thirds of the poor climbed out of poverty over a span of about ten years but that the proportion of poorly educated adults and Arabs who did so (even net of the effect of schooling) was much lower. See Moses Shayo and Michael Vaknin (2000), "Persistent Poverty in Israel: Results from the Linked 1983 and 1995 Census Data," *Toward a New Welfare State in Israel*, The Maurice Falk Institute for Economic Research in Israel.

[28] See report of the macro team at the 2005 Caesarea Conference.

[29] See A. Brender, A. Peled-Levi, and N. Kasir (2002), "Government Policy and Labor-Force Participation Rates of Populations of Main Working Ages—Israel and OECD Countries in the 1990s," *Bank of Israel Review*, 74, November (Hebrew), and International Monetary Fund, "Active Labor Market Policies," in *Israel: Selected Issues,* Country Report 05/134, April 2005.

[30] For discussion of the possible effects of an earned income tax credit program, see A. Brender and Michel Strawczynski (2005), "Characteristics of the Desired Negative Income-Tax System in Israel in View of Labor Supply Indicators of Persons of Low Income Potential," Bank of Israel, Discussion Paper 2005.07 (Hebrew).

The contribution of fiscal policy to sustainable growth and welfare enhancement depends not only on the levels of the deficit and public expenditure but also, and largely, on the efficient allocation of budgets to correct market failures to deliver public goods, to increase productivity and to change income distribution in ways that conform with society's values. Since the decision about the composition and size of expenditure should reflect the public's preferences and values, and since excessive public spending may impair economic activity by causing a rise in the tax burden and the public debt, setting priorities in allocating the budget are immensely important. The government and the Knesset, however, rarely debate the budget priorities systematically. The government does not define, in practical terms, the main targets that it wishes to attain by means of the budget, particularly the activities that it may discontinue in order to free resources for the preferred fields. This is reflected in the dominant share of across-the-board cutbacks in budget adjustments. An ex post examination of the priorities in public expenditure, adduced from changes in government spending in recent years, also shows that even though the level of public expenditure has varied widely—rapid growth up to 2002 and a decline since then—the composition of primary expenditure has hardly changed since the late 1990s (Table 6.6). Although the share of some specific components of expenditure occasionally changes briefly due to exceptional developments—e.g., the security situation in 2001–2003 and an increase in the share of National Insurance benefits in 2001—the composition remains quite constant over a period of several years. It is especially notable that the share of

The contribution of fiscal policy to sustainable economic growth and an increase in the standard of living hinges largely on the efficient allocation of budget resources.

Although the level of public expenditure has varied widely—rapid growth up to 2002 and a decline since then—the composition of primary expenditure has hardly changed since the late 1990s.

Table 6.6
Government Expenditure Priorities, 1998–2005

(percent)

	1998	1999	2000	2001	2002	2003	2004	2005
Total government expenditure[a]	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Education[b]	14.6	15.2	14.8	14.8	13.9	14.4	14.5	14.7
Health[c]	15.7	15.4	15.0	15.0	14.6	14.8	15.4	15.8
Defense	23.2	22.2	23.0	22.6	25.6	24.9	23.6	23.3
National Insurance benefits and disability pensions[d]	19.8	20.1	20.8	21.9	21.2	20.6	19.8	19.8
Infrastracture investments[e]	2.2	2.1	2.2	2.2	2.6	2.9	3.0	1.7
Other	24.4	25.0	24.2	23.5	22.0	22.6	23.7	24.7

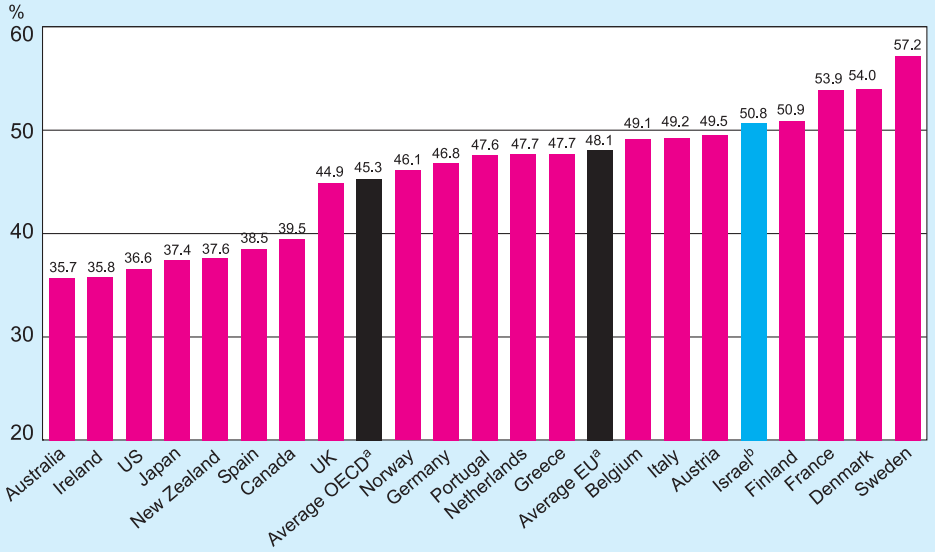
[a] Excluding interest; including net National Insurance Institute expenditure; including government hospitals, which have been removed from the government budget since 1998; excluding credit.
[b] The budget of the Ministry of Education and budgetary allocations to the universities and colleges.
[c] The budget of the Ministry of Health, government hospitals, and transfers of Health Tax from the National Insurance Institute to the Health Funds.
[d] Excludes payment for reserve duty which is included in defense expenditure.
[e] The government's nonresidential investment, excluding subsidies to government enterprises and governmental participation in investment in roads by the Local Authorities.
SOURCE: Based on National Budget Summary, Ministry budgets, and Central Bureau of Statistics data.

expenditure for education and healthcare, areas of activity that are often mentioned as worthy of preference, hardly changed during this period.[31]

The decline in Israel's public-expenditure/GDP ratio in recent years narrowed much of the gap that had evolved between Israel and the developed countries in the previous decade.

The decrease in Israel's public-expenditure/GDP ratio in recent years has narrowed much of the gap that opened up between Israel and the developed countries in the preceding decade, after the ratio approximated the average in these countries in the early 1990s. Although only three countries (Sweden, France, and Denmark) have larger public expenditure/GDP ratios than Israel's, general government in six other countries spends at a similar level (Figure 6.4). Furthermore, some of Israel's defense spending (about 2 percent of GDP) is funded regularly by the United States government. The gap between Israel's public expenditure and the OECD average, following the common international definition, is about 6 percent of GDP (Table 6.4). Although most of the gap originates in defense expenditure, which is higher in Israel, this explanation for Israel's steep public expenditure—however justified it may be—does not diminish the damage that the size of general government is inflicting on the country's economic competitiveness. This is because Israel's defense outlays buy a product—security—that Israel's economic rivals acquire at a much lower price.

Figure 6.3
Share of General Government Expenditure in GDP; Israel and OECD Countries, 2005



[a] Arithmetic mean of the OECD/EU countries shown in this figure.
[b] Calculated according to the common international definition.

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

[31] For a detailed discussion of the significance and problematic nature of the analysis of the composition of expenditure, see Chapter 3 of the Bank of Israel *Annual Report* for 2004.

Although total public-consumption expenditure in Israel and the OECD countries rose at rather similar rates, service availability improved in the comparison countries but not in Israel.

As for real per capita public expenditure (an indicator of improvement in the quality and quantity of services), Israel's rate has hardly changed in the past decade, whereas in the OECD countries it has been rising by 1.8 percent per year (Table 6.3). In contrast, the relative price of public services has been increasing more rapidly in Israel than in the comparative countries.[32] Consequently, although total public-consumption expenditure in Israel and the OECD countries rose at rather similar rates (adjusted by the GDP deflator), service availability improved in the comparison countries but not in Israel.[33] This comparison underscores the importance of achieving greater efficiency in the public services as a way of restraining the increase in public expenditure. Since in the long term the government cannot base the reduction of its expenditure/GDP ratio on slower growth of its wage rates than of those of the business sector, it needs to develop tools that will allow it to raise its operating efficiency to levels that approximate those of the business sector as closely as possible, so that the demand for an increase in public services will be met by more efficient use of factor inputs. The attainment of this goal, however, entails appropriate managerial tools and incentives—a task that many countries find difficult to handle successfully (Box 6.3).

Box 6.3
Performance budgeting as a tool for the enhancement of efficiency in the public sector

One of the approaches to government efficiency that has generated much interest, especially since applied in New Zealand in the 1980s, is "performance budgeting," i.e., management and budgeting on the basis of goals and outputs.[1] In this approach, the budgeting of government units should stress the setting of goals that the units must attain within the budget framework established for them and the units should be given latitude in determining how they use their budgets for the attainment of these goals. The unit manager is held responsible for the attainment of the goals and reporting at year's end should focus on the attainment of the goals/outputs that were determined. In Israel, the importance

[1] Managers and scholars tend to gather under this definition a large number of diverse management and budgeting methods. For an itemization, see Robinson, M., and J. Brumby (2005), *Does Performance Budgeting Work? An Analytical Review of the Empirical Literature,* IMF working paper, WP/05/210.

[32] The ratio of public-consumption prices to GDP prices in Israel rose by 2.5 percent on average per year during this period, as against an average increase of less than 1 percent in the OECD countries.

[33] The public consumption/GDP ratio decreased during the period examined by 1 percent in Israel and by 0.5 percent in the OECD countries.

of emphasizing outputs in government was underscored as far back as the Kubersky Commission report (1989),[2] and has resurfaced occasionally in various policy recommendations.[3] The State Comptroller also noted the need to make greater use of setting goals and outputs in preparing the budget and reporting on its performance.[4]

Although the use of performance budgeting is very attractive, its large-scale implementation is difficult in many ways. First, since most units, especially large ones such as government ministries and health funds, generate a broad range of outputs, it is difficult to determine in practical terms the goals that they should attain, the extent of substitutability among the goals, and the indicator that will ultimately determine whether the unit has performed its tasks successfully. The outputs that are chosen as operative goals may become those that are relatively easy to measure; as a result, the units will focus on attaining them and not on other activities that may have a more important effect on the attainment of the policy goals. Even if theoretically one may set "prices" that will denote the relative value of different goals, practically this is a difficult task that has not yet been attempted on a significant scale. Another difficulty relates to evaluating the performance of units that are meant to prevent events, such as the defense system. The UK performance-budgeting program states that the goals determined for a unit should be SMART: Specific to it, Measurable, Attainable, Relevant to its activity, and defined in Time. Such goals, however, may clash with broader goals of the government, shift the emphasis from important outputs that are hard to measure (which are numerous in government) and from service quality, and lead to a short-term focus. This is especially liable to happen if employees' wages are linked to the attainment of the goals. In fact, one of the main criticisms of New Zealand's plan is that the managerial burden of negotiating the units' operating contracts is heavy and detrimental to the operating efficiency of government.[5]

The effect of these limitations is reflected in the way developed countries have adopted the performance budgeting method. In a survey published by the OECD,[6] almost all member countries reported that they were applying some version of performance budgeting and about twenty countries stated that they had been doing so for at least five years. In most countries, however, the programs had a limited effect on the budgeting process and in only about half

[2] Report of the Professional Public Committee for Comprehensive Investigation of the Civil Service and Entities Supported by the State Budget (Hebrew), Government Printer, Jerusalem.

[3] David Nahmias and Alonah Nuri (1997), "Principles of Output-Based Management and Budgeting in General Government," Israel Democracy Institute, Position Paper 2 (Hebrew).

[4] State Comptroller, *Report 55b,* 2004.

[5] For a discussion, see OECD (2005), *Modernising Government, The Way Forward.*

[6] OECD (2005), *Performance Information in the Budget Process: Results of the 2005 Questionnaire.*

did the finance ministry take part in determining the performance indicators. Even countries that have had such programs for many years found it difficult to obtain the data needed to implement them—and found it even harder to devise indicators for specific activities and the effects of policy on them. As a result, the output indicators are used mainly for reporting on the units' activities in the budget documents. Most countries report that they also use the output data to make budgeting decisions but almost all countries that do so use the data only as a source of information and not as a structured criterion for setting the budget. Only a few countries set the level of the budget in direct proportion to the attainment of predetermined outputs and goals, and only in rare cases does the finance ministry intervene to discontinue or downsize activities/units that fail to meet the targets or to give the managers of successful units a wage increase or a bonus. (The UK and Denmark are exceptions in these respects.)

Despite the difficulties in applying performance budgeting in government at large, developed countries have used such systems successfully in specific fields. For example, various countries have attained considerable efficiency and savings by budgeting hospitals on a DRG (diagnosis-related groups) basis, usually with no significant adverse side effects. This success is attributed to the professional commitment of the medical staff. In Israel, too, a process of decentralization of powers has been under way recently in some health funds, with various units given specific output targets in order to improve their operating efficiency. Another important way of applying performance budgeting is the devolution of powers to municipal authorities, since mayors are closer to customers and are judged by them in municipal elections on the basis of their overall performance. This lessens the aforementioned risk of bias in favor of the specific goals that are set. In the Scandinavian countries, for example, the devolution of powers to municipal authorities is an important component in the expansion of performance-based service and management contracting. In Israel's education system, several pilot programs have shown that financial incentives for teachers based on pupils' achievements did much to improve achievements.[7] However, the effort required to design these pilot programs and to collect the information needed to determine whether the goals were achieved highlights the difficulties of expanding the scope of such programs in the education system, let alone in the rest of the public sector.

The experience in OECD countries and the theoretical analysis show that the setting of goals and reporting on outputs do not suffice, in themselves, to improve government efficiency on a large scale. These methods cannot replace a commitment by the elected leadership—which was not forthcoming in some countries—to motivate government staff to provide high-quality and

[7] Victor Lavy (2004), *Performance Pay and Teachers' Effort, Productivity and Grading Ethics,* NBER working paper 10622.

efficient service. Within such a framework, however, the setting of performance targets may be an efficient tool for unit managers in bringing about internal organizational improvement. Furthermore, even if the information obtained about outputs cannot be put to direct use for budgeting, it may improve the decision-making process. Therefore, despite the limitations of performance budgeting, its potential contribution to greater efficiency in government is considerable.

One way to streamline the public services is by making greater use of on-line methods so that the public need not visit government offices to obtain services.

One way to streamline the public services is by making greater use of on-line methods so that the public need not visit government offices to obtain services. Project Tehila, which allows the public to make various payments and receive information over the Internet, has much potential in reducing the burden of those who need government services and in cutting costs. To cut its expenses in a major way, however, the government must find ways of making the potential personnel savings into reality. Concurrently, the government may consider cost-cutting methods that will not aggravate the burden on the public, e.g., merging redundant collection mechanisms such as those of the tax authorities with the National Insurance and the television license fee—without even dealing the question of whether to integrate these taxes into the general tax system. Another possible way to cut costs and make general government more flexible and efficient is by outsourcing the operation of public services through competitive bidding, with funding remaining governmental.[34] Several steps in this direction have been taken recently in regard to infrastructure investment but there has been no perceptible trend of use of this avenue in civilian public consumption in recent years. Indeed, the distribution of civilian public-consumption expenditure between general-government payroll and procurements from outside entities has hardly changed in the past decade.[35]

3. THE PUBLIC DEBT AND FINANCING OF THE DEFICIT

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

The public-debt/GDP ratio declined steeply in 2005, to 101.9 percent at year's end as against 105.7 percent at the end of 2004 and 106.7 percent at the end of 2003.

The public-debt/GDP ratio declined steeply in 2005, to 101.9 percent at year's end as against 105.7 percent at the end of 2004 and 106.7 percent at the end of 2003. Most of the public debt belongs to the central government; municipal authorities account for a small portion.[36] The central government debt/GDP ratio declined steeply, from

[34] The extent to which outsourcing may be used to enhance general-government efficiency is disputed. For a discussion, see Wright, B. (2001), "Public Sector Work Motivation: A Review of the Current Literature and a Revised Conceptual Model," *Journal of Public Administration Research and Theory,* vol. 11(4), pp. 559–586.

[35] The share was 58 percent in 1995 and 56 percent in 2005.

[36] Municipal debt to banks and on account of bonds, net of municipal borrowing from central government via the banks.

103.3 percent in 2004 to only 99.7 percent at the end of 2005, due to a decrease in the internal debt (to 73.4 percent) and a small increase in the external debt/GDP ratio (Figure 6.1). Municipal debt contracted slightly in 2005 and fell to 2.2 percent in GDP terms. The public debt/GDP ratio declined even though the nominal debt increased by 2 percent, since nominal GDP increased by 6 percent.

The nominal growth rate of the debt in 2005 was the lowest in the past decade (with the exception of 2000). This is due to the small amount of financing that was needed and the way it was arranged. In 2005, the government's financing needs decreased due to the small deficit (1.9 percent of GDP). The composition of the financing of the deficit changed: it was dominated by NIS 8.6 billion in privatization receipts (large relative both to the program and to the past) and the conversion of $2 billion in government foreign-currency deposits—proceeds of guaranteed issues that were deposited with the Bank of Israel and not yet used, and other deposits that the government had held abroad. These two sources of finance obviated the need to issue bonds to finance the deficit. Therefore, bond issues in 2005 were smaller than redemptions, helping to bring down the debt (Table 6.7). Net domestic issues were negative at NIS 2.2 billion. CPI-indexed bonds recorded an NIS 14 billion surplus of redemptions over issues, including NIS 7.6 billion in non-negotiable debt due to the implementation of the pension reform. In contrast, net raising of unindexed capital (at fixed interest) was around NIS 12 billion. This change in the composition of the internal debt helped to reduce the nominal debt volatility that results from changes in the Consumer Price Index.

The nominal growth rate of the debt in 2005 was the lowest in the past decade (with the exception of 2000), due to the small amount of financing that was needed and the way it was arranged.

Table 6.7
Components of Increase in Gross Public Debt from 2004 to 2005

	(percent of GDP)
Debt at the end of 2004	105.7
Increase in GDP	-5.7
Budget deficit, cash basis	1.9
Redemption of net credit by the public[a]	-0.4
Receipts from privatization	-1.5
Total change in the government's deposits in banks	-0.6
Net allocation of capital	-0.7
Revaluation of local-currency debt[b]	1.0
Revaluation of foreign-currency debt	1.5
Remainder[c]	0.1
Total debt at the end of 2005	101.9

[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] Adjustment to issuing prices, scoring on bonds issued under US government guarantee and roundings.
SOURCE: Bank of Israel.

The external debt, expressed in foreign-exchange values, declined slightly in 2005. The small financing needs, coupled with successful issuing in Europe, also made it unnecessary to raise capital by using U.S. guarantees. In NIS values, however, the external debt climbed by about 6 percent due to a similar increase in the NIS–dollar exchange rate.

b. Composition of the debt

About 73 percent of the government debt is internal and 26 percent is external.

About 73 percent of the government debt is internal (issued in Israel) and 26 percent is external (issued abroad in foreign exchange). This ratio has not changed materially in recent years. The composition of the internal debt has changed in recent years due to changes in debt-management policy (reflected mainly in issues) and capital-market reforms, chiefly the pension-funds reform and the contraction of earmarked bond issues. The main trend in debt management in recent years has focused on the issuance of unindexed debt, especially at fixed interest, and the establishment of this kind of issuing as an important tool of government in raising capital, following the standard practice in bond markets around the world. Concurrently, the CPI-indexed debt, which was appropriate for investors' needs at times of high inflation, has been reduced and cumbersome debt instruments, such as those at floating interest or indexed to exchange rates, have been put to less use.

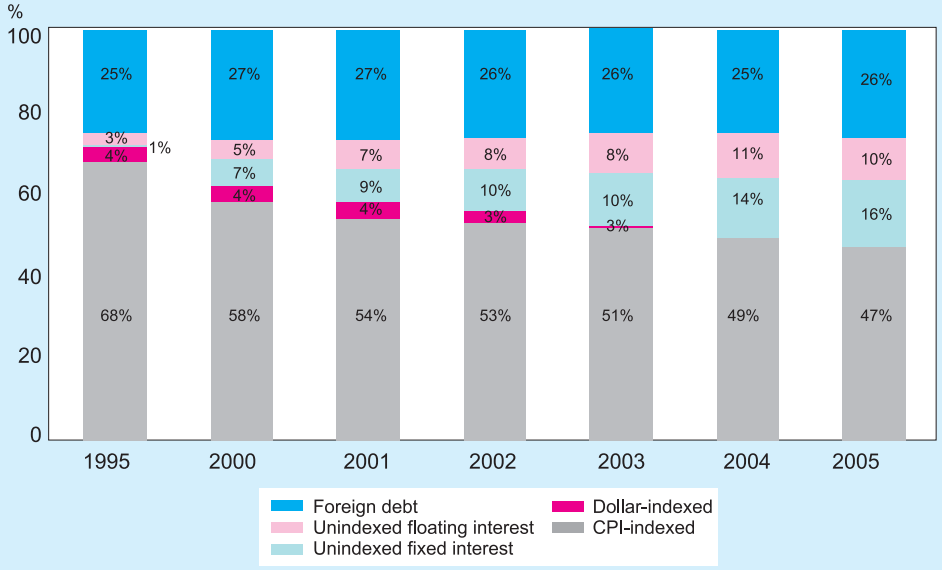
The main trend in debt management in recent years has focused on the issuance of unindexed debt, especially at fixed interest.

The share of unindexed fixed-interest debt in total debt was 16 percent.

The share of unindexed fixed-interest debt in total debt was 16 percent (Figure 6.4). Issues of such debt began about a decade ago, and although this form of debt has become the main component of government issues, its proportion in the debt stock remains rather small because it was initially issued only to short terms. Furthermore, for structural reasons that are explained below, non-negotiable indexed debt—formerly issued in large amounts and to long terms—continued to account for much of the debt stock. Moreover, notwithstanding the policy of increasing the unindexed debt, issuing abroad—both via the exercise of U.S. guarantees and by successful government issues in overseas markets—has expanded in recent years for reasons related to the management of the external debt. The proportion of unindexed debt at floating interest increased from 3 percent a decade ago to 10.5 percent in 2005. Notably, however, the floating-interest debt is not "pure" unindexed debt, since the mobility of interest rates in accordance with market yields creates a component of de facto indexation. Fixed-interest unindexed debt has advantages: its cash flow is constant and foreknown and, above all, it is the most issued and traded debt instrument in the world. Therefore, the government should make efforts to increase its share in the total debt. This would also help to break down the web of indexation mechanisms in the economy and, by so doing, would contribute to monetary stability.

As the share of unindexed debt in the total debt has been rising during the past decade, that of CPI-indexed debt has been declining—from 68 percent in 1995 to 58 percent in 2000 and 47 percent at the end of 2005. CPI-indexed debt protects lenders against inflation because it pays indexation differentials on account of price increases

Figure 6.4
Composition of Government Debt, 1995–2005



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

from date of issue to date of maturity. Since inflation protection is less necessary when inflation is low, and since today the market itself provides similar forms of protection, CPI-indexed debt is currently issued only for long-term saving purposes—to ten and twenty years. Notably, in recent years many countries have begun issuing long-term CPI debt. Issues in the UK began in the 1980s; the U.S., Canada, Sweden, Poland, and Hungary began to make such issues in the 1990s, and France, Greece, Italy, and Japan did the same during the past and current decades.

The pension-fund reform is abetting the proportional decrease in CPI-indexed debt.

The proportional decrease in CPI-indexed debt was abetted by the pension-fund reform that went into effect about two years ago. Until then, the government had to issue non-negotiable debt for the pension funds, all of which indexed to the CPI, in accordance with their needs. Since the reform was implemented, the size of non-negotiable issues plummeted from NIS 13 billion on average in 2001–2003 to less than NIS 4 billion in each of the past two years. As a result, some available assets of pension funds are being channeled to the negotiable bond market and are expected to make this market deeper and more efficient. The share of non-negotiable debt in total debt has fallen from 38 percent in 1995 to 34 percent in 2000 and 28 percent today.

External debt is issued in foreign capital markets and denominated in foreign exchange, mainly dollars. It includes three kinds of bonds: those under the Israel Bonds program, bonds issued with U.S. government guarantee, and issues on the free market. Bond issues in foreign markets and in foreign exchange carry a currency risk; a change in the exchange rate may change the government's expected cash flow and

result in losses. Notwithstanding these risks, it is important for Israel to fit into the globalization process by issuing in foreign markets, thereby allowing foreign investors to participate in financing its debt. Government issues of external debt, by creating a market for Israeli bonds abroad, also help the private sector to issue debt and raise capital abroad by establishing a benchmark for these markets.

c. Term to maturity (age) of the debt

The average term to maturity of the debt was almost unchanged in 2005 at 6.7 years.

The age (average term to maturity) of the debt in 2005 was almost unchanged at 6.7 years—8.4 years for the external debt, 6.1 years for the internal debt, and only 5.4 years for the negotiable internal debt. The age of issued debt is one of the indicators of investors' confidence in the government and the age of the debt inventory is one of the indicators of its stability. Thus, the "older" the debt inventory is, the more stable the debt and the borrower's financial situation are perceived as being. This is because in the case of long-term debt the borrower can spread the horizon of issues and redemptions to a long term. This eases concern that temporary changes in market conditions will force the government to recycle large amounts of debt quickly, a process that may result in high financing costs.

The age of unindexed fixed-interest debt (Shahar bonds) remained low in 2005 at 3.6 years on average.

The age of unindexed fixed-interest debt (*Shahar* bonds) remained low in 2005 at 3.6 years on average. In recent years, this debt has been issued to five- and ten-year terms, relatively short by the standards of many developed countries. Portugal and Ireland issue bonds to terms of up to fifteen years, the U.S. and Italy to up to thirty years, and France and the UK to as much as fifty years. It is true that Israel's inflation history initially made it necessary to issue this form of debt to short terms, but today the country can and should issue to longer terms, pursuant to the global practice. The age of negotiable CPI-indexed debt grew in 2005 by about a year, to 7.8 years. This also traces to the decline in the government's financing needs, which allowed it to focus its indexed-debt issues on a twenty-year term that is geared to long-term savers. Notably, the U.S., Canada, Italy, and France issue CPI-indexed debt to terms of up to thirty years and the UK does so for up to fifty years.

The fundamentals in 2005 were conducive to the prolongation of terms to maturity of government debt.

The fundamentals in 2005 were conducive to the prolongation of terms to maturity of government debt. The improvement in macroeconomic conditions, including the small government deficit and price stability—manifested in a low risk premium and a decline in bond yields to historically low levels—made longer-term borrowing less costly than at other times. The government's intention of issuing fifteen-year unindexed bonds (at fixed interest) is an important step in this direction. The government should also issue CPI-indexed debt to a thirty-year term, mainly for long-term savings purposes.

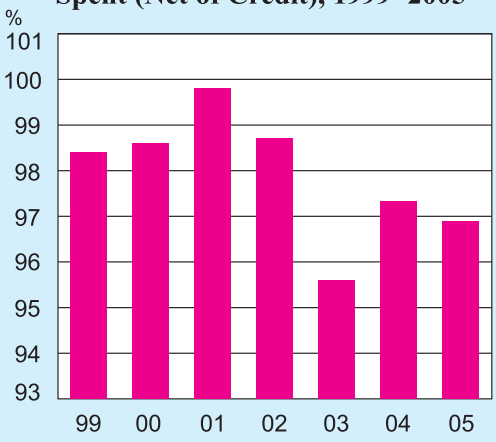
4. THE GOVERNMENT BUDGET AND THE DEFICIT TARGET

The government deficit in 2005 was 1.9 percent of GDP, below the government's 3.4 percent target.

The government deficit in 2005, as stated, was 1.9 percent of GDP, below the government's 3.4 percent target. This marks another step forward, after a decline in the second half of 2003 to 3.5–4 percent of GDP and no change in 2004. The deficit decline in 2005 was composed of a mild real increase in expenditure—only 1 percent, including the cost of the disengagement—and a rapid increase in revenues. Almost the entire difference between the deficit ceiling and performance traces to underspending of the budget; revenues approximated the budget outlook. The restraint of government spending allowed the share of expenditure in GDP to decline by 1.1 percent of GDP relative to 2004, half of the decrease tracing to defense outlays (Table 6.8).[37] Real government tax revenues increased in 2005 by a hefty 5.5 percent despite appreciable reductions in tax rates, causing the revenue/GDP ratio to rise.[38] Other domestic revenues of the government increased due to an accounting transfer of NIS 0.9 billion in automobile insurance surpluses from Avner, Ltd. Civilian assistance from the U.S. Government also grew in 2005 because the 2006 grant was paid early. Thus, total government revenues increased by 0.8 percent of GDP.

The deficit decline in 2005 was composed of a mild 1 percent real increase in expenditure—including the cost of the disengagement—and a rapid increase in revenues.

Figure 6.5
Share of Government Budget Spent (Net of Credit), 1999–2005



SOURCE: Based on data from the Accountant General and Bank of Israel.

Government expenditure was considerably smaller than the budgeted sum: even though the 2005 budget (net, excluding credit) was 4.5 percent larger in real terms than total actual expenditure in 2004, actual spending increased by only 1 percent. Thus, the phenomenon of underspending of the budget, first evidenced in the second half of 2003, continued. In the past three years, the ratio of actual net expenditure (excluding credit) to the budget fell to 97 percent as against 99 percent in the previous three years (Figure 6.5). In 2005, too, the government spent only 97 percent of the money that it had budgeted. Domestic expenditure was 95.5 percent and the spending of civilian ministries and transfer payments came to only 94.4 percent. Defense outlays, in contrast, overshot the original budget due to an increase in defense imports. Interest expenditure was also below the budget by

Government expenditure was far below the budgeted level.

In the past three years, the share of net expenditure (excluding credit) in the budget fell to 97 percent as against 99 percent in the previous three years.

[37] The defense system's expenditures for the disengagement were included in a special item in the budget of the Prime Minister's Office and were not recorded as defense expenditure.

[38] The increase net of the effect of legislative changes was about 8 percent.

Table 6.8

Central Government Deficit,[a] Receipts and Expenditure, 1998–2005

(percent of GDP)

	1998	1999	2000	2001	2002	2003	2004	2005
Government domestic deficit ceiling[b]	2.2	2.6	2.8	0.5	4.1	2.3	3.4	2.8
Actual government domestic deficit	2.8	2.8	0.5	3.5	3.5	5.4	3.2	1.1
Overall government deficit ceiling[c]	2.8	3.1	3.6	1.8	3.9[d]	4.2	4.0	3.4
Actual overall government deficit	3.2	3.3	0.7	4.4	3.8	5.6	3.8	1.9
Total receipts, net[e]	**37.3**	**38.5**	**36.8**	**35.0**	**36.2**	**33.9**	**34.3**	**35.1**
Taxes and imposts	29.5	29.7	31.1	30.8	30.2	28.9	29.1	29.5
Interest, profits, royalties, revenue from land sales	2.2	1.8	1.7	1.3	1.4	1.1	1.1	1.3
Realized Bank of Israel profits	1.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0
Loan from NII	1.4	1.4	1.5	0.9	1.6	1.8	2.1	2.2
US government grants	3.2	2.6	2.5	2.0	3.0	2.1	2.0	2.1
Total expenditure, net[e]	**39.6**	**38.8**	**37.5**	**39.4**	**40.0**	**39.6**	**38.1**	**37.0**
Of which: Interest, repayment of principal to NII, and credit subsidy	7.3	6.9	6.9	6.9	6.8	7.7	7.3	7.1
Defense expenditure, net	9.2	8.8	8.5	9.0	9.8	9.1	9.7	9.1
Total primary expenditure excl. defense	23.0	23.1	22.0	23.5	23.5	22.9	21.2	20.8

[a] According to various definitions.
[b] The difference between the planned and the actual deficit includes 0.15 percent of GDP receipts which are recorded as domestic receipts when the budget is being prepared, but as foreign receipts 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 receipts, and receipts used to finance contingent expenditure.
SOURCE: Based on the National Budget Summary and Central Bureau of Statistics data.

The low rate of expenditure in the past three years reflects the overbudgeting of interest and the underspending by the ministries.

a large sum—NIS 3 billion, 10 percent of the original budget—after being NIS 4.2 billion below the budget in 2004.[39]

The rate of underspending of the budget in the past three years reflects a combination of overbudgeting of the interest item and the ministries' low rate of expenditure. It seems that due to hundreds of decisions on changes in the budget composition since the middle of 2003, coupled with amendments to the laws and regulations that govern the ministries' activities, some expenditure items in the ministries' budgets have amassed surpluses. To use these surpluses, the money has to be transferred to other

[39] The statistic in Table 6.9 includes remittances of interest and principal to the National Insurance Institute, which follow a predetermined schedule and hardly deviate from the budgeted sum. The percent of deviation is calculated from the other interest payments. Importantly, the decline in interest rates on new debt issued in 2005 has only a marginal effect on interest expenditure in the current year because payment of interest on most of this debt does not begin until 2006, because bond issues at prices over par are not offset in the budget from the interest expenditure, and because the inflation rate—which reduces the interest recorded on some of the debt issued before 2001—was lower than the level foreseen in the budget.

items. Due to the proliferation of budget items at each ministry and each government unit, among which many transfers require the approval of the Ministry of Finance (or in many cases, the ministry's willingness to ask the Knesset Finance Committee for *its* approval), the pace of expenditure is slowed.[40] Furthermore, due to the government's determination to meet the deficit target, the transfers among budget lines are approved only at year's end, when it is found that the level of revenues suffices to make the target attainable. By then, the ministries find it difficult to spend some of the money that was held back. This process has been reflected in the past two years in the large share of annual expenditure (more than 14 percent) that government ministries have made in December (with the exception of the Ministry of Defense, which has more control over transfers among line items in its budget). This phenomenon may impair the government's operating efficiency because the hasty last-minute performance of expenditure on the basis of unused sums that have accumulated in the exchequer may result in inefficient use of resources.

In the past two years, a conspicuously large share of government ministries' annual expenditure—more than 14 percent—has been performed in December.

While it is very important to keep expenditure under control in order to meet the government's deficit targets, the process should be more transparent. One way of doing this, for example, is by the overt establishment, at the time the budget is prepared, of a budget reserve that would be spent only if the requisite revenues are available. By so doing, the government would signal in advance its resolve to meet the deficit target while the overall priorities in regard to the revenue-dependent expenditure would be determined not administratively but by itself and the Knesset. Importantly, the underspending of budget expenditure is not a violation of the Budget Law, which establishes expenditure ceilings on the basis of government ministries, units, and activities. It is illogical to insist that entities that do not need to spend their entire allocations do so anyway. However, three consecutive years of significant underspending of budget allowances may attest to flaws in the budgeting process. Thus, if budgets are being allocated to items that do not need funding, or if those in charge of performing these items are unable to use the funds, it may be best not to allocate them to begin with. In this case, the budget would be more indicative of the priorities and the expected behavior of the government. As an alternative, it may be possible to allocate the sums to other fields, in which they would be used.

It is very important to keep expenditure under control in order to meet the government's deficit targets, but the process should be more transparent.

One of the domains in which government expenditure decreased in 2005 was transport infrastructure, after steady increases in recent years. The decline in 2005, however, occurred only in the transfer of money from the government to the entities that perform the work; the actual extent of work, according to estimates by the Central Bureau of Statistics, did not fall (Table 6.2). The discrepancy between cash flows from the budget and progress in work reflects the reorganization of the infrastructure field as the Public Works Department was converted into a government corporation, pursuant to a similar changeover at Israel Railways in 2004. Investments in transport infrastructure are based mainly on government companies and authorities

[40] For an international comparison of several budget items in Israel, see Avi Ben-Bassat and Momi Dahan, Israel Democracy Institute, Caesarea Conference 2005.

In 2004 and 2005, a strenuous effort was made to cement the government's transport undertakings in long-term programs.

that are funded or supervised by the government, sometimes resulting in a lack of synchronization between the release of budget resources to these companies and the performance of the work.[41] In 2004 and 2005, a strenuous effort was made to cement the government's transport undertakings in long-term programs by concluding a financing arrangement with Israel Railroads, approving a medium-term road-investment plan, and concluding an agreement to end the subsidization of the Egged bus company within ten years as another portion of the bus lines that it operates today is opened to competition. In the years to come, however, additional and even larger investments will be needed to align infrastructures with the needs of the economy. To accomplish this, it is important that the government, in its medium-term planning, also reserves sums to cover expected outlays in assisting other important projects, such as the Tel Aviv and Jerusalem light-rail systems.[42]

Revenues in 2005 were consistent with the budget outlook and surpassed it slightly (Table 6.9). The National Insurance Institute had an NIS 0.5 billion surplus over the budget outlook[43] and motor vehicle insurance surpluses generated an NIS 0.9 billion windfall. Tax revenues matched the budget outlook even though tax-rate reductions during the year dampened them by more than NIS 1 billion relative to the original outlook. The overshooting of the tax-revenue outlook (net of the effect of unplanned developments) was facilitated by faster GDP growth than the budget had foreseen; this contributed some NIS 3 billion to the revenue surplus. Concurrently, the increase in GDP prices fell short of the budget outlook and dampened revenues by NIS 1.3 billion.

Tax revenues were 5.4 percent larger in real terms than in 2004 even though changes in tax rates and accounting adjustments reduced revenues by 2.6 percent.

Tax revenues (excluding Value Added Tax on defense imports) were NIS 161.6 billion in 2005, 5.4 percent higher in real terms than in 2004 even though changes in tax rates reduced revenues by some NIS 3.5 billion (2.3 percent)[44] and accounting adjustments took off another NIS 0.5 billion. Examination of the behavior of real collections in 2005 by means of the Research Department's tax model[45] shows that the revenue increase in 2005—net of the effect of legislative changes—was about NIS 0.7 billion greater than the sum that the variables in the model explain. This discrepancy is slightly smaller than the Tax Authority's estimates of the effect of the arrears collection campaigns and beefed-up collection efforts that it employed during the year. The rest of the increase, 7.2 percent, is explained by several factors: (1) GDP

[41] Furthermore, government loans to Israel Railways are not recorded as expenditure for the purpose of measuring the deficit. These loans added up to NIS 800 million in 2005 as against NIS 400 million in 2004.

[42] For a detailed discussion, see the section on transport and communication in Chapter 2.

[43] For an explanation of how National Insurance Institute activities are recorded in the government budget, see Box 3.3 in the corresponding chapter of the Bank of Israel *Annual Report* for 2002.

[44] The legislative changes include changes that went into effect in 2005 only and the effects of changes in previous years on 2005 revenues.

[45] For full description of the model, see Adi Brender, "Estimates of the Tax Revenue Function in Israel," Bank of Israel, Research Department, Discussion Paper 2001.02, January 2001 (Hebrew). As the discussion paper explains, the contribution of each explanatory variable reflects not only the behavior of a specific tax base but also the correlation between the variable and other tax bases.

Table 6.9
Components of Deviation from the Original 2005 Budget

	Original budget	Actual	Difference between budget and actual
	(NIS billion, net, excluding credit)		
Deficit (–)	**-18.9**	**-10.8**	**8.1**
Domestic	-15.7	-6.1	9.6
External	-3.1	-4.6	-1.5
Revenue	**192.8**	**194.3**	**1.5**
Of which: Domestic	179.4	180.3	0.9
Taxes[a]	163.2	163.2	-0.1
Loan from NII	11.9	12.4	0.5
Other[b]	5.7	7.1	1.4
US government grants	11.9	11.7	-0.2
Expenditure	**211.6**	**205.0**	**-6.6**
Of which: Domestic	195.1	186.4	-8.7
Abroad	16.5	18.7	2.1
Defense[c]	47.3	50.5	3.2
Interest, repayment to National Insurance and credit subsidy	42.6	39.6	-3.0
Civilian ministries and transfer paymentsc	121.7	114.9	-6.8

[a] Including VAT on defense imports.
[b] Income from interest, land sales, royalties, dividends, and other income.
[c] NIS 3.5 billion which was included as reserve in the budget book is shown here in the budget column as part of the defense budget.
SOURCE: Based on data of the Acountant General regarding the performance of the 2005 budget.

growth contributed 6.1 percent to the upturn in revenues. (2) The increase in imports of consumer goods, beyond that explained by the upturn in GDP during the year,[46] explains a 0.7 percent increase in tax revenues. (3) The growth of real wages, which was smaller than that explained by the upturn in GDP, contributed a negative 0.3 percent to revenues. The financial variables in the model explain an increase of 0.6 percent in revenues in 2005.

5. ANALYSIS OF THE GOVERNMENT BUDGET FROM A MEDIUM-TERM PERSPECTIVE

After having made major progress in improving the fiscal aggregates in 2005, the government faces the challenge of continuing to advance in this respect in 2006. Due to the dissolution of the coalition and the calling of early elections, the government

[46] The model includes consumer goods imports and wages as deviations from the long-term correspondence that has been estimated between these variables and GDP.

At the present writing, as in four of the past six years, the government is operating on the basis of the previous year's budget, mutatis mutandis.

The rates of expenditure increase in the government's 2006 budget proposal, relative to budget performance in 2005, are rather large, especially in regard to civilian ministries and transfer payments.

was unable to pass into law the 2006 budget proposal that it had prepared, causing the new year to begin without an approved budget. Following the practice in such cases—as invoked in four of the past six years—the government is operating at present on the basis of the previous year's budget, *mutatis mutandis*. Although this budget is slightly smaller than the one in the government's proposal for 2006, this does not seem to impose an especially effective constraint on total expenditure in view of the rates of expenditure underspending in the past two years. Furthermore, the rates of expenditure increase in the government's 2006 budget proposal, relative to budget performance in 2005, are rather large (Table 6.10), especially in regard to civilian ministries and transfer payments, and in some items the 2006 budget proposal includes rather generous margins relative to expected needs. Operating without an approved budget, however, creates many micro-level difficulties and may impair the quality of services and the welfare of some segments of the public. Another concern related to the 2006 budget was that some expenditure items will be increased due to the elections on March 28—not necessarily to address the most important needs but to improve the electoral prospects of some of the candidates. The experience in Israel and abroad, however, shows that the ability to carry out such a policy, even if some of the candidates wished to do so, is limited (Box 6.4).

Table 6.10
The Government's Net Income and Expenditure in 2005 and in the 2006 Budget

	Actual 2005	Budget 2006	Real Change[a]
	(NIS billion)		(percent)
Income excl. credit	**194.3**	**201.3**	**1.6**
Taxes	163.2	169.2	1.6
National Insurance	12.4	12.4	-1.9
Grants	11.7	11.6	-2.6
Other	7.1	8.1	12.1
Expenditure excl. credit	**205.0**	**215.9**	**3.2**
Of which: Excl. interest and NII[b] prinicipal	165.4	173.7	3.0
Defense[c]	50.5	47.1	-8.6
Civilian	114.9	126.6	8.1

[a] Assuming that the average CPI in 2006 will be two percentage points above the average CPI in 2005.
[b] National Insurance Institute.
[c] In 2006, Including NIS 3.5 billion from the budget general reserve and approximately NIS 1 billion expenditure on the Disengagement Program that was budgeted by the Prime Minister's Office.
SOURCE: Based on data from the Accountant General, the Ministry of Finance.

Box 6.4
Election economics—myth vs. reality

During the 2006 election campaign, economists, public figures, and news-media personalities have repeatedly mentioned the menace of "election year economics"—the use of an expansionary budget policy by the government and Members of the Knesset to beef up their electoral support—as a threat, albeit temporary, to the stability of fiscal policy. Israel is not alone in debating this phenomenon; in other countries, too, it is believed that election year economics is a widespread phenomenon that may help incumbent governments to improve their prospects of reelection. Against this background, many articles that attempt to explain the phenomenon and find evidence of its existence have been written in recent decades.[1] The main strategies in election year economics, it is explained, are (a) an attempt to speed up economic activity ahead of elections by increasing government expenditure or cutting taxes; (b) the allocation of budget resources to voter groups that are crucial for the reelection of the ruling party, even though this results in a deficit; and (c) an attempt to improve the quality of public services before the elections in order to convince the electorate that the incumbent leader is more adept than his/her rivals at running government.

The arguments that leaders facing reelection use election year economics widely and effectively are challenged by reasoning to the contrary. According to this thinking, it hardly stands to reason that pre-election fiscal manipulations can sway voters; thus, governments would probably not invoke them. The main argument is that voters, knowing that the leader wishes to be reelected, will relate very suspiciously to unexpected policy changes and rosy developments in the run-up to elections and will not ascribe much importance to them in their voting. Furthermore, voters who suspect that pre-election budget changes are meant to influence their voting and realize that it is they who will have to cover the cost of the changes after the elections may even punish the practitioner of election year economics by voting for his/her rivals. It is also argued that a leader who wishes to create growth by means of pre-election budget manipulations would find the right timing very hard to achieve, since the existence of independent central banks neutralizes his/her ability to attain growth by means of such manipulations. Furthermore, an attempt to attain the support of some voters by distributing pre-election benefits may engender the disapproval of the rest of the electorate.

A study that looked into the prevalence of election year economics around the world[2] found that, notwithstanding the conventional wisdom, the phenomenon

[1] For a comprehensive survey of the literature, see Drazen, A. (2000), Political Economy in Macroeconomics, Princeton University Press.

[2] A. Brender and A. Drazen (2005), "Political Budget Cycles in New versus Established Democracies," Journal of Monetary Economics, 52 (7), pp. 1271–1295.

exists only in new democracies, i.e., countries in their early phases as democracies.[3] In all other countries—developed or otherwise and irrespective of method of governance, method of elections, and extent of democracy—no indications of an increase in expenditure or cutting of taxes in election years were found. Furthermore, no difference was found between election campaigns that were held on time and those that were moved up, and between those held in the first half of the year and those in the second half. The belief in the existence of election year economics may originate in the extensive public debate over budget changes that takes place during election campaigns; actual changes in the budget, however, seem to be few. Ben-Porath, examining the existence of election year economics in Israel in the country's early years—when Israel was a new democracy—did find indications of an increase in expenditure in election years.[4] Klein, examining the 1981–1999 period, showed that the increase in civilian public consumption in election seasons during these years was roughly as large as the cost of the election campaign itself.[5]

Another study looked directly at the question of whether increasing the deficit in election years, and at all, helps incumbent leaders to be reelected.[6] The study found that increasing the deficit in election years does not improve the likelihood of reelection in any group of countries and may actually harm reelection prospects in developed countries. Furthermore, leaders who increase the deficit beyond the effects of economic activity hurt their chances of reelection. The same was found for leaders during whose terms—and especially in election years—inflation rates rise. Even an upturn in growth during an election year does not contribute to the likelihood of reelection in any group of countries. These findings show that the electorate in most countries is not influenced by manipulations during election periods; instead, it judges the candidates on the basis of their performance during their entire term. An examination of recent municipal election campaigns in Israel elicited similar findings.[7]

Israel also has mechanisms that crimp incumbent leaders' ability to use election year economics to enhance their reelection prospects. Guidelines from the Attorney General forbid promises of jobs or financial benefits to an individual or a group in return for support of a candidate. The guidelines

[3] Countries were defined as new democracies until they held four democratic election campaigns (in addition to the one in which they switched from non-democratic to democratic rule).

[4] Yoram Ben-Porath (1975), "The Years of Plenty and the Years of Famine—A Political Business Cycle," Kyklos, 28, pp. 400–403.

[5] Nir Klein (2003), "Political Cycles and Economic Policy in Israel, 1980 to 1999, Bank of Israel Review 75, pp. 7–22 (Hebrew).

[6] A. Brander and A. Drazen (2005), "How Do Budget Deficits and Economic Growth Affect Reelection Prospects? Evidence from a Large Cross-Section of Countries," IBER Working Paper 11862.

[7] Brender (2003), "The Effect of Fiscal Performance on Local Government Election Results in Israel: 1989–1998," Journal of Public Economics 87, pp. 2187–2205 .

also state that promises during election appearances, or in relation to them, to distribute benefits or budgets should be avoided and that the creation of long-term commitments in pre-election periods should also be avoided to the extent possible. Furthermore, the Knesset does not normally hold regular sessions in the months preceding elections; thus, any legislation requires a special session and is therefore more transparent to the public. Under these circumstances, even if the country's leaders wish to invoke election year economics, their ability to do so is limited. Indeed, an analysis of the trajectory of government expenditure in the past decade (four election campaigns) found no systematic increase in expenditure ahead of elections (see table).

Change in Government Expenditure in the Six Months Before the Elections, 1996-2003[a]

(As percentage of potential GDP, seasonally adjusted[b])

Elections	In the six months prior to elections	Percentage change on preceding six months
May 1996	40.4	0.1
May 1999	37.0	0.7
January 2001	37.0	-0.3
February 2003[c]	35.1	-1.5

[a] Government local expenditure.
[b] Based on seasonal averages in 1991-2004. The potential GDP is caluculated according to the average growth in per capita GDP for the past 30 years. The calculations are fully explained in Ber, Brender and Ribon (2003) (Hebrew), (see footnote 13) above.
[c] Discounting an exceptional increase in expenditure in April 2002, the decrease was 0.7 percent.
SOURCE: Based on Bank of Israel data.

The important progress that the government made in reducing the deficit since the middle of 2003 and the decline in the debt/GDP ratio in 2005 are supportive of the goal of pointing the economy toward sustainable growth. However, the expected deficit increase in the 2006 budget, if performed in accordance with the government's proposal, coupled with the deficit ceiling up to 2010 as determined, will leave behind a deficit level that will not suffice to lower the public debt/GDP ratio significantly in the coming years.[47] Notwithstanding this, the government also adopted an expenditure ceiling that, if honored, may allow the deficit to decrease significantly in 2007–10, to a level under the 3 percent of GDP ceiling that was established—especially if it avoids tax cuts beyond those already legislated. If it behaves this way, the government will help to bring down the debt/GDP ratio more quickly and distance the economy from

The major progress that the government made in reducing the deficit since the middle of 2003 and the decline in the debt/GDP ratio in 2005 are supportive of the goal of pointing the economy toward sustainable growth.

[47] However, in view of the points made above, and since the composition of the proposed 2006 budget is not materially different from that of the 2005 budget, full execution of the budget is not foreseen unless the government decides on additional spending increases later in the year. For an expanded discussion, see Bank of Israel (2005), *Recent Economic Developments, April–September 2005*, November.

the high debt levels of recent years, which narrowed the possibilities of government response to adverse economic and security developments.

To examine the expected changes in budget aggregates in view of the government's targets and alternative policy paths, we used a model for medium-term budget analysis on the basis of past trajectories of various fiscal variables.[48] The model reflects the effect of the budget implications of government decisions on specific actions for the years 2006–2010 and examines expected changes in budget aggregates if they are implemented. The analysis also allows us to estimate the size of the further budget adjustment that is needed to meet the government's targets and to determine which ceiling—expenditure or deficit—will set the effective limit to the government budget in the years to come. The main underlying premises of the analysis, including the macroeconomic scenario for the next few years, are set forth in detail below.

Main underlying premises of the medium-term budget outlook

- Real GDP will increase by 4.3 percent in 2006 and by 3.9 percent per year in 2007–2010. The assumption behind these expected growth rates is that employment will grow more rapidly than the labor force, so that the unemployment rate will converge toward its natural level (about 6.5 percent) in 2010 and output per employee employed will climb by 1.25 percent per year, similar to the average since 1973.
- In 2006, the government will operate in accordance with the budget proposal that was approved in October 2005 and will spend the entire budget.
- Expenditure for the disengagement program will end in 2006. Accordingly, the 2007 expenditure ceiling will be lowered by NIS 2.2 billion.
- The growth and composition of the population will match the demographic outlooks of the Central Bureau of Statistics.[49]
- Real wages will increase in tandem with the increase in output per person employed.
- Real yields on government bonds issued from 2006 onward will be 4.0 percent, approximating the average in the past decade (long-term unindexed bonds will yield 6.5 percent).
- The government will honor its resolutions on suspending hiring and nominal budget increases. Furthermore, the rate of increase in public-consumption prices (with the exceptions of education and health care) will resemble that of GDP prices. This is an optimistic assumption, since in the past few decades

[48] For a detailed description of the frame of the analysis, see Kobi Braude and Adi Brender, *Effect of the Economic Plan on the Government Budget 2003–2008*, Bank of Israel, July 2003 (Hebrew).

[49] According to Central Bureau of Statistics (2004), "Projections of Israel's Population until 2025," Special Publication 1238. For details, see Kobi Braude (2003), "The Long-Term Effect of Demography on Public Expenditure in Israel," *Economics Quarterly* 50, December (Hebrew).

public-consumption prices in Israel have risen more quickly than GDP prices (as in developed economies).[50]

- The implementation of various private-Knesset-member laws that has been deferred to future years will be deferred again.
- U.S. civilian assistance will be discontinued at the end of 2006 and defense assistance will level off at $2.4 billion per year.
- Tax revenues, net of legislative changes, will increase at 1.03 elasticity to the increase in GDP, much as they have in the past fifteen years.[51] Revenues in 2005 were estimated on the basis of the Research Department tax model and detailed assumptions about changes in macroeconomic variables.
- The defense budget will increase in 2007 by 0.6 percent in real terms, due to an increase in U.S. defense assistance that was secured as part of the agreement that put the civilian aid on a phaseout trajectory. Various cutbacks that the government has decided to make will be subtracted from this rate. The real size of the defense budget will be maintained in future years, except for miscellaneous decreases that have already been decided upon.
- The tax reforms and the other tax cuts, including the reduction of employers' and self-employed contributions to National Insurance, will be carried out as planned. The rate of Value Added Tax will be lowered to 16 percent in January 2007.
- The exchange rate will be NIS 4.7 per dollar at the end of 2006 and NIS 4.8 at the end of 2007 and thereafter. The Consumer Price Index will rise by 2 percent per annum.
- Expenditure on education and healthcare will increase in tandem with changes in the size and composition of the relevant population groups. The quantitative increase in these services—per service recipient[52]—will correspond to the increase in GDP per person employed. Productivity will not change and the rate of increase in wage per person employed in education and healthcare will resemble that of the national average wage.[53]
- Indexation differentials on government bonds issued after 2001, and to be issued in coming years, will be recorded in the state budget as an expenditure at point of redemption.

[50] In the past thirty years, the pace of increase in public consumption prices outpaced GDP prices by 1.5 percent per year on average. (The result for the past twenty years is the same.)

[51] Based on an update of the Research Department tax model. For a description of the model, see Adi Brender (2001), "Estimates of the Tax Revenue Function in Israel," Bank of Israel, Research Department, Discussion Paper 2001.02, January (Hebrew).

[52] For example, per pupil in primary education. This assumption is an illustration that is also meant to reflect an increase in the number of service recipients due to legislative changes, e.g., if the incidence of the Free Education Law is extended to prekindergarten age groups.

[53] This assumption is consistent with the growth rate of per-pupil expenditure at the primary and secondary levels in 1976–2004.

- No further privatization transactions will take place in the next few years.[54]
- The remaining issues backed by U.S. government guarantees will be spread evenly over the years 2006–2008. The scoring premium paid for them will be recorded in the budget over a twenty-year spread.

Table 6.11
Expected Path of Principal Budget Aggregates, According to Various Scenarios, 2002-10

(percent of GDP)

	2002	2003	2004	Estimate for 2005	Forecast 2006	2007	2008	2009	2010
Maintaining the Expenditure Target									
Revenue excl. credit	39.2	37.1	37.0	37.3	35.9	35.3	35.2	34.8	34.3
of which: Tax Revenue	30.2	28.9	29.1	29.5	29.2	28.7	28.5	28.2	27.7
Expenditure excl. credit	43.0	42.7	40.8	39.3	38.8	37.4	36.4	35.4	34.4
Rate of real change in net primary civilian expenditure[a]	-2.4	-0.3	0.6	-2.0	9.3	1.4	1.9	1.0	1.4
Deficit excl. credit	-3.8	-5.6	-3.8	-1.9	-2.8	-2.2	-1.2	-0.5	-0.1
Gross public debt	104.6	106.7	105.7	101.9	99.9	97.0	93.3	89.1	84.6
Gap between projected expenditure and expenditure target	...	...	...	...	...	...	0.4	1.0	1.4
Raising Expenditure ceiling by 1.6 Percent a Year, Starting 2006[b]									
Expenditure excl. credit	43.0	42.7	40.8	39.3	38.2	37.1	36.3	35.5	34.7
Rate of real change in net primars civilian expenditure[a]	-2.4	-0.3	0.6	-2.0	6.3	2.2	2.3	2.1	2.3
Deficit excl. credit	-3.8	-5.6	-3.8	-1.9	-2.3	-1.9	-1.1	-0.7	-0.4
Gross Public Debt	104.6	106.7	105.7	101.9	99.4	96.2	92.4	88.4	84.3
Maintaining the Expenditure Target While Growing at the Rate of 3 Percent a Year, Starting 2006									
Expenditure excl. credit	43.0	42.7	40.8	39.3	39.2	38.2	37.5	36.7	36.0
Deficit excl. credit	-3.8	-5.6	-3.8	-1.9	-3.3	-3.0	-2.4	-2.1	-1.9
Gross Public Debt	104.6	106.7	105.7	101.9	101.5	100.3	98.4	96.4	94.2
Raising Expenditure by 1.6 Percent a Year (Starting 2007) while Growing at the Rate of 3 Percent a Year Starting 2006									
Deficit excl. credit	-3.8	-5.6	-3.8	-1.9	-3.3	-3.3	-2.9	-2.7	-2.8
Gross Public Debt	104.6	106.7	105.7	101.9	101.5	100.5	99.1	97.7	96.4
Lowering Taxes and Maintaing a Deficit of 3 Percent of GDP a Year									
Tax Revenues	30.2	28.9	29.1	29.5	29.0	28.0	26.7	25.8	24.8
Gross Public Debt	104.6	106.7	105.7	101.9	100.1	98.0	96.1	94.3	92.5

[a] Assuming that the 2006 budget is carried out in full, that funds budgeted under interest and are not spent will be used for other purposes and that the necessary budget cuts in the years 2008-10 will be made in civilian expenditure. Excluding costs of the disengagement from Gaza.
[b] Based on actual expenditure in 2005.
SOURCE: Based on Bank of Israel data.

[54] This is a working assumption. The government is planning to carry out several additional privatization transactions. If they go ahead, they will reduce the public debt and weaken the flow of dividend and royalty revenues.

According to this analysis, even if the government spends in 2006 the entire sum in the 2006 budget proposal—meaning, as stated, a perceptible increase relative to actual spending in 2005—the 2006 deficit is projected at slightly under the ceiling of 3 percent of GDP. In 2007, if the assumptions in the model come to pass, the spending and deficit targets will be attainable with no need for measures beyond the across-the-board cutbacks, nominal freezes, and benefit reductions that have already been decided upon. The extent of measures needed to stay within the expenditure ceiling in 2008 is also not great. In 2009 and 2010, larger steps will be needed to stanch the increase in expenditure because, among other things, the government has still not decided on specific actions to take during this time (Table 6.11). Since the government will not be able to hold the increase in general government wages per person employed to a lower level than in the business sector over a period of years, it should take action now to plan the measures that will allow it to reduce the relative size of general government and general-government employment from 2008 onward. This should be done within a medium-term framework that includes structural changes for greater efficiency in general government, measures for more effective use of public-service budgets and transfers in attaining policy goals, and prioritization of the fields in which continued government involvement will be necessary. Such planning will help to maintain the quality of the public services, for which, according to the experience in developed countries, demand will grow in tandem with the increase in GDP while expenditure will increase only moderately.

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Since the increase in the budget expenditure ceiling is determined each year relative to the previous year's budget and not relative to actual expenditure, the rates of increase that have been determined will allow expenditure in the next few years to rise appreciably relative to actual expenditure in 2005. Furthermore, since a mild increase in expenditure in a given year does not reduce the expenditure permitted in following years, the current ceiling—under the existing assumptions about defense spending—allows real civilian primary expenditure to rise by about 3 percent on annual average in 2006–2010, markedly surpassing the 1.6 percent rate of population increase that is predicted.

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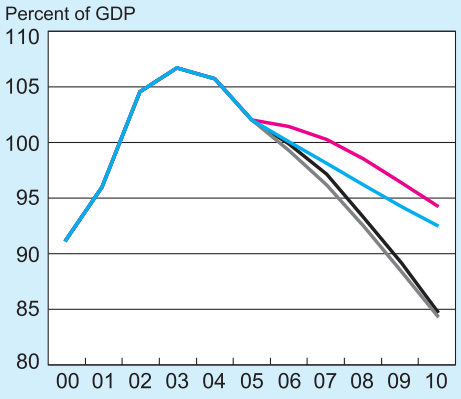
If the expenditure ceiling is honored, it will be possible, at the growth rates assumed in the scenario, to lower the government expenditure/GDP ratio considerably.[55] In 2010, this ratio is projected at 34.4 percent of GDP, 5 percentage points lower than in 2005 and 9 percentage points lower than in 2002. Thus, much of the gap between Israel and the OECD countries in the average level of public expenditure will be closed. The sizable decrease in the public expenditure/GDP ratio will also make it possible to lower the deficit even though the significant tax-rate cuts that have already been decided upon will reduce the tax burden by 3 percentage points. According to this scenario, in 2010 the state budget will be balanced as the unemployment rate converges toward 6.5 percent. The public debt/GDP ratio will decline steadily to 93 percent in

If the expenditure ceiling is honored, it will be possible, at the growth rates assumed in the scenario, to lower the government expenditure/GDP ratio considerably. In 2010, this ratio is projected at 34.5 percent of GDP, 5 percentage points lower than in 2005.

[55] The scenario does not address itself to the possibility that a reduction in tax rates, on the one hand, and an increase in the deficit, on the other hand, would affect GDP growth in the short term.

2008 and 85 percent in 2010 (Figure 6.6). This decline will contribute, among other things, to reducing interest outlays, so that in 2010 they will be 1.3 percentage point of GDP lower than in 2003. By cutting the deficit to levels significantly lower than the 3.0 percent of GDP ceiling, the government will be better able to plan its long-term expenditures in its various fields of activity, much as it has been doing in the budgeting of investments in railroads, road infrastructure, bus transport subsidies, child allowances, and the deficits of the pension funds.

Figure 6.6
Public Debt Trend in Various Scenarios, 2000–2010



SOURCE: Bank of Israel.

Since the existing law allows a perceptible increase in expenditure in 2006, as stated above, we examined an alternative scenario in which the government raises the expenditure growth ceiling to 1.6 percent per annum, matching the rate of population growth. In 2006, the increase would be relative to actual expenditure in 2005; in subsequent years it would be relative to the previous year's budget. This scenario still allows civilian primary expenditure to rise by 6.3 percent in 2006, although even this rate is lower than the pace allowed under the existing law. In 2007–2010, these expenditures would be able to increase by 2.2 percent on annual average. This trajectory would forestall a significant increase in the deficit in 2006. Consequently, it would buttress the credibility of the government's commitment to lowering the debt/GDP ratio and reduce the risk of an inadvertent increase in the event of unexpected adverse developments in the global economy or the security situation in the next two years.

If the GDP growth rate slips below 3 percent per year—i.e., if per-capita GDP increases in accordance with the average in recent decades—the deficit in 2009 and 2010 will be 2 percent of GDP even if the government does not overshoot the expenditure ceiling.

Despite the optimistic picture that these scenarios project, the results are highly sensitive to the macroeconomic assumptions, particularly the rate of economic growth. If the GDP growth rate slips below 3 percent per year—i.e., if per capita GDP increases in accordance with the average in recent decades—the deficit in 2009 and 2010 will be 2 percent of GDP even if the government does not overshoot the expenditure ceiling. If this happens, the public debt/GDP ratio will fall by 2010 to 94 percent, still higher than in 2000 (Table 6.11) but slightly under the 2005 level. This sensitivity underscores the importance of maintaining a moderate pace of expenditure growth. If it is decided not to lower the growth rate of expenditure in 2006 in accordance with performance in 2005 and to allow the growth rate of expenditure to rise to 1.6 percent per year from 2007 onward, consistent with population growth, then if the rate of GDP growth is only 3 percent per year, the government will be "bumping" against the deficit ceiling

throughout the period and the public debt/GDP ratio at the end of the period will be only slightly lower than it is today.

The government's targets continue to allow for the possibility of tax cuts as long as the deficit/GDP ratio is under the 3.0 percent ceiling. If the deficit declines from 2007 onward as is expected, the government will be able to attain the target even if it lowers tax rates perceptibly. In an alternative scenario, with the government attaining the expenditure target and lowering tax rates without overshooting the deficit target, the government tax burden will fall by 5 percentage points between 2005 and 2010. This would leave Israel's tax burden at the end of the period below that in most developed countries. In this scenario, the public debt will decline to 92.5 percent of GDP by 2010. Again, however, at 3 percent annual growth the debt/GDP ratio will hardly decline between 2005 and 2010.

This analysis shows that unless the expenditure ceiling for the years 2006–10 is overshot, the government will be able to significantly lower the public debt/GDP ratio, the tax burden, and the share of public expenditure in GDP, converging them toward the accepted levels in developed countries and continuing to support sustainable GDP growth in the years to come. These favorable policy outcomes, however, are very sensitive to macroeconomic developments. Therefore, a deviation from the policy targets may arrest the progress in cutting the deficit and the debt/GDP ratio if the growth rate slows even slightly, beyond the possible effect of such a deviation on the credibility of fiscal policy itself—especially in view of the frequent changes in the fiscal targets until 2005—and, in turn, on activity.

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