

## Chapter 6

# General Government, its Output and its Financing\*

- ◆ Continued rapid growth and the composition of demand led to unexpectedly brisk revenues, resulting in favorable fiscal aggregates in 2007 as in 2006. The government deficit excluding net issue of credit was zero, the lowest in twenty years and far below the target ceiling. The general-government deficit, measured according to the National Accounts definitions used in developed countries,<sup>1</sup> was 1.0 percent of GDP<sup>2</sup> as against 1.2 percent in 2006.
- ◆ The combination of a balanced budget, continuing growth, and currency appreciation caused the general-government debt/GDP ratio to fall even more precipitously than had been expected at the beginning of the year. The ratio at year's end, 80.6 percent, remains high by the standards of developed countries but the gap has narrowed significantly in recent years.
- ◆ The public expenditure/GDP ratio has been falling steadily since 2002 and ended 2007 at 44.9 percent, the lowest level since the late 1960s. Thus, Israel's ranking among developed countries fell from the top of the scale at the beginning of the decade to the middle. Alongside the improvement in the fiscal aggregates, in the short and medium terms the drop in public expenditure resulted in a decline in the quality of civilian services, which also contributed to an increase in poverty and social inequality.
- ◆ The public expenditure/GDP ratio fell in 2007 due to rapid growth of GDP, whereas expenditure rose swiftly in real terms. Additionally, the government made

<sup>1</sup> Even though the calculation performed by Israel excludes indexation differentials on the general-government debt.

<sup>2</sup> The calculation in this chapter does not include "profits of the Bank of Israel," for several reasons: i) this item is volatile and primarily reflects unexpected changes in the inflation and exchange rates and in global interest rates; ii) the Bank of Israel does not actually forward to the government the "profits" calculated by the Central Bureau of Statistics (as explained in the Comptroller's section of the Bank of Israel Annual Report for 2001); iii) in most developed countries, including those of the European Union, it is standard practice to record only profits that the central bank actually forwards as revenue.

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

long-term decisions that augur an increase in expenditure in coming years at a pace that is not only inconsistent with continued significant reduction of the debt/GDP ratio but also surpasses the maximum rate of increase that current law allows.

- ◆ Pursuant to the trend in recent years, government expenditure underperformed in 2007, chiefly in the outlays of civilian ministries, which were 2.3 percent lower than the budget. A large part of this underperformance derived from overbudgeting on certain items, on which there was underperformance in previous years too.
- ◆ Even though statutory tax rates continued falling, the tax burden edged upward in 2007 due to the increase in activity and its changed composition. Israel's ratio of taxes to GDP rests in the middle of the distribution of developed countries.
- ◆ The budget policy in the years to come will be tested by its ability to strike a balance between two necessities: continued lowering of the public debt/GDP ratio and meeting of needs in both defense and social services, given the erosion of the latter in recent years.
- ◆ By staying within the legislated ceiling of expenditure increase and implementing tax cuts already decided upon, it will be possible in coming years to lower the ratios of debt and deficit to GDP significantly if economic growth continues. As a result, however, civilian expenditure excluding interest will increase by less than 1 percent per annum during these years, making it difficult to respond adequately to society's needs.

## 1. FISCAL INDICATORS AND MAIN DEVELOPMENTS

The total public deficit fell to 1.0 percent of GDP in 2007 as against 1.2 percent in 2006 and 2.7 percent in 2005.

The total public deficit fell to 1.0 percent of GDP in 2007 as against 1.2 percent in 2006 and 2.7 percent in 2005 (Table 6.1). This decline can be traced to an unexpected surplus in tax collections; and the continued decline in the public expenditure/GDP ratio. The contraction of the deficit was composed of a steep decrease in the government deficit, a balanced budget in municipal government, and an increase in the surplus of the National Insurance Institute and the National Institutions. In contrast, the deficit on account of public NPOs widened, consistent with the decrease in government transfers to these entities in the past two years (Table 6.A.9). The government deficit (excluding net issue of credit) was zero percent of GDP, the lowest since 1987 and far below the 2.9 percent ceiling (Figure 6.1) and the rates that were typical of the beginning of the decade. This was the fourth consecutive year in which the government deficit fell short of the level built into the budget program, reflecting brisker tax collection than

**Table 6.1**  
**The Main Components of General Government Receipts and Expenditure, 1996–2007**

	(percent of GDP)								
	Average 1996-1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>Total receipts</b>	<b>46.4</b>	<b>45.9</b>	<b>46.4</b>	<b>47.2</b>	<b>43.9</b>	<b>43.6</b>	<b>43.5</b>	<b>43.9</b>	<b>44.1</b>
<b>Excl. Bank of Israel</b>	<b>46.5</b>	<b>46.5</b>	<b>46.4</b>	<b>46.5</b>	<b>44.7</b>	<b>43.8</b>	<b>43.2</b>	<b>44.1</b>	<b>43.8</b>
From property	1.5	1.0	1.4	2.4	0.6	1.0	1.5	0.9	1.3
<i>Of which</i> Receipts of Bank of Israel	-0.1	-0.6	0.0	0.8	-0.8	-0.2	0.2	-0.2	0.3
Total taxes	37.1	37.9	37.8	37.0	36.0	36.1	36.1	36.5	37.0
Indirect taxes on domestic production	13.6	12.7	12.8	13.4	13.4	13.3	13.2	12.7	12.6
Indirect taxes on civilian imports	4.5	4.4	4.0	4.0	3.7	4.2	4.2	4.0	4.6
Direct taxes, fees, and levies	13.5	15.2	15.1	13.6	12.7	12.7	12.8	14.1	14.1
National Insurance surplus	5.5	5.6	5.9	6.1	6.1	5.9	5.9	5.7	5.7
Grants	3.8	3.5	3.5	3.9	3.4	2.8	2.4	3.0	2.3
Other <sup>a</sup>	4.0	3.6	3.7	3.8	3.8	3.7	3.5	3.5	3.4
<b>Total expenditure</b>	<b>51.2</b>	<b>48.1</b>	<b>50.7</b>	<b>51.8</b>	<b>50.8</b>	<b>47.9</b>	<b>46.0</b>	<b>45.3</b>	<b>44.9</b>
Current expenditure	46.3	44.3	46.7	47.6	47.0	44.3	42.6	41.9	41.1
Domestic civilian consumption	19.5	18.5	19.5	20.0	19.8	19.0	18.4	18.1	18.1
Domestic defense consumption	6.7	6.3	6.4	7.0	6.8	6.2	6.0	5.9	5.8
Defense imports	1.8	1.6	1.8	2.2	1.8	1.5	1.7	1.8	1.5
Direct subsidies	1.0	0.8	0.9	0.8	0.9	0.8	0.7	1.1	0.8
Transfer payments on current account	11.3	11.4	12.5	12.4	12.0	11.0	10.6	10.5	10.3
Interest payments	6.0	5.7	5.6	5.1	5.8	5.8	5.2	4.7	4.7
Current transfer payments <sup>b</sup>	1.9	1.4	1.4	1.7 <sup>c</sup>	1.2	1.6	1.6	1.7	1.9
General government investments	2.9	2.4	2.6	2.6	2.6	2.0	1.7	1.6	1.8
<b>Total general government deficit</b>	<b>4.8</b>	<b>2.2</b>	<b>4.3</b>	<b>4.6</b>	<b>7.0</b>	<b>4.3</b>	<b>2.5</b>	<b>1.4</b>	<b>0.8</b>
<b>Total general government deficit excl. Bank of Israel</b>	<b>4.8</b>	<b>1.6</b>	<b>4.2</b>	<b>5.3</b>	<b>6.2</b>	<b>4.1</b>	<b>2.7</b>	<b>1.2</b>	<b>1.0</b>
<b>Total surplus excl. interest and receipts from property</b>	<b>-0.3</b>	<b>2.5</b>	<b>-0.1</b>	<b>-1.8</b>	<b>-1.8</b>	<b>0.5</b>	<b>1.3</b>	<b>2.4</b>	<b>2.6</b>
<b>Net public debt<sup>d,e</sup></b>	<b>79.6</b>	<b>72.3</b>	<b>79.6</b>	<b>83.9</b>	<b>89.4</b>	<b>87.2</b>	<b>80.3</b>	<b>75.2</b>	<b>68.1</b>
<b>Gross public debt excl. Bank of Israel<sup>d</sup></b>	<b>101.3</b>	<b>87.1</b>	<b>91.9</b>	<b>99.8</b>	<b>101.7</b>	<b>99.9</b>	<b>95.7</b>	<b>86.6</b>	<b>80.6</b>

<sup>a</sup> Including transfer payments from the public on the current and capital accounts.

<sup>b</sup> Including mortgage subsidy and transfers to nonprofit organizations and businesses on the capital account.

<sup>c</sup> Including capital transfers of NIS 1,523 million to China, in compensation for the cancellation of the Falcon deal.

<sup>d</sup> Divided by GDP at end-of-year prices.

<sup>e</sup> After deducting the local authorities' debt to the central government.

SOURCE: Based on Central Bureau of Statistics data.

had been foreseen (occasioned by unexpectedly rapid growth) and, to a lesser extent, the underperformance of expenditure.

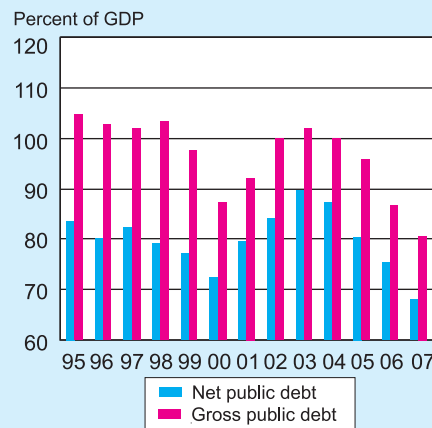
The public expenditure/GDP ratio fell for the fifth consecutive year even though transfer payments and public consumption, particularly civilian consumption,

The main source of the falling share of expenditure this year is relatively brisk growth of product.

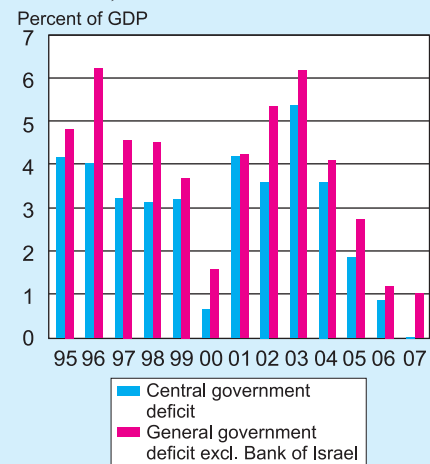
advanced at a relatively rapid pace. The main reason for the proportional decrease in expenditure in 2007 was the strong expansion of GDP, which also lowered the share of civilian consumption expenditure. This parameter has fallen steadily since 2002, by 1.9 percent of GDP in cumulative terms. Defense expenditure also edged downward, by 0.4 percent of GDP, as did transfer payments in terms of GDP, although, as stated, they increased vigorously in real terms in 2006 and 2007. The ratio of tax revenues to GDP climbed by 0.5 percentage point despite tax cuts in 2007 and aberrant one-off revenues in 2006. Two factors explain this: rapid growth and increased activity, which also affected the labor market, and a vigorous upturn in private consumption, especially of tax-intensive imported durable goods including motor vehicles.

Figure 6.1<sup>a</sup>

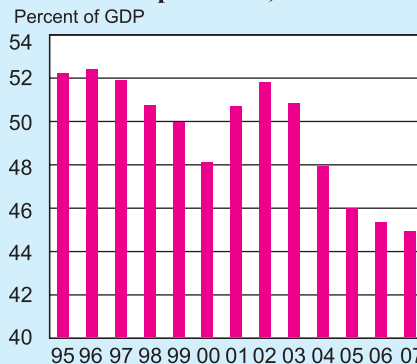
**Public Debt, 1995–2007**



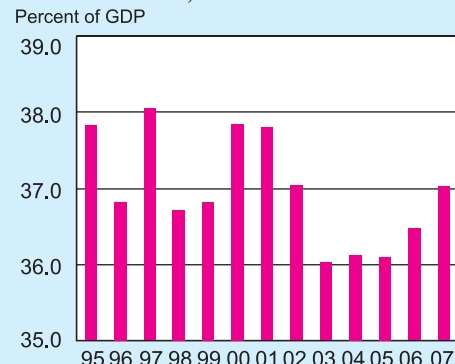
**General Government Deficit and Central Government Deficit, 1995–2007**



**Public Expenditure, 1995–2007**



**Tax Burden, 1995–2007**



<sup>a</sup> In addition to tax revenues, the public sector has income of about 7 percent of GDP from grants from abroad, capital transfers from residents, depreciation and imputed pensions.

SOURCE: Based on OECD and Central Bureau of Statistics

The combination of falling deficit and rapid growth allowed the debt/GDP ratio to plummet by 6.0 percentage points, to 80.6 percent—below the trough in 2000 that was brought on by the anomalous growth rate that year (Figure 6.1).<sup>3</sup> Both of the debt/GDP ratios, net and gross, sank to their lowest levels since they began to climb in the 1960s. (For a detailed discussion of how the deficit is financed, of what the debt is composed, and the main forces that have been acting to bring it down, see Part 4 and Table 6.8.)

The debt/GDP ratio fell to its lowest level since the 1960s.

Even though Israel's debt/GDP ratio has fallen precipitously, it remains high relative to that of the developed countries.<sup>4</sup> The planned deficit for 2008—1.6 percent of GDP—surpasses the actual deficit in 2007 but will allow the debt/GDP ratio to continue falling. However, to attain debt levels that meet the developed countries' standards, the government will have to continue limiting the increase in its expenditure in the next few years and seriously reconsider lowering tax rates beyond the measures already planned. These actions will keep the menace of financial crisis at bay even if the security situation worsens, as happened in the Second Lebanon War in 2006, and will free crucial budget sources for permanent improvements in government services in the future. Insofar as the burdens of debt and interest decline, the threat to financial stability will be less menacing and the government will be able to afford greater flexibility in spending. By dint of this flexibility, in turn, it will be able to pursue a countercyclical policy that may help the economy to climb out of a recession. This is especially important in times of slowdown, when some government services become more essential.

As the burdens of debt and interest decline, the threat to financial stability will be less menacing and the government will be able to afford greater flexibility in spending.

## 2. GENERAL-GOVERNMENT EXPENDITURE, THE GOVERNMENT BUDGET, TAX REVENUES, THE DEFICIT, AND THE PUBLIC DEBT

### a. General-government expenditure

The ratio of public expenditure to GDP fell by 0.4 percent in 2007 and came to 44.9 percent. Although the decline in 2006 had been steeper, the 2007 level was the lowest since the late 1960s, reflecting the combination of fiscal restraint and rapid growth in recent years. Since 2002, the ratio has fallen by 6.9 percentage points as real expenditure excluding interest (deflated by business product prices) declined in 2003 and 2004 and climbed in 2005–07 (Table 6.2). Were it not for the growth spurt in recent years,<sup>5</sup> the ratio would have been 48.4 percent. Thus, much of the decrease in public expenditure in GDP is cyclical—especially in the past two years, when the rates of increase surpassed the long-term performance.

Since 2002, the public expenditure/GDP ratio has fallen by 6.9 percentage points.

<sup>3</sup> The net debt/GDP ratio also declined—by 7 percentage points—to 68 percent of GDP.

<sup>4</sup> The expression “developed countries” refers to the twenty OECD member countries in which annual per capita GDP surpasses \$10,000 and for which data for the past fifteen years exist. Comparisons with European Union countries pertain to the fourteen countries that were EU members before 2003, except Luxembourg.

<sup>5</sup> Had it advanced at only 4.0 percent per year.

**Table 6.2**  
**Growth Rates of Public Expenditure in Israel, 1996-2007**

	(percent, deflated by implicit price index of business-sector product)						
	1996-99	2000-01	2002	2003-04	2005	2006	2007
	(growth rate, annual average)						
<b>Total public expenditure</b>	<b>2.8</b>	<b>5.8</b>	<b>1.6</b>	<b>-0.5</b>	<b>0.9</b>	<b>4.0</b>	<b>4.3</b>
<i>Of which Interest payments<sup>a</sup></i>	1.0	3.0	-8.0	9.8	-5.4	-5.3	5.0
<b>Total primary public expenditure</b>	<b>3.1</b>	<b>6.2</b>	<b>2.8</b>	<b>-1.7</b>	<b>1.7</b>	<b>5.1</b>	<b>4.2</b>
<i>Of which Current primary expenditure</i>	4.0	6.7	2.6	-1.4	1.9	5.1	3.1
Current primary civilian expenditure	4.2	7.3	0.4	-0.5	1.5	5.0	3.9
Public consumption	3.6	5.5	4.9	-1.3	2.4	4.1	3.8
Public consumption excl. defense imports	3.0	5.7	3.5	-0.1	1.5	3.7	5.0
Civilian consumption	3.6	6.2	1.7	0.5	1.7	3.4	5.6
(Per capita civilian consumption)	1.1	3.6	-0.3	-1.3	-0.1	1.6	3.8
Wage expenditure	3.4	6.3	0.6	0.4	0.0	3.6	6.1
Purchases	3.7	6.4	2.8	-0.6	3.9	2.9	5.4
Domestic defense consumption	1.1	4.9	8.6	-2.2	0.8	4.3	3.0
Wage expenditure	0.1	4.9	3.4	-2.5	-1.5	3.0	0.7
Transfer payments on current account	6.2	9.6	-1.0	-2.5	1.2	3.8	3.3
(Per capita transfer payments on current account)	3.6	6.9	-2.9	-4.2	-0.6	2.0	1.5
General government investment	-1.9	5.8	0.4	-9.5	-7.6	-0.2	17.5
<i>Of which Transport infrastructure</i>	-2.1	4.3	23.6	9.7	11.2	7.3	19.3
Transfer payments on capital account	-4.1	1.8	5.0	-4.7	-0.4	5.5	16.4

<sup>a</sup> 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.

The relatively steep increase in expenditure in 2007 accrued chiefly to growth in civilian public consumption (5.6 percent) and a perceptible upturn in transfer payments.

In 2007, total real general-government expenditure increased by 4.3 percent and expenditure net of interest rose by 4.2 percent. Both rates are relatively brisk. Although the increase in public expenditure excluding interest slowed relative to 2006, this was mainly due to a slowdown in the growth of defense expenditure, which was especially steep in 2006 due to the Second Lebanon War. The relatively steep increase in expenditure in 2007, starting from the high level necessitated by the war in 2006, accrued chiefly to growth in civilian public consumption (5.6 percent) and a perceptible upturn in transfer payments; in both items, expenditure grew faster than the population. The growth rates of civilian consumption and transfer payments in 2006–07 compensated somewhat for the erosion that occurred during the stabilization years (2002–04), when per capita expenditure for both uses contracted significantly. Notably, however, this pace of increase is not sustainable, particularly if the rate of GDP growth converges to a lower level that is more appropriate for the long term.

Although the debt did not increase in 2007, interest payments, as calculated by the Central Bureau of Statistics, surpassed the 2006 level.<sup>6</sup>

Despite rearmament, the share of defense expenditure in GDP contracted slightly in 2007 for two reasons: the high level of defense spending in 2006, occasioned by the Second Lebanon War, and the rapid GDP growth in 2007. The ratio of defense expenditure to GDP was 0.4 percent smaller in 2007 than in both 2006 and 2005. The total decline since 2002—from 9.2 percent to 7.3 percent—was an important element in the fiscal consolidation that occurred during those years. In view of the war in 2006 and the intensification of the Iranian threat, the government adopted the recommendations of the Brodet Committee, which it had appointed to review the defense budget. The main recommendation was that the government set defense expenditure on a predetermined trajectory for the next ten years, in contrast to the volatility that has been typical of defense spending in the past decade due to adjustments for the security situation each year. The committee also recommended a series of increases in defense spending: NIS 1.3 billion in 2008 (2.7 percent),<sup>7</sup> NIS 500 million in 2009, 1.15 percent in 2010, and 1.3 percent per year from 2011 onward, in tandem with the programmed rate of increase in per capita civilian expenditure. The advantages of adopting a long-term defense budget are two: it creates the ability to plan a strategy of long-term nature and reduces the chances of across-the-board cutbacks in other ministries' budgets in response to the security situation in a given year, especially since the committee recommended the allocation of annual reserves within the defense budget for unexpected events. There is some doubt, however, about whether the security situation will allow governments to adhere to these targets. Importantly, the committee based its recommendation of an upward-sloping spending trajectory on the assumption that economic growth would continue at 3–4 percent per year, allowing the government to raise its total-expenditure ceiling to 2.5 percent from 2010 on. If growth turns out to be slower, the government will have to apply a slower trajectory in order to converge toward a 60 percent debt/GDP ratio and the planned increase in the defense budget will have to be rediscussed.

Real current transfer payments increased by 2.6 percent in 2007, exceeding the rates of increase in population and transfer payments in 2006. The share of total transfer payments and National Insurance benefits in GDP resembled the 2006 level (Table 6.A.14). In per capita terms, real transfer payments have declined by 3 percent since 2003 (and since 2000), due to their decline in 2004 and 2005. Given the economic growth in recent years, the decrease relative to GDP was steeper and returned transfer expenditure to the early 1990s level. Thus, the entire increase in the budget burden on account of these payments since the second half of the 1990s and the beginning of the current decade, which had been central in the rapid increase of public expenditure, was

<sup>6</sup> This is because the CBS subtracts from actual payments an imputed inflationary component of interest payments on unindexed bonds. This component, which reflects among other things the historical cost of issuing the bonds, was NIS 623 million as against an especially hefty NIS 3.2 billion in 2006.

<sup>7</sup> Even though the 2008 budget will be approved for use only in 2009.



offset. However, the decline in expenditure came at a price that the government must take into account: the erosion of the assistance and services that the state provides its citizens, especially those in weak population groups. (For further details, see the Issues in Welfare Policy chapters of the Bank of Israel Annual Reports for 2004–07.)

The share of unemployment and income-maintenance benefits in GDP is less than half of its level at the beginning of the decade due a combination of fewer applicants and tougher acceptance terms.

Total expenditure on National Insurance benefits increased by 2.3 percent in real terms, pursuant to an increase in 2006. Real outlays for several benefits climbed appreciably, e.g., maternity benefits, due to the prolongation of maternity leave to fourteen weeks, and disability benefits. Real child allowances fell slightly; their share in GDP, pursuant to a legislative change in 2003, was about half of the 2000–02 level. Outlays for unemployment compensation and income maintenance also continued to fall, by 11 percent and 8 percent respectively, due to continued decreases in applications. The share of these benefits in GDP fell to less than half the proportion in 2000–02, reflecting not only the decline in applications but also the toughening of terms of eligibility and real erosion of the benefits relative to GDP as an expression of the government's efforts to boost the employment rate.

## b. Government budget and deficit target

The government budget ended 2007 in balance for the first time since 1987.

The government budget ended 2007 close to balance for the first time in years and the total deficit excluding net issue of credit came to 0.02 percent of GDP (Table 6.3). Two factors explain this outcome: a 5.4 percent real increase in revenues and a slower rate of increase (2.8 percent) in expenditure. Rapid GDP growth lowered the ratio of government expenditure to GDP by 0.5 percentage point relative to 2006 and 4.5 percentage points since 2002 (Table 6.3). The table below shows how the government stayed within the 1.7 percent limit on real expenditure growth even though its actual government outlays increased at a higher rate (the data are in terms of percent of the budget).

Real growth rate of budget, established in law	1.7
Total budget overrun	(+) 1.1
Thereof:	
Due to Second Lebanon War <sup>a</sup>	(+) 1.5
Due to disengagement <sup>b</sup>	(–) 0.4
Total increase in budget relative to 2006 performance	2.8
Underperformance in 2007	(–) 1.8
Sub-forecast increase in consumer prices <sup>c</sup>	(+) 1.7
Total actual real rate of increased	2.8

<sup>a</sup> An NIS 3.5 billion increase to cover nonrecurrent defense expenditure and relief for northern localities.

<sup>b</sup> An NIS 1.1 billion increase for aid to persons expelled from their homes in the disengagement. In 2006, NIS 2.2 billion was excepted from the budget for this purpose; therefore, this item lowers the budget.

<sup>c</sup> Since the budget is expressed in nominal terms, a sub-forecast pace of price increases makes the budget larger in real terms.



Most of the discrepancy between the deficit ceiling (2.9 percent of GDP) and performance (0.02 percent) traces to an NIS 14.5 billion revenue surplus relative to the budget outlook—mostly due to a higher rate of GDP growth than had been forecast—and NIS 4.1 billion in underperformance of the budget, mainly by civilian ministries, as in 2006. The surpluses of the National Insurance Institute also surpassed the budget outlook by NIS 2.2 billion (18 percent).<sup>8</sup> On the other hand, US grants were less than planned. The domestic budget excluding net credit had a surplus of NIS 6.2 billion as against a planned deficit of NIS 14.3 billion. The external budget, in contrast, had an NIS 6.4 billion deficit as against a planned deficit of NIS 4.4 billion, due to heightened defense imports and early payback of loans (Israel Bonds).

Most of the difference between the deficit ceiling and performance traces to a level of revenues that exceeded the budget program.

**Table 6.3**  
**Central Government Deficit,<sup>a</sup> Revenue and Expenditure, 1998–2007**

	(percent of GDP)									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Government domestic deficit ceiling <sup>b</sup>	2.6	4.0	2.8	0.5	4.1	2.3	3.4	2.8	2.0	2.0
Actual government domestic deficit	2.7	2.7	0.5	3.4	3.4	5.2	3.1	1.1	0.3	-1.0
Overall government deficit ceiling <sup>c</sup>	2.8	3.1	3.6	1.8	3.9 <sup>d</sup>	3.0	4.0	3.4	3.0	3.0
Actual overall government deficit	3.1	3.2	0.7	4.4	3.8	5.4	3.6	1.9	0.9	0.0
<b>Total revenue, net<sup>e</sup></b>	<b>36.2</b>	<b>37.2</b>	<b>35.2</b>	<b>33.5</b>	<b>34.5</b>	<b>32.3</b>	<b>32.4</b>	<b>33.0</b>	<b>33.3</b>	<b>33.5</b>
Taxes and imposts	28.7	28.7	29.7	29.5	28.8	27.6	27.6	27.7	28.0	28.9
Interest, profits, royalties, revenue from land sales	2.1	1.8	1.6	1.2	1.3	1.0	1.0	1.3	1.2	1.0
Realized Bank of Israel profits	1.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loan from NII	1.4	1.3	1.4	0.8	1.5	1.7	1.9	2.1	2.1	2.1
US government grants	3.1	2.5	2.4	2.0	2.9	2.0	1.9	1.9	2.0	1.5
<b>Total expenditure, net<sup>e</sup></b>	<b>38.4</b>	<b>37.5</b>	<b>35.8</b>	<b>37.7</b>	<b>38.1</b>	<b>37.8</b>	<b>36.1</b>	<b>35.0</b>	<b>34.1</b>	<b>33.6</b>
<i>Of which</i> Interest, repayment of principal to NII, and credit subsidy	7.1	6.7	6.6	6.6	6.5	7.3	6.9	6.7	6.6	6.1
Defense expenditure, net	9.0	8.5	8.1	8.6	9.3	8.6	8.3	8.2	8.2	8.3
<b>Total primary expenditure excl. defense</b>	<b>22.3</b>	<b>22.4</b>	<b>21.1</b>	<b>22.5</b>	<b>22.4</b>	<b>21.8</b>	<b>20.9</b>	<b>20.1</b>	<b>19.4</b>	<b>19.2</b>

<sup>a</sup> Revenue and expenditure in 2006 do not include NIS 2.8 billion transferred to the Compensation Fund and paid as compensation to the public for damage due to the war in the north.

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

<sup>c</sup> From 2001, the deficit ceiling specified by law.

<sup>d</sup> 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.

<sup>e</sup> Excluding expenditure contingent on revenue, and revenue used to finance contingent expenditure.

SOURCE: Based on the National Budget Summary, Central Bureau of Statistics data and Financial Information on the Government of Israel. 2006.

<sup>8</sup> For an explanation of how National Insurance Institute activity is recorded in the government budget, see Box 3.3 in the corresponding chapter of the Bank of Israel Annual Report for 2002.

Total budget expenditure was 1.8 percent under the program, in continuance of the underperformance trend that began in the middle of 2003.

In cumulative annual terms, total expenditure was 1.8 percent lower than the budget (Table 6.4). This marks the continuation of a trend since the middle of 2003—with the exception of 2006 (due to the Second Lebanon War)—of underspending of the budget, including the civilian budget, which was underperformed by more than 5 percent during these years. Expenditure in December 2007 surpassed that in other months, as has happened every December in the past decade and especially in 2004–06, when more than 12 percent of annual spending took place in December.<sup>9</sup> The rate of expenditure in December 2007 receded to 12 percent. This practice impairs the government's operating efficiency because rushed expenditures toward year's end, on the basis of unused funds that accumulate in the till, breed inefficient use of resources and do not compensate for the loss of services during the year.

**Table 6.4**  
**Components of Deviation from the Original 2007 Budget**

	2006 Actual	2007		
		Original budget	Actual	Difference between budget and actual
(NIS billion, net, excluding credit)				
<b>Deficit (–)</b>	<b>-5.5</b>	<b>-18.7</b>	<b>-0.1</b>	<b>18.6</b>
Domestic	-1.6	-14.3	6.3	20.6
External	-3.9	-4.4	-6.5	-2.0
<b>Revenue</b>	<b>210.6</b>	<b>208.7</b>	<b>223.2</b>	<b>14.5</b>
<i>Of which</i> Domestic	195.7	196.3	211.3	15.0
Taxes <sup>a</sup>	177.3	180.8	192.2	11.5
Loan from NII	13.6	12.1	14.3	2.2
Other <sup>b</sup>	6.2	4.9	6.5	1.6
US government grants	13.4	11.0	10.3	-0.7
<b>Expenditure<sup>a</sup></b>	<b>216.1</b>	<b>227.4</b>	<b>223.3</b>	<b>-4.1</b>
Domestic	197.3	213.2	207.0	-6.2
Abroad	18.8	16.8	18.3	1.5
Defense <sup>c</sup>	53.5	54.0	55.1	1.0
Interest, repayment to National Insurance and credit subsidy	41.5	42.3	40.7	-1.6
Civilian ministries and transfer payments <sup>c</sup>	123.4	131.1	127.5	-3.5

<sup>a</sup> Including VAT on defense imports.

<sup>b</sup> Income from interest, land sales, royalties, dividends, and other income.

<sup>c</sup> NIS 3.7 billion included in the budget reserve in the budget book are shown here in the original budget column as part of the defense budget.

SOURCE: Based on data of the Accountant General regarding the performance of the 2007 budget.

<sup>9</sup> For elaboration and a review of this phenomenon in previous years, see Box 3.3 in the Bank of Israel Annual Report for 2004.

Although control of expenditure is crucial in staying under the expenditure ceiling and meeting the deficit target, it should be carried out with greater transparency. Importantly, under-expenditure of budgeted sums does not violate the Budget Law, which establishes expenditure ceilings on the basis of an apportionment among ministries, units, and activities. There is no point in spending the entire budget unnecessarily. However, the size of the gap between budget and performance in recent years may attest to flaws in the budgeting process. If budgets are being allocated to items in which they are not needed, or if those in charge of performing the budgets are unable to use them, it might be better to cancel the allocations *ab initio* and reassign them to some other ministry or purpose, so that the budget will accurately reflect the government's expected conduct and priorities, especially where repeat allocations are concerned. By the same token, if the budget is appropriate and does reflect a given order of priorities, then its underperformance is detrimental to the citizens on whom, and the goals on which, the state has decided to focus. Centralized reportage on budget items that have long been underutilized may help those in the political echelon to make more intelligent decisions about the structure of the budget. For elaboration on the long-term underperformance of various budget items, see Box 6.1.

Centralized reportage on budget items that have long been underutilized may encourage more intelligent decision-making about the structure of the budget.

One of the reasons for the underperformance of the budget is the multitude of items it incorporates, with any transfer from one item to another requiring approval from the Ministry of Finance, and sometimes also from the Knesset Finance Committee. When changes are made to the budget in the course of the year, their timing is important: the later they are approved, the harder it is for the ministries to use the additional monies available to them. Thus the fact that 37 percent of changes to the budget, especially the transfer of surpluses, are made in November and December, adds to its overall underperformance.

### **Box 6.1** **Underperformance or Overbudgeting?**

In recent years, the government has been increasingly prone to underspending its budget. The unperformed part of the budget in 2002–07 (excluding 2006, an outlier year) accounted on average for 2.7 percent of the net budget excluding allocation of credit, as against 1.5 percent in 1998–2002<sup>1</sup>; in 2007, this portion added up to 1.8 percent. Analysis of government budgets in 1998–2007 shows that, on average, 29 percent of the underperformance traced to permanent items that were persistently underspent, i.e., overbudgeted. This points to a systematic problem in the method of budgeting and a problem in monitoring budget performance. Overbudgeting creates a de facto budget reserve for the meeting of targets in addition to the reserve established in the Budget Law by freeing

<sup>1</sup> In 2006 the budget was overperformed due to unexpected outlays occasioned by the Second Lebanon War and, therefore, is excluded from the average. The rate of performance relates to the net budget excluding allocation of credit, on the basis of which the deficit ceiling is calculated.

resources for needs that may surface during the year. Concurrently, it lowers the ministries' effective expenditure ceiling.

A budget program was defined as being overbudgeted, each year separately, if it was performed at less than 85 percent of the year's original budget for two straight years.<sup>2</sup> By this definition, less-than-full performance of nonrecurrent projects and nonrecurrent errors in forecasting expenditure were not considered overbudgeting if the budget was adjusted accordingly. An example of a budget item that underwent an adjustment of this kind is the item relating to the Ministry of Pensioner Affairs (Activity Program 40280). In 2006, NIS 7.5 million was allocated for this program while only NIS 0.6 million was performed; in 2007, the budget for this program was cut to NIS 1.4 million and was overperformed.

During the years reviewed, overbudgeting accounted for a large share of the total nonperformance of the budget—29 percent, mostly in the ministries' development (investment) budgets.<sup>3</sup> Most of the overbudgeted items were permanent, indicating a systematic problem in the budgeting method and the lack of long-term planning. Thus, the correspondence between underbudgeting of an activity program in a given year and underbudgeting of the same program in the previous year was rather high—88 percent. Two thirds of total overbudgeting occurred in items that were overbudgeted by more than NIS 100 million.

Administrative expenditure through the budget of the Ministry of Public Security (Activity Program 70104) provides an example of long-term overbudgeting. From 2002 onward, the budget for this program rose steadily while actual expenditure declined. In 2007, this program was budgeted at NIS 52.3 million, of which only NIS 13.6 million was spent, resulting in overbudgeting of NIS 38.7 million.

In practice, overbudgeting creates a budget reserve for the meeting of fiscal targets. The share of overbudgeting in the net civilian budget proved to be uneven over the years (Table 1): 1.2 percent in 2002–07, excluding 2006, as

<sup>2</sup> The inquiry probed budgets and performance as reflected in data from the Finance Ministry Budget Division published up to February 2007; final performance data may be slightly higher. The budget is divided into main items, each of which is composed of several areas of activity, each of which is divided into activity programs—the level of detail in the Budget Bill that is presented to the Knesset for its approval. The examination was performed separately for each activity program, resulting in the examination of more than 1,700 activity programs each year. The analysis excludes defense expenditure, due to lack of detail in the relevant budget items, and reserves for price increases.

<sup>3</sup> The share of overbudgeting remained significant even when using alternative definitions: When we lowered the rate of performance from 85 percent to 75 percent, we found that overbudgeting accounted for 22 percent of total underperformance during the review years. When we defined it as 90 percent performance, the share of overbudgeting in underperformance came to 34 percent.

against 0.8 percent in 1999–2002. Exceptional levels of overbudgeting were found in 2003 and 2006, at NIS 3.2 billion and NIS 2 billion, respectively.

**Table 1**  
**Under-Performance and Over-Budgeting of the Net Civilian Budget**  
**Excluding Interest and Credit, 1998–2007**

	Under-performance		<i>of which:</i>			
	NIS billion <sup>a</sup>	Percent of net civilian budget	Over-budgeting		Interest payments	
			NIS billion <sup>b</sup>	Percent of net civilian budget	NIS billion <sup>c</sup>	Percent of net civilian budget
1998	5.8	3.9	0.8	0.7	0	0
1999	3.1	2.1	0.7	0.6	0	0
2000	2.9	1.9	0.8	0.6	0	0
2001	0.4	0.3	1.1	0.9	0.7	0.5
2002	2.6	1.7	1.2	1.0	0.1	0.1
2003	9.5	5.8	3.2	2.4	1.2	0.7
2004	5.1	3.1	1.0	0.8	3.9	2.4
2005	4.6	2.8	1.1	0.8	3.0	1.8
2006	0.0	0.0	2.0	1.5	0.5	0.3
2007	4.1	2.3	1.2	0.9	0.9	0.5
<b>Average 1998–2002</b>	3.0	2.0	0.9	0.8	0.2	0.1
<b>Average 2003–2007<sup>d</sup></b>	5.8	3.5	1.6	1.2	2.2	1.3

<sup>a</sup> The net civilian budget excludes the defense budget, composed of the budgets of the Ministry of Defense, Civilian Emergency Expenditure, Coordination of Operations in the Territories, the Atomic Energy Committee, and the Demobilized Soldiers Law. In 2007, the net defense budget was NIS 49.3 billion.

<sup>b</sup> In 2007 prices. The overbudgeting and the gap between actual interest payments and the amount budgeted may exceed total budget underperformance due to items that are overperformed.

<sup>c</sup> According to preliminary estimates of the Accountant General, Ministry of Finance; final performance data may be slightly higher.

<sup>d</sup> Excluding 2006.

SOURCE: Based on Ministry of Finance data.

The prolonged nature of overbudgeting in various activity programs and the extent of its growth in recent years are surprising in view of recent efforts to improve budget control. One reason for this is the apportionment of ministries' activity programs into items ("regulations") that entail individual approval by the Knesset. The number of such items exceeds 8,000, not including those in the classified defense budget. Israel surpasses all OECD countries in this

respect; in the Netherlands and Denmark, for example, the state budget has only around 700 items of this kind.<sup>4</sup>The large number of such items entails many mid-year changes<sup>5</sup> and, by so doing, creates difficulties in budget planning and monitoring the performance of budget components.

The extent of overbudgeting varies among government ministries; accordingly, it distorts the picture of resource allocation at the time the budget is approved. A large share of overbudgeting during the period reviewed—42 percent on average—was found at the social services ministries, including Education and Health, which account for only 36 percent of total expenditure.

In addition to overbudgeted activity programs, 21 percent of the underperformance during the review period originated in interest payments that proved to be smaller than the programmed expenditure even though such payments are largely foreseeable. Some of the disparity between budgeted and actual interest payments traced to exchange-rate differentials on the foreign debt, that were not foreseen when the budget was prepared. The share of interest payments in underperformance did not become significant until 2004, when it peaked at NIS 3.9 billion. In the past two years, the gap narrowed due to improved control in drawing up the budget. Nevertheless, it remained higher than the average in 1998–2002 (0.1 percent).

In sum, the government does not spend all of its budget and has been leaving more and more unspent in recent years. Analysis of the net budget excluding credit in 1998–2007 shows that half of the underperformance traces to overbudgeted items and smaller-than-budgeted interest payments (29 percent and 21 percent, respectively). The protracted overbudgeting of activity programs and interest payments is surprising in view of the efforts in recent years to improve budget control; this points to a systematic problem in preparing the budget and monitoring its performance.

<sup>4</sup> Source: Report of the Committee of Examination for the Structure of Government, chaired by Professor Menachem Magidor, 2007 (Hebrew).

<sup>5</sup> The totality of mid-year changes surpasses 25 percent of the original budget framework approved by the Knesset. Source: State Comptroller, Annual Report 57B for 2006, and the fiscal 2005 accounts. The calculations pertain to 2003–05.

### *The cyclically adjusted general-government deficit*

The cyclically adjusted deficit has been falling in recent years.

Since Israel's growth rates have not surpassed those of the developed countries by any substantial measure in recent decades, the difference between its debt/GDP ratio and that of the other countries cannot be narrowed on a long-term basis unless Israel holds its general-government deficit to a lower level. In 2006–07, for the first time in

**Table 6.5**  
**The Overall Deficit, the Primary Deficit, and the General Government Debt Burden in Israel and OECD Countries, 1992–2007**

	General government deficit (-)			Primary general government deficit(-)			Total general government debt (gross)			Real increase in per capita public consumption 1995-2007
	Average			Average						
	1992-94	2006-07	Change	1992-94	2006-07	Change	1995	2007	Change	
	(% of GDP)									(percent)
Israel <sup>a</sup>	4.6	1.1	-3.5	-1.0	-2.5	-1.5	104.5	80.6	-23.9	-0.03
Greece	10.4	2.9	-7.5	-0.7	-1.2	-0.6	101.2	103.8	2.7	2.64
Italy	9.8	3.4	-6.5	-1.5	-0.7	0.8	122.2	116.9	-5.3	1.14
Sweden	9.8	-2.6	-12.4	10.1	-2.2	-12.3	82.0	46.5	-35.6	0.75
Hungary	8.5	7.8	-0.7	0.0	0.0	0.0	88.5	74.5	-14.0	1.85
Canada	8.2	-1.2	-9.3	2.9	-2.1	-5.0	101.6	64.2	-37.4	1.21
UK	7.0	2.9	-4.1	4.5	1.0	-3.6	52.2	47.2	-5.0	1.92
Finland	6.8	-3.8	-10.7	7.3	-3.7	-11.0	65.3	42.4	-22.9	1.41
Belgium	6.7	0.0	-6.8	-3.1	-3.7	-0.6	135.3	87.3	-48.0	1.40
Portugal	6.5	3.5	-3.1	-0.7	0.7	1.3	68.8	72.2	3.4	1.66
Spain	6.0	-1.8	-7.9	1.9	-3.0	-5.0	68.8	42.8	-26.0	3.34
France	5.5	2.5	-3.0	2.8	0.2	-2.6	62.6	71.9	9.3	0.99
Australia	4.8	-1.3	-6.1	1.7	-2.1	-3.9	41.9	15.5	-26.4	2.03
US	4.8	2.7	-2.0	1.3	0.7	-0.7	70.7	62.2	-8.5	0.90
Iceland	4.0	-5.3	-9.3	2.9	-4.6	-7.6	58.9	27.6	-31.3	2.24
Austria	3.7	1.2	-2.6	0.7	-0.9	-1.6	69.2	64.2	-5.0	1.49
The Netherlands	3.5	-0.2	-3.7	-0.8	-2.0	-1.2	89.6	53.4	-36.3	2.06
Denmark	3.2	-4.7	-7.9	-0.9	-5.7	-4.8	79.3	31.3	-48.0	1.59
Germany	2.6	0.8	-1.8	0.1	-1.6	-1.7	55.7	66.2	10.5	0.81
Ireland	2.5	-2.6	-5.1	-2.2	-2.6	-0.3	81.2	29.2	-52.0	4.21
Switzerland	2.3	-1.2	-3.5	1.7	-1.7	-3.4	47.7	55.5	7.8	0.31
Japan	1.9	3.1	1.2	0.7	2.3	1.6	87.6	180.3	92.7	2.02
Norway	1.0	-17.6	-18.6	3.8	-6.9	-10.7	40.9	76.0	35.1	2.15
New Zealand	0.1	-3.5	-3.6	-2.0	-2.7	-0.7	51.3	25.4	-25.9	2.09
Luxembourg	-1.2	-1.0	0.3	0.0	-0.3	-0.3	9.5	13.4	3.9	3.14
Korea	-2.2	-3.0	-0.8	-1.7	-2.0	-0.3	5.5	30.4	25.0	3.58
Poland	N.A	3.3	N.A	N.A	1.6	N.A	51.6	55.1	3.5	3.13
Slovakia	N.A	3.2	N.A	N.A	3.1	N.A	38.0	38.8	0.9	2.88
Turkey	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	2.36
Czech Republic	N.A	3.3	N.A	N.A	3.0	N.A	N.A	35.4	N.A	2.23
Mexico	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	N.A	-0.26
OECD average <sup>b</sup>	4.7	-0.8	-5.4	1.2	-1.8	-3.0	67.7	59.0	-8.6	1.91
Average of advanced economies <sup>b</sup>	5.2	-0.8	-6.1	1.3	-1.8	-3.1	76.4	64.9	-11.4	1.79
EU average <sup>b</sup>	5.7	0.5	-5.2	1.1	-1.6	-2.7	73.4	58.7	-14.7	2.03
Average of small countries <sup>b,c</sup>	4.3	-2.5	-6.8	1.2	-2.6	-3.7	66.9	52.8	-14.1	2.01
Average of countries with large deficits <sup>b,d</sup>	7.3	1.1	-6.2	2.0	-1.3	-3.3	81.6	65.2	-16.4	1.63

<sup>a</sup> Deficit data for Israel do not include the Bank of Israel or indexation differentials on the public debt.

<sup>b</sup> Arithmetic mean. Does not include countries for whom data for the years 1992–94 are missing.

<sup>c</sup> Countries with a population of less than 15 million in 2004.

<sup>d</sup> The average of countries whose deficit in 1993 was larger than Israel's.

SOURCE: Based on OECD Economic Outlook, 82, November 2007, and CBS data.



many years, the deficit reduction narrowed the gap significantly, even though Israel's general-government deficit remains high by the developed countries' standards. Thus, according to the accepted international definitions, Israel's general-government deficit in 2007 was 2.2 percent of GDP (Table 6.6) whereas the developed countries had a budget surplus of 0.9 percent of GDP.<sup>10</sup> However, when the deficit is calculated in reference to each country's stage in the business cycle (Table 6.7), the difference narrows to 0.6 percent of GDP because Israel is at a stage below its potential product whereas the developed countries, on average, are above it.

**Table 6.6**  
**Principal Fiscal Aggregates by the Accepted International Definitions: Israel and the Advanced Economies, 1999–2007**

	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>General government deficit (-)</b>									
Israel <sup>a</sup>	4.3	1.7	4.9	8.5	5.8	4.7	4.0	1.7	2.2
Israel, local National Accounts definitions	3.7	1.6	4.2	5.3	6.2	4.1	2.7	1.2	1.0
Average of advanced economies <sup>b</sup>	0.2	-1.4	-0.1	0.9	1.4	0.8	0.2	-0.8	-0.9
EU average <sup>b</sup>	0.5	-1.0	0.5	1.4	2.0	1.6	1.1	0.2	-0.1
<b>General government expenditure</b>									
Israel <sup>a</sup>	50.7	48.2	51.5	55.7	50.2	48.6	47.4	45.8	46.3
Average of advanced economies <sup>b</sup>	45.3	43.8	44.4	44.8	45.3	44.8	44.7	44.2	43.9
EU average <sup>b</sup>	47.6	46.0	46.7	47.1	47.7	47.4	47.3	46.7	46.3

<sup>a</sup> The data for Israel were brought into line with the accepted international definition: indexation differentials (accrual basis) on the CPI-indexed local currency debt were added to the general government's deficit and expenditure as defined in the National Accounts. Interest payments on the unindexed local currency debt were included without offsetting the inflation element, unlike in the National Accounts. In the calculation of the deficit, indexation differentials on the public's debt to the government were deducted.

<sup>b</sup> Arithmetic mean of all the countries in the group that appear in Table 6.5. Excluding Norway, which currently has a large budget surplus that reflects high oil prices, on average the advanced economies have balanced budgets.

SOURCE: Based on OECD Economic Outlook, 82, November 2007, and CBS data.

The decrease in Israel's general-government deficit/GDP ratio in recent years coincides with rapid economic growth. Since the size of the general-government deficit is directly affected by the behavior of GDP, foremost via tax revenues, it is also standard practice to examine the trend in the cyclically adjusted deficit, which is calculated on the assumption that the output gap has closed.<sup>11</sup> The calculation for

<sup>10</sup> To make the transition from the Israeli definition of the general-government deficit to the international one, one has to add indexation differentials on the domestic-currency debt of general government. Given the 3.4 percent inflation rate in 2007, the increase comes to around 1.2 percent of GDP.

<sup>11</sup> The potential GDP calculation here is based on the average rate of increase in per capita GDP since 1973: 1.7 percent per year. By this reckoning, GDP increased in 2007 by 2.0 percent more than the potential GDP, lowering the deviation of GDP from its potential level to 0.5 percent. This assumes that actual product was equal to potential product in 1997. The calculation of the cyclically adjusted deficit assumes that tax revenues increase commensurably with GDP and that total expenditure and non-tax revenues are not sensitive to changes in GDP. For a detailed discussion of how the calculation is performed, see Part 2 of Chapter 5 of the Bank of Israel Annual Report for 1999.

Israel also has to be adjusted to inflation because Israel records interest payments in the National Accounts and the budget in a unique way; subtracting the pace of price increases from the nominal interest rate creates volatility in the implicit interest rate when the inflation rate varies.<sup>12</sup>

According to the calculation, the cyclically adjusted deficit of general government hardly changed in 2007; the main reason for the lowering of the share of expenditure in GDP was the faster growth of actual GDP than potential GDP, and the fact that exceptional tax receipts offset the effect of the statutory tax cuts (Table 6.7). The cyclically adjusted domestic deficit of general government slipped by 0.3 percent of GDP in 2007 and, cumulatively, by 3.2 percent of GDP since 2002. According to this indicator, which is a proxy for the direct effect of general-government activity on demand, general-government activity moderated demand in 2007.<sup>13</sup> However, reducing the deficit also contributes to stability, the public's sense of economic security, and the government's fiscal credibility, especially in regard to the permanence of the tax cuts.<sup>14</sup> It is unclear which of the two influences is the stronger. Various studies abroad indicate that the direct effect on GDP of short-term increases in government

**Table 6.7**  
**The Cyclically Adjusted Deficit of the General Government, 1999-2007<sup>a</sup>**

	(percent of potential output)									
	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Overall deficit	3.14	2.70	3.49	3.30	3.30	1.69	1.18	0.53	0.56	
Domestic deficit	3.38	3.17	3.83	3.55	3.70	1.63	0.77	0.73	0.36	
Overall deficit by international definitions <sup>b</sup>	4.21	3.68	4.55	4.52	4.60	3.01	2.43	1.68	1.31	
Average cyclically adjusted deficit <sup>c</sup> of the advanced economies	0.58	0.39	1.16	1.66	1.60	1.12	0.63	-0.02	0.03	

<sup>a</sup> Interest payments were calculated assuming that the rate of inflation during the year was 2 percent, and not according to the actual inflation rate.

<sup>b</sup> The overall deficit was brought into line with the accepted international definitions by adding indexation differentials to the CPI-indexed and unindexed local currency debt, assuming inflation of 2 percent.

<sup>c</sup> Arithmetic mean of all the countries in the group appearing in Table 6.5.

SOURCE: Based on OECD Economic Outlook, 82, November 2007, and CBS data.

<sup>12</sup> According to the Central Bureau of Statistics' method of calculating general-government interest expenditure, the actual rate of price increases is subtracted from the interest rate paid on the unindexed debt; if prices decrease, the rate of the decrease is not added to the interest rate. In calculating the cyclically adjusted deficit, we assume a standard inflation rate of 2.0 percent.

<sup>13</sup> Lavi and Strawczynski demonstrate that a reduction of the deficit by reducing public consumption leads to a decline in demand in the short run even after the expansionary effect of private expenditure has been offset. See J. Lavi and M. Strawczynski (2003), "Does Fiscal Expansion Increase Aggregate Demand and Economic Activity in Israel? An Empirical Examination for 1960–2000," *Economic Quarterly* 50, December (Hebrew).

<sup>14</sup> For expanded discussion of the possibility that the deficit cut in 2003 helped to boost activity, see Box 3.2 in the Bank of Israel Annual Report for 2003.

expenditure or tax cuts in recent decades has been minor and of unclear direction.<sup>15</sup> Furthermore, the combination of a falling cyclically adjusted deficit and an economy that is verging on its potential GDP suggests that the fiscal-consolidation era may be about to end. For this reason, and since Israel's tax burden is not high by the standards of developed countries, the government would seem to have more leeway to examine programs on the basis of a direct cost-benefit calculus and to place less emphasis on lowering the public expenditure/GDP ratio. Nonetheless, it is important to bear in mind that over the longer term Israel's output gap is about 3 percent. The significance of this is that although the general-government budget was essentially balanced in 2007—when the output gap almost closed—over the business cycle the general government will have a deficit averaging about 1 percent of GDP,<sup>16</sup> unless additional steps are taken to reduce it. This would conflict with the requirement (and actual policy) in the EU Stability and Growth Pact, according to which the budget should be balanced over the business cycle.

Importantly, the calculations of this deficit are highly sensitive to estimated potential GDP and assumptions about the intensity of the response of tax receipts and public expenditure to GDP growth. On the one hand, tax revenues usually respond more strongly to an increase in product upon the exit from an economic slump than later on<sup>17</sup>; on the other hand, the calculation assumes that public expenditure will not change when the gap between actual GDP and potential GDP is closed. This proposition does not correspond with Israel's experience, in which each percent of increase in business-sector product has been found to generate an upturn of slightly less than half a percent in public expenditure.<sup>18</sup> This correlation reflects the increases in general-government wages at times of economic expansion, the indexation of some National Insurance benefits to the national average wage, the upturn in demand for public goods when standards of living are on the upswing, and the tendency of the pressure-susceptible political echelon to increase spending when tax revenues are growing. The proliferation and accomplishments of public-sector strikes in 2007 attest to this.

<sup>15</sup> In an article on the effect of expanding public expenditure and cutting taxes on GDP, Perotti found that even in affluent countries, where one would expect this effect to be rather large, it proves to be small and, at times, negative. Studies that included a wider range of countries were unable to explain clearly how fiscal policy affects short-term GDP specifically and sustainable growth generally. See R. Perotti (2005), "Estimating the Effects of Fiscal Policy in OECD Countries," CEPR Discussion Paper 4842, January; Sala-i-Martin (2002), "15 Years of New Growth Economics: What Have We Learnt?" Discussion Paper No. 0102-47, Department of Economics, Columbia University (April), p. 10.

<sup>16</sup> The elasticity of the deficit relative to GDP is about 0.33. For an explanation of the calculation see A. Brender, "If You Want to Cut, Cut, Don't Talk: The Role of Formal Targets in Israel's Fiscal Consolidation Efforts 1985-2007," from Lectures, Articles and Position Papers, March 2008, English abstract available on the Bank's website <http://www.boi.gov.il>

<sup>17</sup> Brender and Navon (2007) found that a 1 percentage point acceleration in growth rate increases tax revenues by one-third of a percentage point: Falk Institute, collection of articles.

<sup>18</sup> See J. Zeira and M. Strawczynski, "Cyclicality of Fiscal Policy in Israel," Bank of Israel Review, 80 (Hebrew).

### c. Tax revenues

The ratio of tax revenues to GDP—the tax burden—edged upward in 2007. This is the result of two contrasting effects. First, rapid growth—including the swift increase in private consumption, and favorable developments in the labor market and in the composition of demand—prompted revenues to increase more rapidly than GDP. Second, the lowering of statutory tax rates (including those of National Insurance contributions) dampened tax revenues by an estimated NIS 3.6 billion in 2007. Notably, the effect of the tax cuts was calculated on the assumption that the cuts themselves do not affect growth, even though they may contribute to growth and offset some of the revenue loss.<sup>19</sup>

The main factor behind the increase in revenues in 2007 was indirect taxation of civilian imports, which climbed to 4.5 percent of GDP (Table 6.A.12). The increase in revenues from indirect taxes on imports traces to a 17 percent hike in purchase-tax receipts—nearly all due to an upturn in motor-vehicle imports—and larger revenues from customs and Value Added Tax on imports, occasioned by a steep increase in imports of durable goods.

Even though tax rates continued to come down, direct-tax receipts increased slightly in GDP terms (Tables 6.A.11, 12, 13, 17) as the share of corporate tax in GDP slipped mildly (following a steep increase in the last cycle) and that of direct taxes on wages edged upward due to the continued upturn in real wages in 2007. Three increases in collection explain most of the upturn in direct-tax revenues: 11 percent from the self-employed, 19 percent from the capital market, and 17 percent from the real-estate sector. The increases in direct tax in GDP were smaller in 2007 than at the beginning of the business cycle, reflecting the non-linear response of tax revenue to macroeconomic developments (Table 6.A.12).

Real tax revenues were NIS 192.2 billion, up 8 percent (NIS 14.9 billion) from 2006–07, 7 percent in direct taxes and 11 percent in indirect taxes. The rate of increase was even greater if one takes into account the changes in tax rates in 2007 and the aberrant nonrecurrent revenues in 2006. Two sources of revenues showed especially strong growth: the capital market, at NIS 4.2 billion as against NIS 3.5 billion in 2006, and the real-estate sector, at NIS 5.8 billion as against NIS 4.9 billion in 2006.

According to the Bank of Israel Research Department's tax model, the increase in revenues in 2007—net of the effect of legislative changes—is compatible with an explanation derived from the variables in the model. According to these variables, the following factors explain a 10.8 percent upturn in revenues. (1) GDP growth, including changes in the ratio of GDP prices to consumer prices and in the growth

Even though statutory tax rates have been coming down, the tax burden rose slightly in 2007 due to the continued acceleration of economic activity.

<sup>19</sup> For discussion of findings on the effect of the tax burden on GDP in Israel, see J. Lavi and M. Strawczynski (2001), "The Effect of Policy Variables and Immigration on Business-Sector Product and its Components—Factor Inputs and Productivity—in Israel: 1960–1995," Bank of Israel Review 73 (Hebrew). For a survey of findings abroad, see M. Rider (2006), The Effect of Personal Income Tax Rates on Individual and Business Decisions—A Review of the Evidence, Andrew Young School, Working Paper 06-15.

rate—contributed 6.5 percentage points to the revenue increase; (2) imports of consumer goods contributed 3.1 percentage points;<sup>20</sup> (3) real wage growth, surpassing the increase explained by the increase in GDP, contributed 0.1 percent; (4) the sluggish growth of housing sales contributed –0.4 percent; (5) the financial variables included in the model explain a 0.5 percent increase in revenues in 2007; and (6) the rest of the increase—one percent—is not explained by the model and reflects mainly non-recurring exceptional factors. Analysis of the composition of the revenue increase shows that most of the meaningful variables are cyclical and correspond to the continuation of growth. The only outlier was imports, which deviated from its long-term connection with GDP.<sup>21</sup> If this variable regresses to its trend in years to come, the growth rate of tax revenues will slow. In contrast, the recovery of the construction industry, which has not yet begun for all intents and purposes,<sup>22</sup> will push tax revenues up.

Government tax revenue in 2007 was 6.3 percent larger than the budget outlook, mainly because growth was faster than had been predicted.

Government tax revenues in 2007 surpassed the budget forecast by NIS 11.5 billion. NIS 4.3 billion of the overshoot was occasioned by a faster growth rate than the budget had foreseen—5.4 percent as against 3.8 percent, respectively—of which NIS 2 billion was offset by which unexpectedly slow price increases. NIS 5.5 billion of the excess traced to abnormally vigorous imports of consumer goods (reflecting not only direct taxation of imports but also faster growth of domestic demand than of GDP). The rest of the gap is explained mainly by NIS 2 billion in nonrecurrent revenue from the domestic capital market.

The disparity between tax receipts in 2007 and the budget outlook is not new, and has been manifested throughout the most recent cycle, and is not unique to Israel.<sup>23</sup> This provides yet another indication of the uncertain nature of tax forecasting, mainly due to the difficulty in predicting the macroeconomic variables (including growth rates) that affect revenues, even when the economic correlations between these variables and revenues are known.<sup>24</sup> The systematic nature of the negative discrepancy of the revenue outlooks relative to actual receipts in recent years suggests that the outlooks are being prepared conservatively. Obviously, the budget would be more effectively prepared if the outlook were more accurate and less conservative.

The tax cuts in 2006 and 2007 were part of a long-term government program as opposed to a one-off measure derived from a growth-induced upturn in revenues. In the past five years, the government has cut tax rates by an estimated NIS 19 billion in

<sup>20</sup> The model includes wages and consumer-goods imports as deviations from the long-term connection that has been estimated between these variables and GDP.

<sup>21</sup> For elaboration on the increase in domestic demand, which fueled the rapid expansion of imports, see Chapters 2 and 7.

<sup>22</sup> For further discussion of developments in the construction industry, see Chapter 2.

<sup>23</sup> Tax revenues in Europe and the US in the last few years have consistently exceeded initial forecasts: A Swiston A., M. Mühleisen and K. Mathai (2007). “US revenue surprises: Are happy days here to stay?,” IMF Working Paper WP/07/143. Morris R. and L.L. Schuknecht (2007). “Structural balances and revenue windfalls—the role of asset prices revisited,” European Central Bank Working Paper 737.

<sup>24</sup> Brender and Navon (2007); see footnote 17.

cumulative terms. The tax cuts during this time do not apply to the current period only; they include further gradual reductions in the rates of income tax on wage (including National Insurance contributions) and corporate earnings, so that by 2010 the net tax cut will come to NIS 25 billion relative to 2003. The statutory tax cuts in 2007 lowered income-tax rates (corporate and personal) and eliminated purchase taxes on “white appliances” (refrigerators and washing machines). Consequently, the weighted index of statutory tax rates fell by 0.6 percentage point in 2007 and by 4.7 percentage points in cumulative terms in the past four years.<sup>25</sup> This policy may contribute to growth not only by mitigating distortions in economic decisions, as explained above, but also by making the system more efficient by basing it on a declining trajectory of the expenditure/GDP ratio.

Despite the tax cuts, the tax burden—the share of total tax payments in GDP—increased slightly in 2007 and remained in the middle of the narrow range in which it has been fluctuating since the late 1980s (Figure 6.6 and Table 6.A.11). This stability demonstrates how intensively the economic recovery has affected tax revenues. The effect, however, is expected to ease as the growth rate levels off. Accordingly, the tax cuts that are already in the pipeline for coming years will probably lower the tax burden somewhat.

A central component in the program of tax cuts in recent years is the lowering of tax rates on wage. The 2003 tax reform slashed tax rates in most wage brackets and the supplemental reform at the end of 2005 expanded the reductions, both on a current basis and for the period up to 2010. Due to the tax cuts that have already taken effect, the fraction of tax in wage is lower in Israel than in most developed countries at almost all wage levels (Bank of Israel Annual Report for 2006, Table 6.10) and the spread is expected to continue widening due to further reductions that are expected in coming years.<sup>26</sup> The comparison also shows that Israel’s tax function is structured more steeply than that of the developed countries, meaning that low-income workers pay much lower tax rates in Israel than in the other countries. Israel’s low rates of marginal tax at low income levels reduce the average tax rates at high income levels to below their levels in the developed countries, even though their marginal tax rates are similar to those in Israel. Israel has relatively large inequality in gross-income distribution before government intervention (due to the severe heterogeneity of its population) and its progressive tax system makes the distribution more equal. This tax structure creates an incentive to employment, an important factor for weak population groups, and imposes a diminishing return on hours worked and human capital among high-income workers (those in the upper third of the wage-distribution scale). However, it has been found—perhaps surprisingly—that labor supply relative to income is

<sup>25</sup> For an explanation of how the index is calculated, see Flug K. and M. Strawczynski (2007), “Long-Term Growth and Macroeconomic Policy in Israel,” *Bank of Israel Review* 80 (Hebrew).

<sup>26</sup> For a detailed international comparison of tax rates on wages, see Brender A., *Tax Rates on Labor Income in Israel from an International Perspective, 2006 and 2007*, Bank of Israel Position Paper, March 2007 (Hebrew).



especially inelastic among the latter.<sup>27</sup> From a broader perspective, Israel's tax rates used to resemble those in the European Union, whereas today the tax burden on wage is substantially lower in Israel than in most EU countries and converges to the levels in the English-speaking countries.

#### **d. The public debt and the financing of the deficit**

##### *(i) The gross public debt and the debt/GDP ratio*

The gross public debt/GDP ratio declined by 6.0 percentage points in 2007 and ended the year at 80.6 percent, the lowest since the 1960s.

The ratio of gross public debt to GDP declined by 6.0 percentage points in 2007 (after plunging by 9.0 percentage points in 2006) and ended the year at 80.6 percent, the lowest since the 1960s. This was due to several real and financial factors (Table 6.8): continued rapid growth and balance in the government account, larger privatization receipts than had been programmed (due to sale of the refinery in Haifa and the Pi Giliot facility), payback of private citizens' debts to the government (mainly housing loans), drawdown of government deposits with the Bank of Israel, and continued currency appreciation. The combined effect of these factors reduced the government's need to finance the deficit. From the opposite direction, the stronger increase in consumer prices than in GDP prices made the debt greater.

Net domestic issues were smaller than the program.

In light of the reduced deficit financing need during the year, and in view of the subprime mortgage crisis that erupted in the United States in July (discussed in Chapter 4, "The Financial System") and made capital-raising more expensive in the third quarter, net domestic issues in 2007 were NIS 4.2 billion as against NIS 15.7 billion according to the program. A NIS 3.2 billion surplus of redemptions over issues was recorded in nontradable fixed debt, as expected due to the pension-fund reform,<sup>28</sup> and forex-denominated debt recorded a redemption surplus of NIS 5.7 billion.

Some 98 percent of the public debt is government debt; the remainder belongs to municipal authorities<sup>29</sup> and was largely unchanged from 2006. The government debt/GDP ratio plummeted in 2007 and settled at 78.5 percent at year's end, the lowest level since the 1960s (Table 6.A.18). Declines were recorded both in domestic debt, held by residents (down 2.3 percent) and in external debt, the portion owed to nonresidents (down 3.7 percent) due to the ongoing appreciation of the NIS against the USD.

<sup>27</sup> Brender A. and L. Gallo, "The Effect of Changes in Wages, GDP, and the Demographic Characteristics of Workers on Hours Worked," Bank of Israel Research Department Discussion Paper (2007) (Hebrew).

<sup>28</sup> The reform, effected in January 2004, halts the issue of earmarked bonds to pension funds until the share of such bonds in total fund assets falls to 30 percent. It also determines that the funds must invest at least half of assets managed in tradable government bonds.

<sup>29</sup> Indebtedness of municipal authorities both to banks and in the form of bonds, less loans they received from the government via banks.



**Table 6.8**  
**Components of Change in Gross Public Debt from 2006 to 2007**

	(percent of GDP)
Debt at the end of 2006	86.6
Increase in GDP	-4.1
Net allocation of capital	-1.6
of which Budget deficit, cash basis	0.0
Redemption of net credit by the public <sup>a</sup>	-0.5
Receipts from privatization	-0.9
Total change in the government's deposits in banks	-0.2
Revaluation of local-currency debt <sup>b</sup>	1.3
Revaluation of foreign-currency debt	-1.4
Remainder <sup>c</sup>	-0.2
Total debt at the end of 2006	80.6

<sup>a</sup> Including credit extended and principal paid.

<sup>b</sup> The difference between the rise in the CPI during the year and the rise in the GDP deflator.

<sup>c</sup> Adjusted according to issue price, and rounding. At this stage the data are based on initial assessments, which is why the remainder is still high.

SOURCE: Bank of Israel.

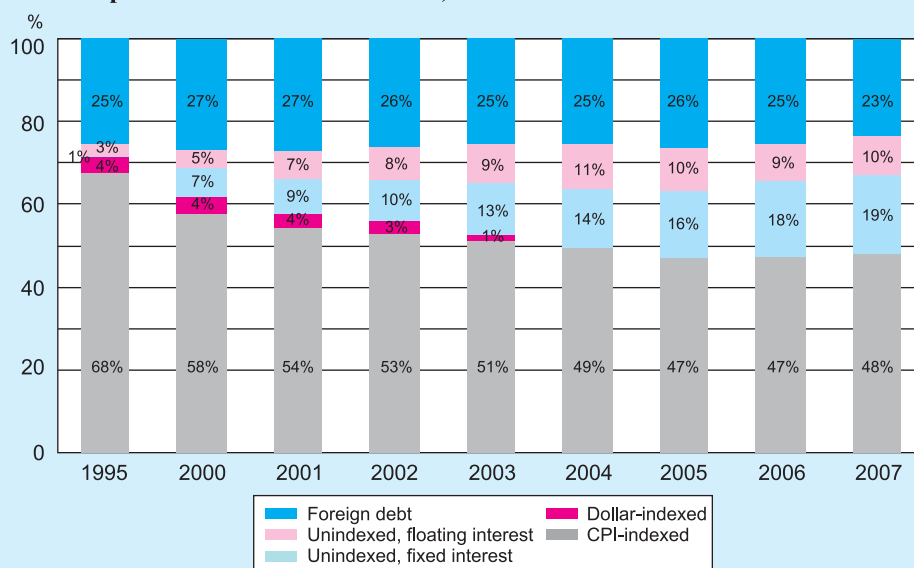
*(ii) Composition of the debt*

The share of internal debt in total debt has not changed materially in the past decade and stood at 77.2 percent at the end of 2007. Until 2000, the internal debt was denominated in NIS and the external debt in forex. Due to globalization processes and the liberalization of the forex market, the share of forex government bonds held by residents has risen in recent years, and reached about 5.5 percent of forex-denominated debt in 2007, similar to its level in 2006. Concurrently, nonresidents' holdings of NIS-denominated government bonds increased, especially when main market-maker activity was launched in September 2006 (Bank of Israel Annual Report for 2006, Chapter 4, Box 1), and came to 2.6 percent of total NIS-denominated debt at the end of 2007 as against only 0.8 percent at the end of 2005. However, the trend in nonresident holdings was uneven in 2007 and was affected by the global financial crisis. By creating wider risk spreads around the world, the crisis depressed nonresident investors' involvement in emerging-market economies, including Israel. Thus, the rate of nonresident holdings of unindexed fixed bonds fell from a peak of 12.7 percent of inventory in June 2007 to 11.2 percent at year's end, as against only 3.4 percent shortly before main market-maker activity was launched.

By affecting the cost of issues in the second half of 2007, the financial crisis also affected the composition of issues. Until June, the debt-management trend in the previous three years continued as the share of unindexed borrowing at constant interest increased in view of the low inflation environment (Table 6.A.19). In the first half of

The trend in nonresident holdings was affected by the global financial crisis.

**Figure 6.2**  
**Composition of Government Debt, 1995–2007**



SOURCE: Bank of Israel and Ministry of Finance.

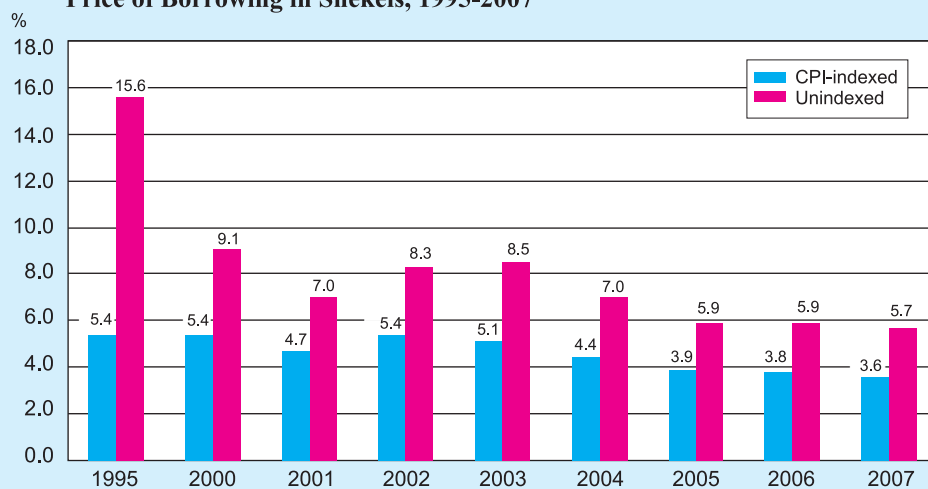
By affecting the cost of issues in the second half of 2007, the financial crisis also affected the composition of issues.

the year, such debt accounted for 90 percent of total gross tradable domestic issuing as against 58 percent in 2005, a record level since such issuing began in 1995. The eruption of the financial crisis in July and the acceleration of domestic inflation in the second half of the year made the cost of fixed-interest unindexed issues climb more steeply than indexed issues. In May 2007, the cost of unindexed debt issuing was 4.9 percent, only 0.2 percentage point higher than the yield on corresponding US bonds, due to continued appreciation of the NIS and low inflation expectations. In view of the financial crisis and currency depreciation, the cost climbed to 6.2 percent between June and August, began to recede in September, and ended the year at 5.7 percent. This was also the average in 2007, the lowest in the past decade. Consequently, the share of unindexed debt in total tradable debt declined in the second half of 2007 and fell to 72.4 percent at year's end. The cost of indexed borrowing developed similarly in the second half of the year. No borrowing of this type took place in March–June, given the large surplus on government account, and on average in 2007 the share of such debt was a paltry 3.6 percent (Figure 6.3).

Even though most of Israel's borrowing in recent years has been unindexed and at fixed interest, following the standard practice around the world, the share of this component in total debt (Figure 6.2) remained small in 2007—19 percent—due to short-term issues in the initial years.

The tradable portion of the forex debt includes bonds issued in foreign markets with US government guarantee (43 percent), bonds issued in the capital market outside the US guarantee arrangement, and “free” bonds (see below) (21 percent).

**Figure 6.3**  
**Price of Borrowing in Shekels, 1995-2007**



SOURCE: Bank of Israel and Ministry of Finance.

The nontradable portion is composed of Israel Bonds (30 percent) and loans from the US Government, the German Government, and foreign banks. Since October 2004, no bonds have been issued under the US government guarantee program, but the very existence of the program, which has been extended to 2011, lowers the cost of issuing in international markets.

Government issues in global markets do more than raise capital; they play an important role in exposing the Israeli economy to foreign investors, mitigating dependency on foreign governments, widening the country's sources of capital, and establishing benchmarks that help the Israeli private sector to raise capital abroad. Every year since 1995, Israel has made a "free" issue (i.e., without US government guarantee) in international markets at fixed interest, but an €1 billion issue planned for the end of 2007 was postponed to the second quarter of 2008 due to the subprime crisis and the large surplus on government-activity account.

Since 91 percent of the forex debt is denominated in USD, the government debt is exposed to a currency risk that may prove adverse to the availability and cost of government borrowing.<sup>30</sup> In 2007, as in 2006, the ongoing appreciation of the NIS against the USD lowered the external debt in NIS terms. Thus, the external debt contracted by 3.5 percent in USD terms and by 11.9 percent in NIS terms. In 2005, the situation was reversed: due to currency depreciation, the debt increased by 0.3 percent in USD terms and by 7.2 percent in NIS terms. Opening up the domestic economy by overseas issues to foreign investors helps to diversify the sources of

More than 90 percent of Israel's forex debt is denominated in USD, therefore the government debt is exposed to a currency risk.

<sup>30</sup> For discussion of the government's exchange-rate exposure, see Y. Haim and R. Levy, "Use of the Balance-Sheet Approach for Analysis of Financial Stability: Analysis of Resilience of the Economy to Exchange-Rate Risk," Bank of Israel, Financial Stability Area, Discussion Paper, Jan. 2007 (Hebrew).

external raising of debt and to reduce currency risk. Beyond currency variation, which is attained by issues in different currencies in order to gain exposure to different audiences, foreign investors are exposed to the Israel government's shekel borrowing. Furthermore, the use of foreign-currency financial derivatives such as swaps would also reduce currency risk.

*(iii) Term to maturity of the debt and debt management*

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

The average term to maturity of the outstanding debt climbed to 6.5 years at the end of 2007 after three years of contraction. All components of the tradable NIS debt rose with the exception of the unindexed floating-interest segment, whereas forex-denominated debt continued to sink for the fourth year and its term came to 7.4 years (Table 6.A.20). The term to maturity of the tradable NIS debt rose due to fixed-interest unindexed issues to terms of five, ten, and twenty years and indexed fixed-interest issues to thirty years. Some of the prolongation of term to maturity was offset by the absence of indexed issues in March–June 2007 due to scanty financing needs for the budget and the onset in March 2006 of two-year unindexed fixed issues and the beginning in August 2007 of three-year fixed indexed issuing. These short-term bonds may reduce issuing costs by restructuring the government debt, since the shorter the term to maturity, the lower the inflation risk premium and issuing costs. Pursuant to the pension-fund reform, the term to maturity of the nontradable debt declined and is expected to continue doing so until 2012.

To make government bonds more tradable and liquid, swap auctions in tradable government bonds began in August 2007. In a swap auction, the government acquires bonds before maturity and provides sellers with other bonds that it issues. Another advantage of swap auctions is that they can smooth the pace of bond redemptions; without such smoothing, recycling risks and severe volatility in the markets may occur whenever large series come due. Furthermore, unindexed fixed-interest bonds to terms of three months were issued for the first time in 2007, enhancing flexibility in managing the government debt by improving the cash flow.

Swap auctions in tradable government bonds began in August 2007.

Issues of unindexed fixed-interest bonds to terms of three months made their debut in 2007.

### 3. FISCAL POLICY ANALYSIS FROM A CYCLICAL AND COMPARATIVE PERSPECTIVE

#### a. Background

The Second Lebanon War (2006) as well as other events during the latest cycle—the Iranian threat, poverty, and the increase in inequality—underscore with greater acuity the need for decisions on budget priorities that accord with the fiscal framework that the government has established: declining deficit targets, mild increases in spending, and legislated tax cuts. The challenge facing the government is to meet defense needs without neglecting the social issues and high poverty rates that were affected by the budget policies in effect since the middle of 2002.<sup>31</sup>

The spending restraint and tax cuts in recent years joined forces with continuing growth to lift the economy out of the fiscal crisis that befell it at the beginning of the decade. This is evidenced in the fiscal aggregates—the tax burden, the share of expenditure in GDP, the deficit, and the debt. Indeed, the two last-mentioned parameters are gradually converging toward the standards of developed countries. However, the budget measures that were needed to deal with the crisis reduced the government's ability to provide services and pledge resources to the treatment of poverty. After fiscal consolidation was attained, policymakers were better able to tackle social priorities and how to manifest them in the apportionment of the budget.

Several developments indicate that social gaps have been widening in recent years: the relative poverty rate has not fallen in recent years; the Gini index of national distribution of economic income ranked among the highest in the West before the current cycle and has remained so since;<sup>32</sup> unemployment rates among the low-educated remained high; and the relative socioeconomic situation of the ultra-orthodox and Arabs continued to decline. Throughout the cycle (2002 to mid-2007), the state of weak population groups has not improved perceptibly by most measurable indicators, relative and absolute alike, although in the last two years the absolute poverty rate has fallen, and the income of the poor has risen in real terms (see Chapter 8, Table 8.1). These phenomena were influenced by government policies that caused items designed to help weak population groups directly to contract in many respects—in percent of GDP and in impact. Programs to integrate the weak population groups in employment

The security threat, poverty, and the increase in inequality during the latest cycle underscore with greater acuity the need to make decisions on budget priorities.

During the current cycle (2002 to mid-2007), the state of weak population groups has not improved by most measurable indicators but the real income of the poor has risen in the last two years.

<sup>31</sup> For elaboration on the disparities and the effects of policy and growth on their exacerbation, see Chapter 8 in this Annual Report, the corresponding chapter in previous years' reports, and A. Brender and L. Gallo, "The Effect of Changes in Wages, GDP, and the Demographic Characteristics of Workers on Hours Worked," Bank of Israel Research Department Discussion Paper (2007) (Hebrew). These sources show that growth contributed to the widening of Israel's economic disparities by allowing most employees to increase their hours but excluding low-income breadwinners. See also Israel Democracy Institute (2006), *Welfare to Work: Economic Policy for Continued Economic Growth and Recovery*, Policy Study 62, July (Hebrew).

<sup>32</sup> For expanded discussion of the trend in poverty and social disparities, see the Issues in Welfare Policy chapter in this Annual Report and in previous years' Annual Reports, and the annual reports of the Taub Center for Social Policy Studies in Israel.

were of modest scales at this stage, and programs to increase their income, such as Earned Income Tax Credits (known as negative tax), have not yet been activated. Nevertheless, the above dynamic has a positive aspect, as families rescued from poverty in the last two years have achieved that by participating in the labor force, and not by means of government allowances as was the case at the beginning of the 2000s. In light of the above, in 2007 the government stressed—in its basic guidelines and its resolutions—the importance of dealing with social disparities by 2010, and for the first time in five years of growth and significant improvement in the budget aggregates, decided on positive steps in this direction. For example, it set an employment-rate target (72 percent) and determined that the income of citizens in the lowest income quintile should increase 10 percent faster than the growth rate. It deserves emphasis that since alleviating poverty has a salutary effect on long-term economic stability, an anti-poverty policy would also contribute to the future development of the economy.

Following the worsening security threat, the government committed itself to higher defense outlays in coming years.

Until the Second Lebanon War, the budget estimates for coming years assumed that defense spending would increase more slowly than civilian expenditure and might not increase at all, thereby freeing resources for social needs. However, given the worsening security threat, the government committed itself to higher defense outlays in coming years by adopting the main recommendations of the Brodet Committee. It is important to stress that absent a significant cutback in other items, the government will be unable to implement its social programs without breaching the expenditure increase ceiling that it established. It is important to explain how it intends to resolve this dilemma so that it can solidify the contribution of fiscal policy to sustainable economic growth, reduce the cost of financing the general government, and strengthen the credibility of its commitment to its social-service and infrastructure goals.<sup>33</sup>

The government will have to frame a long-term plan that will deal with these issues in coming years without overstepping the budget framework that it will adopt. The implementation of a multi-annual budget plan that emphasizes the expected composition of expenditure so as to reflect decisions on priorities will make its efforts to attain the targets more credible. Such a plan should include description of the actions to be taken in pursuit of the targets so that service quality will improve in tandem with the increase in the standard of living and at costs that are consistent with the budget limits. The plan should also list the components of the budget that will remain flexible for the handling of unforeseen developments, including a decline in national security,<sup>34</sup> and the expected decrease in global demand as the current business cycle draws to an end, which may slow the growth rate of tax revenues.

An examination of the government's expenditure policies across a period beginning in the early 1990s—and especially in 2000 and the mid-1990s—shows that the acceleration of growth in spending beyond the government's long-term capacity may sow the seeds of a budget crisis when the business cycle takes its next downward

<sup>33</sup> For elaboration, see discussion of main principles of the 2008 budget in Part 4 of this chapter.

<sup>34</sup> In this context, it is noteworthy that the Brodet Committee recommended the allocation of an internal reserve within the defense budget for unforeseen events.

turn. For this reason, it is important to stay within the expenditure increase limit that the government has established, even though the cyclical increase in state revenues creates a dire temptation to do otherwise.

It is also important, however, to make sure that the quality of public services keeps up with the increase in the national standard of living. This indicator may be estimated by measuring the share of domestic civilian consumption in GDP (Table 6.1).<sup>35</sup> This metric points to an increase in 1999–2002 followed by a downward trend in subsequent years, i.e., during the most recent growth cycle, so that in the past three years the average share of domestic civilian consumption in GDP has been below the late-1990s average. Amidst this erosion, real per capita civilian consumption has been advancing smartly in the past two years, as stated.

It must be acknowledged that due to globalization and competition, the government is committed to a tax burden that resembles that of the developed countries. Thus, it has to make sure that Israel's ratio of public expenditure to GDP also approximates that of these countries. By implication, when Israel's defense outlays climb<sup>36</sup> the government will be able to pledge fewer resources to civilian uses than other countries can. Furthermore, Israel has to contend with an especially heavy burden of interest payments on its debt—5 percent of GDP as against 1–2 percent in the developed countries. Finally, Israel's per capita product is almost 40 percent smaller than that of the developed countries, meaning that the source of its resources is smaller. In other words, if Israelis are to receive civilian services of the same quality as those enjoyed by citizens in some other developed country, and if the two countries devote the same share of GDP to public expenditure, Israel's public system must be much more efficient. However, labor productivity in the business sector is slightly lower in Israel than in the developed countries. Therefore, there is no reason to believe that Israel's general-government sector, a reflection of its business sector, is more efficient than its counterpart in other developed countries. By implication, there is good reason to believe that the civilian services that Israelis receive are less extensive than those enjoyed by citizens in other countries—a fact that has to be acknowledged.

As the current business cycle nears its end and actual GDP approaches its potential, the government cannot avoid deciding on a clear order of priorities: either assuring defense, narrowing poverty and social gaps, and improving public services and infrastructure by increasing expenditure, or continuing to lower the debt/GDP ratio in order to make the economy more competitive in its global habitat. The alternatives are clear. If defense and/or social goals are given larger budgets and tax-cutting continues in a slowing macroeconomic environment, the deficit and the public debt will increase. Alternatively, raising taxes, or not cutting them as per the program, may impair the economy's competitiveness, dampen its activity, and, in turn, impede its

Due to globalization and competition, the government is committed to a tax burden that resembles that of the developed countries.

<sup>35</sup> An alternative proxy is the mild rate of increase in real per capita consumption in the past decade by the standards of developed countries (Table 5). For details, see Part 2 of this chapter, below.

<sup>36</sup> Due to Israel's high defense burden, the extent of sources that it can use for civilian public expenditure is much smaller. On average, the developed countries spend a negligible 2–4 percent of their budgets on defense budgets; Israel pledges almost 20 percent of its budget to this use.



growth, especially amidst a general slowdown. Thus, an equilibrium in progressing toward these diverse goals should be found.

The highest priority should be to continue progressing on the debt-cutting path while balancing public expenditure that would enable an improvement in public services with a level of taxation supportive of GDP growth.

Given the importance of cutting the debt, Israel's poor international ranking in this respect as against its relatively good standing in terms of its tax burden and share of public expenditure in GDP (Figures 6.5 and 6.6), the widening of socioeconomic gaps, and the failure to narrow poverty during the most recent cycle, priority should be given to continued progress along the debt-cutting path, while balancing public expenditure that would enable an improvement in public services with a level of taxation supportive of growth. This should go hand in hand with regular monitoring of the government accounts in the multi-annual budget so that balanced decisions among the diverse fiscal components may be made. A concrete example of a long-term expenditure item<sup>37</sup> is the actuarial debt on account of budgetary pensions for general-government employees in the next few years. The change that the government wishes to make in the pension arrangements is costly in terms of the credibility of its economic arrangements and its ability to conclude long-term agreements. Furthermore, the current situation in this respect is not one of crisis (see Box 6.2). For an expanded discussion of the foreseen scenarios from a perspective of several years ahead, depending on the government's decisions, see Part 4 below.

## **b. Government fiscal policy and its implications**

The incumbent government revised its predecessor's fiscal targets. In the main, it raised the maximum allowable rate of annual increase in budget expenditure from 1 percent to 1.7 percent, both in real terms, and set the 2009 deficit ceiling at 1 percent of GDP. Even though the raising of the expenditure ceiling slowed the pace of deficit-cutting, it did not seem to impair the credibility of the government's commitment to fiscal consolidation, since the 1 percent per year ceiling was perceived as too difficult to attain beyond the short term and as too rigid in view of continued economic growth.

Both residents and nonresidents perceive the limiting of expenditure by means of a binding framework as a confidence-building measure.

The limiting of expenditure by means of a binding framework, even if slightly higher than its predecessor, is apparently perceived by both residents and nonresidents as a confidence-building measure. A predetermined expenditure target has several advantages over other fiscal rules because it is transparent and less susceptible to the influence of unforeseen, cyclical, and uncontrollable factors. It derives its immense power from its simplicity. Such a target, however, cannot be totally divorced from the growth rates and, in particular, from changes in estimates of potential GDP. When along with the expenditure rule the debt/GDP ratio is falling and the budget deficit sinks to zero, it becomes possible to maintain flexibility and cope with economic-cycle crises or, as in 2006, a security crisis. Tax-cutting in accordance with this rule sends the public a strong message of credibility and encourages the business sector and private consumption. If expenditure grows too sluggishly, the public sector will

<sup>37</sup> A distinction should be made between long-term items that are given, such as the foregoing example, and those that entail gradual planning and adjustment.

provide inferior services and the government will find it difficult to attain its social goals.

During the recent years of growth, the expenditure constraint, not the deficit constraint, has been the effective one. When an economy is growing, the pressure to spend more increases in tandem with tax revenues because since the combination of the extra revenue and the erosion of public services relative to the growing demand subjects the government to natural pressure to overshoot its spending targets. The very act of attaining a predetermined expenditure target, however, is important for enhancing the government's credibility in the eyes of its own citizens and those of other countries, including international investors. Thus, the expenditure rule that deserves consideration is one that respects the debt targets and adjusts the increase in expenditure to reflect long-term changes in growth, i.e., that adjusts its estimate of potential GDP.

When an economy is growing, pressure to increase expenditure rises due to surging tax revenues.

After the dynamic of overly rapid increase in government expenditure up to 2002—and, especially, an upturn in transfer payments that acted as disincentives to labor until it almost drove the country into a financial crisis—a stabilization policy was needed. The cost of the subsequent policy measures that strove to extricate the economy from the crisis and create incentives for employment, including cutbacks in social budgets and, in particular, transfer payments, was an increase in income-distribution inequality, at least in the short term.<sup>38</sup> While the acceptable extent of inequality is chiefly a sociopolitical question, inequality also has economic implications that have to be coped with. One such implication concerns social mobility: if inequality prevents members of from weak population groups and their children from acquiring human capital that correlates with their abilities,<sup>39</sup> economic efficiency will be impaired to an extent that transcends social preferences.<sup>40</sup> From an international perspective, Israel is one of the world's leaders in the size of disparities in PISA tests among pupils from different socioeconomic backgrounds and in the variation in achievements within schools and, in particular, among schools. For example, the scores of socioeconomically

<sup>38</sup> For a detailed analysis of these effects, see Chapter 8 below, and also Leah Achdut, Miri Endblatt, Zvi Zussman, and Rafaela Cohen (2005), "Social Aspects of the State Budget, 2001–2006," paper presented at the First Annual Conference on the Economic and Social Program, the Van Leer Institute (Hebrew). The analysis in the article does not take into account the effect of the capital gains tax that was introduced in 2003.

<sup>39</sup> Y. D. Maoz and O. Moav (1999), "Intergenerational Mobility and the Process of Development," *Economic Journal* 10.

<sup>40</sup> The available data do not answer the question regarding the extent to which this subject constitutes a problem in Israel. A study which examines this subject for the 1983–1995 period shows that over a ten-year period about two-thirds of the population defined as poor emerges from poverty, but the rate is lower for adults with a low level of education, and among Arabs (even adjusting for the effect of education) it is significantly lower. See Moshe Shaio and Michael Vaaknin (2000), "Long-Term Poverty in Israel: Initial Results from the Paired File of the Population and Housing Censuses, 1983 and 1995," in *Toward a New Welfare State in Israel*, Maurice Falk Institute of Economic Research (Hebrew). Zussman and Romanov find that the mobility of persons from a low income to a higher one in Israel is similar to that in other countries. N. Zussman and D. Romanov (2000), "Mobility in Income from Individual Effort and Employment in Israel, 1993–1996," *Economic Quarterly* 47(4), pp. 566–596, December (Hebrew).

strong students were 30 percent higher, on average, than those of socioeconomically weak students. Large sectoral disparities were also found between Hebrew speakers and Arabic speakers. The pupil- and school-evaluation exams that were administered to schoolchildren in 2007 also elicited large differences in average scores in view of socioeconomic background and indicated that the effect of parents' income on students' scores had increased since the early 1990s.<sup>41</sup> These differences translate into future income disparities that are among the largest in developed countries. The government's job in this regard is to alleviate the inequalities and assure equal opportunity for all schoolchildren. If one may judge from the various test results, the government is far from attaining this goal, which is as important as it is hard to achieve.

The widening of social disparities affects the credibility of the fiscal-policy path and raises concern about the use of temporary and inefficient solutions.

Another implication of the widening inequality relates to the credibility of the fiscal-policy path and the fear of offering temporary and inefficient solutions. The government's basic guidelines describe poverty and severe inequality as bad things. Thus, if they worsen—and if the public becomes more aware of them—the government will be harder pressed to take remedial action. If the government fails to develop effective tools to tackle these problems, the buildup of political pressure may prompt it to grasp at whatever policy tools are handy, even if they are not the most efficient. In Israel's case, this may be manifested in the reversal of recent years' policy measures and reversion to the rapid growth of transfer payments to the public at large. Accordingly, the government has to take measures that will narrow inequality and poverty without breaching the budget ceilings and interfering with the integration of weak population groups into the labor market. By implication, it should stick to its current carrot-and-stick principles. Importantly, however, the “stick”—the downsizing of unemployment compensation and other benefits and reducing their term—must be accompanied by the enhancement of labor demand (reducing the population of foreign workers) and labor supply (via vocational training and employment incentives that encourage jobless persons to accept work).

Positive examples of such actions include a negative income tax<sup>42</sup>—to be implemented on a small scale in 2008; it should be expanded in order to affect poverty meaningfully—tougher enforcement of the Minimum Wage Law, subsidization of day care,<sup>43</sup> introduction of compulsory employer pension,<sup>44</sup> and aid for single mothers. The benefits of extending the Compulsory Education Law to twelfth grade will eventually accrue mainly to weak population groups and will improve their children's access to the labor market.<sup>45</sup>

Another positive example that involves a relatively negligible budget cost is the policy on downsizing the population of foreign workers by 2014. The problem here

<sup>41</sup> For analysis and elaboration on developments in the socioeconomic composition of the pupil population and its effect on matriculation exam achievements, see Chapter 8, Part 4.

<sup>42</sup> For broader discussion of employment-promotive measures, see Chapter 5, Part 7.

<sup>43</sup> See Box 2 in *Recent Economic Developments* 119.

<sup>44</sup> See the Labor Market chapter and Section C in the Issues in Welfare Policy chapter.

<sup>45</sup> For analysis of the effect of compulsory and/or free education laws since the 1970s, see Tomer Krieff's position paper, Bank of Israel (in press).

is how to implement it. Foreign workers impose a burden on the weak population and enrich the strong population, because employers of foreign workers save on wages and social benefits whereas the unemployed have greater difficulty in finding appropriate and decently paying work. (For further discussion, see Chapter 5 and Box 5.2, which discusses the effect of the foreign workers on the wages of unskilled Israeli workers.) The increase in taxation on motor-vehicle use value<sup>46</sup> will also help to ease inequality. A negative example of dealing with poverty is the increase in benefits for working-age persons without linking the benefits to accepting work and without accompanying the increase with long-term programs, as happened at the beginning of the previous decade.

The government should reconsider the expansion of the Encouragement of Capital Investments Law in its current format, since the success of this statute in attaining the goal of stimulating employment in peripheral areas has not been proven. In fact, the law encourages investment in physical capital, which sometimes substitutes for the employment and betterment of unskilled workers.<sup>47</sup> It would be better, as stated, to invest in education and vocational training. Since the unemployment rate in the Southern District is not converging toward that in the rest of the country,<sup>48</sup> this district requires special treatment.

The probability of a government's responding to large social gaps and poverty-related distress by increasing benefits without conditioning them on work is especially great if its declared policy is to enhance the state of weak population groups by means of the labor market, while in actuality many workers remain impoverished—a state of affairs that, by several indicators, has been typical of Israel in the last few years. Indeed, the incidence of poverty among single-breadwinner households climbed from 31.6 percent to 36.6 percent between 2004 and mid-2007. This does not present the full picture, however: it does not reflect the rise in poverty resulting from participation in the labor force, but only the rise in the number of poor employed. The transition of families from the group of poor families without a bread-winner to the group of poor families with a wage-earner reduced their poverty but their low wage has not yet rescued their families from poverty, and the number of poor families with one bread-winner has risen.

One way of coping with the problem of the working poor is by focusing policy measures that assist those whom the state intends to encourage—members of weak population groups who are entering the labor market. This kind of assistance, as well as a program that would increase the wages of low-wage workers by means of a government grant (negative income tax and daycare) may provide the government with new policy tools allowing it to focus aid on low-wage workers and reduce the

Making less use of foreign labor is a positive step in the war on inequality and poverty.

The government should reconsider the expansion of the Encouragement of Capital Investments Law, because the success of this statute in attaining the goal of stimulating employment in peripheral areas has not been proven.

<sup>46</sup> This measure is expected to augment state revenues by NIS 2.2 billion per year.

<sup>47</sup> See Box 2.3 in the Annual Report for 2006.

<sup>48</sup> Natalia Pressman (2007), Convergence of Regional Unemployment Rates in Israel, discussion paper, Bank of Israel (Hebrew).

Despite the adoption of targets for the increasing of employment, total government expenditure for this purpose slipped from 0.26 percent of GDP in 2006 to 0.21 percent in 2007, as against the OECD average of 0.7 percent of GDP.

In 2007, the government set multi-annual poverty targets for the first time.

risk of regressing to the policies of the decade preceding the 2003 stabilization plan.<sup>49</sup> Despite the adoption of targets for the increasing of employment, total government expenditure for this purpose slipped from 0.26 percent of GDP in 2006 to 0.21 percent in 2007 (even though 0.27 percent of GDP was budgeted for the latter year), as against 0.7 percent of GDP on OECD average.<sup>50</sup>

Another difficulty in consolidating the changes in social policy in recent years is rooted in the absence in Israel of a system that can distinguish reliably and efficiently between those who cannot work and those who avoid work by choice. For this reason, the toughening of conditions was applied to all persons who turned to the country's welfare systems. The Mehalev program, piloted in recent years to ease this difficulty and help the chronically jobless fit into the labor market on the basis of vocational training, has delivered encouraging results. During the pilot, the program was adjusted in several ways in response to the first lessons learned. The criterion for remuneration of the private operators of the program was changed from revocation of clients' eligibility for benefits to job placement, and the function of evaluating clients was taken away from the operators and handed to the program administration at the Ministry of Industry, Trade, and Labor.<sup>51</sup> In the future, the quality of the matching of jobs to workers should be carefully reviewed with the operators' assistance. From the fiscal-policy point of view, the program also needs a cost-benefit analysis.

In 2007, for the first time, the government set poverty targets for the next few years—an important step, the implementation of which will have to be examined in coming years. The very fact that the government set quantitative social targets makes the outcome easier to test. Sometimes, however, the setting of quantitative targets leads to artificial attainment instead of a genuine effort to solve the problem. For example, the poverty rate, measured relative to an adjusted median of incomes, may be lowered by providing poor families with cash benefits that are just large enough to lift them over the poverty line. Solutions of this nature should be avoided. In contrast, the target of enabling citizens in the lowest income quintile to benefit on average from the fruits of growth by 10 percent more than the other quintiles, may be supported by secondary targets such as raising the rates of matriculation and/or higher-education enrollment among members of weak population groups.

The employment-rate target for 2010 in regard to the 24–65 age cohort is 72 percent, 2 percentage points higher than the 2007 level. Setting an employment target is a worthy step because its attainment is also influenced by the participation rate (positively)

<sup>49</sup> For discussion of the possible effects of a negative income-tax program in Israel, see A. Brender and M. Straczynski (2006), "Earned Income Tax Credit in Israel: Designing the System to Reflect the Characteristics of Labor Supply and Poverty," *Israel Economic Review*, 4 (1), April.

<sup>50</sup> See A. Brender, A. Peled-Levi, and N. Kasir (2002), "The Government's Policy and Labor-Force Participation Rates of the Prime Age Population—Israel and the OECD countries in the 1990s," *Bank of Israel Review* 74, November (Hebrew), and Chapter 5 in this Annual Report.

<sup>51</sup> For detailed discussion of Mehalev, see Chapter 5 of the Annual Report for 2006, a Bank of Israel press release in February 2007, and a report from the National Insurance Institute—Evaluation Study of the Mehalev Program, Report 4, July 2007 (Hebrew).

and the unemployment rate (negatively), and finding work usually alleviates poverty. Given the composition and tastes of the population, however, this target is hard to implement. Israel has a large pool of unutilized manpower, as evidenced by its low rate of labor-force participation, under 57 percent. By referring this pool—including the ultra-Orthodox sector, members of minority groups, and much of the population in peripheral areas—to the productive sector, the economy may be given a boost. To meet its targets, the government will have to allocate specific and adequate budgets for the care of specific population groups.

Analysis of the extent of government intervention in citizens' income on the basis of income quintiles (Table 8.2) shows that the recent business cycle has smiled on high-income citizens, whose tax burden was lowered, and frowned on those of low income, whose subsidies were cut. However, a comparative study on various countries' generosity toward their working-age populations<sup>52</sup> found that although the extent of transfer payments to the working-age population in Israel is no smaller than the OECD average in terms of GDP, assistance to the two lowest income deciles is below average<sup>53</sup> due to the low tax burden on the middle deciles. When the direct-tax burden, which is more progressive in Israel, is factored into the comparison, Israel proves to be no different in net support of the working-age population including the two lowest deciles, more generous toward the six middle deciles, and especially demanding toward the two highest deciles.

The contribution of fiscal policy to sustainable growth and the enhancement of welfare depends not only on the size of the deficit and the level of public expenditure but also, and largely, on efficient allocation of budgets in order to correct market failures in the delivery of public goods, productivity-enhancing measures, and the alignment of income distribution with society's values. Since decisions about the composition and level of expenditure should reflect the public's preferences and values, and since too much public expenditure may impair economic activity by raising the tax burden and the public debt, the government's priorities in allocating the budget are immensely important. In the planning, approval, and implementation of its budget, Israel is noted for very severe "concentration" by international standards, i.e., it gives the Ministry of Finance and the Prime Minister a great deal of power and influence at the other ministries' expense. Studies show that the main trade-off is between fiscal discipline, which correlates with high concentration, and a budget that accurately reflects the public's priorities, which correlates with more extensive debate among ministries.<sup>54</sup>

An after-the-fact review of priorities in the composition of public expenditure, as evidenced in the patterns of government spending in recent years, shows that even though the level of public spending varied over the years—increasing rapidly until 2002 and trending down since then—the composition of expenditure (excluding

The government's decision to set an employment target is a worthy step because finding employment usually alleviates poverty.

In terms of net support of the working-age population, Israel is no different from the OECD average in respect of the two lowest deciles, more generous toward the six middle deciles, and especially demanding toward the two highest deciles.

In planning its budget, Israel is noted for very severe "concentration" by international standards.

<sup>52</sup> O. Moav and M. Yifrach, "Generosity towards the Working-Age Population Israel Compared with the OECD Countries," working paper, Shalem Institute, 2006.

<sup>53</sup> See also Table 8.2 in this *Annual Report*.

<sup>54</sup> M. Dahan and A. Ben-Bassat, *Balance of Forces in the Budgeting Process*, Israel Democracy Institute, 56, 2006 (Hebrew).



interest) has hardly changed since the late 1990s (Table 6.9). Even though the share of one component or another in expenditure occasionally changes for a short time due to exceptional developments, e.g., the security situation in 2001–03 and 2006 and the proportional increase in National Insurance benefits in 2001, the overall composition proves quite constant when examined over several years. In particular, the proportions of expenditure on education and healthcare, domains that are often cited as worthy of higher-priority treatment, hardly changed during this time,<sup>55</sup> as evidenced by the frequency of “across-the-board cutbacks” in these fields when budget adjustments are needed.

**Table 6.9****Composition of General Government Expenditure by Type of Expenditure<sup>a</sup>, 1999–2007**

	(percent of total government expenditure, excluding financing expenses)								
	1999	2000	2001	2002	2003	2004	2005	2006	2007
<b>A. Public items</b>									
1. Defense	19.2	18.6	18.2	19.7	19.2	18.4	18.7	19.0	18.2
2. Government services <sup>b</sup>	9.1	8.9	8.9	9.1	9.7	9.6	9.9	9.3	9.2
<b>B. Welfare expenditure</b>									
Total welfare expenditure	61.3	62.4	63.2	61.3	61.4	61.3	61.6	61.1	62.1
1. Education	17.5	17.8	17.8	17.4	17.3	17.5	17.3	17.5	18.2
2. Health	12.0	11.7	11.5	11.3	11.7	11.6	11.9	11.6	11.8
3. Housing and community services <sup>c</sup>	2.6	2.0	2.2	2.0	2.1	1.7	2.1	1.7	1.5
4. Sport and religion	2.9	2.9	2.8	2.6	2.5	2.6	2.6	2.3	2.4
5. Social insurance and welfare <sup>d</sup>	26.4	28.0	28.9	27.9	27.8	27.9	27.7	27.9	28.2
<b>C. Economic services<sup>e</sup></b>									
Investment in transport infrastructure <sup>f</sup>	1.8	1.7	1.6	1.9	2.2	2.2	1.8	1.9	1.7
Other <sup>g</sup>	6.5	6.3	6.1	5.7	5.1	5.9	5.3	6.4	6.3
<b>D. Quality of environment</b>	<b>2.1</b>	<b>2.1</b>	<b>2.1</b>	<b>2.3</b>	<b>2.4</b>	<b>2.6</b>	<b>2.6</b>	<b>2.5</b>	<b>2.5</b>

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

<sup>b</sup> Including general administration, foreign relations, public order, police and justice.

<sup>c</sup> Including mortgage subsidies.

<sup>d</sup> Including transfer payments to households and welfare services.

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

<sup>f</sup> Including investment in construction of roads, in the railways, seaports and airports. Investment in roads does not include investment by Derech Eretz Highways Ltd.

<sup>g</sup> Including subsidies of public transport, agriculture and domestic production, transfer payments on the capital account, the Industry Research Fund, and fuel subsidies.

SOURCE: Based on Central Bureau of Statistics data.

<sup>55</sup> For a detailed discussion of the meaning of the composition of expenditure analysis and its problems, see chapter 3 of the Bank of Israel *Annual Report* for 2004.



The short-term perspective from which the budget is prepared constricts the government's ability to reshuffle its expenditures. Since the components of the budget are inflexible each year, it is difficult to raise resources for reforms in mid-year because the use of much of the budget has already been established for the coming year. A multi-annual budget framework accompanied by multi-annual programs in several strategic areas of activity, including resource allocations for unplanned reforms and changes, would facilitate greater flexibility.

In Israel, as in other countries, the services provided directly by general government may be made more efficient by putting computers to greater use in order to absolve the public of having to visit government offices for service. The government's recently established Web site for the public is a good example. Savings can be achieved and the burden on the public can be lessened by merging the systems that collect taxes, National Insurance contributions, and government fees. Since most public-consumption expenditure accrues to defense, education, and healthcare, reforms that would streamline core activities in these fields would go a long way toward improving service quality without breaching the budget ceiling.<sup>56</sup> Since the planning and implementation of such reforms is immensely time-consuming, the government should present clearly phrased multi-annual workplans for their attainment, in order to assure the long-term credibility of its fiscal targets and to ease concern about overshooting the targets in order to meet the growing demand for public services.<sup>57</sup> In particular, the government and the Ministry of Finance should subject the multi-annual budget to a system of reportage that policymakers may access before they make decisions that will affect the budget in coming years.

### c. International comparison

Real per capita civilian public consumption in Israel increased between 1995 and 2001 and has been receding since then (except for 2007), resulting in hardly any cumulative change in the past twelve years. Accordingly, the level of services has not budged (unless the services became more efficient). Since real per capita civilian public consumption in the developed countries has been increasing by 1.8 percent per year<sup>58</sup> (Table 6.5), the disparities between Israel and these countries in the extent and, perhaps, the quality of civilian services have been widening in recent years. Figure 6.4 demonstrates the rapid widening of the gaps by showing that Israel's per

The disparities between Israel and the developed countries in extent of civilian services have been widening severely in recent years.

<sup>56</sup> For discussion of possible healthcare reforms, see Chapter 8 of the Bank of Israel *Annual Report* for 2006. Possible education reforms are discussed in the Issues in Welfare Policy chapter of the 2004 *Annual Report* and in the 2005 Dovrat Report. For discussion of other reforms, see Box 6.3 of the *Annual Report* for 2005.

<sup>57</sup> One area of general government that has significant potential for greater efficiency is municipal government. For details, see the corresponding chapter in the 2006 *Annual Report* and Part 2 of *Recent Economic Developments* 120.

<sup>58</sup> Most of the difference traces to the fact that Israel's population grew much faster than that of the developed countries during these years (2.2 percent per year vs. 0.6 percent). Another explanation is that Israel's per capita product did not grow as quickly.

capita civilian public consumption was flat during the relevant years while that in the comparison countries grew by 24 percent.<sup>59</sup> The explanation for the difference between the absence of a quantitative increase in per capita quantitative civilian consumption, as shown in Figure 6.4 and Table 6.5, and the relatively strong rate of increase in real per capita civilian consumption shown in Table 6.2, is that the increase in civilian consumption in Israel outpaced the rise in GDP prices, reflecting the growth of real general-government wages, largely at the beginning of the decade. The increase in public-consumption prices relative to GDP prices during this time was greater in Israel than in the other developed countries. Therefore, the share

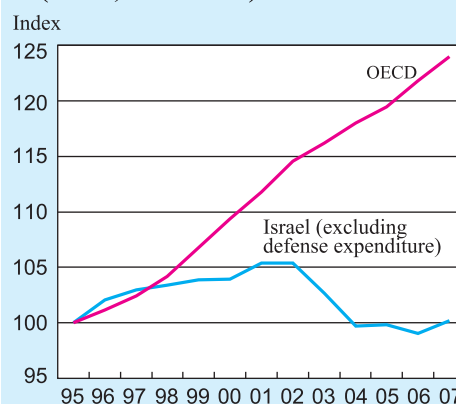
of public expenditure in GDP did not increase in the developed countries even though per capita civilian public expenditure expanded. By implication, in Israel, in contrast to the developed countries, the diversion of resources to civilian public consumption was reflected in price increases (wages) and not in a quantitative increase in services.

Apart from its sluggish rates of change in the past decade, Israel's per capita public consumption expenditure is lower—naturally enough, since income levels in Israel are lower. Now that the deficit and the public expenditure/GDP ratio have fallen to long-term sustainable levels, however, it would be appropriate to place public consumption on an upward trajectory in order to keep the gap from widening further, especially if Israel's growth rates keep up with those of the developed countries. To bring this about, it is very important to develop mechanisms to make sure that the increase in resources for public consumption will raise both the quantity and quality of services and not only their price.

Israel, like the developed countries, is facing challenges such as rapid globalization and technological changes. Due to globalization, many new players are joining the advanced R&D industries, undermining Israel's supremacy in this field. Globalization has also led to an influx of cheap labor from developing countries. The intrusion of this labor and its steadily improving productivity present a perpetual threat to unskilled workers, whose vocational mobility is poor.

Another factor to bear in mind is that Israel is different from the other developed countries in several respects:

**Figure 6.4**  
The Change in Per Capita Real Public Expenditure in Israel and the OECD (Index, 1995 = 100)



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

<sup>59</sup> The quantitative change is the nominal rate of change deflated by total civilian consumption prices.

1. Israel has one of the highest poverty rates in the developed world. One of the main reasons for this is the heterogeneity of its population. The more heterogeneous a population is, the more weak groups (and strong groups) it has. The share of poverty-prone groups in Israel's population has been rising over time, and these groups need more support from the state and its institutions. They are composed of populations from developing countries, immigrants from the former Soviet Union, minorities, the ultra-Orthodox, and a minority of Western origin, as befits Israel's reality as an immigration country. To illustrate the point, only 65 percent of Jews in Israel are native-born. Consequently, the country exhibits diverse needs and institutional and behavioral traditions. The different composition of Israel's population is also reflected in the indicator of gross inequality, which has been rising relative to the developed countries. The combination of many needs and progressive norms is foisting a severe burden on general government. Although Israel and the developed countries have similar rates of civilian public consumption in GDP, an adjustment for the different populations' different levels of need shows that residents of Israel receive less.

Israel has one of the highest poverty rates in the developed world.

2. The age composition of Israel's population is different than that in the other developed countries. Specifically, Israel is much younger: 28 percent of its population belongs to the 0–15 age cohort and fewer than 9 percent are over age 65, as against 18 percent and 13 percent, respectively, in the developed countries. Accordingly, Israel has to invest more in education than these countries do, and the correct measure of comparison is investment per pupil. In most leading international indicators, including class size, pupils per teacher, teaching hours, and financial investment per pupil, Israel is at the bottom of the list.<sup>60</sup> For example, Israel's per-pupil expenditure on education, adjusted to Purchasing Power Parity, is 14 percent lower than the OECD average. (In terms of per-student public expenditure on higher education, the rates are similar.) In Israel, 80 percent of per-pupil expenditure on education is public, as against 88 percent on OECD average; the corresponding rates per student in higher education are 59 percent and 76 percent, respectively. Average class size in Israel is 26.5 at the primary level and 31.5 in the low junior-high grades, as against 21 and 24, respectively, in the OECD countries. Israel's average ratio of pupils to teachers resembles the OECD average overall but is highest at the pre-primary level, where it surpasses that of the other countries by a wide margin, at 30 vs. 15. Per-pupil teaching hours have been subject to cutbacks in recent years, forcing the Ministry of Education to make a choice: either to slash the apportionment of hours for strong pupils and continue providing affirmative action for weaker ones, or to continue giving all students a predetermined minimum and doing away with almost all care for weaker pupils and nearly all supplemental teachers' hours in school. Furthermore, the education system does not provide a large chunk of the population, mainly in the ultra-Orthodox sector, with the basics of schooling that enable active and fruitful integration into the labor market<sup>61</sup>; this being the case, budgeting from the state should be made conditional

In most leading international indicators relating to education, including class size, pupils per teacher, teaching hours, and financial investment per pupil, Israel is at the bottom of the list.

<sup>60</sup> Source of data: *Education at a Glance*, 2006.

<sup>61</sup> For elaboration, see Chapter 8, Part 3.

Pursuant to a government resolution the education budget has been augmented by NIS 5 billion over six years.

The decline in Israel's public-expenditure/GDP ratio in the past five years has nearly closed the gap between us and the average among developed countries.

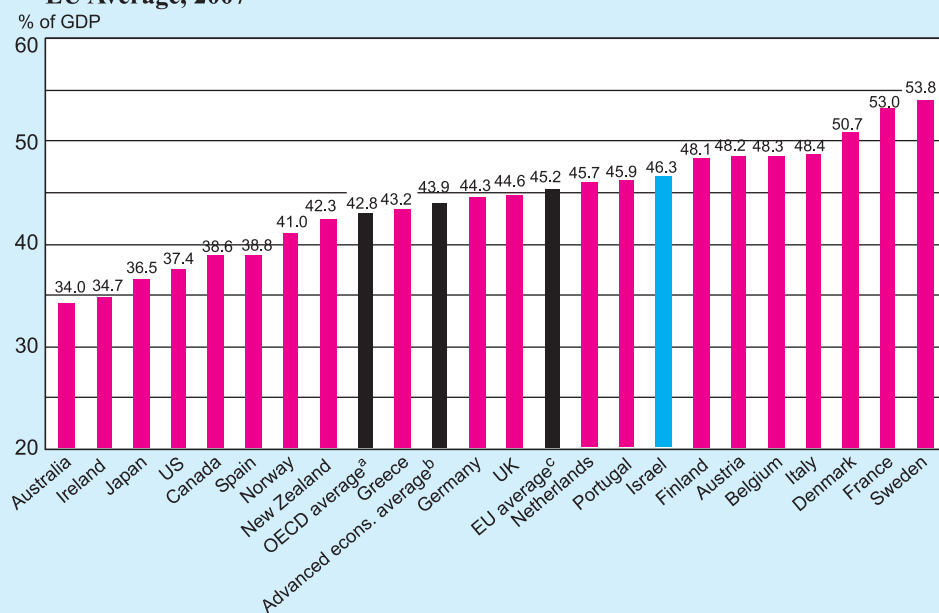
on the curriculum taught. Notably, pursuant to a government resolution the education budget has been augmented by NIS 5 billion over six years. Higher education has been retreating of late: the faculty is aging, the ratio of students per lecturer has been rising, and new posts are not being created.

The funding constraint created by the level of Israel's GDP is reflected in the share of public expenditure in GDP (even when defense and interest are added). Thus, Israel's public expenditure/GDP ratio resembles the norm among developed countries even as its civilian services have been eroding in real terms.

The falling public expenditure/GDP ratio in Israel during the past five years has nearly closed the gap that had formed in the preceding decade (Table 6.6, bottom section). Eight of the twenty countries in the reference group have higher public expenditure/GDP ratios than Israel's and four countries have similar ratios (Figure 6.5). Since some of Israel's defense expenditure (approx. 2 percent of GDP) is regularly covered by the United States Government, Israel's ratio is below the developed countries' average.

A cross-country examination of the components of expenditure shows that Israel's share of defense and interest expenditure in GDP far exceeds the norm among developed countries, its share of education and healthcare expenditure is similar (although due to the difference in age composition, its education spending is higher and its healthcare

**Figure 6.5**  
**Share of Public Expenditure in GDP, Israel, OECD Countries and EU Average, 2007**



<sup>a</sup> Arithmetic mean of all OECD countries except for Turkey and Mexico.

<sup>b</sup> Arithmetic mean of 20 advanced economies.

<sup>c</sup> Arithmetic mean of the EU countries that are also members of the OECD.

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

spending is lower), and its share of transfer payments is much smaller than that of the comparison countries.

The disparities among countries in terms of public expenditure/GDP ratio, reflected in Figure 6.5, may point to a difference in worldview and social attitudes between countries that favor the lowest possible level of public spending (foremost the Anglo-Saxon countries) and a low tax burden—so as not to inhibit business-sector growth, among other things—and most European countries, which choose a relatively high level of public expenditure and its concomitant, a high tax burden, even if this may impair economic efficiency by reallocating market resources. As for which of these “schools” Israel attends, the answer remains equivocal even in economic terms, because within the range of reasonable proportions of social expenditure, no empirical relationship between the level of government spending and the growth rate has been shown to exist in recent decades.<sup>62</sup>

Within a given budget base, the mirror image of the ratio of public expenditure is the tax burden. Israel’s tax burden lies in the middle of the distribution of developed countries (Figure 6.6). Accordingly, any tax-cutting beyond the path set forth in legislation will make Israel’s tax burden lower than that of most of these countries.

The annual deficit/GDP ratio is largely a function of the difference between the share of expenditure and the tax burden. The flow of annual deficits determines the debt/GDP ratio. The debt/GDP ratio and its development are major economic indicators which determine economies’ risk levels. A low risk level contributes to long-term rapid growth, mainly by way of investment. The downsizing of the debt/GDP ratio in the past five years has made an important contribution to mitigating the risk that investors—Israeli and foreign—attribute to the Israeli economy.<sup>63</sup> Evidence of this is the decline in Israel’s risk premium during the latest cycle (Figure 1.7.b), and the upgrading of Israel’s credit rating, for the first time in thirteen years, from A– to A. When a country receives a high credit rating, it, its banks, and the other inhabitants of its financial universe can raise money at lower interest, thereby reducing interest outlays over the years and freeing more resources for services or additional tax cuts.

Since Israel’s debt/GDP ratio remains high by the standards of developed countries (Table 6.5), especially in view of its security risks and their economic effects, there is more uncertainty about Israel’s ability to lower its debt burden than there is about other countries. Therefore, the importance of assuring confidence in the government’s targets, especially in respect of lowering the national debt, is more acute in Israel’s case. Although Israel is still 16 percent of GDP away from the OECD average (as against 21 percent in 2006), its steady progress along a clear downward path corresponds to the rules of the EU Stability and Growth Pact (and its precursor, the Maastricht Treaty).

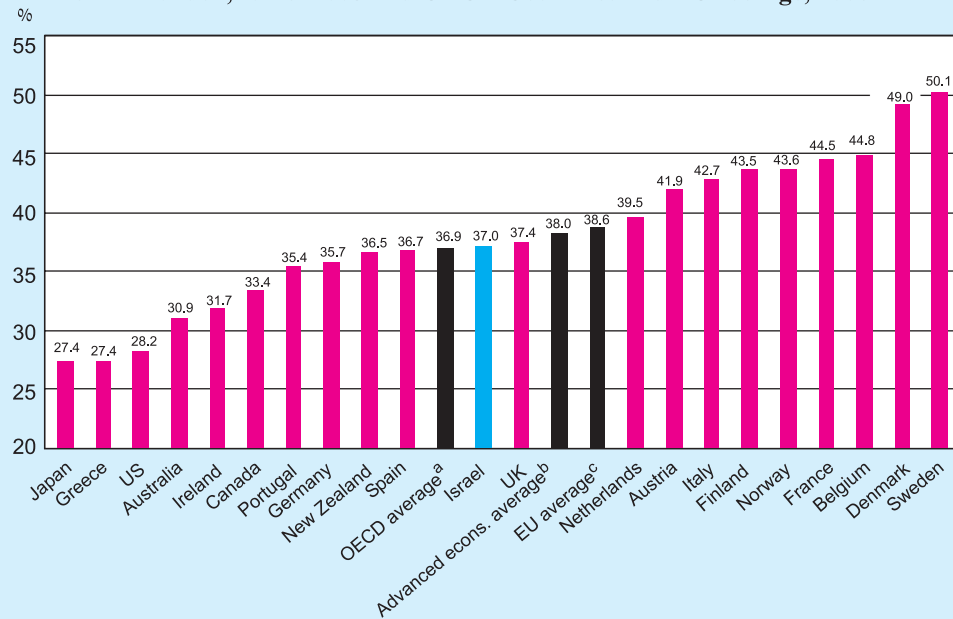
<sup>62</sup> See, for example, Sala-i-Martin, footnote 15.

<sup>63</sup> The gap in the ratio of net public debt (less financial assets) between Israel and developed countries surpasses the difference in gross debt. However, international comparisons of the net debt are not reliable due to the differences among countries in levels of information, cover ratios, and definitions. For these reasons, gross debt was chosen as the criterion in the EU Stability and Growth Pact.

If the tax-cutting process advances beyond the measures established in legislation, Israel’s tax burden will be lower than in most developed countries.

The downsizing of the debt/GDP ratio in the past five years has done much to mitigate the risk that investors attribute to the Israeli economy.

**Figure 6.6**  
**The Tax Burden, Israel 2007 and OECD Countries and EU Average, 2006**



<sup>a</sup> Arithmetic mean of all OECD countries except for Turkey and Mexico.

<sup>b</sup> Arithmetic mean of 20 advanced economies.

<sup>c</sup> Arithmetic mean of the EU countries that are also members of the OECD.

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

Due to its faster rate of population increase, which boosts its future potential product, Israel can choose a slower path of convergence toward the target levels. However, because its population is younger than that of the developed countries,<sup>64</sup> resulting in a lower dependency ratio,<sup>65</sup> it can actually lower its debt/GDP ratio more quickly in the knowledge that its dependency ratios will eventually converge toward those of the developed countries. One should also recall that Israel's higher level of security risk necessitates a lower debt/GDP ratio. Accordingly, a decision must be taken about the desired trajectory based on intergenerational allocation, taking into consideration the risks associated with the different trajectories.

Let us bear in mind that the debt/GDP ratio narrowed when the economy was in the positive segments of the cycle; once demand falls, keeping the debt on its downward path will present a much greater challenge. The farther the economy distances itself,

<sup>64</sup> For discussion of the effect on government expenditure of expected demographic developments up to 2020, see Koby Braude (2003), "The effective of Demography on Long-Term Public Expenditure," *Economics Quarterly* 15, December (Hebrew). In 2015, the age distribution gap between Israel and the developed countries is expected to be even wider (*Education at a Glance*, p. 160).

<sup>65</sup> In this context, it is noteworthy that Israel's population is also aging and the growth rate of its labor force is expected to slip from 2.5 percent in 2000–2005 to 1.5 percent in 2010–2015. In 2015, according to the outlooks, there will be 2–3 people in the labor force for every pensioner as against four today, both on average.



chronologically and statistically, from the time when there was a palpable risk of financial crisis (2002 and 2003), the more credible the policy has become.

The fiscal measures that were adopted and the credibility of the government's fiscal targets in investors' eyes were two of the most important factors in the decline in Israel's risk premium and the interest rates on government debt in the past two years,<sup>66</sup> thereby also helping to reduce interest expenditure and free sources for other needs. As an illustration, if the debt/GDP ratio were at the 2003 level (102 percent of GDP), the government would have spent NIS 7.7 billion more on debt servicing in 2007 than it did; a debt/GDP ratio of 70 percent would have saved the country NIS 4.4 billion, and a 60 percent ratio would have saved NIS 16.5 billion—all under the conservative assumption that the interest on the debt would not have fallen as the debt contracted. The state's annual interest bill is some NIS 30 billion per year, 15 percent of the budget. One should recall that when the interest portion falls, a 1.7 percent increase in spending results in an increase in services per capita.

Furthermore, since the deficit declined more quickly in the past two years than had been expected, surpassing the government's targets, the total saving rate improved and, in turn, the surplus on balance of payments current account was maintained even when the NIS appreciated. Usually one would expect an increase in government saving (lowering of the deficit) to be accompanied by a decrease—partial or full—in private saving. This effect was observed in the past two years: the increase in public saving in 2006 was considered surprising and, therefore, was only partly offset by the decline in private saving. The increase in government saving in 2007, in contrast, was perceived as permanent; therefore, adding the lagged effect of the increase in public saving in 2006, it was offset and more so by the decrease in private saving. Therefore, on balance, national saving edged downward.

The fiscal measures that were adopted are among the most important factors in the decline in Israel's risk premium and the interest rates on government debt in the past two years.

The falling deficit in the past two years helped to improve the total saving rate.

### Box 6.2

#### False Alarm? Analysis of Actuarial Liability for Defined Benefit Pensions

The government's actuarial pension liability to its employees is NIS 470 billion<sup>1</sup>—seemingly a staggering sum, roughly two-thirds of GDP. The following analysis attempts to gauge the budget significance of this debt from a multi-annual cash-flow perspective. By studying the expected flow of payments, we find that even under conservative growth assumptions, the highest annual payment on account of this liability will probably be only 0.3 percent of GDP greater than today.

<sup>1</sup> *Main Provisions of the Budget 2008*, p. 39 (Hebrew).

<sup>66</sup> For an analysis of the effects of the government deficit and deficit targets on the interest rates paid on government debt, see H. Ber, A. Brender, and S. Ribon (2003), "Does Fiscal Policy Influence Bond Yields? Evidence from Israel in the 1990s," *Economics Quarterly* 50, December (Hebrew).



Legislation that refers newly hired members of the civil and public services to defined contribution pensions instead of defined benefit pensions went into effect on April 1, 2002. Under an amendment to the law that became effective on January 1, 2004, members of the Israel Police, the Prisons Service, and the security services, as well as new permanent employees, are to be insured by means of defined contribution pensions. The new arrangement allows workers to change jobs without losing their pension rights. Under the previous pension arrangement, in contrast, people who left general government before completing ten uninterrupted years of service lost their rights. Since the population of persons eligible for defined benefit pension—veteran staff and retirees—are no longer being joined by new eligibles, the state's actuarial liability to its employees will presumably shrink considerably over the next 20–30 years.

The trajectory of the payment flow, like the state's total debt to its employees, may be calculated under basic assumptions about uncertain future events and an estimate of the parameters that will affect their expected behavior. Obviously, the reliability of the assumptions should be tested every now and then with the help of updated databases. The main parameters estimated are mortality rates and severance rates (i.e., the departure of employees who fail to complete the ten-year qualifying period or waive their benefit entitlements in return for lump-sum severance pay), age upon retirement (including early retirement), the growth rates of real wages and pensions (2 percent and 1.5 percent, respectively), the probabilities of changes in marital status, and probabilities relating to survivors. The legal and administrative parameters are maximum and minimum retirement ages, minimum seniority for pension purposes, the annual contribution rate, the maximum pension rate, supplement of pension rate upon retirement, severance grants, and rules concerning survivors and disability entitlements. Another economic parameter that, while not affecting flows, does affect the discounting of the total liability is the interest rate, based on the yield to maturity curve of unindexed government bonds.

In the estimation of the Ministry of Finance, the total net actuarial liability in 2007 (taking into account the withholding of 2 percent of pensionable wage for employees who have state-funded budgetary pensions) is NIS 470 billion—NIS 103 billion (22 percent) owed to pensioners and the rest owed to active employees who are entitled to budgetary pensions.

The estimated actuarial debt is the sum of the foreseen cash flow. Figure 6.A.1 uses the Ministry of Finance estimate to describe the trajectory of annual pension outlays in GDP terms, assuming a constant 3.2 percent annual growth rate (1.5 percent population growth plus a 1.7 percent increase in per capita GDP, the average in recent decades).

Thus, the total current outlay in terms of percent of GDP is expected to rise gently and gradually until 2020–24 and to peak during those years at 1.9 percent of GDP, 0.2 percent of GDP more than today. Afterwards, it is projected to tumble to 0.3

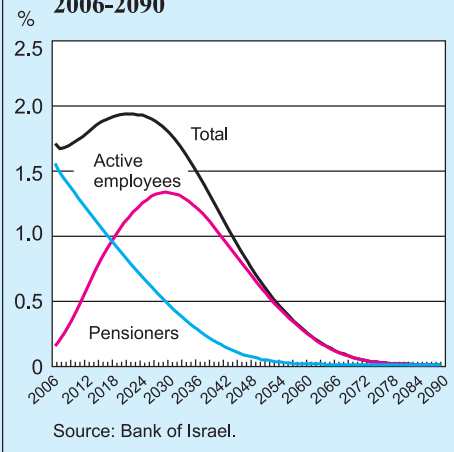
percent of GDP in 2055–65. Under the more conservative assumption of only 3 percent annual growth, the debt will climb to 2.0 percent of GDP, 0.3 percent more than today. In more extreme scenarios of per capita growth of 1 percent and 2.5 percent a year, the debt is expected to rise by 0.5 percent of GDP or to maintain its current level, respectively. Thus, the picture is much less ominous when the discounted outlay is spread over the years. Furthermore, pensions are taxed and counted in income with respect to income maintenance for the elderly, resulting in a lighter burden on the budget.

Given the large cumulative total—the capitalized inventory—of the debt, the government decided to launch negotiations for an amendment to the Civil Service Law, 5730-1970, that would reform the method of adjusting the pensions. The main provisions of the proposal are a change in the indexation of the benefit, using the Consumer Price Index instead of the wage of an active employee at the same grade,<sup>2</sup> and providing a supplement to compensate pensioners whose benefits eroded in 2000–07. The purpose is to solve a problem that has “implications for the budget and the economy” (Main Provisions of the Budget 2008, p. 39).

Allowances paid by the State to its elderly citizens under the National Insurance Law are not expected to rise to any significant degree when defined benefit pensions are increased. A demographic estimate based on the legislation currently in effect indicates that by 2025 this burden is expected to rise to 3.4 percent of GDP, compared with 2.8 percent at present.<sup>3</sup> Due to Israel’s relatively young population and the low level of allowances, this debt is lower than in the advanced countries—in which it amounts to an average of over 8 percent of GDP, and is expected to grow at the same rate as Israel’s.

Since budgetary pension will have a relatively minor effect on the future path of expenditure, the government would probably do well to study the damage that the proposed reforms will cause—eliminating the indexation of pensions to real wages

**Figure 1**  
Expected Cash Flow as Percent of GDP as Divided Between Active Employees and Pensioners, and Total, 2006-2090



<sup>2</sup> Our review of data on government ministries’ employees and pensioners shows that the pensions of persons who were pensioners in 1990 and remained so in 2006 have, thus far, maintained their real value as indexed to their grade upon retirement, relative to employees at corresponding grades.

<sup>3</sup> Old-age and survivors pensions.

and adjusting them to changes in the CPI only—versus the benefit. Indexation to the CPI, assuming that the pension will increase by 1.5 percent annually in real terms, as the Finance Ministry found after looking into the matter—would cause the pensioners a severe cumulative loss of income. For example, the cumulative result of the change for a pensioner who receives a monthly benefit of NIS 5,000 would be a loss of NIS 114,000 after twenty years,<sup>4</sup> Thirteen percent of the total discounted payment that s/he expects to receive. Assuming a 2 percent annual rate of wage increase, this person's pension would erode over twenty years by 50 percent relative to real wage and by 35 percent relative to the pension under the existing format, which allows it to increase by 1.5 percent per year. Furthermore, employees whose pensions erode that badly will probably need major support from the state and its institutions. Beyond these considerations, by challenging long-term agreements with organized labor, the government may badly impair its credibility and its ability to conclude long-term agreements in the future. One should bear in mind that quite a few citizens who chose to work in general government regarded the budgetary pension as part of a future wage benefit. Therefore, when the government mulls this change, which would retroactively diminish employees' entitlements, it should ask itself how proportional and necessary it really is.

<sup>4</sup> Assuming 4 percent annual interest.

#### 4. MULTI-ANNUAL ANALYSIS OF THE GOVERNMENT BUDGET

##### a. Background and the 2008 budget

The government's conduct in 2007 seems to have signaled a turning point in fiscal policy after several years of ambitious consolidation based on restraint of expenditure. Although the 2008 budget still reflected a moderate increase in expenditure and the real annual rate of increase in coming years is limited to 1.7 percent by law, the government in 2007 endorsed several spending programs for the medium term (five years ahead) in defense, social services, and infrastructure, thereby making a meaningful budget commitment. This change in direction reflects the way the government coped with two clashing challenges that it faces due to the success of the policy that it had been pursuing since 2003: (1) to continue lowering the debt/GDP ratio to the accepted levels in developing countries, especially since regional geopolitical developments show that Israel cannot count on the easing of security needs in coming years as a key in reducing its debt; therefore, it is dangerous to amass debts in the expectation that they will be repaid once peace arrives; (2) to deal with social needs and provision of public goods that were not fully addressed during the consolidation period. Since these goals compete with each other, it is important for the government to decide transparently how it intends to balance them in order to reinforce the credibility of its

The government's conduct in 2007 signaled a turning point in fiscal policy.

In 2007, the government endorsed several spending programs for the medium term in defense, social services, and infrastructure, thereby making a meaningful budget commitment.

policies in both fields. For this purpose, it is worth examining whether, and to what extent, the government's decisions on these matters are contradictory.

The expected budget deficit in 2008 is larger than that in 2007, mainly due to nearly NIS 7 billion in tax cuts but also because of an increase in expenditure. The real rate of increase in expenditure in the approved 2008 budget relative to 2007 budget performance is 2.3 percent and includes much larger upturns in civilian ministries' spending and transfer payments (Table 6.10). This is due mainly to the low rates of performance of the 2007 budget, an ongoing phenomenon in recent years (Box 6.1); when the two budgets are compared with each other, the rates of increase are lower. However, a higher rate of budget performance is expected in 2008 than in previous years because, as of the present writing, price developments are keeping up with the budget outlook. Furthermore, several actions that the government had planned to reduce its spending were repealed when the Knesset approved the budget, and several decisions that entail considerable budget cost were made after the budget was prepared. However, since economic growth in 2007 surpassed the underlying budget assumption by a wide margin, and since the latest growth outlooks for 2008 are no lower than those used in drawing up the budget, revenues within the budget will probably exceed the program and, in turn, the deficit will be smaller—1.4 percent of GDP as against 1.6 percent as in the budget outlook, or even less if the budget is not fully spent. According to the conventional international definitions, the expected deficit in 2008 is about 2.5 percent of GDP—still very high by the standards of developed countries.

The expected budget deficit in 2008 is larger than that in 2007, mainly due to tax cuts but also because of an increase in expenditure.

According to the conventional international definitions, the expected deficit in 2008 is about 2.5 percent of GDP—still very high by the standards of developed countries.

**Table 6.10**  
**The Government's Net Revenue and Expenditure in 2007 and in the 2008 Budget<sup>a</sup>**

	Actual 2007	Budget 2008	Real Change <sup>b</sup>
	(NIS billion)		(percent)
<b>Income excl. credit</b>	<b>223.2</b>	<b>222.7</b>	<b>-2.7</b>
Taxes	192.2	191.9	-2.6
National Insurance	14.3	14.5	-0.7
Grants	10.3	10.4	-1.5
Other <sup>c</sup>	6.5	5.9	-10.8
<b>Expenditure excl. credit</b>	<b>225.4</b>	<b>234.1</b>	<b>1.3</b>
<i>Of which</i> Excl. interest and NII principal	184.7	192.7	1.8
Defense <sup>c</sup>	55.1	55.5	-1.7
Civilian	129.6	137.3	3.3

<sup>a</sup> Assuming that the average CPI in 2008 will be 2.5 percent higher than that in 2007.

<sup>b</sup> In 2008 excluding receipts from the Israel Lands Administration from land sales, which henceforth are recorded as a finance item.

<sup>c</sup> In 2008 including NIS 3.7 billion from the budget reserve.

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

## **b. Frame of analysis and assumptions**

To examine the expected behavior of the budget aggregates in 2009–12 on the basis of the expenditure ceiling and an alternative policy path that reflects full implementation of the programs that the government adopted for the medium term, we analyzed the

budget on a multi-annual basis by employing a model that relies on the trajectory of fiscal variables in the past.<sup>67</sup> The model estimates the budget implications of government decisions on specific measures during these years and examines the expected behavior of the budget variables if they are applied.<sup>68</sup> The outlook is predicated on many assumptions, as we explain in detail below. To test the sensitivity of the conclusions to changes in the assumptions, the analysis was repeated under alternative assumptions.

#### *Main Assumptions in the Multi-annual Budget Outlook*

- Real GDP will increase by 3.2 percent on annual average in 2008–15. The expected growth rate is based on a faster increase in employment than in growth of the labor force, so that the unemployment rate will converge to its natural level (6.5 to 7 percent) in 2008, and assumes that product per person employed will increase at a rate approximating the average over the past thirty years.
- Expenditure for the disengagement program will end 2008.
- Real wages will increase in 2009 and subsequent years at the same rate as the increase in product per person employed.
- The real yield on government bonds issued from 2008 onward will be 4.0 percent, resembling the average over the past decade (6.5 percent on unindexed bonds).
- The Consumer Price Index and GDP prices will advance at the rate of 2 percent per year.<sup>69</sup> The NIS/USD exchange rate will be NIS 3.8 at the end of 2008.<sup>70</sup>
- Until 2010, national health insurance will be financed under agreements between the ministers of Finance and Health in regard to changes that were decided upon when the Knesset approved the 2008 budget. The other expenditures and the financing of national health insurance after 2010 will rise commensurate with changes in the size and composition of the relevant population groups.<sup>71</sup> The expansion of these services in terms of quantity per service recipient<sup>72</sup> will correspond to the increase in product per person employed and factor productivity will not change. Employee wages in the healthcare system will rise largely in tandem with the national average wage.

<sup>67</sup> For a detailed description of the frame of analysis and its regular updates, see K. Braude and A. Brender, Effect of the Economic Program on the Government Budget in 2003–2008, Bank of Israel, July 2003 (Hebrew).

<sup>68</sup> The analysis for 2008 is based on the budget as approved by the Knesset, adjusted for changes in macroeconomic assumptions relative to those in the budget.

<sup>69</sup> Over the past thirty years, public consumption prices rose more quickly than GDP prices by 1.5 percent on annual average. (The outcome has been the same for the past twenty years.)

<sup>70</sup> If the exchange-rate assumption is changed to NIS 3.8 per dollar at the end of 2007, the debt/GDP ratio at the end of 2008 will decrease by 0.9 percent.

<sup>71</sup> Central Bureau of Statistics (2004), *Projections of Israel's Population until 2025*, Publication 1238.

<sup>72</sup> For example, per pupil at the primary level of education. This assumption is an illustration that has the further purpose of reflecting an increase in number of service recipients due to legislative changes, e.g., the extension of compulsory education to the preschool level.

- Real wages in the education system will not increase beyond the increments set forth in existing legislation and the government's accords with the teachers' unions. The quantity of education services will expand commensurably with increases in the relevant population groups and product per person employed, and the relative price of services will rise by 1.3 percent per year.<sup>73</sup> The Compulsory Education Law will be extended to twelfth grade and the government program for the reduction of class size will go into effect. The Shohat Committee's recommendations in regard to higher education will be adopted and fully implemented by 2010.
- The enactment of various private members' laws that were deferred in the past and are supposed to go into effect in coming years will be deferred again.
- If defense assistance from the United States Government is increased, the added increment will be used to boost defense imports with no offset of domestic expenditure.
- Tax revenues net of legislative changes will increase from 2009 onward at an elasticity of 1.08 relative to GDP growth, similar to their performance in the past sixteen years. Revenues in 2008 were estimated on the basis of the Research Department's tax model.
- The tax reforms and the other tax cuts that the government has decided to carry out, including the lowering of National Insurance contributions from employers and the self-employed, will go ahead as planned.
- Indexation differentials on indexed government bonds issued from 2001 onward will be recorded as a budget expenditure at point of redemption.
- No further privatization will take place in the next few years.<sup>74</sup>

A crucial policy variable for the outlook is the size of the defense budget in coming years. In 2007, the government placed defense expenditure on a multi-annual trajectory on the basis of the Brodet Committee recommendations. The assumption behind the analysis that follows is that the defense budget will increase in accordance with the trajectory, apart from adjustments necessitated by the end of the nonrecurrent rearmament expenditure following the Second Lebanon War and recording adjustments that were made in the 2008 budget.

### c. Basic scenario—staying within the expenditure ceiling

This scenario assumes that the real increase in government spending in coming years will stay within the ceiling established by law—1.7 percent per year—net of nonrecurrent expenditures that the government decided to make in 2008. To accomplish this, significant budget adjustments will be needed since in recent years, and especially

In recent years and especially in 2007, the government adopted a wide range of multi-annual programs that entail a significant budget cost.

<sup>73</sup> This assumption is consistent with the growth rate of expenditure per pupil at the primary and secondary levels in 1976–2004.

<sup>74</sup> This is a working assumption. The government is planning several further privatizations which, if carried out, will reduce the public debt and, concurrently, the flow of revenue from dividends and royalties.

in 2007, the government adopted a wide range of multi-annual programs that entail a significant budget cost. In our experience, there is no assurance that these programs will be implemented; however, the governments that will serve between now and 2012 will certainly wish to adopt additional programs. According to the estimate derived from the multi-annual budget path—which also reflects the government’s decisions on cutbacks and suspensions of various spending items in coming years and the expected effects of population increase and macroeconomic developments—additional large-scale measures will evidently be needed in order to stay within the target: more than NIS 9 billion in 2009, NIS 4.5 billion in 2010, NIS 6 billion in 2011, and NIS 4 billion in 2012 (Table 6.11).

**Table 6.11**  
**Expected Path of Principal Budget Aggregates, According to Various Scenarios, 2006-12**  
(percent of GDP)

	2006	Estimate for 2007	Budget 2008	Forecast			
				2009	2010	2011	2012
<b>(1) Fixed increase in expenditure ceiling of 1.7 percent a year<sup>a</sup></b>							
Expenditure excl. credit	36.7	35.5	35.2	34.2	33.7	33.2	32.8
Extent of additional cuts needed to stay below the expenditure ceiling	...	...	...	1.4	0.6	0.8	0.5
Real change in civilian expenditure excluding credit	4.9	2.8	5.9	-1.6	2.5	-0.1	1.4
Revenue excl. credit	35.7	35.5	33.8	33.3	32.9	33.0	33.0
Deficit excl. credit	-1.0	0.0	-1.4	-0.8	-0.8	-0.2	0.3
Gross public debt	86.7	80.6	76.5	75.3	73.5	71.7	68.4
<b>(2) Increase in expenditure in accordance with specific government decisions<sup>b</sup></b>							
Expenditure excl. credit	36.7	35.5	35.2	35.6	35.7	36.1	36.3
Real change in expenditure	4.4	1.6	2.7	4.4	3.7	4.4	3.6
of which Net civilian expenditure excluding credit	4.9	2.8	5.9	5.5	5.4	3.9	3.8
Deficit excl. credit	-1.0	0.0	-1.4	-2.3	-2.8	-3.1	-3.2
Gross public debt	86.7	80.6	76.5	76.7	76.8	77.8	77.7
<b>(3) Increase in expenditure consistent with achieving a debt/GDP ratio of 60 percent in 2015</b>							
Expenditure excl. credit	36.7	35.5	35.2	34.3	33.9	33.6	33.2
Extent of additional cuts needed to stay below the expenditure ceiling	...	...	...	1.3	0.5	0.7	0.4
Deficit excl. credit	-1.0	0.0	-1.4	-1.0	-1.0	-0.6	-0.2
Gross public debt	86.7	80.6	76.5	75.4	73.8	72.3	69.4

<sup>a</sup> Assuming that the cuts required in 2009–12 will be made in civilian expenditure.

<sup>b</sup> Government decisions on specific plans already approved and agreements made when the 2008 budget was approved by the Knesset. For details of most of the decisions, see Recent Economic Developments No. 119, Bank of Israel, November 2007, pp 29–32.

SOURCE: Bank of Israel.

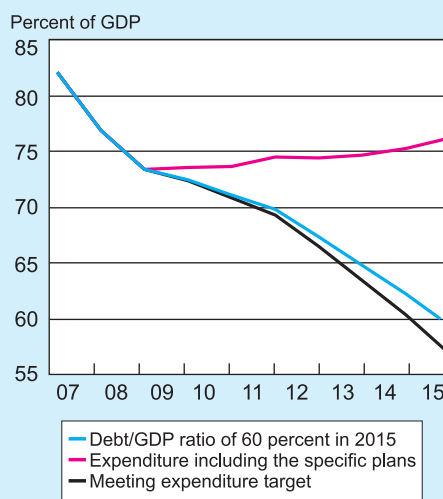


At the growth rates that the scenario assumes, the outcome of staying within the expenditure ceiling will be a sizable decrease in the government expenditure/GDP ratio. In 2012, the ratio is expected to fall to 32.8 percent, 3 percentage points lower than in 2007 and 8 percentage points down from 2003. Thus Israel's level of public expenditure would be below the average and the median among developed countries. Furthermore, civilian expenditure excluding interest—a proxy for the cost of public services and the extent of government intervention in income distribution—would be lower in Israel than in almost all the developed countries. This perceptible decrease in the share of public expenditure in product would make it possible to lower the deficit despite the sizable tax cuts that the government and the Knesset have already decided to implement. These cuts would reduce the tax/GDP ratio by 2 percentage points by 2010 and leave Israel with a lower tax burden than in most developed countries. According to this scenario, the budget will fall into balance in 2011 and show a surplus in 2012. The deficit decline will also make it possible to continue lowering the public debt/GDP ratio to 68 percent 2012 and 57 percent in 2015 (Figure 6.7); as a result, the share of interest payments in GDP will fall by 0.8 percentage point. For all of this to happen, however, a major fiscal effort will be needed, as stated: the rate of increase in civilian public expenditure excluding interest will have to be held to only 0.6 percent on annual average in 2009–12 (Figure 6.8).<sup>75</sup> This rate of increase seems too paltry to meet the demand that will evolve for public expenditure at a time of economic growth at the rates that the scenario assumes. Therefore, its applicability is up in the air.

The fulfillment of this scenario will depend on new decisions in regard to measures that will abet compliance with the expenditure ceiling in 2009–12. Since the government will not be able to hold wage increases in general government to rates lower than those in the business sector over a period of years, if it intends to follow this path it should already be planning measures that will facilitate the downsizing of general government and its employment in 2008 and subsequent years. The multi-annual thinking that provides the framework for these decisions should include structural changes to enhance the efficiency of general

If the expenditure ceiling is honored in coming years, Israel's public-expenditure/GDP ratio will fall to less than the average and the median among developed countries.

**Figure 6.7**  
**Public Debt Trend in Various**  
**Scenarios, 2007-15**



SOURCE: Bank of Israel.

To stay within the expenditure ceiling, a major fiscal effort will be needed, reflected in a low rate of increase in civilian public expenditure.

<sup>75</sup> Assuming that all of the requisite cutbacks need the target will be performed against civilian expenditure.

government, measures to increase the effect of public-service budgets and transfer payments in attaining policy goals, and prioritization of the areas in which the government will continue to be involved.

**d. Alternative scenario:  
implementation of all previously  
adopted programs and adjustment of  
expenditure ceiling**

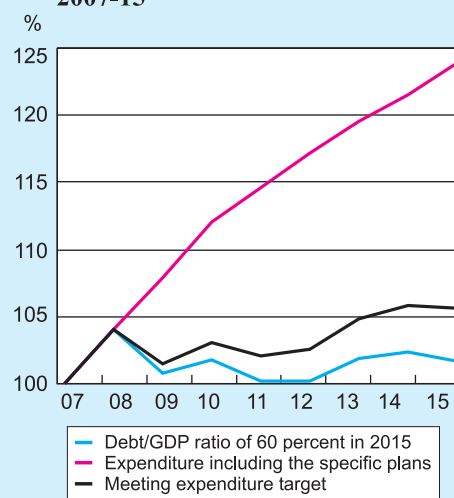
If all the multi-annual programs are performed and no further cutbacks are made, average real expenditure will increase by 4.0 percent per year in 2009–12.

In this scenario, we examine the implications of implementing all the multi-annual programs that the government has adopted in the past two years, without spending cuts beyond those already decided upon. Such a policy would cause average real expenditure to increase by 4.0 percent per year or 2.4 percent per capita in 2009–12. If this expenditure trajectory comes to pass, the public expenditure/GDP ratio and the deficit will begin to rise from 2009 due to the large tax cuts that are already in the works and the growing ratio of expenditure to GDP. The public debt/GDP ratio will not decline and will settle at 77 percent in 2012. After 2012, as the increase in expenditure occasioned by the government's previously adopted programs ends, the scenario includes the tax-cut program that the Ministry of Finance has proposed (but has not yet been presented to the government for its approval). The outcome is that the debt/GDP ratio will increase to 80 percent in 2015, higher than in most developed countries, even though the scenario assumes that national product remain at its potential level throughout the 2009–15 period. This trajectory will allow the government to increase primary civilian expenditure by 17 percent more than the basic scenario (Figure 6.8)—an added increment of sources that, if efficiently used, may contribute handsomely to improving the public services and easing various kinds of social distress. Such a trajectory, however, rules out any progress in mitigating the financial risks that the economy faces and makes no contribution to the reduction of the government's interest payments.

**e. Summary**

The discrepancies between the two scenarios reflect two different approaches to fiscal policy. The first scenario emphasizes the need to continue the consolidation process intensively in coming years; the second focuses on exploiting the fiscal improvement

**Figure 6.8**  
**Primary Civilian Expenditure**  
**In Various Scenarios,**  
**2007-15**



SOURCE: Bank of Israel.

in recent years in order to allow the government to pledge more resources to social services and infrastructure even if this means stopping the consolidation process. The problem today is that both approaches are backed by government resolutions and are mutually inconsistent: if the 1.7 percent expenditure ceiling is honored, the medium-term programs that the government has adopted cannot be fully implemented, and vice versa. Since the credibility of policy is strongly influenced by the expected behavior of the fiscal aggregates, and since large population groups are looking forward to the salutary effects of the programs that the government has resolved to implement, it is important for the government to explain how it intends to reconcile the cost of the programs with the legally mandated expenditure ceiling.

One way of setting the policy trajectory for coming years on solid ground is to establish a target for the debt/GDP ratio several years ahead and to derive the trajectories of expenditure and taxes from it. The IMF mission, for example, proposed a target of 60 percent by 2015. The establishment of such a target would still require significant budget cuts in coming years but would allow the government to increase expenditure by 2.1 percent per year and non-interest civilian expenditure by even more. This trajectory, of course, is only one example of a target that may maintain the credibility of the government's commitment to rapid reduction of the debt/GDP ratio in coming years. Even if the government chooses a different target, it should decide in a transparent fashion how it will reconcile the target that it chooses with its medium-range programs. It should do this within the framework of a multi-annual budget that will force it to explain the origin of the budget sources for new programs that it adopts.

Irrespective of the characteristics of the policy goals, the outcomes of the fiscal trajectory chosen will be heavily influenced by macroeconomic developments. If, for example, per capita GDP increases by 2.5 percent per year until 2015, significant progress in lowering the debt/GDP ratio will be made even in the scenario in which all government programs are implemented, especially if the proposed tax cuts are not performed after 2012. In contrast, if per capita GDP increases by only 1 percent per year, the debt/GDP ratio will not fall to 60 percent by 2015 even in a scenario based on the current expenditure ceiling. Given the uncertainty surrounding the rate of economic growth in the next few years, the fiscal trajectory that the government adopts should, perhaps, be aligned with the behavior of GDP in the medium term.

If expenditure is kept within the annual growth limit of 1.7 percent, the government will not be able to fully perform the medium-range programs that it has adopted.

The government should make a transparent decision on how it will reconcile the expenditure ceiling with its medium-range programs.

