# *Chapter 3*
# *The State Budget and the General Government*[1]

Fiscal policy in 2001 failed to create the conditions for a return to a sustainable growth path in the coming years, to say the least. The central government budget deficit was 4.6 percent of GDP (4.0 percent of GDP after adjusting for the effect of the delay in the transfer of US government aid)—up by 3.5 percent of GDP over 2000 and with a marked deviation from the target. The deficit thus rose even beyond the level at which it had stabilized prior to 2000, with a rapid real rise in expenditure, even though the share of public expenditure in GDP is higher in Israel than in any other advanced economy. The 2002 budget, which was approved by the Knesset in February, perpetuates these trends. The general government deficit, public expenditure, and the public debt were also appreciably higher in 2001 than in 2000, their share in GDP returning to the levels at which they had stabilized since 1994. The tax burden, which had risen sharply in 2000 after years of relative stability, remained high. Moreover, the composition of the increase in public expenditure was not in items that contribute to sustainable growth and productivity, most of it being in non-defense consumption and transfer payments to households that are not directly connected with the economic slowdown, i.e., items that are essentially permanent; only about one fifth of the increase is explained by the greater share in GDP of defense expenditure.

While the slower rate of GDP growth, which had an adverse effect on tax receipts, explains a large part of the rise in the deficit in 2001, the fact that the share of the deficit, public expenditure, and the debt in GDP has been constant since the mid-1990s indicates that the failure to make progress in these spheres is not a temporary result of the surprisingly severe slump in 2001. Israel's failure to make progress is particularly marked in view of the notable reduction of

[1] The general government comprises the government, the National Insurance Institute, the local authorities, the non-profit associations (the health funds, universities, religious seminaries, etc.), most of whose income is from the general government, and the National Institutions (the Jewish Agency for Israel and the World Zionist Organization). Its activity is measured in accordance with National Accounts definitions, which differ from those used in the government budget (see Box 3.2).

public expenditure and the deficit in the advanced economies in this period. This has enabled many countries to ease their tax burden in the framework of structural reforms, and some of them have even been able to accelerate its reduction in order to offset the effect of the recent drop in world demand. According to accepted international definitions, Israel's deficit in 2001 was 4.6 percent of GDP, and public expenditure totaled 54.9 percent of GDP. This may be compared with a budget surplus of about one percent of GDP, and public expenditure of 42.0 percent of GDP, on average, in the OECD countries. The slow expected decline in Israel's debt/GDP ratio, even if the government attains the declining deficit path in the coming years, will bring it to the ceiling adopted by the EU countries—60 percent of GDP— only in another 20 years.

## 1. THE CENTRAL GOVERNMENT BUDGET AND THE DEFICIT TARGET

Two main subjects were stressed in the cabinet debates prior to the 2001 budget—fulfilling Israel's growth potential and reducing income inequality.[2] The budget should therefore be examined in the context of its contribution to achieving those aims. The government placed special emphasis on attaining a low deficit, reducing the public expenditure/GDP ratio, lowering the public debt, and increasing infrastructure investment as measures for stimulating sustainable growth led by the business sector. Since the decisions of the government in Israel in the fiscal realm refer in principle only to the central government budget—and not to all the activities of the general government—it is important to examine budgetary developments. This should be done despite the advantages of analyzing the developments of the general government (discussed in Box 3.3) and even though the detailed figures on the implementation of the government budget are published with a delay—about half a year after the end of the budget year.

The government deficit, adjusted for the effect of the delay in receiving the US government aid, was 3.3 percent of GDP higher than in 2000, and 2.3 percent of GDP above the target set by the government.

The government deficit, which is the declared operative target of fiscal policy and hence of signal importance for the domestic and foreign public in characterizing government policy, amounted to 4.6 percent of GDP in accordance with the measurement method used in the government budget. When it is adjusted for the effect of the technical delay in the transfer of the US government economic aid, it amounted to 4.0 percent of GDP.[3] This deficit was 3.3 percent of GDP higher than the deficit in 2000, and 2.3 percent of GDP above the target set by the government. The extent of the deviation from the target further undermines the credibility of the government's commitment to the deficit targets (Box 3.1), especially since the budget was approved in March 2001, when the security situation and a large part of global economic developments were

[2] The 2001 budget was prepared by the government headed by Ehud Barak, and submitted to the Knesset at the end of October 2000 by then Minister of Finance, Avraham Shochat, but was resubmitted unchanged by the government headed by Ariel Sharon. It was approved by the Knesset in March 2001.

[3] The reference below is to the deficit adjusted for the effect of the delay in the aid.

**Table 3.1**
**Central Government Deficit,[a] Receipts and Expenditure, 1994–2002**

(percent of GDP)

| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|---|---|---|---|---|---|---|---|---|---|
| Government domestic deficit[b] ceiling | 3.0 | 2.8 | 2.5 | 2.3 | 2.2 | 2.6 | 2.8 | 0.5 | 2.7 |
| Actual government domestic deficit | 1.9 | 3.1 | 4.5 | 3.0 | 2.9 | 2.8 | 0.5 | 3.8 | ... |
| Overall government deficit ceiling including profits of the Bank of Israel[c] | 3.5 | 3.8 | 3.6 | 2.8 | 2.4 | 2.0 | 2.5 | ... | ... |
| Actual overall government deficit including profits of the Bank of Israel[d] | 2.3 | 4.0 | 3.8 | 2.7 | 2.3 | 2.5 | 0.1 | ... | ... |
| Overall government deficit ceiling[c] | 3.8 | 3.9 | 3.7 | 3.0 | 2.8 | 3.1 | 3.6 | 1.8 | 3.0 |
| Actual overall government deficit[d] | 2.3 | 4.4 | 4.2 | 3.4 | 3.3 | 3.4 | 0.7 | 4.6[f] | ... |
| Total receipts[g] | 40.0 | 37.8 | 38.9 | 38.3 | 38.1 | 37.0 | 37.8 | 35.6 | 38.1 |
| Taxes and imports | 32.3 | 31.2 | 30.6 | 31.0 | 30.2 | 30.2 | 32.0 | 31.5 | 31.9 |
| Interest, profits, royalties, revenue from land sales | 2.2 | 2.5 | 2.0 | 1.7 | 2.3 | 1.9 | 1.8 | 1.2 | 1.7 |
| Realized Bank of Israel profits | 0.0 | 0.3 | 0.5 | 0.7 | 1.0 | 0.9 | 0.0 | 0.0 | 0.0 |
| National insurance surplus | 2.1 | 1.8 | 1.7 | 1.6 | 1.4 | 1.4 | 1.6 | 0.9 | 2.0 |
| US government grants | 3.5 | 1.9 | 4.1 | 3.2 | 3.2 | 2.6 | 2.5 | 2.0 | 2.5 |
| Total expenditure, net[g] | 42.3 | 41.8 | 42.7 | 41.0 | 40.4 | 39.5 | 38.5 | 40.1 | 41.1 |
| *of which* Interest, repayment of principle to National Insurance and subsidization of credit | 8.0 | 8.0 | 7.6 | 7.4 | 7.5 | 7.0 | 7.1 | 7.0 | 7.2 |
| Total primary expenditure | 34.3 | 33.8 | 35.0 | 33.6 | 32.9 | 32.5 | 31.4 | 33.1 | 33.9 |

[a] According to various definitions.
[b] Until 1996 – the deficit ceiling specified by law; from 1997—the planned deficit, excluding credit. The difference between the planned and the actual deficit includes 0.15 percent of GDP reflecting foreign-exchange tax receipts which are recorded as domestic when the budget is being prepared, but as foreign receipts in the data of performance.
[c] Until 1996, the planned deficit; from 1997, the deficit ceiling specified by law.
[d] The designated economic aid had not been received by the end of 1995, so that it was recorded as receipts of NIS 3.1 billion (about 1 percent of GDP) in 1996. If the aid had been received on time, the actual total government deficit in 1995 would have fallen to 3.2 percent of GDP, and in 1996 it would have risen to 5.2 percent of GDP.
[e] From 2001, the deficit ceiling specified by law.
[f] The designated economic aid had not been received by the end of 2001, and hence was not recorded as receipts in that year. If it had been received on time, the actual total government deficit would have fallen to 4.0 percent of GDP.
[g] Excluding expenditure contingent on receipts, and receipts used to finance contingent expenditure.
SOURCE: Based on the National Budget Summary and Central Bureau of Statistics data.

The government deficit in 2001 was higher than in any year since 1997, and even than that in 1994.

already known to policy-makers. The government deficit in 2001 was higher than in any year between 1997 and 2000 (Table 3.1) and also than in 1994. Some of the increase in the deficit in 2001 stems from the government's decision to increase it by one percent of GDP from the outset, while the rest—2.3 percent of GDP—is due to the deviation from the deficit target. The latter was the outcome of the full implementation of the nominal domestic budget[4] even though the average inflation rate in 2001 was 2 percent below the level on which the budget was based, and the level of receipts—both from taxes and other sources—was far below the budgeted amount. In order to avoid the deviation of expenditure, the government made a budgetary adjustment in mid-2001,

[4] Remaining within the nominal expenditure ceiling was made possible *inter alia* by the government's failure to participate in part of the budget of the National Insurance Institute. This step did not affect the deficit, as the transfer of the National Insurance Institute's surplus to the government was reduced concurrently.

Government expenditure rose by a real 5 percent, and primary expenditure was up by 6 percent.

whereby it reduced its expenditure by NIS 2 billion in order to finance the rise in defense expenditure. Even after this, however, real net government expenditure[5] rose by 5 percent (deflated by either the CPI or the implicit price index of business-sector product), and primary expenditure was up by a real 6 percent.

The deviation of the deficit from its target is due to the shortfall of NIS 6.7 billion in tax receipts and of NIS 6 billion in non-tax revenues.

The deficit of the National Insurance Institute was greater than expected: the difference between revenues from the public and payments made rose from 2.2 percent of GDP in 1998–2000 to 2.9 percent in 2001. Consequently, the surpluses transferred by the National Insurance Institute to the government were NIS 2.7 billion less than expected.

The deviation of the deficit derives from a shortfall of NIS 6.7 billion in tax receipts and of NIS 6 billion in non-tax revenues. More than half the shortfall in tax revenue is explained by the slower than expected rate of price increases, and the rest by lower than forecast tax receipts due to the economic slowdown and legislative changes.[6] Non-tax revenues were lower mainly because of failed expectations of high earnings from the auctions for the G3 cellular phone frequencies and of lower than expected land sales. In addition, the deficit of the National Insurance Institute was greater than predicted: the difference between taxes collected from the public and payments made grew from 2.2 percent of GDP in 1998–2000 to 2.9 percent in 2001. Consequently, the surpluses transferred to the government by the National Insurance Institute were NIS 2.7 billion less than expected—down by 0.7 percent of GDP from 2000. The deviation of the National Insurance Institute's deficit from the forecast derives largely from the increase in benefits which are not affected directly by either the economic slowdown—child and disability allowances (due to a change in the law)—as well as from the rise in the real average wage in 2000, according to which most of the benefits were increased in January 2001, in accordance with the law.

The government's cyclically-adjusted deficit was 2.3 percent of potential output in 2001, up by 1.7 percent of GDP over 2000.

The government's 'cyclically-adjusted' deficit (calculated as explained in section 5 below) amounted to 2.3 percent of potential output in 2001, up by 1.7 percent of GDP over 2000 (Table 3.2). This is a faster rate of increase than originally planned (i.e., a rise of one percent of GDP), so that the expansion of the deficit and the deviation from the target in 2001 were due not only to the unexpected recession but also to the unduly

**Table 3.2**
**The Cyclically Adjusted Deficit of Central and General Government, 1999–2001**

(percent of potential output)

| | 1999 | 2000 | 2001 |
|---|---|---|---|
| Government | –2.5 | –0.6 | –2.3 |
| General government excluding Bank of Israel[a] | –2.9 | –1.4 | –1.7 |
| General government excluding Bank of Israel: domestic deficit[a] | –2.7 | –1.3 | –1.9 |

[a] Since the item "Surplus income of Bank of Israel," as calculated in the National Accounts, is extremely volatile, it is not included in the estimate of the cyclically-adjusted deficit.
SOURCE: Based on Central Bureau of Statistics data.

Even when adjusted for the effect of the business cycle on the deficit, in the last seven years there has been retreat, not progress, in convergence to a lower deficit.

rapid rise in expenditure. The government's cyclically-adjusted deficit returned in 2001 to a similar level to that of 1999, and was higher by 0.8 percent of GDP than its level in 1994 (Table 3.3). This means that even after adjusting for the effect of the business

[5] Excluding 'expenditure contingent on income,' whose extent has not yet been reported.
[6] Some NIS 0.8 billion of this is due to taxes which were actually collected but not recorded as receipts in the budget—primarily because some property tax revenues were not transferred to the compensation fund in 2000 and this had to be amended in 2001.

**Table 3.3**
**The Cyclically Adjusted Deficit in Israel and OECD Countries, 1994 and 2001**

(percent of potential output)

| | 1994 | 2001 | Change |
|---|---|---|---|
| Israel: general government excluding Bank of Israel | –2.5 | –1.7 | 0.8 |
| Israel: general government including Bank of Israel | –2.2 | –1.7 | 0.5 |
| Israel: Central government[a] | –1.5 | –2.3 | –0.8 |
| OECD average | –3.9 | 0.3 | 4.2 |
| EU average | –4.2 | 0.6 | 4.8 |
| Average of countries with large deficit[b] | –5.2 | 0.7 | 5.9 |

[a] The deficit in 2001 refers to the US civilian aid deferred to 2002 as if it had been received in 2001.
[b] Average of countries whose deficit in 1993 was greater that Israel's.
SOURCE: Based on data from *OECD Economic Outlook*, 70, December 2001.

cycle on the deficit, in the last seven years there has been retreat—not progress—regarding convergence to a lower deficit level,

The growth rate of government expenditure was much faster than that required to even gradually reduce its share in GDP.

The analysis above indicates that even though the government set targets for reducing the deficit and the expenditure/GDP ratio, in effect it increased both of them. The growth rate of expenditure far outstripped that required to even gradually reduce the expenditure/GDP ratio, and the resulting rise in the deficit increased the government's financing needs and debt.

**Box 3.1**

**The Vicissitudes of the Budget Deficit Reduction Law**

In 1991 the government decided to set a declining path for the domestic deficit, to attain budgetary balance in 1995.

The year 2001 marked the tenth anniversary of the passing of the Budget Deficit Reduction Law, which was first submitted to the Knesset by the Minister of Finance, Itzhak Moda'i. To mark the date, the government changed the deficit target for the 2002 budget several times—in September, when it adopted the original budget proposal, in December, when it amended it, and in April 2002, when it decided to amend it once again. These decisions accurately reflect—albeit with some exaggeration—the annals of the law since its inception.

In 1991, after several years of increasing deficits and against the backdrop of the first *intifada* and the influx of immigrants, the government decided to set a declining path for the domestic deficit, gradually bringing it down from 6.2 percent of GDP in 1992[1] to 3.2 percent of GDP in 1993, and that it should be balanced in 1995. The object of setting a deficit path for several years, while adopting an ambitious final target, was to announce that the large deficit at that time derived from the temporary burden of absorbing the influx of immigrants,

[1] The estimated domestic deficit in 1991 at the time the 1992 budget was prepared was 6.7 percent of GDP.

and that once that burden eased the government would return to budgetary balance (as had been the case in 1985–87). Determining deficit targets for several years ahead also fitted in with the trend of setting long-term fiscal targets which had emerged at that time in the EU countries (and elsewhere). The trend developed after years in which public expenditure and deficits had risen, and against the backdrop of the enormous fiscal burden imposed by German reunification. The best-known result of that trend was the Maastricht Accord of 1992. In Israel, in view of the absence of an external anchor for the deficit targets,[2] it was decided to determine them by law so that they would also be binding on subsequent governments (1992 was an election year) and create transparency for the medium-term objectives of fiscal policy.

The government elected at the end of 1992 changed the deficit target in its first budget (for 1994), even though the deficit targets for 1992 and 1993 were attained.

However, the government which took office at the end of 1992 altered the deficit target in its first budget (for 1994), even though the deficit targets for 1992 and 1993 were attained. Instead of the targets determined in the original law the government decided only that the deficit targets should decline from year to year, and that the target for 1994 should be 3 percent of GDP—0.8 percent of GDP above the original target and 0.6 percent of GDP above the actual 1993 deficit. In addition, when it transpired that the 1994 deficit would be lower than planned (*inter alia* because after 1992 immigration was substantially less than forecast), the government passed a supplementary budget in which it increased its expenditure. Furthermore, even though the actual deficit in 1994 was only 2.0 percent of GDP the deficit target for 1995 was set at 2.8 percent of GDP.

Changing the deficit targets for 1994 and 1995 constituted a negative message regarding fiscal policy, i.e., that an increase in the deficit, even if due to nonrecurring factors, would not be adjusted once those factors disappeared.

The changes in the deficit targets for 1994 and 1995 constituted a negative message regarding fiscal policy, i.e., that an increase in the deficit, even though it stemmed from nonrecurring causes, would not be remedied once those causes disappeared. This message was stressed by choosing targets that were higher than the actual deficit in the previous year. In addition, the fact that the government changed the Budget Deficit Reduction Law in the first budget after it was elected undermined the value of the law as an instrument for displaying a long-term commitment that superseded the short-term considerations of one government or another. In 1995, moreover, and in 1996 in particular, the deficit deviated appreciably from the targets, even though the announced targets still dipped slightly from year to year.

In view of the change of government in the 1996 elections, the Budget Deficit Reduction Law was amended again so that as of 1997 a long-term path was again set for the gradual reduction of the deficit, this time to reach 1.5 percent of GDP in 2001. From 1997 the law refers to the overall deficit, as a result of which the item 'Bank of Israel realized profit'—whose definition as income is problematic[3] —was included in the calculation of the deficit for the purpose of

[2] The aspiration to obtain US government loan guarantees of $ 10 billion constituted the backdrop to the decision to pass the Budget Deficit Reduction Law, even though the decision was not a formal prerequisite for receiving them.

[3] For an extensive discussion of this, see Bank of Israel, *Annual Report* 1999, Chapter 5.

attaining the targets.[4] The unexpected increase in reported revenue from this source made it possible to attain the deficit targets in 1997 and 1998 (Table 3.1). In 1999 the government did not meet the deficit target, and the new government elected that year raised the target for 2000, setting it at a rate that should have been below the actual 1999 deficit, as forecast at the time the budget was prepared.[5] The 1.5 percent of GDP deficit target was deferred till 2003.

In 2000 the actual deficit—0.1 percent of GDP—was far below the target set.[6] Consequently, the government decided to reduce the deficit target for 2001 relative to the original path—even though the new target was far higher than the actual deficit in 2000, enabling expenditure to be markedly increased. It was also decided to bring the target of 1.5 percent of GDP forward to 2002, and to determine a target of 1.25 percent of GDP for 2003. The latter, adjusted to conform with accepted international definitions, is about 3 percent of GDP, the permitted ceiling in the EU in a severe recession. The importance the government attaches to reducing the deficit is indicated by the fact that the change in the targets was not brought before the Knesset for ratification.

In 2000 it was decided that a target of 1.25 percent of GDP would be set for 2003. According to international definitions, this is 3 percent of GDP—the permitted ceiling for the EU countries during a deep recession.

The saga of the deficit target for 2002 has been mentioned above. The government's deficit target for 2002 is currently 4 percent of GDP, with convergence to a deficit of one percent of GDP in 2008. Thus, after a decade of 'deficit reduction,' the target set for 2002 is almost identical with that of 1993—and higher than the actual deficit in that year. The actual deficit in the last few years, as measured by a uniform definition, has hardly changed, apart from a one-off reduction in 2000 and a marked increase in 2001. A comparison of the deficit reduction in the OECD countries in that period is given in Table 3.6.

After a decade of so-called deficit reduction, the target set for 2002 was almost identical with that for 1993—and above the actual deficit that year.

This analysis shows that anchoring deficit targets in law has not achieved the desired result of preserving the fiscal path across governments. All four governments that took office after the law was passed altered the deficit target and its path in their very first budgets. While it is difficult to assess what would have happened without the law, it does not appear to have led to a reduction of the public expenditure/GDP ratio—the means specified by Minister Itzhak Moda'i for reducing the deficit—as this ratio was similar in 2001 to its level in 1994 (Table 3.5).

All the four governments which have taken office since the introduction of the Budget Deficit Reduction Law changed the deficit target and its path in their very first budgets.

[4] Although the domestic deficit planned for 1997 was below the 1996 target, in accordance with the previous version of the law.
[5] *Ex post* it transpired that the deficit in 1999 was 2.5 percent of GDP, similar to the target set for 2000.
[6] This was based on the old definition, which includes 'Bank of Israel realized profit.' The official *ex post* reported deficit—0.7 percent of GDP—was calculated according to the new definition, which excludes this 'profit.'

The 2002 budget which was approved by the Knesset at the beginning of February represents a continuation of the previous budgetary trends. Expectations of attaining the deficit target of 3.0 percent of GDP are based on a real revenue growth forecast of 5 percent over actual receipts in 2001, which will increase the government revenue/GDP ratio by more than 2 percentage points. Concurrently, budget expenditure (excluding credit) is expected to rise by a real 4 percent, thereby leading to an additional

The 2002 budget which was approved by the Knesset at the beginning of February represents a continuation of the trends evident in previous budgets.

The 2002 budget is expected to lead to a further notable increase in the public expenditure/GDP ratio.

Replacing the deficit targets with a rising expenditure path, to be determined on the basis of an estimate of the growth rate of potential output, will enable the government to support various activities by extending tax concessions and waiving income, without deviating from the policy target and exposing the determination of the growth rate of expenditure to policy-makers' manipulations.

significant rise in the public expenditure/GDP ratio (by one percentage point). Out of an overall NIS 13 billion increase in expenditure, only NIS 850 million (6.5 percent) is intended to expand investment in the transport and water infrastructures.

One of the proposals made to contend with government's inability to reduce the expenditure/GDP ratio was that a rising path be determined for government expenditure instead of deficit targets. According to this suggestion, a fixed growth rate would be set for government expenditure which would be lower than the estimated growth rate of potential output; hence, it would not be necessary to slow the growth rate of expenditure during a recession, when tax receipts fall, nor would it be possible to increase them during a boom, when receipts rise. Notwithstanding, in the long run the deficit would decline because, as stated, the rate at which expenditure rose would be below that of output.

This proposal, if it is implemented, has an advantage over the current system in that it allows for the long-term planning of expenditure alongside the reduction of its share in GDP. In view of past experience in implementing the Budget Deficit Reduction Law, however, the main problem of policy targets in Israel would seem to be not in setting them but in being prepared to adhere to them. Thus, the proposal has two main drawbacks: a. The difficulty of determining a reliable forecast of potential output, especially since in Israel there is no supranational body (such as Eurostat in the EU) that can provide the objective forecasts which will prevent policy-makers from massaging the figures; b. A ceiling on expenditure enables the government to support various activities by granting tax concessions and waiving income without deviating from the policy target, in contrast with the deficit target, under which revenues cannot be reduced without an equivalent cut in expenditure. The Negev Law, for example, extends considerable benefits to residents of the region through tax concessions, which increase the budget deficit, without increasing budgetary expenditure. Since tax benefits as a policy instrument embody many disadvantages, it would be inappropriate to adopt a policy that creates incentives to resort to them extensively.[7] Since, moreover, the budget targets in Israel refer solely to the government, it is easy to bypass an expenditure ceiling through financial manipulation, e.g., the government can cut its expenditure by reducing its payments to the National Insurance Institute. This will cause the deficit of the National Insurance Institute to rise and its transfers to the government to decline; the government deficit will not fall, but it will remain within the expenditure ceiling. Obviously, a ruse of this kind does not actually reduce the government's involvement in the economy. For these reasons it is not advisable to adopt a path of rising expenditure as the sole target of budgetary policy, unless this is done to complement the deficit target.

[7] Total tax concessions in Israel are estimated at NIS 30 billion. Detailed accounts of the various benefits and the way they are measured are to be found in the annual reports of the State Revenue Administration.

## 2. DETERMINATION AND ANALYSIS OF PRIORITIES IN THE GOVERNMENT BUDGET

The contribution of fiscal policy to sustainable economic growth depends to a great extent on the ability to allocate budgetary funds efficiently to aims that stimulate productivity growth, in accordance with the priorities set by the government. In the debates held by the government and the Knesset, however, no systematic review is usually undertaken of budgetary priorities, except in the macroeconomic sphere (the size of the deficit and on the margin total expenditure); alternatives are not discussed there, either. The government does not define—and certainly not in operative terms—what are the main objectives it seeks to achieve by means of the budget, what amounts it is prepared to allocate to them, and what the sources of the finance are.

The contribution of fiscal policy to sustainable growth depends to a great extent on the ability to efficiently allocate budget finance to objectives that bolster productivity growth.

Even when objectives are mentioned, they are defined in general terms (education, transport infrastructure), without specifying the aims to be attained in these areas, how the additional budgetary allocation is to be divided up, and how this will achieve the desired end. The government neither demands nor receives a report on the expenditure of previous years or the current year as regards the various objectives, and hence cannot assess whether past expenditure reflects its stated objectives (even if not fully defined). In effect, during the budget debates, which end at the beginning of September, the government knows only what it has decided as regards the composition of expenditure in the current year (i.e., what the budget is, and what changes have been made in it during the year), and not how its implementation is proceeding.[8] The debate in the Knesset, which lasted for several hours in 2002, for example, also impacts only marginally on the composition of the budget—and even less on fiscal aggregates.

Within the framework of the discussions in the cabinet and the Knesset there is no systematic review of budget priorities.

In 2001 the government held a preliminary debate on the priorities for the 2002 budget before it had been prepared. This would appear to substantially improve the process of preparing the budget, but its significance is extremely limited. First, the data on the implementation of the budget in 2000, and estimates for 2001, were not published prior to the debate. This means that in order to get an idea of the composition of public expenditure ministers and their aides had to base their analysis on the implementation of the 1999 budget.[9] Note that in several spheres—e.g., housing, on which public attention focused in 2001—there is a significant gap between planned and actual budget expenditure. In addition, documents detailing the areas of policy and the objectives among which ministers would be required to determine priorities were not distributed before the discussion, nor were ministers invited to prepare position papers in support of activities their ministries viewed as deserving priority. Since no appropriate plans were prepared, announcing priorities for specific areas did not mean much, as it was not at all clear whether, and to what extent, plans could be implemented

In 2001 the government held a preliminary debate on priorities in the 2002 budget before it had been prepared. This seems to be an important addition to the process of preparing the budget, but because of the way it was conducted its significance was minimal.

[8] The government does not receive a report on the progress made regarding the dozens of structural changes it approved in the previous year's budget either.

[9] These figures were not submitted to the government, but were published—*inter alia* according to economic categories and government ministries—in the 2001 budget documents submitted to the Knesset in October 2000.

regarding the priorities for the coming year.

In the absence of binding pronouncements as to priorities in the composition of public expenditure in the past, inferences can be made about them *ex post* by analyzing the development of actual expenditure in previous years, thereby deriving 'revealed preference.' The Central Bureau of Statistics (CBS) publishes data which enable the composition of the expenditure of both the central and the general government to be analyzed in several areas, e.g., education and health. The most recent published figures of national expenditure on education, for example, from October 2001, give details of spending only until 1997, however, reflecting the budget decisions of the government headed by Binyamin Netanyahu in its first full year in office. The same applies to the data on health expenditure published in December 2000.[10] Even if the changes in the composition of the health and education budgets are not great, more up-to-date figures are needed in order to analyze policy and progress in attaining various objectives.

The most recently published figures on national expenditure on education, from October 2001, provide details on its composition only until 1997, reflecting the budget decisions of the Netanyahu government in its first full year in office.

To enable analysis of the priorities reflected in expenditure in various key areas, it is possible to use the CBS estimates of total public expenditure (Table 1.A.3.8) and the budget figures on government expenditure (Table 3.4). The estimates indicate that the composition of government expenditure has hardly changed since the mid-1990s. The part allocated to defense declined by 2 percentage points and that to national insurance benefits rose.[11] The share of expenditure on education and the infrastructure in total

**Table 3.4**
**Government Expenditure Priorities, 1996–2001**

(percentage)

| | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|---|
| Total government expenditure[a] | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Education[d] | 12.9 | 12.5 | 11.9 | 12.7 | 12.3 | 12.4[b] |
| Health[e] | 11.7 | 15.6 | 15.2 | 16.0 | 15.6 | 14.9[b] |
| Defense | 23.6 | 22.6 | 22.5 | 22.7 | 21.9 | 21.5[b] |
| National Insurance benefits | 17.4 | 17.9 | 18.5 | 18.9 | 19.4 | 20.5[c] |
| Infrastracture investments[f] | 2.6 | 2.2 | 2.4 | 2.2 | 2.4 | 2.5[b] |
| Other | 31.9 | 29.3 | 29.5 | 27.5 | 28.4 | 28.1 |

[a] Excluding interest *plus* net National Insurance expenditure. This includes government hospitals, which have been removed from the budget since 1998, but excludes credit extended. National insurance expenditure is included net of government payments to the National Insurance Institute, which are included in government expenditure.
[b] Estimate based on budget data.
[c] Excludes payment for reserve duty included in defenses expenditure.
[d] The Ministry of Education's budget does not include the budgets of the institutions of higher education.
[e] Budget of Ministry of Health, government hospitals and health tax transfers from the National Insurance Institute to the health management funds.
[f] Government investment in principal industries, excluding subsidies to government enterprises, and government participation in roads investment of local authorities.
SOURCE: Based on National Budget Summary, Ministry budgets, and Central Bureau of Statistics data.

[10] Since a large part of government expenditure on health and education is implemented via the health funds and the local authorities respectively, the state budget does not provide an adequate picture of the composition of expenditure in these areas.
[11] The increase in expenditure on health services in 1997 reflects the cancellation of the 'employer's contribution' in the budget. Table 1.A.3.8 shows that public expenditure on health began to rise in 1995, since when its share has remained stable

expenditure has hardly changed, however. This analysis of aggregates is only of partial value for understanding priorities because in some categories expenditure depends more on population size and composition as well as on macroeconomic developments (unemployment rates, development of the average wage, and wage distribution) and to a lesser extent in others (defense, government administration). Hence a change in the distribution of expenditure among the various categories does not necessarily reflect a change of priorities, and certainly not in the short run. Thus, for example, a general wage hike in the public sector will increase the share of the labor-intensive services (education) even if there is no intention of making this sphere a priority. This is the reason why a detailed breakdown of the budget items by area of activity and objectives is particularly important for analyzing and determining its priorities.

The composition of government expenditure has hardly changed since the mid-1990s.

The share of expenditure on education and the infrastructure in total expenditure has hardly changed in the last five years.

## 3. INFRASTRUCTURE INVESTMENT

One of the repercussions of the difficulty in setting priorities is that even though Israel's public expenditure/GDP ratio is one of the highest in the world, the quality of the transport, water, and sewage infrastructures, for which the general government is responsible, is very poor in comparison with the advanced economies.[12] In the last two years there has been a marked rise in the proportion of the budget allocated to infrastructure investment, but this started from a very low base, reflecting a sharp decline in the mid-1990s (Figure 3.1).[13] In the wake of this rise, the share of budgetary expenditure on the transport, water, and sewage infrastructures in 2001 was one percent of GDP, similar to its level in 1993 and 1994. The share of this investment in GDP is lower than the average in the advanced economies, and so is not enough to close the enormous deficiency in the quality of the infrastructure which has accumulated over several decades.

Although Israel's public expenditure/GDP ratio is one of the highest in the world, the quality of its transport, water, and sewage infrastructures, for which the general government is responsible, is very poor compared with the advanced economies.

One of the solutions proposed for dealing with the 'shortage' of resources for investing in the infrastructure is to replace the public deficit target with a public saving target. This approach has long historical roots, one of its versions being the 'golden rule' that in an optimum policy the current account is balanced, and investment is financed by a deficit (through loans).[14] The theoretical justification for this theory is clear, but in effect the advanced economies have not adopted it because of difficulties in implementing it. The main problem is defining what investments are and controlling their extent when they do not have to compete for resources with other items of public expenditure. What, for example, is the justification for stating that infrastructure investment is not bound by budgetary balance requirements but expenditure on education

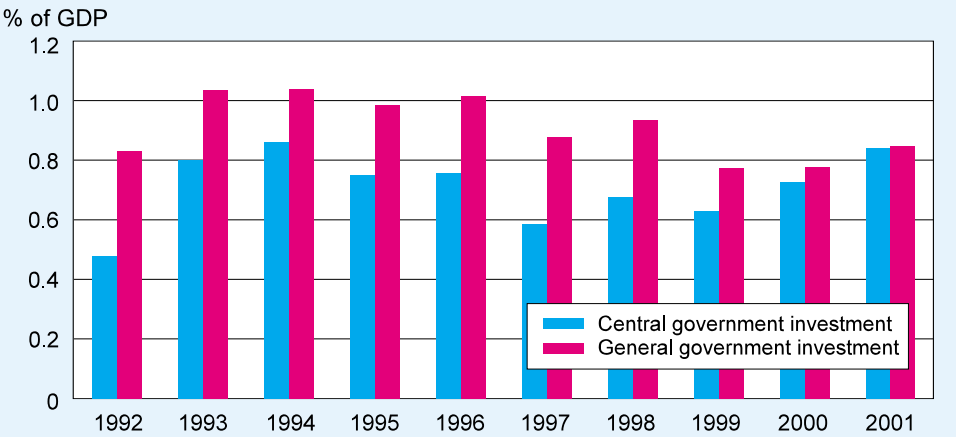
In the last two years public investment in the transport infrastructure has risen appreciably, but this began from a low base, reflecting a steep decline in the mid-1990s.

[12] For a detailed analysis, see section on transport and communications in Chapter 1.

[13] There are differences between the investment data reported by the CBS and in the government budget, partly reflecting the different measurement and coverage methods. They are expressed in the figures for investment in roads, as well as in differing trends in recent years. On the other hand, the trend of total investment in the transport infrastructure is the same irrespective of measurement method.

[14] E.S. Phelps (1961), "The Golden Rule of Accumulation: A Fable for Growth-Men," *American Economic Review*, Vol. 52 (September).

**Figure 3.1**
**Central and General Governmental[a] Investment in the Transport Infrastructure, 1992–2001**




[a] General government expenditure on the transport infrastructure includes investment in roads, railways, trains, and sea- and air-ports. Central government expenditure includes investment in roads, trains, and railways. General government expenditure data are from the National Accounts, and central government expenditure data are taken from the National Budget. The figure for 2001 is an estimate. The data do not include the investment of the *Derekh Eretz Company*, which is a private company, in the Cross Israel Highway.
SOURCE: Based on National Budget Summary and Central Bureau of Statistics data.

The share of public infrastructure investment in GDP is below the average in the advanced economies, and hence is not enough to compensate for the huge backlog in the infrastructure that has accumulated over several decades.

is? In the context of Israel, where the share of public expenditure is the highest in the world, it is particularly difficult to justify a 'budget bypass' of this kind.

In Israel, where the public expenditure/GDP ratio is the highest in the world, it is particularly difficult to justify the 'budget bypass' measure that replaces the deficit target with a government saving target.

Another approach to infrastructure investment, which has been growing recently in Israel and abroad, is to expand investment in conjunction with the private sector. This has been done in such projects as the Cross Israel Highway (work on which is proceeding apace), the Carmel Tunnels in Haifa, the light railway in Jerusalem and the underground planned for the Tel Aviv metropolitan area (also—though hardly in the same category—the construction of new offices for Knesset members). There are many potential advantages to cooperating with the private sector on projects, such as increased efficiency, especially when the private developer bears the risk. On the other hand, government involvement by means of guarantees against the various risks and commitments to buy services reduces the advantages. The private sector's involvement also requires appropriate treatment in the budget of the commitments the public sector takes on itself and the assets it transfers to the private investors. Furthermore, in view of the accumulated shortage of infrastructure in Israel, it is important to determine targets for public investment in the infrastructure, so that private investment will increase total investment rather than being a substitute for public investment.

Involving the private sector in projects has many potential advantages as regards improved efficiency, especially when the risk of the project is borne by the private investor.

**Box 3.2**
**The Central or the General Government: Considerations for Choosing the Unit of Analysis**

The definition by Israel's government of fiscal targets, including the deficit target, is determined on the basis of budget definitions, so that the public debate often focuses on the fiscal aggregates accordingly. When it comes to measuring government activity, however, these definitions do not accurately reflect its macroeconomic effect because it records the proceeds from an item such as land sales as income; it does not include all the interest payments on loans taken under US government guarantee, nor does it reflect the full extent of the central government's involvement in the activities of the other entities included in the general government[1] (Table 3.3.1). In addition, income and expenditure items can be shunted about between the various components of the general government, so that at least in the short run deficits can be shifted—especially since the budget deficit is calculated on a cash basis. Thus, for example, in 1994–99 the government's expenditure—as defined in the budget—declined by 4 percent of GDP (figure), but this reflected a change in the method of recording the activities of government hospitals (in 1998[2] ) as well as in the accounting system between the government and the National Insurance Institute (in 1997[3] ). The expenditure of the general government, which includes the government hospitals and the National Insurance Institute and hence consistently reflects the extent of public expenditure, declined by only 0.9 percent of GDP in those years. For these reasons it is customary in the advanced economies to focus the macroeconomic analysis on the general government, and not just on the central government. The activity of the general government is usually estimated in accordance with accepted international practices regarding national accounts, which include measurement on an accrual basis, rather than in accordance with budgetary definitions, which vary between countries.[4] The EU countries defined the rules governing a fiscal deficit for its members in the Maastricht Accord and the Stability and Growth Pact on this basis. Hence, the analysis in the rest of this chapter focuses on the general government.

Measuring government activity in accordance with the budget definitions does not accurately reflect its macroeconomic effect.

In the advanced economies it is customary for the macroeconomic analysis to focus on the general government rather than on the central government.

[1] Data on the components of the general government are presented in Table 1.A.3.9.
[2] The decision to define government hospitals as 'enterprises' reduced the extent of the reported budgeting, even though in effect the hospitals remained under the control of the government, which financed their deficits.
[3] The direct budgetary allocation to the National Insurance Institute was replaced by an increase in the employer's contribution.
[4] In addition, the definition of the deficit in the central government budget in Israel was changed several times in the last decade.

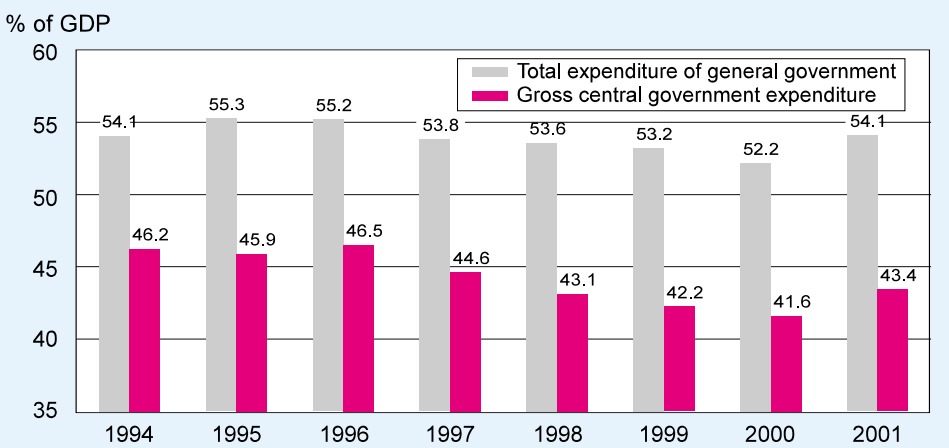
**The Switch from the Definition of the Central Government Deficit in the Budget to the General Government Deficit in the National Accounts, 1998–2000** [a]

(NIS billion, current prices)

| | 1998 | 1999 | 2000 |
|---|---|---|---|
| Central government deficit as defined in budget[b] | 12,745 | 14,335 | 3,237 |
| + Receipts from sale of land[c] | 781 | 1,172 | 1,228 |
| + Difference in recording interest expenditure abroad[d] | 1,249 | 3,351 | 3,918 |
| – Difference in recording interest income abroad[d] | 726 | 1,211 | 992 |
| + Other | –1,741 | 2,187 | 1,806 |
| = Central government deficit + National Insurance[e] | 12,307 | 19,834 | 9,198 |
| + Deficit (surplus) of other general government entities | 2,371 | 344 | 1,081 |
| = General government deficit (excluding Bank of Israel) | 14,678 | 20,178 | 10,279 |

[a] Data on the by-item implementation of the budget in 2001 will be published only in June 2002, so that at this stage it is impossible to show the switch in 2001.
[b] In accordance with the current definition (from 2000), which does not include "Bank of Israel profit." This definition also includes the surplus of the National Insurance Institute.
[c] By the Israel Lands Authority. Under the CBS definition, the government's receipts from sales of land are not recorded as receipts but as financing income, in common with other privatization receipts.
[d] The difference in calculating interest receipts and expenditure derives from the fact that some interest payments on loans taken by the government under US guarantee (the amount not converted into NIS) and the receipts on these amounts (part deposited in the Bank of Israel and part used for loans extended by the government) are not recorded in the budget, but are included in the CBS calculations. In addition, the CBS calculations are on an accrual basis, while the budget is calculated on a cash basis.
[e] According to the National Accounts (excluding Bank of Israel).
SOURCE: Based on National Budget Summary and Central Bureau of Statistics data.

**Expenditure of Central and General Government, 1994–2001**




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

## 4. MAIN DEVELOPMENTS IN THE ACTIVITIES OF THE GENERAL GOVERNMENT

In the last two years Israel has been experiencing a sharp fiscal cycle, at the end of which both the level of public expenditure and the tax burden were higher than beforehand, and the deficit was similar to that of previous years. The net public debt/GDP ratio rose by 4 percentage points in 2001, after a sharp decline in 2000, so that it dipped gently in those two years. In 2001 the main fiscal aggregates returned to the level at which they have remained, with temporary fluctuations, since 1994, when the major government expenditure on absorbing the influx of immigrants of the early 1990s came to an end[15] (Figure 3.2), and the decline recorded in 2000 in the share of the deficit and public expenditure in GDP was fully offset. The deficit of the general government (adjusted for the volatile item of the Bank of Israel's surplus income)[16] rose from 1.6 percent of GDP in 2000 to 3.9 percent in 2001, similar to its extent in 1997–99, and according to accepted international definitions it was 4.6 percent of GDP.[17] The rise in the deficit reflects a marked increase in public expenditure, which amounted to 54.1 percent of GDP, similar to its share in 1994 and higher than in 1997–2000. Thus, the public expenditure/GDP ratio, which is higher in Israel than in any advanced economy, has not declined for the last seven years. The share of general government receipts in GDP, and especially the tax burden, did not change in 2001, after rising notably in 2000. This means that in the last two years the fiscal policy mix has altered, with the tax burden and expenditure rising and no reduction of the deficit. The general government's net debt/GDP ratio also rose in 2001, to 84.3 percent of GDP, thereby offsetting most of the improvement recorded in 2000, after several years in which no progress was made in reducing the debt. The gross public debt rose again in 2001, to stand at 98.1 percent of GDP.

In the last two years Israel has experienced a sharp fiscal cycle, at the end of which both the level of public expenditure and the tax burden were higher than before, and the deficit was similar to that of previous years.

According to accepted international definitions, the deficit was 4.6 percent of GDP in 2001.

Israel's public expenditure/GDP ratio has not declined at all in the last seven years, and is the highest of all the advanced economies.

As stated, the reduction of both the deficit and the share of public expenditure in GDP are presented in the budget books each year as being among the government's fiscal objectives. An examination of the development of the main fiscal aggregates since 1994 shows that throughout that period neither objective was achieved. These two aggregates rose in 1995 and 1996, dipped slightly in 1997, and stabilized in 1998 and 1999. In 2000 there was a marked decline in the deficit and the public expenditure/GDP ratio, but the rapid rise in public expenditure in 2001—against the backdrop of the contraction of GDP—erased it. Empirical studies have shown that progress in this respect is crucial for creating the conditions for sustainable growth based on a rise in

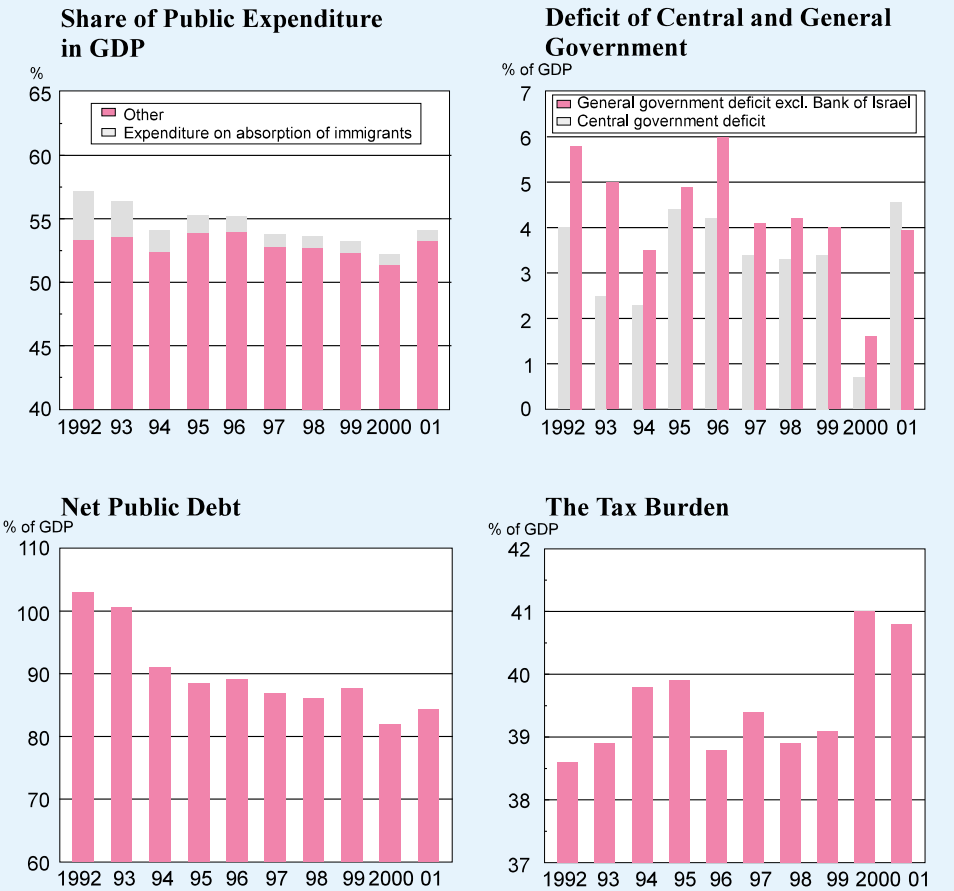
The reduction of the deficit and the public expenditure/GDP ratio is presented each year in the budget as being among the government's fiscal objectives. An examination of the development of these aggregates since 1994 indicates that neither objective has been achieved.

[15] Expenditure on benefits to immigrants and mortgage subsidies declined from 3.8 percent of GDP in 1992 to 2.8, 1.6, and 1.4 percent of GDP in 1993, 1994, and 1995 respectively.

[16] The influence of the Bank of Israel's surplus income/expenditure on the annual changes in the deficit is great, mainly reflecting fluctuations in the real *ex post* interest on the banks' deposits in the Bank of Israel.

[17] In the transition between the deficit of the general government and total public expenditure as defined in Israel and internationally, it is necessary to add the indexation differentials on the local-currency debt of the general government, which came to 0.8 percent of GDP in 2001.

**Figure 3.2**
**Principal Fiscal Data, 1992–2001**




SOURCE: Based on Central Bureau of Statistics Data.

the supply of business-sector product and productivity,[18] and for reducing the economy's vulnerability to financial crises. Another effect, which is difficult to measure, of the failure to attain declared policy targets—such as the reduction of the deficit in the long term—is the vulnerability deriving from reducing the government's ability to influence the markets at a time of crisis by committing to a long-term policy.

The general government's public expenditure/GDP ratio grew by 2 percentage points in 2001, all of it in current primary expenditure, which was up by a real 6.7 percent. Defense expenditure contributed only 0.4 percent of GDP to the rise.

The general government's expenditure/GDP ratio rose by two percentage points in 2001, all of it in current primary expenditure, which went up by a real 6.7 percent, and whose share of GDP also increased by two percentage points (Table 3.5). Defense expenditure grew by only 0.4 percent of GDP, while domestic non-defense public consumption expanded by 0.9 percent of GDP, reflecting both the acceleration of its

[18] See Y. Lavi and M. Strawzcynski (2001), "The Effect of Policy Variables and Immigration on Business-Sector Product and its Components (Factor Inputs and TFP); Israel, 1960–95," Bank of Israel, *Economic Review* 73 (August).

quantitative growth and the continued rise in its relative price (mainly wages). Current transfer payments—largely national insurance benefits—also rose, by 1.3 percent of GDP. Only about one fifth of the increase in benefits is explained by the greater expenditure on unemployment benefits and income support for the working-age population, part of which can be attributed to the economic slowdown. The fall in interest payments, especially abroad, and the slow rise of investments moderated the increase in total expenditure. This combination indicates that the increase in expenditure can be characterized as permanent, as it is not connected directly with the economic slowdown or the security situation.

The composition of the increase in expenditure indicates that most of it can be characterized as permanent, as it is not related directly to the recession or the security situation.

The tax burden, defined as the tax receipts/GDP ratio, rose markedly in 2000, stabilizing at a high level in 2001. The increase in 2000 is explained mainly by rapid GDP growth and the soaring share of wages in GDP.[19] In 2001 the forces that had been operating to increase the tax burden were checked, but forces to reduce it were not generated.

The tax burden, defined as the tax receipts/GDP ratio, rose markedly in 2000, and remained at its high level in 2001.

**Table 3.5**
**The Main Components of General Government Receipts and Expenditure, 1994–2001**

(percent of GDP)

| | 1994 | 1995[a] | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
|---|---|---|---|---|---|---|---|---|
| Total receipts | 50.9 | 50.8 | 49.4 | 49.5 | 49.8 | 48.4 | 49.9 | 50.3 |
| *of which*: From property | 1.5 | 2.1 | 1.6 | 1.3 | 2.0 | 0.9 | 0.9 | 1.4 |
| Total taxes | 39.8 | 39.9 | 38.9 | 39.6 | 38.9 | 39.1 | 41.0 | 40.8 |
| Indirect taxes on domestic production | 13.7 | 13.6 | 14.0 | 14.1 | 13.9 | 14.0 | 13.3 | 13.7 |
| Indirect taxes on civilian imports | 5.5 | 5.5 | 5.2 | 4.6 | 4.3 | 4.5 | 4.7 | 4.2 |
| Direct taxes, fees, and levies | 14.8 | 14.3 | 13.3 | 14.4 | 14.2 | 14.1 | 16.2 | 16.0 |
| National Insurance income | 4.6 | 5.5 | 5.6 | 5.8 | 5.8 | 5.9 | 6.0 | 6.4 |
| Total expenditure | 54.1 | 55.3 | 55.2 | 53.8 | 53.6 | 53.2 | 52.2 | 54.1 |
| *of which*: Current expenditure | 47.4 | 48.9 | 49.0 | 48.5 | 48.6 | 48.6 | 48.2 | 50.2 |
| Domestic civilian consumption | 17.7 | 20.0 | 20.3 | 19.9 | 19.7 | 19.7 | 19.5 | 20.4 |
| Domestic defense consumption | 7.7 | 7.5 | 7.4 | 7.1 | 6.9 | 6.7 | 6.7 | 6.8 |
| Defense imports | 2.0 | 1.5 | 1.7 | 1.7 | 1.9 | 2.1 | 1.7 | 2.0 |
| Direct subsidies | 1.7 | 1.2 | 1.0 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 |
| Transfer payments on the current account | 11.3 | 11.7 | 12.2 | 12.5 | 12.7 | 12.8 | 12.9 | 14.2 |
| Interest payments | 6.7 | 6.8 | 6.2 | 6.3 | 6.4 | 6.5 | 6.6 | 6.1 |
| Transfer payments on the capital account | 2.9 | 2.7 | 2.5 | 2.0 | 1.6 | 1.7 | 1.5 | 1.4 |
| General government investments | 3.5 | 3.6 | 3.6 | 3.3 | 3.3 | 2.8 | 2.5 | 2.5 |
| Total general government deficit | 3.2 | 4.5 | 5.8 | 4.3 | 3.8 | 4.8 | 2.2 | 3.8 |
| Total general government deficit excl. Bank of Israel | 3.5 | 4.9 | 6.0 | 4.1 | 4.2 | 4.0 | 1.6 | 3.9 |
| Total surplus excluding interest and receipts from property | 2.0 | 0.3 | –1.2 | 0.7 | 0.6 | 0.8 | 3.5 | 0.8 |
| Net public debt[b] | 91.1 | 88.4 | 88.4 | 86.0 | 85.5 | 88.2 | 80.2 | 84.3 |
| Gross public debt excl. Bank of Israel[c] | 116.6 | 109.6 | 107.9 | 105.0 | 108.1 | 101.9 | 92.8 | 98.1 |

[a] From 1995, including receipts and expenditure due to the National Health Law.
[b] Divided by GDP at end-of-year prices.
[c] After deducting local authorities' debts to the central government.
SOURCE: Based on Central Bureau of Statistics data.

[19] For an analysis of the increase in the tax burden in 2000 and the extent to which it is permanent, see A. Brender (2001), "Estimates of the Function of Tax Receipts in Israel," Bank of Israel Research Department, *Discussion Paper* no. 2001.02 (Hebrew). As is explained there, the increase in wages is correlated with tax receipts through various channels, not only through the progressiveness of the tax brackets on wages.

Essentially, excluding the effect of statutory changes, which reduced receipts in 2001 (mainly the reduction in purchase tax in August 2001 and the tax concession for residents of the Negev in July 2001), the tax burden would have risen slightly in 2001, too. These findings bear out the contention that the tax burden cannot be expected to ease in the near future, and will do so only if statutory tax rates are reduced. Against the backdrop of the rapid rise in public expenditure, the slow growth rate, and the large budget deficit, it does not look as if a substantial reduction in tax rates can be expected soon, however. Taxes on wages were even raised slightly in the 2002 budget. On the basis of this analysis, therefore, there has been a permanent increase in expenditure and the tax burden in the last two years, and this has negative ramifications for the ability to return to a path of sustainable growth based on an increase in TFP.

The conclusions regarding the impact of fiscal developments on TFP are not altered significantly by an alternative analysis of the trend of tax receipts in the last two years which focuses on the share of exceptional revenues in the rise in tax receipts. On the basis of this analysis, a significant part of the increase in the tax burden in this period is temporary and stems from non-recurring revenues, primarily in the high-tech industry.[20] If this analysis is correct, alongside the increase in expenditure, most of which is permanent, the rise in receipts will be temporary, and the easing of the tax burden that is expected on the basis of the analysis will be accompanied by a substantial expansion of the deficit. As stated, that path also has negative implications for the possibility of returning to a sustainable growth path.[21]

The deficit of the general government, which includes the Bank of Israel's surplus income as recorded in the national accounts, rose from 2.2 percent of GDP in 2000 to 3.8 percent of GDP in 2001. The relatively mild increase in the deficit according to this definition reflects the slight surplus from the Bank of Israel's activities this year (according to national accounts definitions[22]), compared with 'surplus expenditure' of 0.6 percent of GDP in 2000 and 0.8 percent of GDP in 1999. The dip in the Bank of Israel's 'losses' reflects primarily the decline in real *ex post* interest on the banks' deposits in the Bank of Israel and the capital gains deriving from lower world interest rates. Since this item is very volatile and does not reflect fiscal developments, we adjusted for it in the analysis of fiscal developments that follows.

[20] Y. Friedman and R. Frisch (2001), "Start-up Companies, Recording them in GDP, and their Effect on the Economy," Bank of Israel Research Department, internal memorandum (Hebrew).

[21] Lavi and Stawczynski, op. cit.

[22] For an account of the way the 'profit' of the Bank of Israel is calculated, see Chapter 5 of Bank of Israel, *Annual Report* 1999.

## 5. THE DEFICIT OF THE GENERAL GOVERNMENT AND THE PUBLIC DEBT

The cyclically adjusted deficit of the general government rose by only 0.3 percent of potential output in 2001, and in the last two years it has fallen by a cumulative 1.2 percentage points.

In 2001, as stated, the general government deficit and the public debt rose appreciably, although a large part of the increase can be attributed to the recession. Since the increase in the general government deficit is directly affected by the development of GDP, mainly via tax receipts, it is customary to also examine the development of the 'cyclically adjusted' deficit of the general government, the calculation of which is based on the assumption that the economy functions at the level of potential output. This calculation makes it possible to examine changes in the deficit—net of the effect of swings in economic activity—in relation to the intention to reduce it over time, on the one hand, and the direct effect of the general government on demand, on the other. According to this calculation, the cyclically-adjusted deficit rose by only 0.3 percent of potential output in 2001, and in 2000–01 it fell by a cumulative 1.2 percentage points[23] (Table 3.2). The cyclically-adjusted domestic deficit of the general government rose by 0.6 percent of GDP in 2001, and according to this calculation, which roughly reflects the direct effect of the general government's activity on the expansion of demand in 2001, this effect was positive though small. Notwithstanding, calculations of this kind are very sensitive to the estimate of potential output and assumptions about the intensity with which tax receipts and public expenditure react to a rise in it. Moreover, an analysis of this nature ignores the possibility that the rise in the deficit in 2001—whether cyclically adjusted or actual—will impact on demand in the opposite direction, as is explained below.

Although the cyclically adjusted deficit expanded only slightly in 2000 and was smaller than in the past, over a longer period, e.g., since 1994, this decline is not satisfactory, and it is important for the actual deficit to contract, too. Its development to date in Israel, including in 2001, especially in view of the continued trend of the budget in 2002, when the public expenditure/GDP ratio is expected to rise even more, indicates that not enough has been done to reduce the actual deficit. Note, too, that because of the lack of transparency of such estimates as the cyclically-adjusted deficit, countries which have set fiscal targets have defined them in terms of the actual deficit. Only after credibility is established regarding the fiscal path—particularly readiness to bring the public expenditure/GDP ratio down—will it be possible to tackle more complex targets based on potential output,[24] even though theoretically their use does have many advantages.

[23] The calculation of potential output is based on the average increase in per capita GDP since 1973, which is an annual 1.5 percent. According to this calculation, there was a difference of 4.5 percent between the growth rates of real and potential output in 2001, and a cumulative deviation of 5 percent between the levels of actual vis-à-vis potential output. This is based on the assumption that the level of potential output was in fact attained in 1996. The calculation of the cyclically-adjusted deficit assumes that tax receipts expand in proportion with output, and that total expenditure and non-tax revenues are not sensitive to changes in output. For a detailed discussion of the method of calculation, see Chapter 5 of Bank of Israel, *Annual Report* 1999.

[24] In the EU the effect of the business cycle on the deficit is determined for each country by Eurostat, which is a supra-national body, and not by the countries themselves.

**Table 3.6**
**The Overall Deficit, the Primary Deficit, and the General Government Debt Burden in Israel and OECD Countries, 1994–2001**

| | General government deficit (–) (% of GDP) | | | Reduction of expenditure as share of change 1994–2001 | Primary general government deficit (–) (% of GDP) | | | Total general government debt (gross) (% of GDP) | | | Real increase in per capita public consumption 1993–2001 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1994 | 2001 | Change | (percent) | 1994 | 2001 | Change | 1995 | 2001 | Change | (percent) |
| Israel[a] | –3.2 | –3.8 | –0.6 | ... | 2.0 | 0.8 | –1.2 | 109.6 | 98.1 | –11.5 | 1.7 |
| Greece | –9.9 | 0.2 | 10.1 | –49.5 | 4.0 | 8.0 | 4.0 | 108.7 | 99.8 | –8.9 | 2.9 |
| Sweden | –10.8 | 3.8 | 14.6 | 81.5 | –8.9 | 5.1 | 14.0 | 76.9 | 56.2 | –20.7 | 0.1 |
| Italy | –9.3 | –1.4 | 7.9 | 93.7 | 1.7 | 4.3 | 2.6 | 123.1 | 107.7 | –15.4 | 0.2 |
| Britain | –6.7 | 1.1 | 7.8 | 57.5 | –4.1 | 2.9 | 7.0 | 60.6 | 52.5 | –8.1 | 1.2 |
| Canada | –6.7 | 2.8 | 9.5 | 89.5 | –1.7 | 5.7 | 7.4 | 119.8 | 98.3 | –21.5 | –0.3 |
| Belgium | –5.0 | 0.0 | 5.0 | 96.0 | 4.2 | 6.2 | 2.0 | 129.3 | 105.4 | –23.9 | 1.5 |
| Finland | –5.7 | 3.7 | 9.4 | 137.2 | –6.8 | 2.6 | 9.4 | 57.2 | 42.1 | –15.1 | 1.5 |
| Spain | –6.1 | 0.0 | 6.1 | 114.8 | –1.9 | 2.8 | 4.7 | 86.2 | 71.4 | –14.8 | 2.5 |
| Portugal | –5.9 | –1.7 | 4.2 | 47.6 | 0.2 | 1.3 | 1.1 | 64.2 | 52.8 | –11.4 | 2.6 |
| France | –5.5 | –1.5 | 4.0 | 75.0 | –2.4 | 1.4 | 3.8 | 59.3 | 64.9 | 5.6 | 1.2 |
| Australia | –4.6 | 0.1 | 4.7 | 48.6 | –0.6 | 1.9 | 2.5 | 43.3 | 26.2 | –17.1 | 2.4 |
| Austria | –5.0 | 0.0 | 5.0 | 94.0 | –1.5 | 3.2 | 4.7 | 69.2 | 61.5 | –7.7 | 1.0 |
| US | –3.6 | 0.6 | 4.2 | 64.3 | –0.1 | 2.9 | 3.0 | 74.5 | 57.6 | –16.9 | 0.0 |
| The Netherlands | –4.2 | 1.1 | 5.3 | 118.9 | 0.2 | 3.6 | 3.4 | 75.5 | 53.9 | –21.6 | 1.4 |
| Germany | –2.5 | –2.5 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | 57.1 | 60.9 | 3.8 | 1.3 |
| Denmark | –2.4 | 2.0 | 4.4 | 195.5 | 0.9 | 3.8 | 2.9 | 73.9 | 46.2 | –27.7 | 1.7 |
| Ireland | –2.0 | 3.2 | 5.2 | 213.5 | 2.5 | 3.6 | 1.1 | 79.8 | 32.1 | –47.7 | 3.9 |
| Japan | –2.8 | –6.4 | –3.6 | ... | –2.6 | –5.1 | –2.5 | 80.4 | 132.0 | 51.6 | 2.7 |
| Norway | 0.4 | 14.3 | 13.9 | 65.5 | 1.0 | 15.4 | 14.4 | 34.8 | 27.1 | –7.7 | 1.6 |
| New Zealand | 3.1 | 1.3 | –1.8 | ... | 4.4 | 1.6 | –2.8 | ... | ... | ... | 1.6 |
| OECD Average | –4.8 | 1.0 | 5.8 | 86.5 | –0.6 | 3.6 | 4.1 | 77.6 | 65.7 | –11.9 | 1.5 |
| EU Average | –5.8 | 0.6 | 6.4 | 91.1 | –0.8 | 3.5 | 4.3 | 80.1 | 64.8 | –15.3 | 1.6 |
| Average of countries with 1993 deficit larger than Israel's | 6.8 | 0.6 | 7.4 | 73.9 | –1.5 | 3.8 | 5.3 | 83.2 | 69.9 | –13.3 | 1.4 |

[a] Deficit data for Israel do not include indexation differentials on the public debt.
SOURCE: Based on *OECD Economic Outlook*, 70, December 2001, and CBS data.

According to the above calculation, the immediate effect of fiscal policy on activity was positive, albeit small. It is more difficult, however, to determine the overall effect of changes in the deficit (cyclically-adjusted and actual) on economic activity. Calculating the fiscal impulse is consistent with the Keynesian approach, which stresses the short-term effects of policy and regards the effect of the fiscal impulse as affecting output in accordance with the size of the multiplier. In the long term, however, reducing the general government deficit serves to increase output by having a positive effect on supply.[25] In addition, a smaller general government deficit (and hence a smaller debt) reduces the economy's vulnerability to financial crises, and hence also the risk perceived by investors. When investors and consumers incorporate long-term effects into their calculations, fiscal expansion—even if implemented during a slump—could exacerbate a recession, especially if the government has not managed to build a reputation that will convince them that the increase in the deficit is temporary. In a situation of this kind changes in the public deficit, even if they can be explained by changes in economic activity, can aggravate the slowdown. Empirical findings show that this eventuality, and its reverse—acceleration of activity in response to a budget cut—have in fact occurred on various occasions since the late 1980s.[26] These findings are very important for decisions about adopting a counter-cyclical policy in the short run, because beyond its implications for the expansion of the deficit in the long run, the policy simply might not work.

Because of the lack of transparency of estimates such as the cyclically-adjusted deficit, the countries which set fiscal targets determined them in terms of the actual deficit.

Fiscal expansion, even if implemented during a recession, could aggravate the slowdown, especially if the government has not established a reputation that will convince investors and consumers that the increase in the deficit is temporary.

Studies that have identified the direction of this connection between fiscal expansion and economic growth indicate the following as the main factors which could help a counter-cyclical policy bring about the expansion of activity in the short term:

1. A growth-stimulation mix, comprising: a. The reduction of taxes, mainly on wages, thereby contributing to the reduction of labor costs;[27] b. The increase in expenditure focuses on infrastructure investment and not on expanding the general government wage bill or transfer payments.

2. If, alongside the temporary expansion of the deficit, credible steps are taken to reduce the deficit in the medium term, especially in countries where the initial debt is large. One way this could be achieved is by legislation regarding the gradual implementation of reforms which will reduce expenditure in the coming years.

3. The credibility the government has accumulated over time, so that the public is convinced that the targets in section 2 will in fact be attained.

While the fiscal policy adopted in Israel in 2001 contained, as stated, a counter-cyclical element, the composition of the expansion of the deficit (see Section 6 below) did not serve to accelerate economic activity according to these parameters.

An international comparison shows that Israel's general government deficit is particularly large (Table 3.6). In 2001 Israel's deficit was larger than that of any advanced

[25] Z. Hercowitz, Y. Lavi, and R. Melnick (1999), "The Impact of Macroeconomic Factors on Productivity in Israel, 1960–96," Bank of Israel, *Economic Review* 72.

[26] For a discussion of the theoretical background and the empirical findings abroad, see Box 5.1, Chapter 5 of Bank of Israel, *Annual Report* 1999.

[27] A. Alesina and R. Perotti (1997), "The Welfare State and Competitiveness," *American Economic Review*, 87 (5).

In 2001 the deficits of all the advanced economies except Japan were smaller than Israel's.

Israel's deficit in 2001 was greater than that of 1994, while those of the advanced economies declined by 6 percent of GDP in that period.

Of the ten OECD countries which had a budget deficit in 2000, in only one—Germany—did it increase in 2001.

Israel's public debt/GDP ratio is far higher than that of the advanced economies and also than the target set by the EU countries in the Maastrich Accord.

economy. The sole exception was Japan, which has implemented a particularly expansionary fiscal policy since the late 1990s (and, after having failed in this way to generate growth, decided in 2001 to adopt a path of rapid deficit reduction). Furthermore, Israel's deficit in 2001 was greater than in 1994 (when most of the direct fiscal expenditure on immigrant absorption ended), while in the advanced economies the deficit declined by 6 percent of GDP in that period. Moreover, the gap in deficit reduction between Israel and the advanced economies would have been larger if some of those countries had had a small deficit, or surplus, from the outset, and so had not acted to reduce it in that period. The 14 countries whose deficit was greater than Israel's in 1993 reduced it by an average of 7.4 percent of GDP. A comparison of the development of the primary deficit yields a similar picture.

One of the factors which could explain differences between countries as regards the development of the deficit over time is their being at different stages of the business cycle. Since Israel experienced a particularly sharp slowdown in 2001, we also compared the cyclically-adjusted deficits of Israel and the OECD countries. This also shows that the reduction of the deficit was much slower in Israel than in the advanced economies (Table 3.3). The response of the OECD countries to the recession of 2001 differed from that of Israel. Whereas the average budget surplus in those countries contracted from 1.4 percent of GDP in 2000 to only 1.0 percent in 2001, of the ten countries which had a budget deficit in 2000, in only one—Germany—did it rise in 2001 (because of the tax reforms implemented there).

The general government net debt/GDP ratio rose in 2001 by 4 percentage points, offsetting much of the decline of 2000. The debt/GDP ratio has dipped only slightly since 1995, and this constitutes a sharp shift in the dynamic of the debt in comparison with the 1989–94 trend, when the debt/GDP ratio fell by 40 percentage points. The expansion of the debt in 2001 was due to the large deficit and the fact that it was financed by bonds, as financing by means of the sale of assets (privatization) was negligible in 2001. The gross public debt rose even more steeply in 2001—by 5.3 percent of GDP—because of the effect of local-currency depreciation on the foreign-currency debt. Because the calculation of the gross debt includes a large share of foreign-currency liabilities,[28] Israel's public debt/GDP ratio is far larger than that of the advanced economies and than the target set by the EU countries in the Maastricht Accord (gross debt/GDP ratio of 60 percent). According to the analysis in Box 3.3, adhering to the current deficit path set by the government, while keeping the deficit stable at one percent of GDP as of 2005, will enable convergence to a debt level of 60 percent only in another 20 years. Moreover, the analysis in section 8 below indicates that in view of expected demographic developments in the coming decades, if the current policy in the area of public expenditure persists it will not be possible to attain those deficit targets.

[28] In the calculation of the net debt, the liabilities offset the foreign-exchange reserves, so tht the effect of the exchange rate is smaller

**Box 3.3**
**Long-Term Targets for Fiscal Policy**

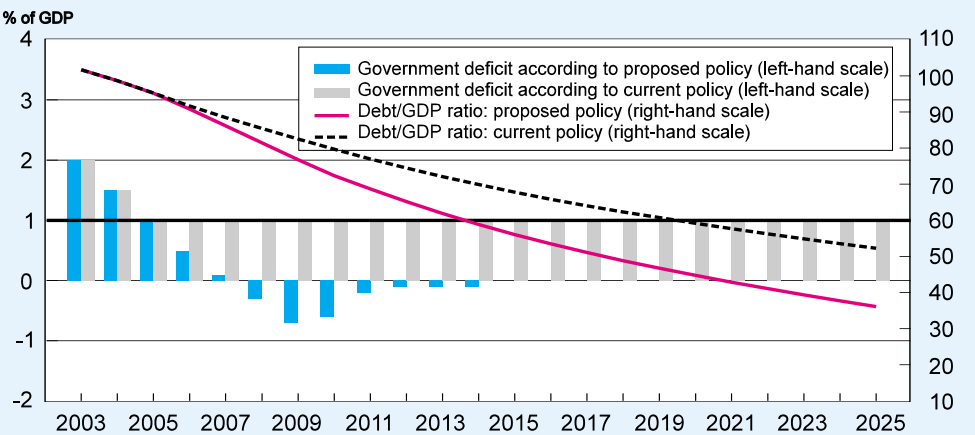
The public debt reflects the fiscal burden the current generation 'bequeaths' to those to come. The greater the debt, especially if it stems from a high level of current expenditure, the heavier the future burden of servicing it. A larger debt can also cause the interest rates the government pays to go up, *inter alia* because of the greater risk of repayment difficulties.

As the public debt rises, especially if it derives from a high level of current expenditure, the future tax burden required to finance its servicing will increase.

Since debt-servicing is a rigid component of public expenditure, and introducing significant changes in the debt burden is a lengthy process, it is vital to address the path of the debt in the framework of long-term budget planning. Planning of this kind has to take into consideration the expected future level of expenditure as a result of demographic and other developments (see section 8), as well as the initial debt burden. It was in this way, for example, that the fiscal targets of the EU countries were adopted in the Stability and Growth Pact of 1997, determining a deficit target of budgetary balance or surplus across the business cycle. Each country in the EU submitted a plan for convergence within 4 or 5 years to a target of long-term budget balance or surplus, in accordance

It is very important to relate to the debt path in the framework of long-term budget planning.

**The Government Deficit and the Debt/GDP Ratio, Current Policy vis-à-vis Proposed Policy,[a] 2003–2025**




SOURCE: Based on Central Bureau of Statistics data.

with its situation. In the US, too, the budget is based on a ten-year perspective of the deficit and the debt, placing considerable emphasis on demographic trends and their expected effect on the balance of the social security fund.

Whereas Israel's demographic burden is expected to grow more moderately in the coming decades than in the advanced economies, its current debt (100 percent of GDP) and deficit are far higher (Table 3.6), placing a heavier burden

on future generations.[1] Moreover, since the long-term aims of the EU countries (a gross public debt of not more than 60 percent of GDP) currently constitute the international norm for assessing a country's financial situation, non-convergence to this target could harm Israel's economic standing.

Adhering to the deficit path set by the government while maintaining the deficit at one percent of GDP as of 2005 will enable convergence to a debt of 60 percent of GDP only in another 20 years.

The declining deficit path set by the government goes up to 2005. If the government adheres to this path and attains a deficit target of one percent of GDP (as defined in Israel[2]) in 2005 and thereafter, the debt/GDP ratio in 2015 will be 70 percent (see figure), and only in another 20 years will it be 60 percent of GDP.[3] All this is based on the assumption that per capita GDP will grow by an annual 1.5 percent during this period (in line with the average of the last 30 years) and that the demographic growth rate until 2020 will fit the CBS forecasts. This convergence rate is very slow in comparison with the rates set by countries with a large debt, such as Italy, Greece, and Belgium, which plan to reduce their debt/GDP ratios to 60 percent within 8–10 years.

Countries with a large debt, such as Italy, Belgium, and Greece, intend to reduce their debt/GDP ratio to 60 percent within 8–10 years.

In order to ease the debt burden in Israel more rapidly the government should adopt declining deficit targets for a longer term, *and stick to them*. This should be done while establishing the budgetary balance of the other entities which are part of the general government. A long-term plan for gradually reducing the deficit, until budgetary balance is attained, in accordance with the accepted international definition, in 2008 and subsequently will enable the debt to be reduced to 60 percent of GDP in 2014.[4] In the framework of a plan of this kind, after several years in which the credibility of the path becomes entrenched, e.g., from 2005, it will be possible to set deficit targets adjusted for the effect of the business cycle. In addition, in view of the extremely high level of public expenditure in Israel, it is advisable to ensure that each time the deficit is reduced this should be done by lowering the public expenditure/GDP ratio.[5]

In order to ease Israel's debt burden faster the government must adopt declining deficit targets for a longer term, *and stick to them*.

The need for long-term planning that defines quantitative targets is not confined to the size of the deficit and its influence on the debt path. Adopting a strategy for the long run in additional spheres of government activity can greatly increase efficiency in the area of public expenditure, bolster and reinforce the credibility of the downward path of the deficit/GDP ratio, and help to attain sustainable growth. Examples of this could be: 1. Long-term planning with regard to the physical infrastructure, including an increase in public expenditure, e.g., while determining a road-density target for another 10 or 15 years at a

Adopting a long-term strategy in additional spheres of government activity could greatly increase the efficiency of public expenditure, bolster and reinforce the credibility of the deficit reduction path, and help in attaining sustainable growth.

[1] Especially since the larger deficit in Israel does not reflect a higher level of investment than in the advanced economies.

[2] One of the adjustments required in the measurement of the deficit in Israel to bring it into line with the method customarily used abroad is to record indexation differentials on the local-currency debt as expenditure. In order to conform with the international definition, in 2001 the government began to record indexation differentials on bonds issued from that year as expenditure.

[3] For a more detailed discussion of the methodology, see A. Brender and M. Strawczynski (2001), "Macroeconomic Strategy in the Coming Years: Fiscal Policy," Bank of Israel Research Department, internal memorandum (Hebrew).

[4] This calculation includes the effect of the reduction of the deficit on the GDP growth rate, but not on the interest rates the government pays on its debt.

[5] This target implies that the real annual growth rate of public expenditure in 2005–2010 will be 2.8 percent, and excluding interest it will be over 3.5 percent.

level similar to the OECD average; 2. A program to alter the system of welfare benefits so as to encourage people to enter the labor force, thereby leading to savings in benefits in the long run, while budgeting for programs for placement in employment at similar levels to those accepted in the advanced economies;[6] 3. Defining the structure of the desired tax system in the long run, and the reforms to be gradually made in it. Determining targets of this kind can provide a 'compass,' which will help to direct legislation and administrative measures based on short-term objectives, so that they comply with the desired direction of long-term policy.

[6] See the comparison in A. Brender, O. Peled-Levi, and N. (Kaliner) Kasir (2001), "Government Policy and the Participation Rates of the Working-Age Population: Israel and the OECD Countries in the 1990s," Bank of Israel Research Department, *Discussion Paper* no. 02.02 (Hebrew).

## 6. THE DEVELOPMENT AND COMPOSITION OF GENERAL GOVERNMENT EXPENDITURE

Israel's public expenditure/GDP ratio is higher than that of any advanced economy, and because it rose again in 2001 the gap between Israel and those countries has widened even more.

Israel's public expenditure/GDP ratio is higher than in any other advanced economy, and because it rose in 2001 by 2 percent of GDP—to 54.1—the gap between Israel and those countries widened even more. In recent years the advanced economies have become increasingly aware of the fact that the size of the public sector hampers economic growth because of the implied heavy tax burden, and that an effort should be made to reduce it. This is made even more pressing by demographic trends, which are expected to increase the public expenditure/GDP ratio. As a result, many countries have reduced the size of their general government. The progress made towards that objective in 1994–2001 in Israel and the nine advanced economies with the highest public expenditure can be seen in Figure 3.3. In all those countries, with the exception of Germany, notable progress has been made in reducing the size of general government, whereas none at all was made in Israel.[29] Table 3.7 also compares total public expenditure in Israel, as defined internationally, with that of the OECD countries.[30]

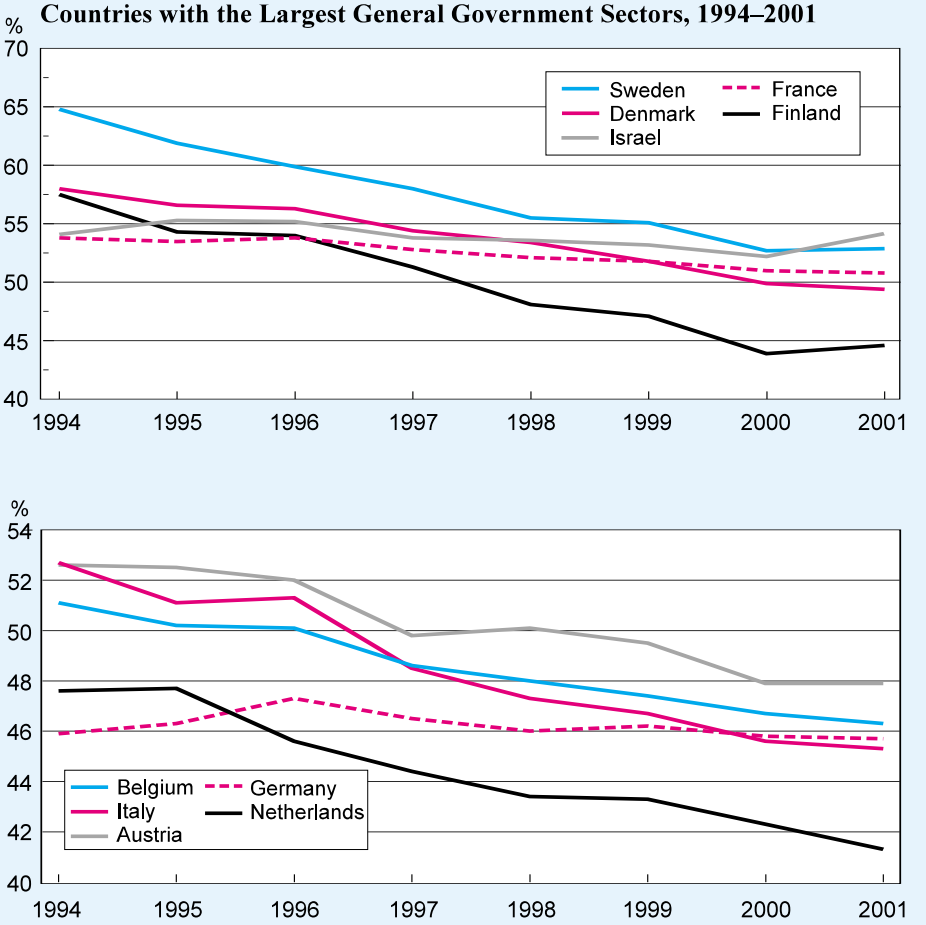
Despite the extent of public expenditure in Israel, it has continued to grow rapidly in the last two years.

Despite the extent of public expenditure in Israel, its growth rate in the last two years has remained high. Total public primary expenditure and deflated by the implicit price index of business-sector product, was up by 6.1 percent in 2001, and by an average of 5.2 percent in the last two years—a faster increase than that of either GDP or potential output. This growth rate also outstrips the average increase in 1994–99 (Table 3.8)—most of the acceleration not deriving

[29] The results are the same when primary expenditure is compared.

[30] The difference in the extent of defense expenditure accounts for about half the difference in total expenditure.

**Figure 3.3**
**The Share of Public Expenditure in Israel and in OECD Countries with the Largest General Government Sectors, 1994–2001**




SOURCE: *OECD Economic Outlook*, No. 70.

The size of Israel's public expenditure reflects the government's inability to significantly change its composition and allocate resources in accordance with shifting priorities.

The share of expenditure in such areas as education and the transport infrastructure, which are frequently mentioned as having high priority, has not changed since 1995.

from a rise in defense expenditure. Moreover, current primary expenditure has risen by an average of over 6 percent in the last two years, while the decline in the investment of the general government moderated the increase of expenditure.

The extent of public expenditure in Israel reflects *inter alia* the government's inability to significantly alter its composition and allocate resources in accordance with shifting priorities (see section 2 above). Thus, when needs in specific areas arise, expenditure rises without there being an equivalent cut in other items. This feature is expressed, for example, in the failure to ensure that legislation with budgetary implications—especially if it is not initiated by the government—is covered by a source of finance. Table 1.A.3.8 shows that from the early 1980s, especially after the ESP of 1985, to the mid-1990s the composition of expenditure changed markedly. In the last few years, by contrast, it has remained virtually unchanged, except for a continuous rise in transfer payments to households. The share of expenditure in such areas as education and the transport infrastructure, which are frequently mentioned as taking priority, has not altered since 1995.

**Table 3.7**
**Principal Fiscal Aggregates by Internationally Accepted Definitions; Israel and OECD[a] Countries, 1999–2001**

(NIS billion, current prices)

| | 1999 | 2000 | 2001 |
|---|---|---|---|
| **General government deficit (–)** | | | |
| Israel | –5.7 | –2.2 | –4.6 |
| OECD average | 0.0 | 1.4 | 1.0 |
| EU average | –0.2 | 1.3 | 0.5 |
| **General government expenditure** | | | |
| Israel | 54.1 | 52.2 | 54.9 |
| OECD average | 43.1 | 41.9 | 42.0 |
| EU average | 45.7 | 44.3 | 42.6 |

[a] The data for Israel were brought into line with the accepted international definition: indexation differentials (accrual basis) on the NIS debt (indexed to the CPI and unindexed) were added to the general government's deficit and expenditure as defined in the National Accounts.
SOURCE: Based on *OECD Economic Outlook*, 70, December 2001 and Central Bureau of Statistics data.

The share of non-defense public consumption in GDP rose by about one percent of GDP in 2001, and by about 4 percent in the last decade. The real growth rate of civilian consumption (deflated by the implicit price index of business-sector product) was about 5.6 percent in each of the last two years. While this was not expressed in an increase in its share of GDP in 2000, due to the rapid growth rate, in 2001 this rise was expressed in full. The increase in civilian consumption in those two years was led by the real rise in labor input (by 6.2 and 6.6 percent in 2000 and 2001 respectively), reflecting a rise in both volume and relative price. The increase in the latter (real wages) expresses the

The real growth rate of civilian consumption (deflated by the implicit price index of business-sector product) was 5.6 percent in each of the last two years.

**Table 3.8**
**Growth Rates of Public Expenditure in Israel, 1994–2001[a]**

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

| | Average growth rate | | |
|---|---|---|---|
| | 1994–99[a] | 2000 | 2001 |
| Total public expenditure | 4.5 | 5.0 | 4.3 |
| *of which* Interest payments | 3.5 | 10.7 | –8.1 |
| Total primary public expenditure | 4.6 | 4.2 | 6.1 |
| *of which* Current primary expenditure | 6.0 | 5.6 | 6.7 |
| Public consumption | 5.9 | 4.6 | 5.2 |
| Public consumption excluding defense imports | 6.9 | 5.6 | 4.5 |
| Civilian consumption | 8.7 | 5.8 | 5.4 |
| Labor input | 6.8 | 6.2 | 6.6 |
| Purchases | 16.1 | 5.1 | 3.2 |
| Domestic defense consumption | 2.6 | 6.3 | 1.8 |
| Wages | 3.5 | 4.8 | 5.5 |
| Transfer payments on current account | 7.2 | 7.9 | 10.6 |
| General government investment | 0.7 | –6.4 | 1.8 |

[a] From 1995, including expenditure due to National Health Law.
SOURCE: Based on Central Bureau of Statistics data.

**Table 3.9**
**Trends in Social Security Benefits, by Main Categories, 1996–2001**

| | Old-age and surviving relatives' pension | General disability | Work accidents | Maternity | Child allowance | Unemployment benefit | Income support | Other | Total |
|---|---|---|---|---|---|---|---|---|---|
| Share of total payments in 2001 | 37.7 | 11.9 | 6.7 | 5.4 | 20.2 | 7.7 | 6.2 | 4.2 | 100.0 |
| Real increase[a] *(percent)* | | | | | | | | | |
| 1996 | 4.0 | 10.6 | 12.0 | 10.3 | 4.0 | 15.5 | 7.6 | 1.9 | 6.5 |
| 1997 | 4.7 | 9.5 | –0.9 | 8.3 | 5.1 | 30.6 | 10.5 | 12.1 | 7.5 |
| 1998 | 7.8 | 12.4 | 6.4 | 9.3 | 2.1 | 15.8 | 20.2 | 13.9 | 8.8 |
| 1999 | 2.3 | 8.4 | –4.3 | 1.5 | 5.7 | 2.1 | 12.9 | 10.5 | 4.2 |
| 2000 | 8.5 | 15.1 | 14.2 | 10.8 | 1.5 | –0.7 | 18.9 | 18.8 | 8.8 |
| 2001 | 11.5 | 19.1 | 10.7 | 9.5 | 7.9 | 17.3 | 20.1 | 17.8 | 13.1 |
| Average 1996–2001 | 6.5 | 12.5 | 6.4 | 8.3 | 4.4 | 13.4 | 15.0 | 12.5 | 8.2 |
| Contribution to increase in 1996–2000[b] | 28.6 | 18.7 | 5.0 | 6.1 | 10.4 | 11.7 | 12.5 | 7.0 | 100.0 |
| Contribution to increase in 2001[b] | 31.3 | 19.4 | 5.3 | 4.1 | 11.1 | 10.4 | 11.7 | 6.7 | 100.0 |

[a] Deflated by the CPI.
[b] Percent of overall increase.
SOURCE: Based on Central Bureau of Statistics data.

problematic nature of the wage and employment agreements in the public sector in an environment of price stability. On the one hand, employees' promotion tracks and increments for seniority and education lead to a significant increase in wage expenditure every year, while on the other, there are general wage hikes almost annually. The result of these two developments is a significant real rise in wages. In order to adapt the wage system to an environment of price stability it is necessary to choose one of the two systems: either the wage increment should be decided on the basis of professional qualifications, in which case the promotion track should be set up in such a way as to reflect the employee's quality and contribution,[31] or the cost of promotion should be cut so that its effect on total wage costs in the public sector will be considerably reduced, and wage increments will be determined through general agreements.

Current transfer payments to households (mainly social security benefits) rose by a real 10 percent in 2001, and their share in GDP grew by over one percentage point. This acceleration was due to legislative changes, which enlarged child and disability allowances, and the sharp increase in 2000 in the average wage, to which most benefits are linked (Table 3.9). While the 13.1 percent rate at which benefits rose in 2001 is exceptional, benefit payments have risen markedly in all the last few years—by a real annual average of 8.2 percent, and their share in GDP has soared.[32]

Transfer payments rose notably in the last few years, by an annual average of 8.2 percent in real terms, and their share in GDP soared.

The system of transfer payments in Israel plays an important role in reducing static inequality (at a given point in time) in the distribution of income, as is indicated by the annual 'poverty reports' of the National Insurance Institute. The government's transfer payments also have a dynamic effect, however, which could contradict the justification for granting them or greatly increase the cost of obtaining them. Granting significant benefits to those in need could also cause those not originally in need of help to alter their behavior in order to be eligible for aid. This feature is not restricted to benefits for the needy, and evidence of it is provided by analyses of the way entities have benefited from the Encouragement of Capital Investments Law and the Chief Scientist's R&D grants. In the context of national insurance benefits, for example, it was found that the composition of the income support and child allowance benefits has a negative influence on the employment rates of those eligible for them. Because absence of employment is the principal cause of poverty, despite the contribution of welfare benefits to reducing it in the short term, in the longer term the current system of benefits may have just the reverse effect (see Chapter 2).

Since lack of employment is the main factor explaining poverty, despite the contribution of welfare benefits to poverty reduction in the short term, in the long term this policy may have the opposite effect.

[31] For the problems associated with the current promotion system, see Z. Sussman and D. Zakai (2000), "From Promoting the Worthy to Promoting All: The Public Sector in Israel, 1975–99," Bank of Israel Research Department, *Discussion Paper* no. 00.11.

[32] From a slightly longer perspective (e.g., from 1994, see Table 3.5), it can be seen that the rise in current transfer payments is very similar to the parallel decline in subsidies and transfer payments on the capital account. This development can be described as a transition from a policy of 'subsidizing goods' (including factories) to 'subsidizing the needy.' However, the substitution rate between the types of subsidy, if that was the dominant explanation of the change, indicates that there is considerable inefficiency in the system of benefits, because the total reduction of subsidies is smaller than the rise in transfer payments.

**Table 3.10**
**Indicators of Financial Activity of Local Authorities, 1986, 1990, 1995–2001**

(percent)

| | Total debt of local authorities to banks[a] | | Government transfers to local authorities | | Total expenditure[b] |
|---|---|---|---|---|---|
| | (percent of GDP) | NIS billion (at June 2001 constant prices) | (percent of GDP) | *of which* General grant | excluding debt repayment |
| 1986 | 3.61 | 7.67 | 1.45 | 0.35 | 6.17 |
| 1990 | 3.65 | 9.66 | 2.03 | 0.73 | 7.39 |
| 1995 | 3.68 | 13.62 | 2.41 | 0.91 | 8.04 |
| 1996 | 3.64 | 14.01 | 2.43 | 0.91 | 8.01 |
| 1997 | 3.56 | 14.34 | 2.38 | 0.85 | 7.91 |
| 1998 | 3.48 | 14.32 | 2.39 | 0.81 | 7.97 |
| 1999 | 3.37 | 14.31 | 2.48 | 0.80 | 7.53 |
| 2000 | 3.02 | 14.13 | 2.39 | 0.72 | 7.40 |
| 2001[c] | 3.08 | 14.41 | ... | ... | ... |

| | (percent of all local authorities) | |
|---|---|---|
| Change in debt to banks[a] | Increase | Decline |
| 1990–1996 | 85.20 | 14.80 |
| 1997–2001[c] | 47.48 | 52.52 |
| 1999–2000 | 40.76 | 59.24 |

[a] According to data from Supervisor of Banks and Bank of Israel
[b] Until 1997, according to CBS data, From 1998, according to Local Authority Monitoring Department at the Ministry of Interior.
[c] Debt data are to end-September 2001.
SOURCE: Based on data from Central Bureau of Statistics, Local Authority Monitoring Department of Ministry of Interior, and Supervisor of Banks, Bank of Israel

## 7. THE SHIFT IN THE FINANCIAL SITUATION OF THE LOCAL AUTHORITIES

In the last few years the financial situation of the local authorities has stabilized, after many years in which they accrued deficits despite the rise in government transfers to them.

Until the mid-1990s the deficit of the general government was considerably larger than that of the central government, largely because of the local authorities' huge deficits. In recent years, however, this gap has narrowed and the financial situation of the local authorities has stabilized, after many years in which they accrued deficits despite the increase in the government's transfers to them. From 1997 to 1999 the local authorities' debt (at constant prices) did not grow, and in 2000 and 2001 it even began to fall (Table 3.10), although the government's transfers to the local authorities, and especially the 'balancing (general) grant,' declined by about one percent of GDP. This stability came after their debt had risen by over 80 percent between 1986 and 1996 (to about NIS 14 billion at 1996 prices), alongside an annual increase of one percent of GDP in government transfers to them. The local authorities thus shifted from constituting a sector that enlarged the general government deficit and hampered the management of the central government deficit to one which contributed only slightly to increasing the deficit (Table 1.A.3.9).

The measures adopted with regard to the local authorities were effective, as they were simple and easily implemented.

The message sent by the public to the heads of the local authorities in the 1998 elections appears to have helped to establish the change in their financial administration.

At the root of the change in the financial management of the local authorities lay several measures adopted since the mid-1990s in order to improve the way they were run—*inter alia* in the wake of the findings of the State Comptroller.[33] These measures, which had a dramatic effect even though in themselves they do not appear drastic, included monitoring the financial situation of the authorities by means of audited financial statements produced by independent auditors (hired and, when necessary, dismissed by the auditing department of the Ministry of the Interior's local authority unit), setting more objective criteria for transfer payments from the government in the wake of the implementation of some of the recommendations of the Suary Committee, and making the government's transfers to the authorities contingent upon progress in restructuring and adhering to accepted financial performance, not merely upon promises, as was the case in the past. These measures contributed to improving the information available to policy-makers in the government and the local authorities, and also reduced the ability to distort the figures so as to obtain larger government transfers.

In the light of studies that have shown that policy measures are often announced but not implemented,[34] the measures introduced in Israel were effective because they were simple and easy to implement. The availability of information also made it possible for residents to ascertain the real financial state of the authorities and judge their elected representatives accordingly. The change in the financial management of the local authorities was apparently bolstered by the message conveyed by the public to the local authority representatives in the 1998 elections, when a local authority's deficit

[33] See *Report of the State Comptroller*, no. 44, 1994; and *State Comptroller's Report on the Local Authorities*, 1996 (both in Hebrew).

[34] J. Von Hagen (1991), "A Note on the Empirical Effectiveness of Formal Fiscal Restraints," *Journal of Public Economics*, 44, No.1.

was highly correlated with the probability that its head would not be re-elected.[35] In addition, updating the local authority tax rates on the basis of their financial situation, raising them where there was a deficit instead of getting the government to bail them out, tightened the link between fiscal management and their tax burden, thereby helping to moderate the deficits.[36]

The reduction of the local authorities' debt reflected a decline in their expenditure/GDP ratio—current expenditure, and especially development expenses—alongside a smaller decline in their revenues/GDP ratio and stability in their current income/GDP ratio. The authorities' own revenues rose, alongside a slower increase in transfers from the government. In government transfers, the share of the general grant fell, while payments earmarked for various services, especially education, rose. Thus, what is evident is that the increase in government transfers focused on specific services which it provides via the authorities, alongside a fall in its general payments (the balancing grant) intended to increase an authority's 'independent' expenditure (financed by the general public in Israel) and to adjust income inequality. Although the share of the balancing grants in GDP dipped, their progressiveness increased. In this way, the share of grants to the authorities in the two highest deciles as regards socio-economic composition (as calculated by the CBS) fell from 7 percent of all grants in 1996 to 5.8 percent in 2000. The share of grants to authorities in the two lowest deciles, by contrast, rose from 19.9 percent of all grants to 21.5 percent.

The improvement in the financial management of the authorities is broadly based, and was not limited to just a few authorities.

The improvement in the financial management of the authorities was broadly based, and was not limited to only a few authorities. In contrast to 1990–96, when the debt (at constant prices) of 190 authorities rose and that of only 33 fell, in 1997–2001 the debt of 113 rose and that of 125 fell. Furthermore, in 2000 147 local authorities reduced their debt, and only 97 enlarged theirs. According to data to the end of September, in 2001, too, despite the recession, more than half the authorities reduced their debt. These developments raise hopes that despite the crises threatening some of the authorities, the financial situation of local government is stabilizing. However, for this trend to persist it is necessary to reinforce the relation between their activities and their residents' payments, without government intervention. To achieve this it is also advisable to separate the accounts of government transfers for specific services (e.g., wage payments to employees in the education system) from the authority's general account, and also to divide up the financial responsibility for the various services as far as possible, so that some systems are operated exclusively by the government while others are financed exclusively by the local authority and its residents.

[35] A. Brender (1999), "The Effect of Fiscal Performance on Local Government Election Results in Israel, 1989–99," Bank of Israel Research Department, *Discussion Paper* no. 99.05.

[36] G. Stigler (1957), "The Tenable Range of Functions of Local Government," in Joint Economic Committee, US Congress, *Federal Expenditure Policy for Economic Growth and Stability*, Washington DC, Government Printing Office.

## 8. THE EFFECT OF DEMOGRAPHIC CHANGES ON FUTURE PUBLIC EXPENDITURE

Shifts in the age structure of the population could affect the extent of public expenditure and its share in GDP. One of the main channels of this is the fact that significant components of public expenditure are designated for specific age groups, especially children and the elderly, so that changes in the relative size of these groups could alter the composition and extent of expenditure. Part of this age-dependent expenditure finances public services which are consumed primarily by specific age groups (e.g., education and health), and part of it constitutes transfer payments to these groups (e.g., old-age pensions or child allowances).

In addition to their direct effect on expenditure, demographic changes also affect the expenditure/GDP ratio by affecting GDP itself. Changes in the age composition of the population, not only its growth rate, affect GDP growth because labor force participation rates also change across age groups.

Changes in the age composition of the population will affect GDP growth, because labor force participation rates change across age groups.

This section contains a projection of the future development of several public expenditure items which are significantly associated with age groups. The purpose of the projection is not to give a precise forecast of future expenditure, as it is difficult to predict changes in spending policy which derive from political decisions and could have a marked effect on the structure of expenditure. The contribution of the projection is in describing the expenditure path of selected items if policy remains unchanged. Thus, this is a tool for analyzing the long-term significance of a given policy, taking demographic developments into account. It could also enhance the ability to assess the extent to which the policy is sustainable.

**Table 3.11**
**Age Groups as Share of Total Population**

(percent)

| | 1995 | 2000 | 2010[a] | 2020[a] |
|---|---|---|---|---|
| Age group | | | | |
| 0–14 | 29.4 | 28.5 | 27.8 | 26.2 |
| 25–54 | 36.2 | 37.9 | 37.5 | 37.6 |
| 65+ | 9.9 | 9.8 | 9.6 | 11.8 |

[a] Forecast.
SOURCE: Based on data from Central Bureau of Statistics.

Table 3.11 shows the share of several age groups in the population. The proportion of children is expected to decline steadily, while that of the elderly is not expected to alter substantially in the next decade, though subsequently it will soar.[37]

The share of the elderly in the population is not expected to change substantially in the coming decade, although subsequently it will soar.

Table 3.12 gives the actual composition of public expenditure as a share of GDP in 1995 and 2000, and the forecast up to 2020. Naturally, the projection relates to both GDP and expenditure in each category.

[37] The population forecasts are taken from the *Statistical Abstract of Israel*, 2001, published by the CBS.

**Table 3.12**
**Components of Public Expenditure as Percent of GDP**

| | 1995 | 2000 | 2005 | 2010[a] | 2020[a] |
|---|---|---|---|---|---|
| **Services** | | | | | |
| Health | 5.6 | 6.0 | 6.2 | 6.6 | 8.0 |
| Education | 7.1 | 7.5[b] | 7.2 | 7.6 | 9.0 |
| **Transfer payments** | | | | | |
| Old-age and surviving relatives | 2.8 | 2.9 | 2.9 | 2.9 | 3.7 |
| Nursing support | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 |
| Children | 1.6 | 1.5 | 1.6 | 1.6 | 1.5 |
| Maternity | 0.4 | 0.5 | 0.4 | 0.4 | 0.4 |
| Income support | 0.4 | 0.6 | 0.5 | 0.5 | 0.5 |
| Total benefits | 5.4 | 5.9 | 5.9 | 5.9 | 6.6 |
| Total expenditure | 18.1 | 19.4 | 19.2 | 20.1 | 23.6 |

[a] Forecast.
[b] 1999 data.
SOURCE: Based on National Insurance and Central Bureau of Statistics data.

The forecast of GDP is based on an increase in both employment and output per employee.[38] The forecast number of employees takes into account the size of several age groups and the characteristic participation rate of each one, distinguishing between Jews and Arabs (the participation rate of the latter is lower).[39] The expected slowing of the GDP growth rate after 2005 derives from the steeper decline in the growth rate of employment than in that of the population, due to the change in the age structure and the effect of the increased proportion of Arabs in the population on the total participation rate.[40]

The share of health expenditure in GDP is expected to rise notably by 2020.

The changes in the numbers of the elderly will primarily affect health expenditure, old-age and surviving relatives' pensions, and long-term care benefits. The aging of the population increases health expenses because resort to the health services rises with age. The calculation of health expenditure in accordance with changes in the age composition of the population was based on the capitation formula used for transferring health insurance payments to the health funds. According to the forecast, the health expenditure/GDP ratio is expected to rise markedly by 2020. Note, however, that much of this increase stems not from the aging of the population but from the assumption that the rate at which health prices rise will continue to outstrip that of the GDP deflator.[41]

[38] The assumption is that output per employee will rise by 1.34 percent annually—the annual average in Israel in 1973–2000.

[39] Another important distinction from the standpoint of participation rates (and family size, see below) is between the ultra-orthodox segment and the general population. This distinction is not included in the projection given here, because the relevant data were not available.

[40] The forecast assumes that the participation rates of Jews and Arabs will remain at their present levels in each age group. Naturally, there may be changes over time, e.g., a rise in the participation rate of women. The forecast also disregards the possibility that average participation rates among Jews will decline as the share of the ultra-orthodox in the population rises.

[41] In 1991–99 the health services deflator rose by an annual average of 1.37 percent more than the GDP deflator. The forecast assumes that this ratio will be maintained.

If we assume that the price of health services rises in line with that of the GDP deflator (or the rise in prices is offset by the reduction of the extent of the services), public expenditure on health in 2020 will constitute only 6.1 percent of GDP, similar to its current proportion. The share of the old-age and surviving relatives' pensions is also expected to rise, although most of this will be after 2010. This is consistent with the prediction that the proportion of the elderly in the population will grow only after that year.

The share of public expenditure on education is expected to increase despite the predicted decline in the share of children in the population. For the purpose of the projection, separate calculations were made for expenditure on each age group (pre-primary and primary school, secondary, post-secondary, and higher education). In this case, too, most of the rise in the share of education expenditure in GDP is because the price of education expenditure will continue to rise beyond the increase in the GDP deflator.[42] If education prices do not rise more than the GDP deflator, education expenditure in 2020 will be 6.5 percent of GDP, compared with 7.5 percent in 2000. In this case, most of the decline in its share will take place in the next few years, after which it will stabilize.

The share of child and maternity allowances in GDP is not expected to change by 2020. Child allowance payments are affected by family size, not only the total number of children. A rise in the relative share of children from large families will increase total payments of these allowances. The forecast takes into consideration that this will in fact occur, as a result of the larger share of Arabs[43] in the population of children. It does not express the effect of a possible increase in the ultra-orthodox population on the number of children from large families, however. The forecast is based on the assumption that the law passed in 2001 awarding larger benefits for the fifth and subsequent children will remain in effect.[44]

The income support data relate to the benefits paid solely to the working-age population.[45] Their share in GDP is expected to remain unchanged, in line with the expected stability in the proportion of the working-age population. Note, however, that in the last few years the share of recipients of benefits in this age group has risen. If this trend continues, these payments could grow substantially. The forecast assumes stability in the proportion of recipients.

Some general aspects arising from the forecast should be stressed. The share in GDP of all the expenditure to which the forecast refers is expected to rise by 4.2 percentage points in 2000–2020, to stand at 23.6 percent of GDP, with health and

[42] The projection assumes that the price of education increases by an annual 1.63 percent beyond the GDP deflator, in accordance with the annual average in 1991–99.

[43] The Arab population tends to have larger families.

[44] The previous law also awarded larger benefits to children from large families, but the rate of increase was smaller. The forecast does not alter substantially if it is calculated on the basis of the old law, when the share of child allowances in GDP would be 0.1 percentage points less.

[45] Income support benefits paid to the elderly are included in the calculation of the old-age and surviving relatives' benefits.

education expenditure contributing 3.5 percent of GDP to the rise. The rest of the increase will derive from transfer payments. If the current policy regarding these expenditures persists their greater share will require either cuts in other public expenditure items, tax hikes, or the expansion of the public debt.

The size of the future debt depends on its current level and its future growth rate. In several advanced economies the aging of the population has given rise to apprehensions as to the growth rate of the debt, because the share of the working age population, which pays most of the taxes, is expected to fall. Israel's population is relatively young; the proportion of the working age population (15–64) is expected to grow until 2010, and only after that will it begin to decline gradually. The current level of debt in Israel is higher than that in the advanced economies, however.

As stated, the projection assumes that prices of health and education will continue to rise relative to the GDP deflator. If this is not the case, their combined share in GDP in 2020 will be only 12.6 percent—one percentage point less than in 2000. The education and health sectors are labor-intensive, and most of the persons employed in them belong to the public sector. The relative rise in the cost of these services in the last decade appears to express *inter alia* the rapid wage hike in the public sector in this period. The higher cost of health and education may also partly reflect an improvement in their quality, so that the choice in the future may be between quantity and quality. If that is the case, fewer services may be provided but of a higher quality, so that the increase in total expenditure will be moderated.

Note, finally, that the projection does not include future unfunded pension payments to retired public-service employees or the government's liabilities to the pension funds, on which the aging of the population may have a marked effect.