

## Chapter 5

# *The Public Sector*

### 1. MAIN DEVELOPMENTS

The overall general government deficit amounted to 6 percent of GNP in 1989, and the domestic deficit to 8 percent (Table 5.1).<sup>1</sup> This was the biggest deficit since the introduction of the economic stabilization program in 1985, and it can be attributed primarily to the drop in tax revenue following two years of recession. Direct demand shrank 8 percent this year, owing mainly to cutbacks in defense spending (domestic and total), in line with the downtrend in the defense burden during the 1980s. Public domestic consumption held steady in 1989, as did capital expenditure, despite the continued lag in infrastructure investment. Transfer payments were up 9 percent in real terms, while subsidies (including that on credit) were reduced. The ratio of general government expenditure to GNP was unchanged in 1989. For the second consecutive year, the slack in economic activity was responsible for a 7 percent real decrease in tax receipts. It also curtailed imports of highly taxed goods, such as motor vehicles and consumer durables, and resulted in sizable tax rebates. The contraction of import tax receipts, which accounted for 60 percent of the total drop in tax revenue, was the combined result of a transient factor—the declining imports/GNP ratio and a shift in import composition—and of tariff reductions under long-term international agreements. Another factor was the exceptionally large volume of tax rebates following the advances paid in 1988, which are based on the level of economic activity and tax assessments in the preceding year. The cutting of tax rates, along with the growth of transfer payments, produced a smaller net tax revenue. This fell more than direct public demand, thereby appreciably widening the fiscal deficit.

The government's net borrowing exceeded its increased deficit-financing requirement (the implications of this overfunding are discussed in Chapter 7). The bulk of the funds were obtained by increasing the internal debt (Table 5.1).<sup>2</sup> The growth of the deficit in

<sup>1</sup> The deficit presented in this chapter differs from that in Chapter 7, for two main reasons. First, the estimate here is based on the national accounts, while the data in the monetary chapter are on a cash basis. Second, the deficit in this chapter reflects the activities of general government (central government, local authorities, and National Institutions), while in Chapter 7 it reflects the activities of the central government and the Jewish Agency alone.

<sup>2</sup> Table 5.1 shows that the amount of domestic borrowing was fully offset by foreign loan repayments, while money creation (net) was negligible. There is a fairly large residual, representing the difference between the deficit and total financing. The cause of this gap lies in the nature of the data: the deficit is calculated from national accounts data, while its financing is calculated on a cash basis.

Table 5.1

General Government: Receipts, Expenditure, and Deficit, 1980-89<sup>a</sup>

(percent of GNP)

	1980-84	1985-89	1983	1984	1985	1986	1987	1988	1989
<b>Expenditure</b>									
Domestic	59.3	52.7	56.2	58.4	55.7	52.1	51.7	51.4	52.5
Foreign	11.7	10.0	9.0	13.4	14.4	11.5	9.5	7.8	6.7
Total	71.0	62.7	65.3	71.8	70.0	63.7	61.2	59.2	59.2
<b>Receipts</b>									
Domestic	48.2	48.7	50.0	42.5	48.9	51.2	50.6	48.5	44.5
Foreign	12.0	13.3	11.0	17.2	22.2	15.9	10.7	8.8	8.6
Total	60.1	62.0	61.1	59.7	71.1	67.1	61.3	57.4	53.1
<b>Deficit (-)</b>									
Domestic	-11.2	-3.9	-6.2	-15.9	-6.8	-0.9	-1.1	-2.9	-7.9
Foreign	0.3	3.3	2.0	3.8	7.9	4.4	1.2	1.0	1.9
Total	-10.9	-0.6	-4.2	-12.1	1.1	3.5	0.1	-1.9	-6.1
<b>Deficit financing</b>									
Net borrowing from abroad	5.6	-1.4	3.8	5.1	-3.9	-1.8	-2.1	5.1	-4.3
Net money creation	1.9	0.3	0.7	2.8	5.7	0.7	0.5	-5.5	0.1
Net domestic borrowing	2.6	-1.0	-1.0	-0.8	-6.5	-4.9	-0.0	0.9	5.5
Residual	0.8	2.7	0.8	4.9	3.6	2.5	1.5	1.4	4.7
<b>Public debt</b>									
Domestic	116.4	114.3	112.9	118.9	129.5	116.8	109.6	103.7	111.7
Foreign	39.2	35.3	38.6	49.1	53.6	40.8	31.8	26.2	24.3

<sup>a</sup> General government deficit—income *less* expenditure.Net money creation—increase in narrow money base (currency in circulation and deposits of commercial banks with the Bank of Israel *less* Bank of Israel expenses on the money base (interest paid on deposits of commercial banks, changes in the discount window loan, etc.).

Internal public debt—excludes the government's commitment under the Bank-Share Arrangement.

External public debt—the annual estimate of the public debt, domestic and foreign, is calculated as the arithmetic mean of quarterly debt/GNP ratios.

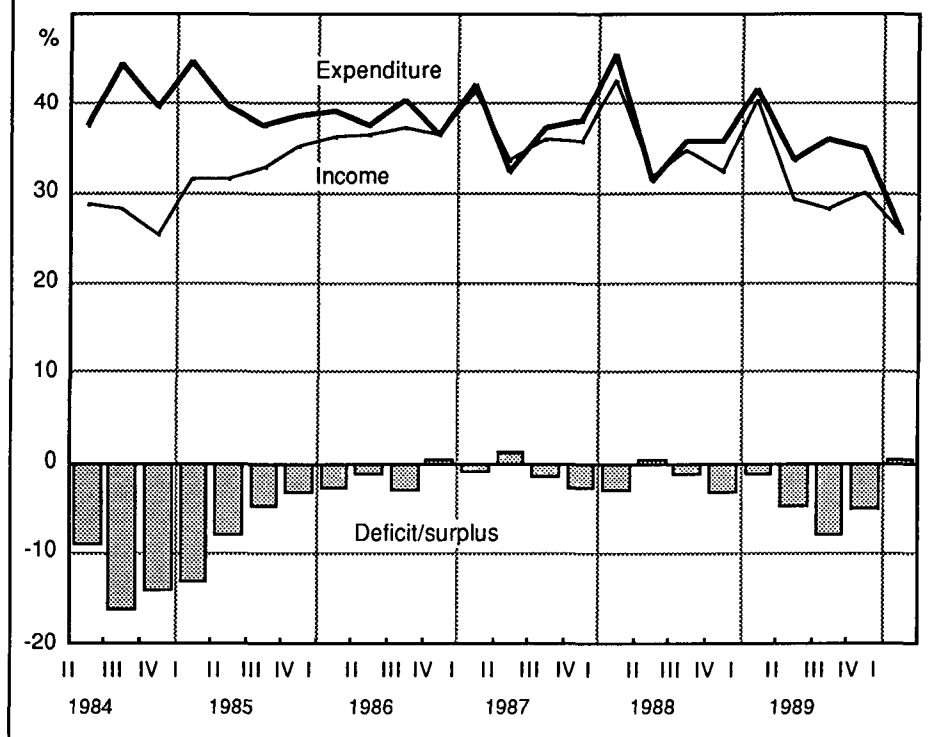
SOURCE: Based on Central Bureau of Statistics data.

itself spells a larger deficit in the future because of the heavier interest outlay on the public debt, unless a renewed expansion of GNP boosts tax revenue to such an extent as to generate a budget surplus. A noteworthy development in this connection has been the downward drift in interest payments, on both the internal and external debt, since 1985. In the case of the internal debt, it can be ascribed to the lowering of interest on government bonds and the reduction of the internal debt in the wake of the 1985-87 fiscal surplus. If interest payments on the internal public debt are deducted from the deficit, it turns out that there was a fiscal surplus in 1985-88, while in the year reviewed there was a deficit, even excluding interest. Interest outlay on the external debt continued downward in 1989, contributing to the growth of the external surplus. This year's smaller interest expenditure is explained by the shrinkage of the external debt and a change in its composition—the issue of tradable government bonds in place of the expensive loans obtained from the United States in the early part of the 1980s.

This year's dent in tax revenue was mainly due to the recession. To analyse the fiscal

**Figure 5.1**

**Income, Expenditure, and Budget Deficit or Surplus of General Government, 1984–March 1990**



SOURCE: Based on Ministry of Finance data.

policy pursued in 1989, the expansionary effect of the recession on the deficit has to be subtracted. Adjusting the actual domestic deficit for the change in the level of economic activity reveals a very mild fiscal expansion in 1989. This can be attributed primarily to the trimming of tax rates, and to a lesser extent to the growth of the direct domestic demand. On the other hand, the stagnation of public investment was not consistent with a supply side-related recession.

An indication of the path of the deficit over the year can be found in the Accountant-General's data on central government revenue, expenditure, and deficit (see Figure 5.1). The data, as already mentioned, are on a cash basis; hence they are not identical with the Central Bureau of Statistics data. Their advantage is that they describe the flows during the year: they reveal that most of the domestic deficit was incurred in the second half of 1989—it widened steadily from the beginning of the year and peaked in the third quarter, after which it turned down. In the first quarter of 1990 the deficit shrank to zero, as expenditures fell faster than revenue.

**Table 5.2**  
**Principal Components of General Government Income and Expenditure, 1980-89<sup>a</sup>**

	(percent of GNP)								
	1980-84	1985-89	1983	1984	1985	1986	1987	1988	1989
<b>Expenditure</b>									
Domestic									
Civilian	17.6	16.7	17.2	17.9	16.4	16.2	16.5	17.2	17.4
Defense, net	14.3	11.2	14.0	14.3	12.8	11.0	10.8	10.8	10.5
Investment	2.4	2.4	2.5	2.1	1.9	2.1	2.6	2.7	2.6
<i>subtotal: Direct domestic demand</i>	<i>34.3</i>	<i>30.3</i>	<i>33.7</i>	<i>34.2</i>	<i>31.0</i>	<i>29.3</i>	<i>29.9</i>	<i>30.6</i>	<i>30.5</i>
Subsidies	5.7	3.5	5.7	6.3	4.8	3.1	3.1	3.6	3.1
Transfer payments	11.3	11.8	11.0	10.3	10.6	11.4	11.2	12.5	13.4
Credit subsidies	4.5	1.3	3.2	3.2	2.1	1.5	1.5	1.1	0.7
Real interest payments	3.5	5.7	2.6	4.4	7.2	6.9	5.9	3.6	4.7
Total domestic expenditure	<b>59.3</b>	<b>52.7</b>	<b>56.2</b>	<b>58.4</b>	<b>55.7</b>	<b>52.1</b>	<b>51.7</b>	<b>51.4</b>	<b>52.5</b>
Expenditure abroad									
Direct defense imports	6.7	5.3	3.9	6.4	7.5	4.1	7.2	5.0	2.8
Advance payments on defense imports	0.2	-0.1	0.4	1.0	0.2	2.3	-2.1	-1.2	0.4
Nominal interest payments	4.0	4.3	4.0	5.3	6.0	4.6	4.0	3.6	3.1
Other	0.7	0.5	0.7	0.7	0.7	0.5	0.4	0.4	0.4
Total expenditure abroad	<b>11.7</b>	<b>10.0</b>	<b>9.0</b>	<b>13.4</b>	<b>14.4</b>	<b>11.5</b>	<b>9.5</b>	<b>7.8</b>	<b>6.7</b>
Total expenditure	<b>71.0</b>	<b>62.7</b>	<b>65.3</b>	<b>71.8</b>	<b>70.0</b>	<b>63.7</b>	<b>61.2</b>	<b>59.2</b>	<b>59.2</b>

**Receipts**

## Domestic

Taxes and transfers	43.1	45.2	45.8	38.0	45.0	47.7	47.1	45.1	41.1
Income from property	2.3	1.0	1.6	1.8	1.3	0.9	0.9	0.9	0.9
Other	2.8	2.6	2.6	2.8	2.6	2.6	2.6	2.6	2.6
Total domestic	<b>48.2</b>	<b>48.7</b>	<b>50.0</b>	<b>42.5</b>	<b>48.9</b>	<b>51.2</b>	<b>50.6</b>	<b>48.5</b>	<b>44.5</b>
From rest of the world	12.0	13.3	11.0	17.2	22.2	15.9	10.7	8.8	8.6
Income from foreign investment	2.1	1.0	1.8	1.5	1.2	1.0	0.8	0.8	1.0
Unilateral transfers	9.4	11.9	8.8	15.2	20.5	14.5	9.5	7.7	7.2
Publicly financed nonprofit institutions	0.5	0.4	0.4	0.5	0.4	0.4	0.3	0.3	
Total from rest of the world	<b>12.0</b>	<b>13.3</b>	<b>11.0</b>	<b>17.2</b>	<b>22.2</b>	<b>15.9</b>	<b>10.7</b>	<b>8.8</b>	<b>8.6</b>
Total income	<b>60.1</b>	<b>62.0</b>	<b>61.1</b>	<b>59.7</b>	<b>71.1</b>	<b>67.1</b>	<b>61.3</b>	<b>57.4</b>	<b>53.1</b>

<sup>a</sup> Investment—structures and equipment. Central Bureau of Statistics estimates (Bank of Israel estimates in previous issues of *Bank of Israel Annual Report*)

Tax revenue—direct and indirect taxes (excluding import duties on direct defense imports) and transfers from households..

Subsidies—subsidies to domestic production, imports and exports (see also note 7 in the text).

Credit subsidy—subsidy element of credit to firms and export credit.

Real interest payments—nominal interest paid to domestic factors by general government and the Bank of Israel.

Income from property—domestic operating profit of the Bank of Israel *plus* other income from property and entrepreneurship (rent, dividends, interest).

Other income—imputed pensions and depreciation.

Net interest payments to the rest of world—nominal interest on the foreign public debt *less* interest received on foreign reserves.

Other expenditures—maintenance of diplomatic missions abroad; Bank of Israel expenditure on coins and banknotes; participation in international institutions (including U.N. force in the Sinai Peninsula).

SOURCE: Based on Central Bureau of Statistics data.

Public expenditure as a percentage of GNP, which is an indicator of the government's involvement in the economy, moved down steadily during the past decade until it levelled off in 1989. The most striking development during this period was the rising proportion of public expenditures going to social welfare services. By contrast, outlays in the traditional spheres of government activity (public goods) declined.

In 1987 the local authorities' budget performance took a turn for the worse. In 1987–88 their consumption shot up more than 12 percent in constant-price terms, whereas total public civilian consumption rose 7 percent over the same period. Deflating the local authorities' consumption by the CPI shows a real increase of 25 percent, compared with a 14.5 percent real gain in revenue. This depressed the proportion of consumption covered by taxes to 58 percent. Preliminary data for 1989 do not point to any significant change in the ratio of the local authorities' consumption or tax revenue to GNP. The 1987 reversal of trend will exacerbate the situation of the local authorities, which are already deeply in the red and finding it hard to repay debts. To prune their deficits, they must be very careful not to overstep their budgets while broadening the tax base, cutting down on exemptions, discounts, and other reliefs in connection with municipal rates.

## 2. FISCAL POLICY

### **Macroeconomic policy**

Analysing the fiscal policy pursued in 1989 by comparing the actual budget deficit in the current year with that of the year before gives an incomplete picture, since changes in the actual deficit do not necessarily indicate a change in policy. For a given fiscal policy, the deficit may change with the level of economic activity. Therefore, to describe the fiscal policy adopted, one cannot rely only on the development of the actual deficit; changes in the deficit caused by the government's discretionary policy measures have to be isolated from those due to the recession.

For this purpose we estimate the deficit under full-employment GNP, that is, what the deficit would be if the economy were on a full-employment path, thereby neutralizing the change in the deficit resulting from fluctuations in GNP. The full-employment deficit estimated here assumes that general government expenditures exclusive of unemployment insurance benefits are not affected by the development of GNP. The calculation therefore has actual domestic expenditure corrected for unemployment benefit; the income side is calculated by applying the average 1985–87 tax receipts/GNP ratio, which is assumed to represent the full-employment tax rate; this is the potential tax/GNP ratio at the beginning of 1988, the base of the calculation; this ratio (46.6 percent) is then corrected for legislative changes in 1989 and 1988, to give the potential tax rate. It is also assumed that the tax/GNP ratio is constant (unitary elasticity). Potential tax revenue is then obtained as the product of full-employment GNP and the potential tax rate. The full-employment domestic deficit is the difference between potential domestic expenditures and potential tax revenue.

The 1989 gap between actual and potential tax revenue stemmed from the continued slack in economic activity, which directly reduced income tax revenue by 2.2 percent of GNP (Table 5.1). The recession indirectly resulted in a temporary change in composition (and relative prices), such as a drop in the imports/GNP ratio and a shift in the composition of imports by final use, notably the reduced proportion of imported consumer durables and cars, which are highly taxed. This factor shaved 1.6 percent from GNP.

**Table 5.3**  
**Potential Tax Rate, 1988 and 1989**

	(percent of GNP)	
	1988	1989
Average tax rate, 1985-87	46.6	46.6
Legislative changes		
1988	-0.6	-0.6
1989	..	-1.0
Potential tax rate	<b>46.0</b>	<b>44.9</b>
Actual tax rate	45.1	41.1
Potential <i>less</i> average	0.9	3.8
Contribution of		
GNP	0.1	2.2
Composition of resource use and relative prices	0.8	1.6

The full-employment domestic deficit grew very modestly from 1988 to 1989, from 0.3 to 1.1 percent of GNP. This signifies that fiscal policy was slightly expansionary. The results and the underlying assumptions, and a sensitivity test of the estimate are presented in the appendix to this chapter.

It is sometimes argued that in a recession year the government should have adopted an avowedly expansionary fiscal policy in order to stimulate economic activity. However, a countercyclical fiscal policy designed to expand domestic demand during a slump and to restrain it during a boom is appropriate only if the authorities are able to be sufficiently flexible in reducing or expanding the budget. The expenditure side is characterized by downward rigidity: stepping up public spending during a recession does not necessarily imply that it will contract once the slump is over. This tendency for expenditures to stay at a relatively high level calls for caution in pursuing a countercyclical fiscal policy based on the expenditure side. For this reason, stimulating economic activity in 1989 by spending more might have helped in the short run, but it would have impeded the long-run development of the economy, especially in view of the government's prominent economic role. The revenue side is more flexible. The progressivity of direct personal taxation permits an automatic response to cyclical swings (automatic stabilizers). During

**Table 5.4**  
**General Government Expenditure by Type of Intervention, 1980-89**

(percent)

	Average		1985	1986	1987	1988	1989
	1980-84	1985-89					
<b>Public goods</b>							
Defense (domestic)	20.1	17.8	18.2	17.3	17.7	18.2	17.7
Defense imports	9.8	8.5	10.7	6.4	11.8	8.4	4.7
Advances on defense imports	0.3	-0.1	0.3	3.6	-3.4	-2.0	0.7
Administrative services	6.4	7.0	6.1	6.7	7.4	7.4	7.5
Investment	3.4	3.8	2.7	3.2	4.2	4.5	4.4
<b>Total</b>	<b>40.0</b>	<b>37.0</b>	<b>38.1</b>	<b>37.3</b>	<b>37.6</b>	<b>36.6</b>	<b>35.1</b>
<b>Welfare services<sup>a</sup></b>							
Merit goods	19.0	20.2	18.0	19.1	20.1	22.1	22.4
Education	10.5	11.4	10.1	11.1	11.3	12.4	12.4
Health	5.1	5.2	4.7	4.9	5.2	5.5	5.6
Welfare	3.3	3.6	3.1	3.1	3.6	4.1	4.3
Current transfers	11.4	15.2	12.7	14.9	15.4	16.4	17.2
Direct subsidies <sup>b</sup>	6.2	3.8	5.0	3.2	3.2	4.1	3.2
<b>Total</b>	<b>36.6</b>	<b>39.2</b>	<b>35.7</b>	<b>37.2</b>	<b>38.7</b>	<b>42.5</b>	<b>42.8</b>
<b>Direct intervention (business sector)</b>							
Credit subsidy	6.3	2.1	2.9	2.3	2.4	1.8	1.2
Capital grants	3.5	2.1	1.9	1.9	2.2	2.3	2.2
Foreign trade subsidies	1.8	1.9	1.9	1.7	1.9	1.9	2.1
<b>Total</b>	<b>11.6</b>	<b>6.1</b>	<b>6.7</b>	<b>5.9</b>	<b>6.5</b>	<b>6.0</b>	<b>5.4</b>
<b>Other</b>							
Compulsory loan	1.0	1.6	0.6	1.3	0.8	2.4	3.1
Interest on public debt							
Internal	5.0	9.1	10.3	10.8	9.7	6.1	8.0
External	5.7	6.8	8.6	7.3	6.5	6.1	5.2
<b>Total</b>	<b>11.7</b>	<b>17.4</b>	<b>19.4</b>	<b>19.4</b>	<b>17.1</b>	<b>14.6</b>	<b>16.3</b>
<b>Grand total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Percent of GNP	70.9	62.7	70.0	63.8	61.2	59.2	59.2

<sup>a</sup> Estimated from the general government consumption figures; for 1988 and 1989, provisional estimate based on change in number of employee posts.

<sup>b</sup> On local production. The main item is subsidies on essential goods and services.

SOURCE: Based on Central Bureau of Statistics data.

a slowdown taxpayers move down the tax brackets, and this partly offsets the shrinkage of disposable income. If there is a slump, the asymmetrical flexibility of the two sides of the budget restricts a countercyclical policy almost entirely to the revenue side. Countercyclical fiscal policy is founded in the notion that fluctuations in the level of



**Table 5.5**  
**Direct Demand of General Government, 1984–89<sup>a</sup>**

	NIS million			Annual change, percent							
				Price		Quantity					
	1987	1988	1989	1988	1989	1984	1985	1986	1987	1988	1989
Consumption (net)											
Civilian	9,159	11,637	14,501	23.0	22.3	1.5	0.2	–0.1	3.6	3.3	1.9
Defense	10,595	11,174	11,453	12.2	25.9	10.6	6.8	–17.5	31.0	–6.0	–18.6
Total	19,755	22,811	25,953	17.6	24.9	6.0	3.6	–9.5	17.1	–1.8	–8.9
Domestic consumption (net)											
Civilian	8,989	11,460	14,262	23.2	22.3	1.3	–0.1	0.4	3.5	3.5	1.8
Defense	5,911	7,188	8,600	17.1	21.9	–0.2	–2.5	–5.8	2.2	3.8	–1.8
Total	14,900	18,648	22,862	20.8	22.2	0.6	–1.1	–2.2	3.0	3.6	0.3
Investment	1,395	1,801	2,123	18.9	17.6	–15.8	–12.8	9.0	17.4	8.6	0.2
Direct demand	21,150	24,612	28,076	17.9	24.5	4.6	2.8	–8.6	17.1	–1.3	–8.3
Direct domestic demand	16,295	20,449	24,985	20.7	21.8	–0.6	–1.9	–1.5	3.9	4.0	0.3
Government-guaranteed construction <sup>b</sup>	282	327	423	16.5	26.5	–19.6	–20.5	–27.5	–5.9	–0.4	2.2

<sup>a</sup> For more detailed information see Table 5.B1.

<sup>b</sup> Private housing construction with government guarantee to purchase unsold apartments. Accordingly, is not included in direct demand.

SOURCE: Based on Central Bureau of Statistics data.

economic activity originate on the demand side. However, Israel's present recession, which began in 1988, originated in supply-side factors, and therefore increasing public spending would only defer tackling these problems. The diminution of the government's economic involvement in 1989, reflected in the contraction of direct public domestic demand, should make it possible to ease the tax burden on the business sector in the long run. Moreover, the government's involvement impairs the efficiency of the economy, and so reducing its role would be consistent with a policy aimed at coping with the supply-side problems. On the other hand, infrastructure investment is one component of direct public demand whose expansion does not militate against the solution of the supply-side problems. The paucity of public investment in previous years weighed on the supply side and the stagnation of investment in 1989 added to the lag. A much heavier investment is required, with the stress on infrastructure projects, which promise a high rate of return. Unlike the stability of direct domestic demand, the stagnation of investment is not compatible with the attempt to cope with the supply-side problems.

The magnitude of the full-employment domestic deficit or surplus is sensitive to the underlying assumptions, and so it is hard to discuss its absolute size. Furthermore, there is a variety of ways of estimating the deficit, and therefore caution must be exercised in drawing conclusions. Nevertheless, it can be seen from Table 5.A1 that under full employment the range is from a deficit of 2.6 percent to a surplus of 2 percent. Analysis of the foreign-currency flows in general government transactions with the rest of the world reveals a structural surplus in its external account amounting to 2.5 percent of GNP. This signifies that under full employment total income and expenditure are roughly in balance, with a tendency towards a surplus. A look at the difference between investment and the deficit (i.e., public saving) shows that under full employment the saving is clearly positive. This accords with the target of reducing the public debt/GNP ratio in the long run.

### **Resource allocation**

Table 5.4 presents a functional distribution of general government expenditures. In general, these fall into four categories: the production and supply of public goods, social welfare services, direct involvement in business sector activity, and other public outlays. The classification is by the dominant destination of the expenditures, and so it is not as precise as it might seem, and in any case a functional classification is necessarily arbitrary.

Notwithstanding these reservations, the table reveals fairly distinct trends during the 1980s, which stand out more clearly since the launching of the stabilization program in 1985. First, the government's economic involvement, as reflected in the ratio of public expenditure to GNP, diminished during the decade. Second, the share of the traditional spheres of government activity in total public expenditure declined. This category includes public goods. These goods are not generally produced by private enterprise, and consequently their supply necessitates the government's intervention. The decline in

the proportion of traditional expenditures can largely be attributed to the reduction in defense spending. The share of social welfare outlays, on the other hand, rose during the 1980s. The growth of this type of expenditure was made possible by, among other things, the cutback in defense spending, and it helps to achieve a more equal income distribution. These outlays, particularly transfers, grew because of demographic changes and the effective increase in national insurance and other benefits following the revision of the relevant indexation arrangement (see below). Taxes also affect income distribution, and in this context the rising share of indirect taxes in total tax revenue should be noted, as they apparently make for a more unequal income distribution. Finally, a comparison of the two halves of the decade shows a sharp drop in the government's direct involvement in business sector activity. Apart from the fact that the ratio of total public expenditure to GNP levelled off, the trends described here continued in 1989.

### 3. DEFENSE CONSUMPTION

Total defense consumption was down 18 percent in constant-price terms in 1989. Direct defense imports fell even more steeply, by 43 percent (Table 5.B1). This component is a function of long-term procurement plans, which fluctuates widely, so that no conclusion should be drawn from the 1989 decline with respect to the long-run trend. The shortening of military reserve duty reduced the labor input, and, together with the contraction of domestic procurements, explains the 2 percent decrease in real domestic defense spending. Defense consumption as reflected in the national accounts does not give a complete picture of the defense burden. For example, shelters, which are overwhelmingly constructed and financed by the private sector, are included in civilian consumption even though they are essentially part of defense.<sup>3</sup>

The output forgone due to conscription is also not included in defense consumption. Because of these measurement problems, several alternative indicators are presented in Table 5.6. The first indicator, defense consumption as a percentage of GNP *plus* unilateral transfers, does not distinguish between domestic and foreign resources. The second indicator, the ratio of defense consumption to GNP, reflects the economy's ability to shoulder the burden from its own resources (i.e. GNP). These two indicators show when the expenditures were incurred, although they may have been financed by loans, and so their full impact will be felt at a later date. The ratio to GNP of domestic defense outlays *plus* budgeted foreign-currency outlays other than from U.S. aid, and payments of interest and principal on account of U.S. aid [column (4)] shows when these expenditures were paid for, thus helping to smooth the fluctuations in defense imports. The drawback of this indicator is that it does not distinguish between loans related to

<sup>3</sup> Eitan Berglas, "Defense and the Economy," in *The Israeli Economy: Maturing through Crises* (edited by Yoram Ben-Porath; Cambridge, Mass., and London: Harvard University Press. 1986), pp. 173-91.

**Table 5.6**  
**Indicators of Defense Expenditure, 1980-89**

	Percent of: GNP <i>plus</i> unilateral transfers (1)	Defense consumption as percent of GNP			Compensation of employees: defense as percent of total (5)
		Total (2)	Domestic <sup>a</sup> (3)	Domestic <i>plus</i> foreign funding <sup>b</sup> (4)	
1980-84	19.5	22.0	14.3	18.1	10.4
1985-89	15.4	17.6	11.2	14.9	9.4
1985	17.9	21.8	12.8	17.8	9.7
1986	13.8	16.0	11.0	15.1	9.1
1987	17.3	19.4	10.8	14.4	9.0
1988	15.3	16.7	10.8	13.9	9.6
1989	12.7	14.0	10.5	13.3	9.6

<sup>a</sup> Local-currency expenditure net of domestic sales.

<sup>b</sup> Budgeted foreign-currency outlay and principal and interest on U.S. government aid.

SOURCE: Based on data of the Central Bureau of Statistics and the Ministry of Finance.

defense procurements and those given for civilian purposes. The impact of the defense burden of domestic activity is described with help of the ratio of domestic defense consumption to GNP [column (3)]. Finally, column (5) shows the share of defense in the economy's total wage bill, highlighting another aspect of the defense burden: the amount of manpower tied down by the country's defense requirements.

All the indicators point to an easing of the defense burden in 1989 despite the continuation of the *intifada*. Comparison of the first half of the 1980s with the second half reveals a distinct decrease in the defense burden. This development, which is reflected by all the indicators, was in line with the trend that set in in the late 1970s, when the defense burden started to retreat from its high level after the Yom Kippur War and which was interrupted briefly by the war in Lebanon.

A feature of the period since the Yom Kippur War was the unprecedented volume of U.S. defense aid, several aspects of which should be noted. First, it was hardly any smaller in the 1980s than in the previous decade even allowing for the special assistance provided for the military redeployment in the Negev after the signing of the peace treaty with Egypt. Second, since 1985 the loan component has been replaced by a grant, thereby increasing the effective amount of assistance. Finally, in recent years the stipulation that the aid funds be used for purchasing goods and services only in the U.S. was partially lifted, and it became possible to divert \$300-400 million for procurements elsewhere; this enhances the economic value of the aid even if its absolute level remains unchanged, since it allows for a more efficient utilization of the funds.

#### 4. THE LOCAL AUTHORITIES IN THE 1980S

In recent years the local authorities have accounted for about a quarter of total public civilian consumption. In principle, the local authorities' budget consists of the ordinary budget, which finances current operations, and the extraordinary budget, which is earmarked for development purposes. Ordinary budget outlay (excluding debt repayment) goes mostly on consumption. This budget is financed from own sources (mainly local rates), transferred income (part of the government's receipts from property tax, land betterment tax, etc.), the government's participation in the cost of state services provided by the local authorities, general grant-in-aid, and grants for balancing the ordinary budget, which the government gives according to specified criteria in order to reduce the local authorities' debt. Extraordinary budget revenue (excluding loans) originates in transfers from the ordinary budget, the sale of property, and participation of the government and other entities.

The local authorities' annual deficit is here defined in two ways: as the difference between expenditures (including debt repayment) and revenue (excluding loans received); and without the loan flows.<sup>4</sup>

##### **Main developments before the stabilization program**

Until 1984, the local authorities kept their real consumption down, depressing the per capita level by 7 percent. The stability of total consumption reflected the long-term policy of curbing public civilian consumption following its expansion (and the growth of the deficit) in the 1970s and the later 1980s. Under this policy the local authorities' administrative personnel was trimmed by 6 percent (Table 5.8). The restraint of consumption was accompanied by an increase in the tax revenue, as rates were raised and the tax base broadened with the growth of economic activity and population.

The standstill in consumption and the higher rates failed to narrow the local authorities' deficits. In fact, their financial position deteriorated noticeably until the introduction of the stabilization program (Table 5.7). This can be attributed to three factors: sharply higher costs, notably of labor (in relation to both the CPI and GNP prices); a big drop in government transfers; and a larger outlay on development projects.

<sup>4</sup> The description of the development of the local authorities' deficits according to the definitions presented here (especially that including debt repayment) is intended to show to what degree the authorities adhered to their government-approved budgets. For example, the deficit is likely to widen following the contraction of government grants if there is no change in their expenditures or revenue. In this case we regard the growth of the deficit as a negative development, stemming from a breach of budget discipline. A more meaningful definition of the current deficit should include real interest payments on the expenditure side, but data limitations preclude the use of this definition.

**Table 5.7**  
**Local Authorities Receipts and Expenditures, 1980-86<sup>a</sup>**

	(millions of 1979 NIS)						
	1980	1981	1982	1983	1984	1985	1986
<b>Ordinary budget</b>							
Expenditures	3,689	3,700	3,689	3,642	4,137	3,736	3,942
Receipts	3,108	3,431	3,354	3,065	3,107	3,365	3,832
Tax revenue	1,049	1,274	1,233	1,205	1,368	2,015	2,503
Government and other transfers	2,059	2,157	2,121	1,860	1,739	1,350	1,329
Ordinary deficit A <sup>b</sup>	581	269	335	577	1,030	371	110
Ordinary deficit B <sup>c</sup>	-167	-284	-123	194	430	-126	-352
<b>Extraordinary budget</b>							
Expenditures	567	700	751	883	682	502	848
Receipts	277	334	392	429	312	333	617
From sale of property	141	153	200	229	169	170	357
Government grants	136	181	192	200	143	163	260
Extraordinary deficit A <sup>b</sup>	290	366	359	454	370	169	231
Extraordinary deficit B <sup>c</sup>	269	309	332	363	304	157	147

<sup>a</sup> Fiscal years (beginning April of stated year). Deflated by CPI.

<sup>b</sup> Expenditures *less* receipts.

<sup>c</sup> Definition A *less* debt servicing.

SOURCE: Central Bureau of Statistics and Ministry of the Interior.

### Developments since the stabilization program

The local authorities' financial position improved remarkably in 1985-86. Under the stabilization program it was decided to increase rates steeply in order to reduce the deficits, and the rates on residential property were hiked 90 percent in real terms. In addition, real wages and other costs declined at the beginning of the period (relative to the CPI). Even though the government slashed its transfers to the local authorities during this period in order to preserve the benefits of the rate increases, the deficits were pruned severely, and excluding debt repayment, there was a surplus in both their ordinary and total budget.<sup>5</sup> The proportion of consumption spending covered by tax revenue soared from 30 percent in 1984 to 63 percent in 1986, and the number of local authorities that needed the general grant for balancing their budgets declined that year.

Since 1987 the local authorities' budget performance has deteriorated. Consumption expanded by 12.6 percent over two years, compared with 7 percent in total public

<sup>5</sup> A surplus in the budget excluding debt repayment does not imply that if the local authorities had no debts, their budget would be in surplus. It can reasonably be assumed that in this case government transfers to the local authorities would be smaller, as one reason for them is to enable the local authorities to repay debts.

**Table 5.8**  
**Local Authorities: Selected Indicators, 1980-89<sup>a</sup>**

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
<b>Consumption expenditure</b>										
Index, 1980 = 100	100.0	98.3	99.6	99.8	100.5	99.6	100.3	107.1	112.9	113.8
Percent of GNP	4.1	3.9	3.9	3.9	4.0	3.7	3.8	4.0	4.3	4.3
Percent of general-government consumption	22.0	21.6	22.0	21.9	21.7	26.7	22.6	23.3	24.0	23.5
<b>Tax receipts</b>										
Index, 1980 = 100	100.0	122.0	122.0	116.5	141.5	205.5	277.1	315.6	317.4	328.4
Percent of GNP	1.0	1.1	1.1	1.0	1.2	1.9	2.4	2.4	2.5	2.5
Percent of local-authorities consumption	24.9	28.7	27.9	25.9	29.7	50.6	63.0	64.5	57.7	57.9
<b>Credit from financial institutions</b>										
Index, 1981 = 100	..	100.0	103.5	106.7	143.5	156.9	137.3	133.3	142.3	146.1
Percent of GNP	..	3.8	3.9	4.3	6.0	5.8	4.3	3.8	4.0	4.0

<sup>a</sup> Indexes at constant prices (line 1 deflated by implicit price indexes of local-authorities consumption, other indexes deflated by CPI); percentages calculated on current-price figures.

SOURCE: Based on Central Bureau of Statistics data.

civilian consumption. The number of employee posts rose 10 percent during this period, and this, together with a real increase in wages, resulted in a much larger expenditure (deflating the local authorities' consumption by the CPI reveals a 25 percent real growth). The local authorities' revenue rose 14.5 percent, and the proportion of consumption covered by taxes fell to 58 percent. According to preliminary data for 1989, there has apparently been no significant change in the ratio of consumption or taxes to GNP.

All told, it can be said that the 1980s witnessed a big improvement in the local authorities' budget structure, but since 1987 there has been a turn for the worse. The improvement over the decade as a whole is explained by the growth of income: real tax revenue more than tripled, while the consumption/GNP ratio went up only fractionally. In addition, the problem of the local authorities' debt which was already fairly large at the beginning of the 1980s, has not yet been solved, and it has found expression in recent years in an oppressive debt burden that includes expensive short-term debts. One indicator of the debt burden—large lenders' credit to the local authorities as a percent of GNP—points to some worsening of the burden at the end of the decade compared with the first years, although it is much lower than in the middle of the decade (Table 5.8).

## 5. TAXES, TRANSFERS, AND SUBSIDIES

Nominal tax and transfer receipts rose by 11.7 percent (NIS 3.5 million) in 1989, while GNP and consumer prices moved up more precipitously, by 21.1 and 20.2 percent respectively. Consequently, the ratio of gross taxes to GNP fell by 4 percentage points to 41.1 percent.<sup>6</sup> Despite the downtrend evident since 1896, the ratio of gross taxes to GNP was higher in the second half of the 1980s than in the first half (Table 5.9). Over 60 percent of the real decrease in tax revenue was accounted for by import taxes, owing partly to legislative (primary or secondary) changes and partly to the decline in the value of imports and a change in their composition. The rest of the decrease can be attributed to the recession-related drop in income tax receipts, which was already evident in the previous year and became more pronounced in 1989. The chief factors that depressed tax revenue by reducing the tax base were the contraction of private consumption, notably durables, which are highly taxed; a further increase in tax rebates to companies and the self-employed in excess of last year's exceptional increase; and the standstill in employment after a strong rise in 1988.

The contribution of the various factors changing tax revenue are shown in Table 5.10. As can be seen, most of the legislative changes occurred in the taxation of imports, whereas the changes in other taxes generally offset one another.

<sup>6</sup> Israel is generally included among the countries with a relatively high gross tax/GNP ratio. For example, in 1986 and 1987 it ranked with the Netherlands and Belgium, below Sweden, Denmark, and Norway, and above the other OECD countries. Israel's ranking will probably change in 1989 because of the effect of the recession on tax receipts. Despite the tax reform implemented in numerous countries during the 1980s, the tax/GDP ratio has tended to rise in most OECD countries.



**Table 5.9**  
**Taxes, Subsidies, and Transfers, 1980-89**

	(percent of GNP)								
	1980-84	1985-89	1983	1984	1985	1986	1987	1988	1989
<b>Taxes and transfers</b>									
Taxes and transfer payments	43.1	45.2	45.8	38.0	45.0	47.7	47.1	45.1	41.1
<i>less</i> Subsidies and transfer receipts	17.0	15.4	16.7	16.6	15.4	14.5	14.4	16.1	16.5
Subtotal	26.1	29.8	29.1	21.4	29.6	33.2	32.7	29.0	24.6
<i>less</i> Credit subsidies	4.5	1.3	3.2	3.2	2.1	1.5	1.5	1.1	0.7
Total	21.6	28.4	25.9	18.1	27.5	31.8	31.2	27.9	23.9
<b>Direct taxes</b>									
Direct taxes and transfer receipts	24.9	24.0	26.0	20.3	24.7	25.3	24.3	24.0	21.8
<i>of which</i> Income tax	15.9	15.8	16.1	13.1	16.1	16.6	16.2	16.2	14.2
<i>less</i> Transfer payments	11.3	11.8	11.0	10.3	10.6	11.4	11.2	12.5	13.4
Total	13.6	12.2	15.1	10.0	14.1	14.0	13.0	11.5	8.4
<b>Indirect taxes, domestic</b>									
Taxes	10.9	13.7	11.1	10.3	13.0	14.2	14.2	13.4	13.6
<i>less</i> Direct subsidies	4.4	2.4	3.9	4.7	3.5	2.0	2.0	2.4	1.9
<i>less</i> Subsidies to firms	2.6	1.3	2.0	1.8	1.8	1.5	1.4	1.1	0.7
Total	4.0	10.0	5.3	3.8	7.7	10.7	10.8	9.9	11.0
<b>Net foreign trade taxes</b>	4.5	6.3	5.8	4.5	5.8	7.2	7.4	6.5	4.4

SOURCE: Based on Central Bureau of Statistics data.

Table 5.10

## Decomposition of the Real Annual Change in Tax Revenue, 1988 and 1989

		(percent)
	1988	1989
Legislative element, all taxes	-1.3	-2.3
<i>of which</i> Import taxes	..	-2.2
Exceptional tax rebate <sup>a</sup>	-2.7	-0.6
Macroeconomic effects	4.9	-4.1
<i>of which</i> Volume and composition of imports	..	-2.2
Total change in tax revenue	+0.9	-7.0

<sup>a</sup> For the 1988 figure, compared with 'normal' years during the 1980s; for 1989, compared with 1988.

The year reviewed saw a further growth of income tax rebates, mostly to companies and self-employed. This is explained by the fact that income tax advances, which are based on the level of economic activity in the previous year, are not fully adjusted to the changes in economic activity and tax assessments. This year's rebates were nearly four times what could have been expected under normal conditions—striking evidence of their relative importance.

The factors causing the slack in economic activity and imports help to explain the steep fall in tax receipts, much of which was due to the combination of a drop in the value of imports and a change in their composition, particularly the plummeting of consumer durables. The marked shrinkage of revenue from import taxes underscores their sensitivity to cyclical swings owing to their relatively narrow base and high rates; added to these factors were the aforementioned legislative changes made in conformity with international agreements, which provided for Israel's increased exposure to imports. The decline in the gross tax/GNP ratio exceeded its mild downturn in 1986–88, as it was largely connected with the recession and can be regarded as a temporary deviation from the trend.

The easing of the gross tax burden was identical to that of the net burden—4 percentage points. This is explained by the fact that the increase in subsidies and transfer payments was offset by the reduction in implicit credit subsidies,<sup>7</sup> the bulk of which represented the government's commitments on account of exchange rate and indexation insurance on outstanding loans granted to firms. The net tax burden has contracted steadily along with the easing of the gross tax burden since 1986. Nevertheless in the last five years the net burden was far higher than in the first five years of the decade because of the declining proportion of transfer payments and subsidies (including that on credit) in GNP.

Net of redemption of compulsory loans,<sup>8</sup> the ratio of subsidies and transfer payments

<sup>7</sup> In the national accounts statistics (Central Bureau of Statistics) subsidies are referred to as 'direct subsidies' and implicit credit subsidies as 'subsidies by means of loans'.

<sup>8</sup> Compulsory loans and repayment of the principal and interest are here defined as current transfers to and from the government.

to GNP remained constant in 1989 at 14–15 percent (with subsidies decreasing and transfers increasing). On the other hand, credit subsidies continued their long-run downtrend, and in 1989 their ratio to GNP was one-tenth of the 1980 figure. The degree to which the government utilizes taxes in order to influence income distribution can be inferred from the change over time in the ratio of transfers and subsidies to taxes on the other (Table 5.11).

**Table 5.11**  
**Transfers and Subsidies<sup>a</sup> as Percent of Taxes, 1980–89**

1980	47.8
1981	55.9
1982	45.5
1983	42.4
1984	50.0
1985	37.8
1986	32.1
1987	32.5
1988	35.0
1989	37.5

<sup>a</sup> Including credit subsidy. Does not include interest on the public debt.

As can be seen, in 1981–86 (apart from 1984, when the inflationary erosion of taxes reached record heights) the proportion of taxes used for redistributing income drifted down, but in 1987 there was a reversal of the trend, which became more pronounced in the next two years. This was not the result of a policy shift, but is attributable to the stable ratio of subsidies (including credit subsidies) and transfer payments to GNP and the diminishing tax/GNP ratio in these two years, mainly because of the recession.

The year reviewed saw a resumption of the downtrend in the rate of wage taxation, after it had tapered off in 1988 and fallen steeply in 1987. Whereas the 1987 decline was mainly due to the cutting of personal taxes, the slight drop in 1989 resulted primarily from the erosion of real wages, for the progressivity of the income tax system causes such revenue to fall faster than wages (Table 5.12 and Figure 5.2).

Reform of direct taxes was interrupted in the year reviewed; the tax base was not broadened and the exemptions, credits and allowance, and tax discrimination were not reduced. The average direct tax rate on wage income came to roughly 25 percent, while that on gross nonwage income fell steeply to 26 percent, after relatively slight declines in 1987 and 1988 due to the cutting of corporate income tax.<sup>9</sup> The 1989 drop in the tax rate was a direct outcome of the slack in economic activity, the writing off of debts to the

<sup>9</sup> Wage income excludes managerial salaries and wage taxes include the employers tax and employers' national insurance contributions. Gross nonwage income is calculated as gross business sector product less wage income other than managerial salaries. 'Net tax on nonwage income' in Figure 2.2 refers to the gross tax less implicit credit subsidies and capital transfers.

**Table 5.12**  
**Direct Taxes, Compulsory Loans, and Transfer Payments, 1985-89**

	1985	1986	1987	1988	1989	Real change over the preceding year <sup>a</sup>			
						1986	1987	1988	1989
Income tax	4,355	7,092	8,814	10,795	11,600	9.9	3.7	5.3	-10.6
Wage and salaries	1,835	2,528	3,393	4,499	5,287	-7.0	12.0	14.0	-2.3
Non-wage income	2,520	4,564	5,421	6,296	6,313	22.3	-0.9	-0.1	-16.6
Companies	680	1,379	1,385	1,860	1,463	36.9	-16.2	15.5	-34.6
Self-employed	587	1,031	1,207	1,207	1,334	18.6	-2.3	-14.0	-8.1
Cooperative members and managers	550	815	1,188	1,288	1,483	0.1	21.6	-6.8	-4.2
Deduction at source	704	1,339	1,640	1,941	2,033	28.5	2.2	1.8	-12.9
National insurance contributions	1,777	2,715	3,188	3,773	4,494	3.1	-2.0	1.8	-0.9
Wages and salaries <sup>b</sup>	1,593	2,338	2,680	3,176	3,764	-0.9	-4.4	1.9	-1.4
Nonwage income	184	377	508	597	730	38.0	12.5	1.0	1.7
Surtax on inventories	9	-1	0	0	0	..	..	-100.0	..
Property levy	157	244	28	0	0	4.7	-90.3	-100.0	..
Fees and fines	85	186	299	364	469	47.2	34.0	4.6	7.1
Direct taxes	<b>6,384</b>	<b>10,236</b>	<b>12,330</b>	<b>14,932</b>	<b>16,563</b>	8.2	0.5	4.2	-7.8
Current transfer payments to households	2,282	3,780	4,846	6,131	7,930	11.8	7.0	8.8	7.6
Through National Insurance	1,696	2,884	3,564	4,505	5,783	14.8	3.1	8.7	6.8
Other	586	896	1,282	1,626	2,147	3.2	19.4	9.1	9.8
Transfers to private nonprofit institutions	140	244	322	398	506	17.7	10.0	6.4	5.7
Current	129	225	285	354	453	18.2	5.7	6.8	6.4
Capital	12	19	37	44	53	13.0	60.2	2.8	-0.2
Capital transfers to firms	350	515	710	883	1,016	-0.6	15.0	7.0	-4.4
Repayment of compulsory loans	101	321	252	955	1,511	115.3	-34.5	226.2	31.7
Transfers and loan receipts	<b>2,872</b>	<b>4,860</b>	<b>6,130</b>	<b>8,367</b>	<b>10,963</b>	14.2	5.2	17.4	9.0

Transfers received	305	600	889	1,080	1,312	32.9	23.6	4.5	1.1
Current transfers <sup>c</sup>	48	76	100	158	196	6.2	9.9	35.6	3.2
Capital transfers	256	524	788	922	1,116	38.0	25.5	0.5	0.7
Net current transfer payments	<b>2,568</b>	<b>4,260</b>	<b>5,241</b>	<b>7,287</b>	<b>9,651</b>	12.0	2.7	19.6	10.1
Direct taxes plus transfers received	<b>6,688</b>	<b>10,836</b>	<b>13,219</b>	<b>16,012</b>	<b>17,875</b>	9.4	1.8	4.2	-7.2
Net direct taxes and transfers	<b>3,816</b>	<b>5,976</b>	<b>7,089</b>	<b>7,645</b>	<b>6,912</b>	5.7	-1.0	-7.2	-24.8

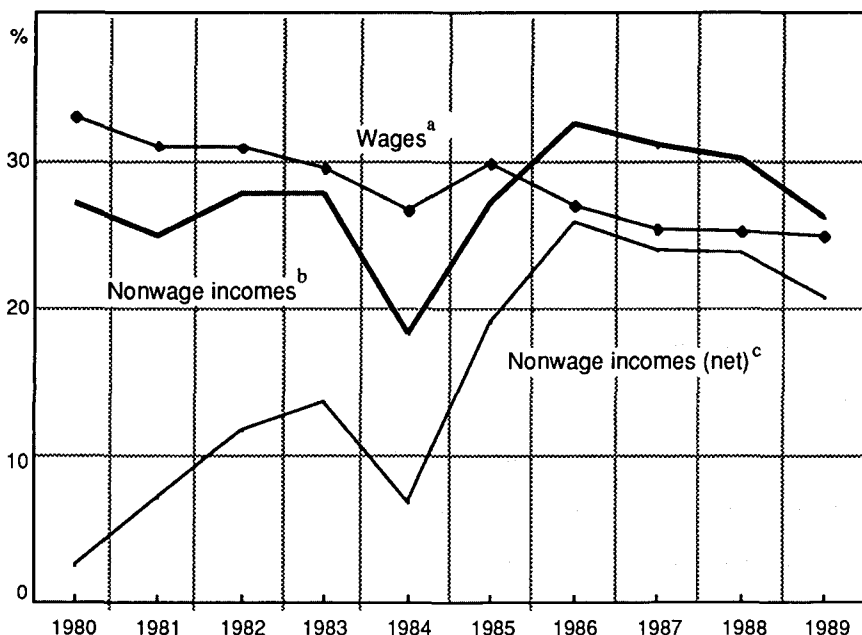
<sup>a</sup> Deflated by the CPI.

<sup>b</sup> Includes managers' salaries.

<sup>c</sup> From households and private nonprofit institutions.

SOURCE: Based on Central Bureau of Statistics data.

**Figure 5.2**  
**Average Direct Tax Rates on Wages and Nonwage Income, 1980–89**



<sup>a</sup> Excl. company managers' salaries.

<sup>b</sup> Gross business sector income at factor cost, excl. salaries (except company managers).

<sup>c</sup> Less credit subsidies and capital transfers to firms.

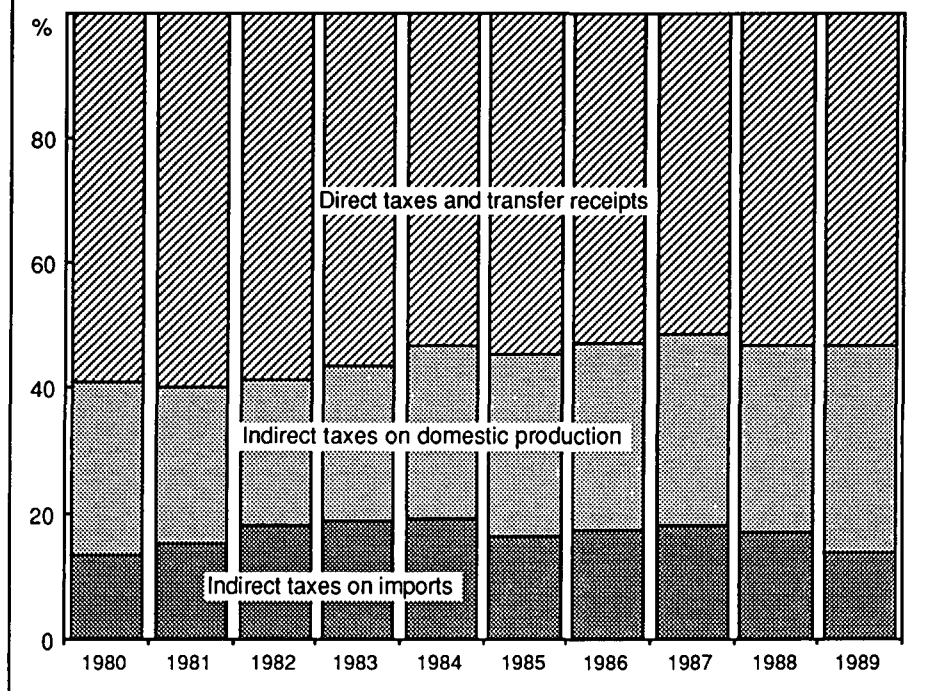
SOURCE: Based on Central Bureau of Statistics data.

banks, and the higher tax rebates. The last development—which, as mentioned, is explained by the fact that business-sector taxation is based on the payment of advances—largely reflected the non-adjustment of taxes to the level of economic activity and actual income in the previous year or two. For this reason, it is better to look at the longer-run changes in the rate of taxation.

In the first half of the decade the direct tax rate came to 25 percent, rising to 29 percent in the second half. Since 1985 the net taxation rate has gone up, and the gap between the gross and net rates on nonwage income has narrowed greatly—from 21 percent at the beginning of the decade to 6 percent in the final year, thanks to the steady shrinkage of credit subsidies and capital transfers to firms—a positive development from the aspect of efficient resource allocation (Figure 5.2). The nonwage data in the figure should be accepted with reservation, for in years of economic slowdown, like 1988–89, when the percentage of loss-making firms and self-employed seems to have risen, the average tax

**Figure 5.3**

**The Composition of Taxes, by Type of Tax, 1980–89**



<sup>a</sup> Including transfers from households.

SOURCE: Based on Central Bureau of Statistics data.

rate is biased upward in relation to the average of profitable firms which paid taxes. In other words, when net of the effect of the loss-making firms in 1988–89 is excluded from the calculation, the tax rate on nonwage income falls more than shown in the figure.

Since the contraction of direct tax receipts in 1989 was similar to that of total indirect taxes, the ratio of direct to indirect taxes remained at 1.1 (Figure 5.3). This falls short of the typical ratio in the OECD countries (unweighted average of 1.7 in 1987).<sup>10</sup> There the ratio is moving steadily downward, because of the shift from the taxation of income to consumption taxes—in the past income taxes reached very high rates and impaired the efficiency of the system.

In March 1990 the value added tax was raised by 1 percentage point; this will bring up the proportion of indirect taxes, especially if the additional receipts are used to lower personal income tax. There are still some discriminatory and inefficient taxes in Israel's indirect tax system, such as the employers tax, the revenue stamp, and high, differential

<sup>10</sup> In 1987 the OECD countries with a tax ratio close to Israel's were Turkey, Portugal, Greece, and Ireland.

purchase taxes. Lowering these taxes as part of the comprehensive tax reform, which will include the elimination of exemptions and the cutting of rates while keeping total tax revenue intact, will make for a more efficient system. Note that indirect taxes (including VAT<sup>11</sup>) are regressive compared with income tax, for the simple reason that they are not levied on savings and that the marginal propensity to save rises with income.

The regressivity of indirect taxes can be reduced through differential rates, but this would create distortions in resource allocation, thereby increasing the excess burden, which rises faster than taxes (or subsidies). At the beginning of 1989 Israel took another step to increase its exposure to imports under trade agreements with the European Community and the United States, by abolishing some tariffs and adjusting the purchase tax; but this is just the time to resist the temptation of replacing this liberalization with administrative restrictions, which are more harmful than taxes, as they cause distortions and confer quota profits on the beneficiaries. Since the reduction of the tax burden in 1989 was due more to cyclical effects than to changes in policy, it is expected to slow down as the economy revives.

<sup>11</sup> In Israel VAT accounts for about half of total indirect taxes on domestic production and imports.



## APPENDIX

Analysing general government operations on the basis of the actual deficit is liable to give a distorted picture. It is therefore of interest to adjust the deficit for fluctuations in economic activity in order to gain some insight into discretionary government activities. Such an adjustment is performed with the help of the full-employment deficit (explained in the text of this chapter).

Table 5.A1 presents alternative estimates of the full-employment domestic deficit. The basic estimate assumes a 3 percent potential GNP growth rate (the actual rate in the 1980s). The tax/GNP ratio in the base year is calculated using the average tax/GNP ratio in 1985–87, assuming unitary elasticity of taxes with respect to GNP. The principal conclusions emerging from the calculation do not change under different assumptions. We subjected the basic estimate to a sensitivity test, with a growth-rate assumption of 4 percent, elasticity of 1.2, and using different base-year tax rates.

**Table 5.A1**

**Alternative Estimates of the Domestic Deficit at Full Employment, 1988–89<sup>a</sup>**

	(percent of GNP)			
	Growth rate of potential GNP			
	3 percent		4 percent	
	1989	1988	1989	1988
Actual	-1.5	-6.1	-1.5	-6.1
<i>Elasticity = 1</i>				
Calculation A	-0.3	-1.1	0.2	-0.1
Calculation B	-1.8	-2.6	-1.3	-1.6
<i>Elasticity = 1.2</i>				
Calculation A	1.4	0.7	2.0	1.7
Calculation B	-0.2	-0.8	0.4	0.1

<sup>a</sup> Does not include compulsory loan. The base-year tax/GNP ratio is based on the average tax rate in 1985–87 (variant A) or 1980–87, excl. 1984 (variant B).

The full-employment domestic budget deficit grew by less than 1 percent from 1988 to 1989. This means that government transactions had a very mild expansionary fiscal effect.

The sensitivity test shows that the different assumptions yield identical conclusions—a slight rise (1 percent at the most) in the full-employment deficit in 1989.

**Table 5.B1**  
**Direct General Government Demand, 1984-89**

	NIS million				Percent change over the preceding year							
					Price		Quantity <sup>a</sup>					
	1986	1987	1988	1989	1988	1989	1984	1985	1986	1987	1988	1989
<b>Consumption, total</b>												
Civilian												
Wages and salaries	5,040	6,441	8,337	10,351	26.4	23.8	0.1	0.0	-2.8	0.8	2.4	0.3
Purchases	1,298	1,745	2,166	2,772	17.2	20.2	6.7	-1.1	10.0	13.3	5.9	6.5
Depreciation	746	973	1,134	1,377	12.0	17.5	3.5	3.2	2.9	5.6	4.2	3.3
Total civilian	7,084	9,159	11,637	14,501	23.0	22.3	1.5	0.2	-0.1	3.6	3.3	1.9
Defense												
Wages	2,038	2,646	3,496	4,147	23.2	22.9	1.5	-3.1	-6.3	-1.8	7.3	-3.4
Domestic purchases	2,695	3,281	3,713	4,476	11.6	21.4	-2.4	-2.2	-5.4	5.1	1.4	-0.7
Purchases abroad	2,171	4,707	4,018	2,887	3.1	25.3	36.4	24.1	-35.0	93.1	-17.2	-42.6
Subtotal	6,093	10,633	11,227	11,510	12.2	25.9	9.5	6.6	-17.4	30.7	-5.9	-18.5
less Sales to rest of world <sup>c</sup>	41	37	53	57	17.5	22.1	-51.8	-23.6	-6.5	-15.9	20.5	-11.9
Total consumption	13,946	19,755	22,811	25,953	17.6	24.9	6.0	3.6	-9.5	17.1	-1.8	-8.9
<b>Domestic consumption</b>												
Civilian	6,946	8,989	11,460	14,264	23.2	22.3	1.3	-0.1	0.4	3.5	3.5	1.8
Defense	4,716	5,911	7,188	8,600	17.1	21.9	-0.2	-2.5	-5.8	2.2	3.8	-1.8
Total	4,733	5,926	7,029	8,623	17.1	21.9	-0.7	-2.6	-5.8	2.1	3.9	-1.9
less Sales <sup>b</sup>	17	15	21	23	17.5	22.1	-51.8	-23.6	-6.5	-15.9	20.5	-11.9
Total Domestic	11,662	14,900	18,648	22,865	20.8	22.2	0.6	-1.1	-2.2	3.0	3.6	0.3
<b>Investment<sup>c</sup></b>	878	1,395	1,801	2,123	18.9	17.6	-15.8	-12.8	9.0	17.4	8.6	0.2
Total direct demand net	14,824	21,150	24,612	28,076	17.9	24.5	4.6	2.8	-8.6	17.1	-1.3	-8.3
of which Domestic, net	12,540	16,295	20,449	24,988	20.7	21.8	-0.6	-1.9	-1.5	3.9	4.0	0.3
Government-guaranteed construction <sup>d</sup>	238	282	327	423	16.5	26.5	-19.6	-20.5	-27.5	-5.9	-0.4	2.2

<sup>a</sup> Real rate of change (base year is 1986).

<sup>b</sup> The domestic component of sales to rest of world is assumed to be 40 percent.

SOURCE: Based on Central Bureau of Statistics data.

<sup>c</sup> Excluding housing.

<sup>d</sup> See note b to Table 5.5.

**Table 5.B2**  
**Indicators of Civilian Public Services, 1980–89**

(percent)

	General government civilian consumption					Proportion of dependent age groups <sup>e</sup> (1980=100)
	Percent of		Per capita <sup>b</sup> (1980 = 100)	Percent of total		
	GNP	Private consumption <sup>a</sup>		Employment <sup>c</sup>	Compensation of employees <sup>d</sup>	
1980	18.4	33.7	100.0	29.3	26.0	100.0
1981	18.1	32.1	100.4	29.8	25.7	99.6
1982	17.7	30.1	100.0	29.8	24.3	99.1
1983	17.5	29.0	100.1	29.3	24.0	98.4
1984	18.2	32.0	99.5	29.3	25.2	98.5
1985	16.8	27.6	98.0	29.9	23.6	98.5
1986	16.6	25.5	96.4	29.7	22.6	98.5
1987	16.8	25.4	98.2	28.8	21.9	98.5
1988	17.4	26.9	99.8	29.0	23.0	98.5
1989	17.7	28.1	100.0	29.4	24.0	98.3

<sup>a</sup> Excluding private nonprofit institutions.

<sup>b</sup> At 1986 prices.

<sup>c</sup> Public services as percent of total.

<sup>d</sup> General government as percent of total.

<sup>e</sup> Percent of population aged 0–24 and 65+.

SOURCE: Based on Central Bureau of Statistics data.

**Table 5.B3**  
**Central Government Budget, 1983-89<sup>a</sup>**

	1983	1984	1985	1986	1987	1988	1989 <sup>b</sup>	(percent of GNP)	
								Budget proposal	
								1989	1990
<b>Expenditure</b>									
Domestic	47.6	46.1	421.7	43.3	41.0	42.4	40.7	41.9	39.5
Expenditure abroad	13.5	17.5	16.4	13.5	10.5	8.5	8.3	7.4	7.3
Total	61.0	63.6	59.1	56.8	51.5	51.0	49.0	49.3	46.8
<b>Receipts</b>									
Domestic	41.7	34.6	39.8	44.3	41.1	38.8	33.6	37.5	35.3
Foreign currency	9.4	14.3	19.2	16.4	10.7	8.9	8.7	8.4	7.7
Total	51.1	48.9	59.0	60.7	51.8	47.8	42.3	45.9	43.0
<b>Deficit (-)</b>									
Domestic	-5.9	-11.6	-2.9	1.0	0.1	-3.6	-7.1	-4.4	-4.1
Foreign	-4.1	-3.2	2.8	2.9	0.2	0.4	0.4	1.0	0.4
Total	-10.0	-14.7	-0.1	3.9	0.4	-3.2	-6.7	-3.4	-3.7
<b>Deficit finance</b>									
Net domestic borrowing	0.7	5.1	5.6	1.2	0.1	4.9	7.5	4.2	2.7
Net borrowing from abroad	6.6	10.2	1.3	-0.0	-0.8	-1.2	-1.2	-0.7	0.1
Net borrowing from Bank of Israel	2.6	-0.7	-6.8	-5.1	0.4	-1.1	0.0	0.0	-0.7
Capital gains	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.0	1.6
Total	10.0	14.7	0.1	-3.9	-0.4	3.2	6.7	3.4	3.7

<sup>a</sup> Fiscal years. Includes net credit to the public. Figures may not add owing to rounding.

<sup>b</sup> Estimate.

SOURCE: Based on Ministry of Finance data.

**Table 5.B4**  
**Indirect Taxes and Subsidies on Domestic Production, 1985–89**

	NIS million			Real annual change, percent <sup>a</sup>				
	1987	1988	1989	1985	1986	1987	1988	1989
<b>Indirect taxes</b>								
Taxes on economic activity	5,889	6,786	8,466	11.2	13.4	4.9	−0.9	3.7
Value added tax	3,881	5,004	6,176	10.6	16.8	4.0	10.9	2.6
Purchase tax	388	419	454	−6.5	24.0	−5.9	−7.0	−9.9
Fuel tax	375	501	618	39.5	−13.2	−12.0	14.9	2.6
Employers' tax	521	496	576	−9.9	23.7	−24.9	−18.1	−3.4
Other <sup>b</sup>	725	366	642	58.0	−5.9	104.4	−56.5	45.8
Property taxes	87	131	191	107.6	9.7	10.5	30.0	21.2
Local rates	1,378	1,610	2,001	48.3	35.3	11.4	0.5	3.4
Other taxes <sup>c</sup>	390	423	499	4.5	8.6	17.4	−6.8	−1.9
Total indirect taxes	<b>7,744</b>	<b>8,950</b>	<b>11,157</b>	15.7	16.3	6.6	−0.6	3.7
<b>Subsidies</b>								
Direct subsidies	1,063	1,607	1,550	−31.3	−37.9	1.4	30.0	−19.8
Imputed credit subsidies	790	702	571	−10.2	−12.5	5.2	−23.6	−32.4
Total subsidies	<b>1,853</b>	<b>2,309</b>	<b>2,121</b>	−25.4	−29.3	3.0	7.2	−23.6
<b>Net indirect taxes</b>								
Excluding imputed credit subsidies	<b>6,681</b>	<b>7,343</b>	<b>9,607</b>	55.0	36.4	7.5	−5.5	8.8
Including credit subsidies	<b>5,891</b>	<b>6,641</b>	<b>9,036</b>	86.4	47.7	7.8	−3.0	13.2

<sup>a</sup> Deflated by annual average CPI.

<sup>b</sup> Includes tobacco tax, cement excise, stamp duty, licences and fees and, since 1985, the tax for the fuel equalization fund.

<sup>c</sup> Earmarked surpluses and taxes.

SOURCE: Based on Central Bureau of Statistics data.

Table 5.B5

## Wages, Taxes, and Disposable Wages per Employee Post, 1986-89

	Percent of gross wages				Real <sup>a</sup> annual change, percent		
	1986	1987	1988	1989	1987	1988	1989
<b>Average wage</b>					8.2	5.8	-1.3
Income tax <sup>b</sup>	13.5	13.6	14.2	13.8	9.0	10.3	-4.4
Net taxes <sup>c</sup>	15.5	15.9	16.7	16.1	10.7	10.8	-4.5
Disposable wage income	84.5	84.1	83.3	83.9	7.7	4.8	-0.7
<b>Nominal 1986 wage<sup>d</sup></b>							
Income tax	13.5	12.3	11.9	11.7	-9.0	-3.2	-2.2
Net taxes <sup>c</sup>	15.6	13.6	11.8	12.0	-13.1	-12.8	1.5
Disposable wage income	84.4	86.4	88.2	88.0	2.4	2.0	-0.2
<b>Double average wage</b>					8.2	5.8	-1.3
Income tax	26.8	26.3	26.8	26.4	5.7	8.1	-2.8
Net taxes	30.5	30.1	30.7	30.3	6.5	8.1	-2.8
Disposable wage income	69.5	69.9	69.3	69.7	8.9	4.8	-0.6
<b>Double 1986 wage</b>							
Income tax	26.8	24.8	24.2	24.0	-7.6	-2.1	-0.9
Net taxes	30.5	28.5	27.9	27.7	-6.7	-1.8	-0.8
Disposable wage income	69.5	71.5	72.1	72.3	2.9	0.7	0.3

<sup>a</sup> Adjusted to beginning of month (when wages are normally paid).

<sup>b</sup> Income tax was calculated assuming one earner and two children per family.

<sup>c</sup> Net taxes: income tax and national insurance contributions, less child allowance for two children.  
National insurance: the employee's contribution only.

<sup>d</sup> 1986 wages at current tax rates.

SOURCE: Based on data of the Ministry of Finance and the National Insurance Institute.

**Table 5.B6**  
**Taxes and Subsidies on Imports, 1985-89**

	NIS million			Real annual change, percent <sup>a</sup>				
	1987	1988	1989	1985	1986	1987	1988	1989
Taxes on civilian imports	4,688	5,131	4,595	-8.4	19.2	11.2	-5.9	-25.5
Value added tax	1,666	1,713	1,867	-5.3	2.5	11.7	-11.6	-9.4
Customs <sup>b</sup>	765	795	422	-10.1	33.4	-17.6	-10.6	-55.9
Purchase tax & other taxes <sup>c</sup>	2,257	2,623	2,306	-10.5	29.7	25.8	-0.0	-26.9
Subsidies	-88	-88	-19	30.0	-9.8	-32.9	-13.8	-82.0
Net taxes (civilian imports)	<b>4,776</b>	<b>5,219</b>	<b>4,614</b>	<b>-7.3</b>	<b>18.1</b>	<b>9.9</b>	<b>-6.0</b>	<b>-26.5</b>
Taxes on defense imports	762	650	551	16.8	-38.3	66.2	-26.7	-29.5
Net foreign trade taxes								
Excl. credit subsidies	4,044	4,355	3,596	-4.1	26.6	10.1	-7.4	-31.3
Incl. credit subsidies	4,040	4,352	3,592	18.2	31.9	10.1	-7.4	-31.3

<sup>a</sup> Deflated by annual average CPI.

<sup>b</sup> Excludes fines; from 1983, includes import levy.

<sup>c</sup> Includes foreign travel tax (from 1982); the tax element of the compulsory deposit on imports (from 1983); the levy on purchases of foreign currency (from 1983); the impost on imports of services (from 1984); the impost on foreign travel fares (from 1985); and the levy on credit from abroad (from 1987).

SOURCE: Based on Central Bureau of Statistics data.