

# 2

## PRODUCT AND DOMESTIC DEMAND

### 1. MAIN DEVELOPMENTS

After two years of substantial growth of product and demand, 1988 was marked by a slack in economic activity, the first signs of which already became apparent in the second half of 1987. The business sector product rose by a mere one percent and GDP increased by 1.5 percent. Total resource use tapered off, and reflected a deceleration in private consumption and a contraction of investment and exports. Only public consumption (excluding direct defense imports) remained unchanged. Imports also fell, and the civilian import surplus increased slightly in volume. The substantial improvement in the terms of trade, however, prevented the import surplus from rising in dollar terms; the ratio of imports to GDP even decreased slightly. The small increase in the business sector product reflects a stable labor input together with a slight rise in productivity. Labor input in the economy as a whole went up by about one percent. At the same time, real wages continued to rise, albeit at a slower pace than in the previous two years, and unemployment increased.

The 1988 recession was due to a combination of factors some of which had operated already in the previous two years. Their cumulative impact, particularly on the supply side, together with factors specific to 1988, expressed itself in the emergence of difficulties in the business sector. On the supply side, the high labor costs per unit of output—against a stable exchange rate—substantially eroded profitability. Lending rates, high ever since the July 1985 stabilization program, remained high even after a decline in the year under review. These high financing costs combined with a greater resort to short-term credit to make the cumulative financing burden heavier. Higher taxation of non-wage income also cut into profitability. On the demand side, the year saw a considerable deceleration of private consumption, following rapid expansion in the two preceding years. Added to these factors were the effects of the unrest in the territories, which manifested themselves mainly on the demand side in a contraction of exports to

TABLE 2.1  
Resources and Use of Resources, 1985-88

	NIS million, current prices 1988	Average		Percent annual change							
		1981-	1985-	Quantity				Price			
		1984	1988	1985	1986	1987	1988	1986	1987	1988	
<b>Resources</b>											
GDP at market prices	66,958	2.5	3.6	3.9	3.6	5.2	1.6	50.7	20.5	18.4	
Imports <sup>a</sup>	34,087	4.8	5.8	-0.7	8.9	19.3	-3.0	28.6	17.3	7.8	
<i>of which:</i> Civilian imports <sup>b</sup>	30,069	6.5	5.4	-3.8	15.4	11.7	-0.4	29.2	18.1	8.4	
Total resources	<b>101,044</b>	<b>3.4</b>	<b>4.4</b>	<b>2.1</b>	<b>5.6</b>	<b>10.1</b>	<b>-0.1</b>	<b>42.1</b>	<b>19.3</b>	<b>14.7</b>	
<b>Use of Resources</b>											
Private consumption	42,324	5.2	6.4	0.5	14.2	8.4	3.0	45.9	20.0	15.3	
Public consumption, total	22,308	0.2	1.7	4.1	-9.9	16.9	-2.4	47.0	21.0	16.5	
Excluding direct defense imports	18,291	2.0	0.4	-0.8	-2.9	2.8	2.8	50.6	24.0	19.4	
Gross domestic investment	12,254	2.7	-0.1	-10.6	10.4	3.3	-2.1	49.3	22.4	14.1	
<i>of which:</i> Fixed investment <sup>c</sup>	12,314	2.2	0.6	-7.8	-0.6	13.0	-1.2	50.1	22.7	14.3	
<i>Subtotal:</i> Domestic resource use excl. direct defense imports	72,868	3.7	3.6	-2.1	8.7	6.1	2.1	47.9	21.4	16.1	
Exports <sup>d</sup> at local market prices	24,159	4.2	5.6	8.7	5.6	10.8	-2.1	29.9	15.3	12.2	
Total resource use excl. direct defense imports	97,027	3.9	4.2	1.0	7.8	7.3	0.9	42.7	19.7	15.1	
Total use of resources	<b>101,044</b>	<b>3.4</b>	<b>4.4</b>	<b>2.1</b>	<b>5.6</b>	<b>10.1</b>	<b>-0.1</b>	<b>42.1</b>	<b>19.3</b>	<b>14.7</b>	
Net factor payments to rest of the world	1,886										
GNP at market prices	65,071										
Business sector GDP at market prices <sup>e</sup>	46,707	2.7	4.8	5.3	5.7	7.0	1.1	50.6	18.6	17.1	

<sup>a</sup> Imports c.i.f., not including factor payments and interest payments of the public sector to the rest of the world.

<sup>b</sup> Total imports less direct defense imports.

<sup>c</sup> Total investment less investment in stocks.

<sup>d</sup> Exports f.o.b., not including factor payments from the rest of the world and interest payments received by the public sector from abroad.

<sup>e</sup> GDP, less product of public services, private nonprofit institutions, and housing services.

SOURCE: Central Bureau of Statistics.

the territories and of tourism services; their impact was somewhat slighter on the supply side, and primarily affected the construction industry. The economic effects of the uprising in the territories have been estimated at a 1.5 percent loss of business sector product.<sup>1</sup>

The small GDP growth, together with higher unemployment, implies that actual GDP this year was below potential full-employment GDP. Since total domestic resource use increased (albeit more slowly than in the previous two years), and world trade grew substantially, it would appear that the recession was caused by an accumulation of difficulties on the supply side. These surfaced as demand slackened, and the events in the territories showed their impact..

The 1988 stagnation in business sector product stands out particularly against its rapid growth in the previous three years—7 percent in 1987 and an average of 5.5 percent a year in 1985 and 1986 (see Table 2.1). That period of growth, together with a background of substantial improvements in the state of the economy in several principal areas: a steep drop of inflation, substantial cuts in the public sector deficits and a considerable improvement in the balance of payments. From early 1986 product grew side by side with a rapid expansion of domestic demand—primarily private consumption.

The rapid growth of product following the stabilization program was due to a rise of total productivity together with an increase in the quantity of production factors (see Table 2.4). Curbing of the inflation rate seems to have led to a remarkably large productivity increase, spread over three years. Among other things, this was due to the release of resources which had been allocated during the period of high inflation to the financial management of firms. When inflation came down, these resources were channeled into productive activities.<sup>2</sup> Moreover, galloping inflation severely impaired efficiency, due to unexpected changes in relative prices of inputs and outputs. When inflation was braked, efficiency increased. In addition, the expansion of domestic demand after the stabilization program—among other things due to expectations of future rapid growth and greater certainty with regard to future income as government deficits were cut—contributed to product growth. Another factor was the growth of demand and the possibility of raising the utilization rate of capital from its low level prior to the

<sup>1</sup> For a detailed discussion of the impact of the uprising in the areas, see Chapter 6.

<sup>2</sup> The data on employment in the financial sector in 1986 and 1987 indicate stability of employment rather than a decline, but it seems that in the non-financial sectors there was less need to devote resources to the financial management of firms, and management resources could be diverted to other purposes.

TABLE 2.2  
**Resources and Uses, Quarterly Data, 1986–88**  
*(Seasonally adjusted, percent real change)*

	1986				1987				1988			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
1. Private consumption	2.6	3.7	4.1	1.5	1.0	2.7	2.1	0.2	4.3	-6.2	2.4	1.9
2. Public domestic consumption	-0.9	-0.1	0.2	-0.4	0.6	2.3	0.9	0.9	1.4	-1.2	1.2	0.4
3. Fixed investment <sup>a</sup>	-5.7	-0.7	8.2	-2.1	7.1	1.7	1.9	-1.6	0.0	-3.3	0.6	4.9
4. Total domestic uses (1+2+3)	0.2	2.0	3.8	0.4	1.9	2.4	1.8	0.1	2.8	-4.5	1.8	2.0
5. Exports of goods and services <sup>b</sup>	-0.2	2.6	3.3	-4.8	5.0	8.0	4.5	-4.3	2.7	-7.1	-1.9	3.8
6. Civilian imports of goods and services <sup>a,c</sup>	1.1	8.0	5.5	-4.3	5.2	3.3	3.4	-0.2	0.1	-3.8	-2.3	5.8
7. Civilian import surplus (6-5)	10.3	40.1	15.1	-1.9	6.3	-14.1	-1.7	20.6	-10.4	11.1	-3.8	13.8
8. Gross domestic product	1.7	-0.1	1.1	3.2	0.2	3.1	-0.2	-0.6	3.5	-4.2	1.6	1.5
9. Business sector GDP		-0.1	1.2	4.8	0.2	4.1	-0.4	-1.3	4.4	-6.0	2.3	1.5

<sup>a</sup> Excluding ships and aircraft.

<sup>b</sup> See note *b* to Table 2.1

<sup>c</sup> See note *a* to Table 2.1.

SOURCE: Central Bureau of Statistics.

stabilization program (see the section on industry in Chapter 6) A considerable rise in productivity facilitated expansion of product in the short run.

An analysis of the contribution of the various resource uses (by input-output analysis)<sup>3</sup> shows that the stagnation of the business sector product largely reflects the fall in exports, which was offset by a moderate rise in total domestic resource use. This contrasts with the positive contribution of exports to business sector product growth since the beginning of the 1970s (except for 1982). Deducting the effect of the fall in exports to the territories and that of the decline in tourism—which were hurt considerably by the uprising—exports seem to have made a zero contribution to business sector product growth, thus contributing to its stagnation. Investment contributed nothing to domestic resource use. The contribution of private consumption remained positive, albeit significantly smaller than in 1986–87. Prominent in the contributions of the various uses to business sector product during the 1980s was the rise in the share of private consumption and exports, while the shares of public consumption and investment declined.

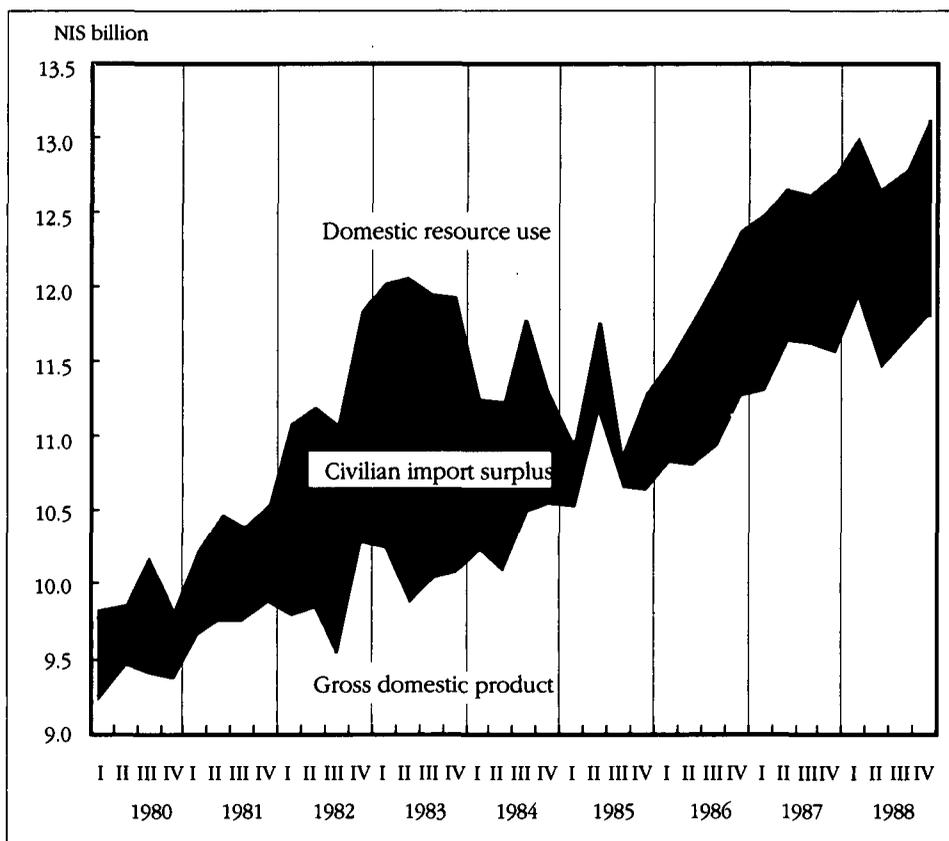
Developments in the different resource uses during the year varied. A slow-down in total resource use became apparent already in the last quarter of 1987 (see Table 2.2)<sup>4</sup>. In the second quarter of 1988 the recession deepened considerably, and all domestic resource uses actually contracted. Private consumption went up in the third quarter of the year, and in the last quarter total domestic resource use and exports both expanded. The rise in domestic demand, particularly in the last quarter of the year, apparently reflects the onset of a speculative cycle due to the rise in expectations of a devaluation, and not a real change of trend. This speculative wave was apparent in this period's accelerated purchases of durables, capital goods and imported production inputs (preliminary indicators of private consumption in early 1989 suggest that nearly all components of private consumption declined, thus supporting the speculative wave argument).

The gross national product and imports reflected similar developments during the year. GDP ceased to grow in the second half of 1987, and fell substantially in the second quarter of 1988, rising again in the second half of 1988. Imports ceased

<sup>3</sup> As in previous years, there is an unexplained difference between the growth rates of the business sector product obtained from the national accounts data and those from input-output analysis. It seems, however, that the size of the respective contributions of the various resource uses to the changes in business sector product, as obtained from input-output analysis, is consistent with those of an analysis using the national accounts estimates.

<sup>4</sup> The adjustment for seasonality between the first and second quarters of 1988 is somewhat problematic, and may bias the analysis of developments during the year.

Figure 2.1  
**Domestic Resource Use, Gross Domestic Product  
 and the Civilian Import Surplus, 1980–88**  
*(Quarterly data, seasonally adjusted, 1986 prices)*



to increase only in the last quarter of 1987, and rose again in the last quarter of 1988, as a result of the speculative wave due to the rise in expectations of a devaluation.

In the labor market the recession revealed itself with some delay. It became apparent mainly from the first half of 1988 (see Table 4.4 and the discussion in Chapter 4). In the economy as a whole, labor input increased by about 1 percent, and remained unchanged in the business sector. Employment of Israelis, however, increased substantially—3 percent in the business sector—because of the decline in labor input from the territories. The replacement of workers from the territories by Israeli workers slowed the rise of unemployment substantially, as did a 4 percent increase in the number of public service employees. The unemployment rate rose from 6.1 percent in 1987 to 6.4 percent in 1988, with

most of the increase in the second half of the year.<sup>5</sup> A marked increase, during the year, in labor force participation rates (mainly by second earners) contributed to the rise of unemployment during the year. Real wages (in terms of the CPI) were about 6 percent higher in 1988, although their rise slowed during the year. The average wage increase in 1988 reflects a rapid rise in the public services (some 10 percent, following a cumulative erosion after the stabilization program), and a moderation of its increase in the business sector (to 5 percent, after an exceptional surge compared to the period before the stabilization program).

The discussion below attempts to classify the causes for the 1988 recession by supply- and demand-side factors. Obviously, such an analysis is deficient in that it ignores the interrelations between the two groups of factors—in their combined operation, supply and demand factors reinforce each other.

As said earlier, it seems that supply-side factors predominated in the 1988 slowdown of economic activity. These had cumulated since the stabilization program and caused a steady fall in profitability. A cyclical slowdown in the growth of private consumption and the disturbances in the territories contributed to the surfacing of difficulties in the second half of 1987, and more strongly so, in the course of 1988. Therefore, it would seem that the high growth rates of 1986 and 1987—marked by a large increase in productivity—were exceptional. In the short run, a renewal of growth would depend on an improvement in profitability; in the longer run, sustained high growth rates would require a substantial increase in investment.

#### *A. The Determinants of the Business Sector Product*

The only slight increase in business sector product in the year under review reflects the absence of change in its labor input, and a productivity rise of 1 percent (see Table 2.4). This contrasts with the high productivity growth of the three previous years. The gross capital stock increased in 1988 by 3 percent, so that total (measured) productivity remained unchanged,<sup>6</sup> as against an average annual rise of nearly 4 percent in 1985–87, which contributed about 60 percent of the business sector product growth in these three years.

On the supply side, the key factors in the slowdown of business sector activity,

<sup>5</sup> Indicators of the state of employment based on the data of the Labor Exchanges indicate that the rise of unemployment began already from the end of 1987; and gathered momentum in the course of 1988—a trend continuing also in early 1989.

<sup>6</sup> For the calculation of total productivity, see note *d* to Table 2.4.

especially in the tradeables sector, were high production costs, principally the high level of real wages. In the business sector, labor costs per unit of product (deflated by the GDP price index) rose in 1988 by 3 percent, following a cumulative increase of 17 percent in the two preceding years. The cumulative rise in productivity (product per man-hour) in the last three years amounted to only 7.5 percent (merely one percent in 1988). Real labor costs per hour were 16 percent higher in 1988 than in 1983 (before their considerable erosion in 1984). Real unit labor costs thus mounted and their high level made it difficult for firms, particularly as domestic demand sagged, to continue adapting to the changes in the economic environment in the post-stabilization period. We have no full explanation for the continued rise of wages in 1988 in the face of growing unemployment; their continued increase was in part due to institutional arrangements, such as the minimum wage law, the linkages between wage scales, and wage creep, which retarded wage cuts in firms encountering difficulties.

Another factor acting in the same direction was the expectations of devaluation that were generated during the year, which impeded greater price and wage restraint. This was mainly the case in the nontradeables sector, while price rises

TABLE 2.3  
**National Saving, Gross Domestic Investment,  
 and External Current Account, 1976-88<sup>a</sup>**  
*(Percent of total income, current prices, at official exchange rate)*

	1976- 1980	1981- 1984	1985	1986	1987	1988
1. National saving out of the economy's total income	18.3	16.3	21.7	19.1	16.5	15.9
Excl. the \$750 million emergency grant			(19.0)	(17.0)		
<i>of which:</i> Public saving <sup>b,c</sup>		-5.2	3.3	5.0	3.0	0.4
Private saving <sup>b,c</sup>		21.5	18.4	14.2	13.5	15.5
2. Total gross domestic investment	21.0	20.0	15.5	16.8	17.2	16.3
<i>of which:</i> Stocks	1.6	0.3	0.0	1.6	0.1	-0.1
Nondwelling investment	13.0	12.6	11.3	11.1	12.6	11.8
Dwellings	6.5	7.1	4.3	4.1	4.5	4.6
3. Net external current account, adjusted <sup>d</sup> (1-2)	-2.7	-3.7	6.2	2.4	-0.7	-0.4
<i>of which:</i> Civilian import surplus	7.8	7.5	2.9	4.6	5.7	4.4

<sup>a</sup> Total income of the economy equals GNP plus net unilateral transfers from abroad, valued at the official exchange rate. The GNP is estimated in accordance with the definitions of the System of National Accounts of the United Nations Statistical Office. The actual values are presented in Table 2.A-5.

<sup>b</sup> Calculated according to real interest payments.

<sup>c</sup> No breakdown of savings by the two sectors is available for 1976-80, due to changes in definitions.

<sup>d</sup> Advance payments on account of future supplies of defense matériel are considered as actual imports and included in direct defense imports.

of tradeables were to some degree restricted by the stability of the exchange rate. These wage and price increases, while the exchange rate was held stable, led to a substantial real appreciation of the currency (i.e., prices of nontradeables rose faster than those of tradeables). It seems that the shift of domestic demand towards nontradeables in 1988 (see Table 2.A-11) also contributed to the real appreciation.<sup>7</sup> With the slowdown of demand and the slack in the labor market, firms were no longer compelled to absorb further wage increases. The improvement of efficiency was reflected in employment cuts and a deceleration of wage increases. In the business sector as a whole, employment contracted in the second and third quarters of 1988, and returned to the level of the first quarter by the end of the year (Most prominent was the decline of employment in industry, which from the second quarter of 1988 settled to a level 3.5 percent below that of the first quarter). Real wages in the business sector rose during 1988 by only 3 percent, after increases of 9 percent during 1987 and about 24 percent during 1986. Export profitability fell, and neither the improvement in the terms of trade,<sup>8</sup> nor the expansion of world trade and the decline in domestic demand growth were sufficient to prevent the contraction of the export volume.

The difficulties arising from high production costs were aggravated by a cumulative financing burden. Marginal short-term interest rates indeed came down significantly during the year, but remained higher than in the industrialized countries. Interest rates rose temporarily in the last quarter of the year—a rise induced by the strong expectations of devaluation (see the discussion of monetary policy in Chapter 8). The high level of real interest rates since 1984, and a substantial rise in resort to short-term credit meant an increasingly heavy financing burden. Apparently this primarily hurt firms with small equity, new enterprises, and those producing principally for the domestic market. In some of these firms, the financing burden was among the causes of a financial crisis. The taxation rates on non-wage income also rose significantly since the initiation of the stabilization program. A slight reduction of corporate tax rates (and other taxes on non-wage income) in 1987 was not sufficient to check the fall of business sector profitability. Despite these cuts in tax rates, the effective rates of taxation remained substantially higher than in the period before the stabilization program.

The supply-side factors discussed above had already played a role in the preceding two years, leading to falling business sector profitability, financial difficulties, and the impairment of competitiveness in the tradeables sector. The

<sup>7</sup> For a detailed discussion of the real appreciation see below.

<sup>8</sup> The improvement in the terms of trade may at least partly reflect an endogenous event due to the rise of production costs in terms of local currency.

cumulative impact of these factors manifested itself in a slowdown of economic activity in the second half of 1987. The slowdown gathered momentum during 1988, when these factors came into play against the background of slower demand expansion and the events in the territories.

The fall-off in business sector activity and productivity, which concentrated in the tradeables sector, against the background of the ongoing structural change, varied greatly among industries and enterprises. While many firms had difficulties in coping with the rise of production costs and the erosion of profitability, others were apparently already engaged in a process of raising their efficiency; large productivity gains became apparent in these firms, side by side with sizeable lay-offs of workers. In industry as a whole, the number of firms which dismissed workers in 1988 was slightly greater than that of firms which hired new workers. This contrasted with 1987, when firms hiring new workers were more numerous than those which dismissed employees. Also notable is the variance in product among the sub-branches of industry, which increased considerably after 1985 and until the onset of the 1988 recession (see Chapter 6). Outstanding in this

TABLE 2.4  
**Product and Productivity of the Business Sector, 1961-88**  
(Real annual percent change, percent)

	1961- 1972	1973- 1979	1980- 1984	1985- 1988	1985	1986	1987	1988
<b>Product<sup>a</sup></b>								
Estimate A	10.0	3.0	3.0	4.8	5.3	5.7	7.0	1.1
Estimate B	9.1	3.9	2.4	3.5	2.9	4.1	7.0	0.1
<b>Factor input</b>								
Labor (man-hours)	3.6	1.1	1.3	1.6	0.1	2.2	3.8	0.3
Capital stock: <sup>b</sup> Gross	8.7	6.3	3.7	2.7	3.1	2.5	2.4	3.0
Net	8.0	5.1	2.7	1.4	2.0	0.8	0.7	2.1
<b>Productivity<sup>c</sup></b>								
Estimate A	6.3	1.8	1.7	3.1	5.2	3.5	3.0	0.8
Estimate B	5.3	2.8	1.1	1.9	2.8	1.9	3.1	-0.2
<b>Capital stock per man-hour<sup>b</sup></b>								
Gross	5.0	5.1	2.4	1.1	3.0	0.3	-1.4	2.7
Net	4.2	4.0	1.3	-0.2	1.9	-1.3	-3.0	1.8
<b>Total productivity<sup>d</sup></b>								
Estimate A	4.5	0.2	0.9	2.8	4.2	3.3	3.5	-0.1
Estimate B	3.7	1.1	0.3	1.5	1.7	1.8	3.6	-1.1

<sup>a</sup> Estimate A measures the product from the expenditure side (national accounts). Estimate B is based on various indicators of output volume by industry.

<sup>b</sup> Beginning-of-year stock.

<sup>c</sup> Product per man-hour.

<sup>d</sup> The weights are 0.68 for labor and 0.32 for capital, based on distributive shares of gross national income (long-run average) and examination of the 1977/78 input-output table.

respect is the electronics industry, where the 1988 product rose by 1 percent and exports increased by about 23 percent in volume, while its labor input declined by 3.5 percent. The unchanged labor input in the business sector as a whole hides the diversity of developments in the various branches: declines of 4 and 8 percent, respectively, in the labor input in industry and agriculture, and a substantial increase of the labor input in the nontradeable industries (see Table 4.A-7). The changes in prices of export goods—due, among other things, to the changes in foreign cross rates—had a different effect on the various industries, depending on the markets to which their exports were destined (for details, see Chapter 7). The impact of wage increases and the real appreciation on business profitability was therefore not uniform. The varying degree to which different industries relied on short-term credit and had access to foreign currency-linked credit also contributed to the differences in profitability. These factors influenced the urgency with which firms and industries embarked on raising efficiency; the pace and intensity of such efforts were also influenced by the different assessments of the government's readiness to come to the aid of ailing firms.

The impact of the uprising in the territories on the supply of business sector product was relatively slight, and was mainly concentrated in the construction industry (see the section on construction in Chapter 6). Despite the changes which the construction industry was compelled to make as a result of the events in the territories, its product rose in 1988 by some 3 percent. The effects of the lower employment of workers from the territories in other industries, and those of the increase in military reserve duty days, were apparently relatively slight.

### *B. The Determinants of Domestic Resource Use*

The growth rate of domestic resource use (excluding direct defense imports) continued to slow considerably in 1988. This slowdown began in the last quarter of 1987, following a substantial expansion in the previous two years. The breakdown of total domestic resource use by private and public sector evidences a marked slackening in the private sector's domestic demand (private consumption plus domestic investment). After an average annual expansion of 10 percent in the two previous years, private domestic demand increased by only 2.2 percent. The domestic demand of the public sector also slowed somewhat, albeit less than private sector demand. From a growth rate of some 4 percent in 1987, the rise of public sector demand declined to 2 percent. Therefore, it seems that the contribution of domestic resource use to the recession was principally in the private sector.

The slackening rate of expansion of private sector demand was composed of a slower rise of private consumption and a fall in investment. Private consumption rose in 1988 by 3 percent, after a steep cumulative rise of 24 percent in the two preceding years. The slower increase of private consumption in 1988 may reflect its partial adjustment to the trend of expected disposable income, since the rapid increase of the two previous years was apparently due to expectations that after the stabilization, economic growth would be at a high steady state level (expectations which, according to the permanent income approach, caused the substantial growth of private consumption in 1986–87). The increase in uncertainty—due, among other things, to the signs of recession and the occurrences in the territories—also contributed to slowing the rise of private consumption.

Although quantitative product growth was only 1.5 percent, this rise translated, in terms of purchasing power, into a 7 percent increase in the national income (5.5 percent of disposable income—see Table 2.A–5). Price rises for consumers were lower than the price increases faced by producers, due to the improvement in the terms of trade and the increase in subsidies to basic products. The change in relative prices contributed some 3 percent to the increase of disposable income.<sup>9</sup>

The 7 percent fall in private sector investment was principally in investment in equipment, while investment in dwellings remained unchanged (Tables 2.5 and 2.A–4). The contraction of nondwelling investment reflects the slack in economic activity and the rise in uncertainty, combined with cumulative financing difficulties (despite the substantial fall in interest rates during the year). In some industries, primarily agriculture, financing problems reached crisis proportions.

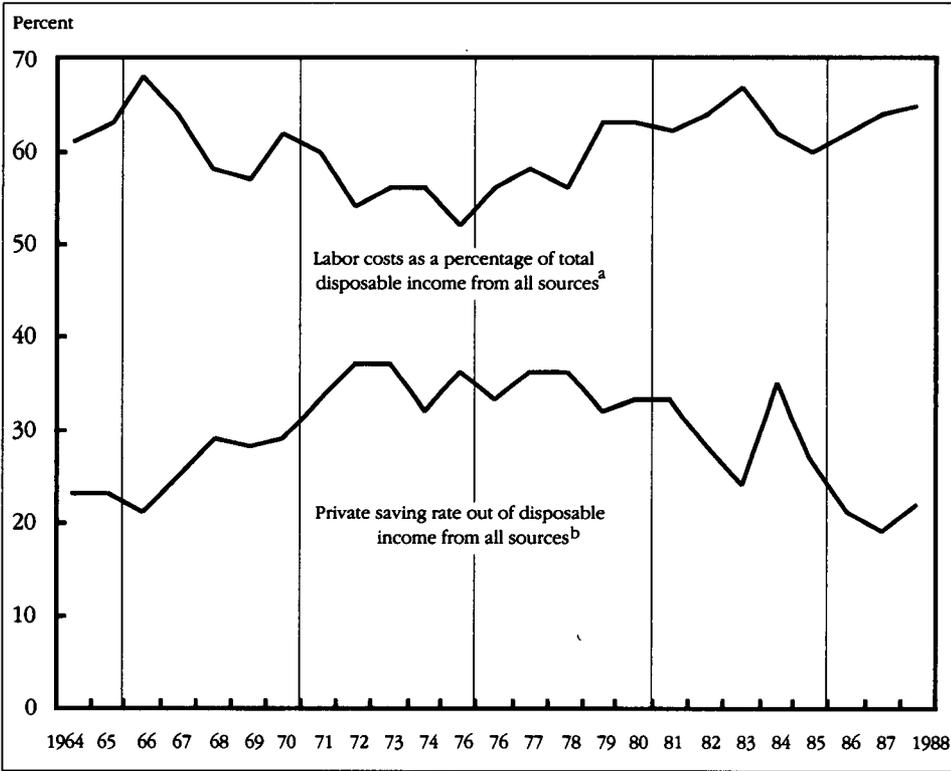
The various components of public sector demand displayed a mixed trend in 1988. On the one hand, public consumption maintained its growth rate; on the other, investment in the public sector and its corporations declined. The decline in public sector investment was, nevertheless, moderate compared to the contraction of private sector investment, since public investment is less influenced by the factors that made for slowing economic activity. The expansion of civilian public consumption slowed somewhat, from 3 percent in 1987 to 2.6 percent in 1988, while the increase in defense consumption accelerated slightly, from 2

<sup>9</sup> National income equals GNP at market prices, less payments to production factors abroad, less depreciation and net indirect taxes on domestic production, plus the subsidy component of loans granted by the government. National income at current prices rose in 1988 more than GNP at market prices. For estimating national income in terms of purchasing power it is usually deflated by the consumer price index, which rose in 1988 by 15.3 percent, while GDP prices increased by 18.4 percent.

Figure 2.2

**Private Saving Rate and the Share of Wages in Income from all Sources, 1964–88**

*(Calculated on the basis of long-term real interest on the domestic public debt)*



<sup>a</sup> Labor costs for the economy as a whole; includes wages and salaries and fringe benefits, such as employers payments for their workers for health insurance, social security and pension funds, national insurance, etc.

<sup>b</sup> For the years 1964–79 the data for the saving rate was chained to 1980, in accordance with the new system of national accounts.

percent the year before to 3.3 percent. Investment in the public sector and its corporations recorded a decline of 2 percent—mainly in investment in the public services. As against this, there was a rise in infrastructure investment, which in the last decade developed a considerable shortfall. This expansion was typical of an election year.

The main impact of the damage caused by the unrest in the territories was on the demand side (in tourism and exports to the territories), added to slowing of domestic demand. The number of tourist arrivals in 1988 was 15 percent less than in the previous year, and the loss to the tourism industry is estimated at 0.7

percent of the business sector product. The principal fall in exports to the territories was in agricultural and industrial products—mainly cement, textiles and food products—and amounted to a decrease of \$280 million, equivalent to about 1 percent of the business sector product.

### *C. The Import Surplus and National Saving*

The considerable slowing in the growth of domestic uses and the only slight product growth in 1988 were accompanied by a real appreciation of the currency and a slight rise in the volume of the civilian import surplus. The nominal civilian import surplus decreased slightly, due to the 5 percent improvement in the terms of trade. That offset the quantitative increase in the surplus as well as the increment resulting from the rise in the dollar prices of both imports and exports.

The process of real appreciation persisting ever since the start of the stabilization program may be explained by the combined operation of two kinds of factors. First, the public formed a set of expectations regarding inflation and exchange rate policy, and behaved according to these expectations in setting prices and wages (a supply-side effect; see also Chapters 3 and 4). Second, a contributing factor to the real appreciation was the expansion of demand, particularly for nontradeable goods, relative to production capacity.

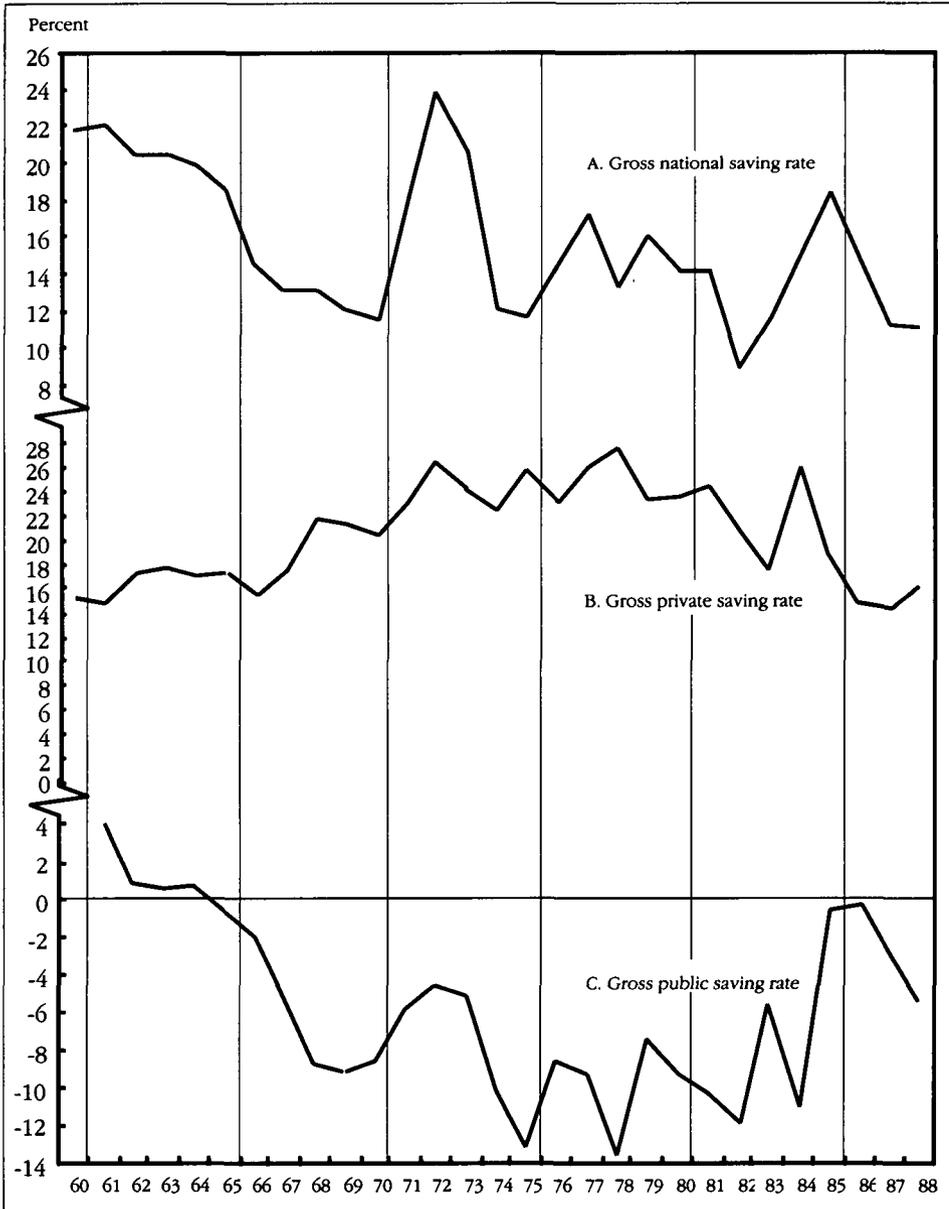
In 1986 and 1987, domestic demand expanded in excess of the growth of production capacity. The additional demand for tradeable goods was satisfied by an increase of both product and an expansion of the import surplus, accompanied by a rise in prices which mainly reflected price increases abroad and the changes in the exchange rate. The higher demand for nontradeable goods was supplied by an expansion of their production together with a rise in their relative prices, i.e., a real appreciation. The movements of prices and exchange rate in these two years influenced the subsequent shaping of the public's expectations. Despite the stability of the exchange rate and slower growth of demand in 1988, wages and prices therefore continued to rise in accordance with the earlier pattern, especially in the nontradeables sector. There, demand rose substantially also in 1988, while the demand for tradeable goods slackened significantly (see Table 2.A-11).<sup>10</sup> This caused the real appreciation to continue also in 1988.

<sup>10</sup> Table 2.A-11 divides domestic resource use into uses of tradeables and non-tradeables. For the manner of this distribution, see notes *a* through *b* to the table. The detailed breakdown by tradeables and nontradeables shows that the use of non-tradeables increased by 5.5 percent in 1986-87, as against a 23.5 percent rise in the use of tradeables. In contrast, in 1988 the use of nontradeables increased by 3 percent, while the use of tradeables increased by only one percent.

Figure 2.3

**Gross National Saving out of Total Income of the Economy,<sup>a</sup>  
and its Distribution between the Private and Public Sector, 1960–88<sup>b</sup>**

(Calculated on the basis of the representative exchange rate)



<sup>a</sup> For definitions and the method of calculation, see Table 2.A-4.

<sup>b</sup> See note b to Figure 2.2.

Real appreciation, it should be pointed out, had already begun before the stabilization program. In fact, all of the past decade was marked by a long-term trend of real appreciation—a development for which we have no full explanation.

The national saving rate out of the economy's gross income (after deduction of the U.S. emergency grant, at the official exchange rate) remained stable in 1988 (Tables 2.3 and 2.A-8), following a slight decline in the previous two years.<sup>11</sup> At the same time, there were sharp changes in the components of national saving during the period: in 1985 and 1986 private saving fell considerably, while public saving became positive and increased. In 1987 both private and public saving contracted slightly. The trend changed again in 1988, with public saving down and private saving up. The main reason for the fall in private saving after the stabilization program relates to the lowering of uncertainty in the wake of the decline of the inflation rate, the cuts in the public deficits and the increase in public saving, and to the rise in the share of wages in total disposable income. In 1988, some of these components changed direction, leading to some increase in the private saving rate. But it is still too early to say whether this represents a transitory fluctuation, or a reversal of trend in private saving.

The national saving-investment account shows that national saving out of the economy's total income rose after the stabilization program, by comparison with the saving rates prevailing in the previous four years. At the same time investment contracted substantially (see Table 2.3). The rise in the saving rate and the fall of investment were reflected in a great improvement, since 1985, in the external current account. In 1986 and 1987, there was a slight decline in national saving and a small rise in investment, which showed up in a decline of the current account surplus and its reversal into a small deficit in 1987. In 1988, a slight decline in both national saving and investment kept the current account deficit stable. But despite its rise in 1986 and 1987, investment was at a level much lower than in the decade before the stabilization program. Although in the short run product can be increased by a higher utilization of existing production capacity, sustained growth is not possible without a substantial increase in investment. The preferable way of financing investment is to release domestic resources, by reducing consumption and increasing national saving.

<sup>11</sup> Table 2.A-7 presents an alternative way of calculating the national, private and public saving rate. In this calculation, which uses the average effective exchange rate for imports and exports, the saving rates obtained are lower than those based on a calculation that uses the official exchange rate. The trends over time, however, are similar. The Central Bureau of Statistics has this year for the first time published estimates of net national saving. In these estimates the level of net saving is of course lower than that of gross saving, but the trends of change over time are similar.

## 2. INVESTMENT

Fixed investment (excluding ships and aircraft) fell in 1988 by about 1 percent, following an 11 percent rise in 1987. The 1988 decline was composed of a 1.3 percent decrease in nondwelling investment while dwelling was unchanged.<sup>12</sup> Business sector investment,<sup>13</sup> which had expanded rapidly in the previous year, declined by 2 percent. Since the start of the 1985 stabilization program, the ratio of business sector investment to product has fallen to an average 16 percent, as against an average 18 percent in 1981–85.

Investment is principally influenced by after-tax profitability and the interest rates on various types of credit, which are an alternative to the return on investment in physical capital. These two factors have, in recent years, operated to reduce investment: gross profits declined, mainly due to the rise in wages per unit of product. The rise of effective taxation on business profits further reduced profitability. In addition, in 1984–1988 both short- and long-term real interest rates were much higher than in the early 1980s.

From another perspective, the volume of investment can be explained as the result of expectations for future GDP growth and the price of capital services. This price reflects the cost of using capital per unit of time, and its basic component is the interest rate.<sup>14</sup> This price also reflects the physical depreciation of capital goods, the level of their prices (relative to the price of GDP), and the rate of taxation. According to this approach, the expected profitability of production expresses itself mainly through expected changes in GDP. Furthermore, since profits are a source of finance for investment, profitability also affects the timing of investment in the short run.

The steep fall of the inflation rate and the sense of stability prevailing after the implementation of the stabilization program led to an acceleration of economic activity and a rapid rise of product. This lasted until mid-1987. The acceleration, apparently also reflected in expectations of continued GDP growth, contributed to the previous year's expansion of investment. However, in the period after the stabilization there were strong factors acting in the opposite direction—among

<sup>12</sup> This chapter deals mainly with nondwelling investment. Investment in dwellings is discussed in the section on the construction industry in Chapter 6.

<sup>13</sup> Excluding ships and aircraft.

<sup>14</sup> The effect of the price of capital services on investment depends on the substitutability between capital and labor. There is evidence for an effect of this price (relative to wages), but it is not clear by how long a lag investment responds to it.

them, the rise in the cost of capital services and the decline of business profitability. After the stabilization program was launched in 1985, real long-term interest rates soared for the various uses, such as nondwelling investment and housing. The real yield on bonds, which serves as an indicator of the interest on long-term assets, rose in 1986 to some 6 percent, as against an average 3 percent in earlier years (see Table 2.4(A)). The picture on the credit side is similar. The real marginal interest rate on short-term credit also rose after the stabilization, and remained relatively high despite its decline in 1988.

TABLE 2.4(A)  
**Main Indicators of Investment, 1981-88**

	1981- 1984	1986- 1988	1985	1986	1987	1988
	<i>Percent</i>					
1. Ratio of investment to business sector product	18	16	16	15	16	16
2. Real change in business sector product	2.8	4.6	5.3	5.7	7.0	1.1
3. Real yield to maturity of 10-year bonds	2.2	5.4	6.3	6.4	5.3	4.5
4. Real interest on short-term interest for the business sector	8 <sup>a</sup>	12	18	7	16	12
5. Real marginal interest on overdraft facilities	25	33	95	35	38	25
6. Statutory corporate tax rate	61	50	61	61	45	45
7. Effective taxation rate on non-wage income	25	33	28	33	32	32
8. Return to the gross capital stock <sup>b</sup>	13.2	10.2	12.5	11.0	9.9	9.8
9. Capital stock/GDP ratio in business sector	2.36	2.26	2.38	2.30	2.21	2.25
	<i>Years</i>					
10. Average age of equipment in the business sector	5.75	6.03	5.87	5.94	6.05	6.11

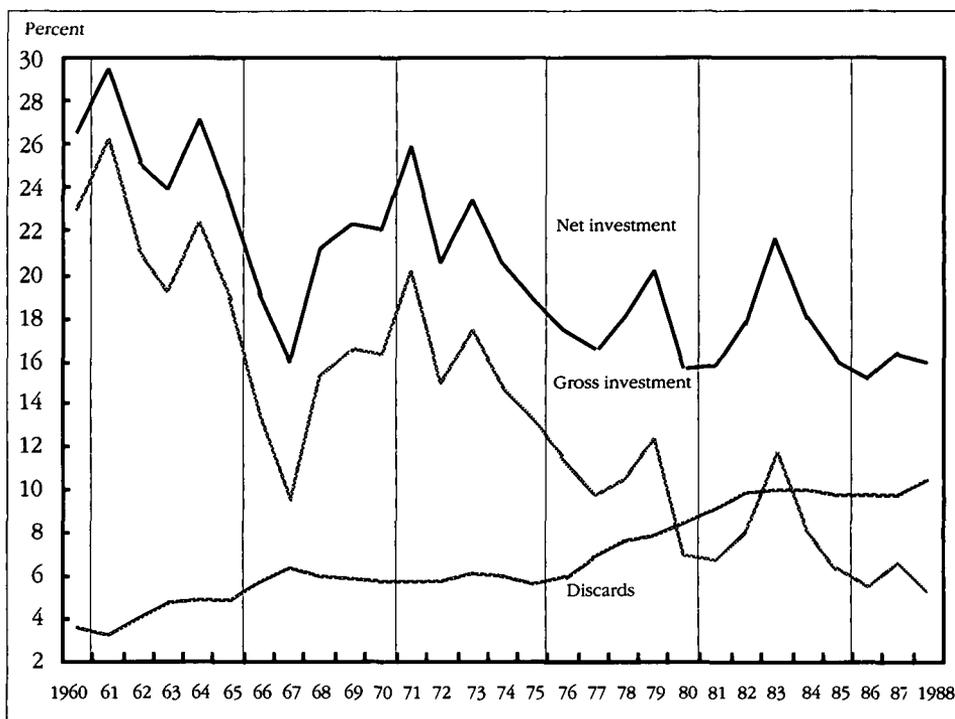
<sup>a</sup> Average for 1983 only. In 1984 this interest rate rose to an exceptionally high level which does not represent its rate in earlier years.

<sup>b</sup> Measured from the expenditure side; current prices.

The high inflation rate in the pre-stabilization period eroded direct taxes on non-wage income. The tax authorities remedied this erosion only partially, so that—without any substantial change in the statutory tax rates—the effective rate of taxation on non-wage income declined. With the post-1985 fall in inflation, the effective rate of taxation rose rapidly. Since the stabilization, the tax rate on non-wage income (which is an approximation of the taxation of income from capital), rose by some 8 percentage points above the 1981-84. average of 25 percent. A

reform of the direct taxation system was indeed introduced in 1987, with cuts of corporate tax rates and a more uniform taxation of the various sectors (except for 'approved investment projects'), but this reform does not yet show up in the data on actual taxation in 1988.

Figure 2.4  
**Gross and Net Investment and Discards as a Percentage of Gross Business Sector Product, 1960–88**



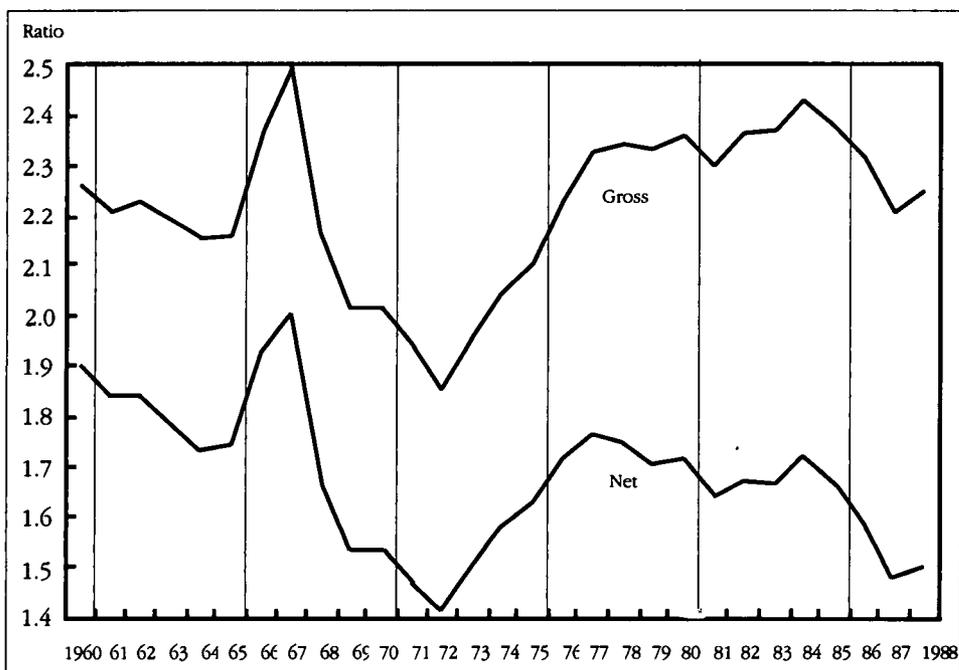
Investment was further slowed by the post-1985 change in government involvement in investment: development loans were abolished and replaced by investment grants. This also reduced the subsidy to investments, with the consequence of a rise in the relative price of capital goods entitled to subsidies.

The combination of these factors raised the cost of capital services, leading to a decline in the demand for investment and a fall of their share in GDP in recent years.

The decline in the profitability of production—which, as said before, was one of the main causes of the fall in demand for investment—also had an impact on the pace at which the capital stock of firms was adjusted to expected demand.

Since 1985, there has been a slide in profitability: gross returns to capital in the business sector declined from an average 13 percent in 1981–84 to an average 10 percent in the following three years. This fall was related to the excessive wage increases of recent years (see Table 2.4[A]). In addition, many sectors landed in financial difficulties (for example, the kibbutzim, moshavim, Koor, the Egged bus cooperative, and others—see Chapter 1). This combination of poor profitability, liquidity shortages, and a heavy debt burden on the nonfinancial business sector, tends to slow the adjustment of the capital stock to its desirable size, and is part of the explanation for the contraction of investment in recent years.

Figure 2.5  
**Ratio of Gross and Net Capital Stock to Business Sector Product, 1960–88**



A solution for the debt burden problem of various sectors was worked out in early 1989, with government assistance that includes a substantial subsidy component. This aid is designed to save firms that have a chance of becoming more efficient and remain viable under competitive conditions. But aid to some losing firms tends to be a negative signal to other losing firms: it may weaken the link between returns and risk, and thereby impair the quality of investments. It is therefore necessary to insist on restricting assistance to businesses with good chances of recovery.

Business sector investment contracted in the year under review by 2 percent, from its already low level in recent years. This development was in large measure affected by the slowdown in GDP growth, which began to make itself felt by mid-1987. Business sector product increased by a mere 1 percent, after an average 6 percent growth in the two preceding years. Business profitability, which had started to decline in 1985, also remained low, and the financial difficulties of many business sectors became more severe. On the other hand, there were favorable developments as to the cost of capital services: the price of capital goods relative to GDP prices declined by some 4 percent, and real short- and long-term interest rates also came down. These factors presumably offset to some extent the effect of the slowdown of economic activity and lower profitability on the current decline of investment. There has been no change in the effective rate of taxation of non-wage income, but it is expected that within the framework of the 1987 tax reform, the cut in corporate tax rates will have a positive effect on investment.

The capital stock increased this year by 2.3 percent—the lowest increase in the last three decades. The business sector's capital stock increased in the last three years by an average 2.6 percent a year, as against 3.4 percent in 1981–85. This slow growth of the capital stock reflects pessimistic expectations as regards future GNP growth, and may impede an acceleration of economic growth in the years to come.

### *Government Subsidies to Investment*

The government's involvement in investment is expressed in the Law for the Encouragement of Investment, the declared objectives of which are to promote export-oriented production and the dispersal of the population. This law, which now applies to industry and tourism, was enacted in 1959, and provided investment grants, subsidized government loans, accelerated depreciation and other tax reliefs. It is designed to favor enterprises in development areas, and those producing for export.

Until 1978 the entitlement to benefits fell into two categories—'approved' enterprises—producing for export, and 'recognized' enterprises, producing for the domestic market. Substantial benefits were given only to the former. The distinction between these two categories was abolished in 1978; in its place came a list of 'noneligible goods', mainly products destined for the home market which were not entitled to any benefits.

Until 1985, the development loans for approved enterprises amounted to about

40 percent of the investment, regardless of the location of the enterprise; supplementary credits granted with exchange rate and linkage insurance were abolished at the end of 1977. Until 1979, the investment loans were unlinked. Their nominal interest were never more than half the inflation rate, so that their real interest was negative. The term for development loans was extended over the years. In 1978 it was set at 10 years, with interest only payable in the first two years. The expected subsidy embodied in these loans mounted steadily, and as inflation accelerated, most of them eventually amounted to outright grants.

In mid-1979, a comprehensive reform was introduced in the system of government loans to various sectors and for diverse purposes. It introduced the indexation of new government loans to industries and for housing. But even with the indexation these loans still contained a substantial subsidy because their interest was below the market rate. Thus, for example, the subsidy embodied in loans given under the new conditions in development area B was equivalent to 30 percent of the value of the loan in the years 1979–83, and about 18 percent in the subsequent period.

A further reform was carried out in mid-1985, abolishing the development loans and substituting them by grants. At present, 'approved' enterprises are entitled to several benefits, the principal of which are:

- (1) *Grants*: Since April 1988 the capital grant was set at 38 percent for enterprises in Development Area A, 20 percent in Development Area B, and 4 percent in the rest of the country.
- (2) *Accelerated depreciation*: Depreciation for tax purposes was set at twice the statutory rate for machinery and equipment, and four times the statutory rate on buildings (but not more than 20 percent a year).
- (3) *Tax reliefs*: The corporate tax for 'approved' enterprises is 25 percent instead of the ordinary corporate tax of 45 percent; if foreign investment in the enterprise exceeds 90 percent, this tax rate is reduced to 10 percent.

In addition, there is an alternative system of benefits: if the capital grant is waived, undistributed profits are tax-exempt for two to 10 years, depending on the location of the enterprise.

The rate of subsidization through capital grants and cheap loans given within the framework of the Law for the Encouragement of Investment amounted, in 1970, to about 11 percent of total fixed investment. This subsidy mounted steadily, reaching 27 percent in 1978. When the subsidy implicit in exchange rate and linkage insurance is taken into account, the rate of subsidization turns out to be twice as high. Following the indexation of the development loans in 1979 and the elimination of exchange rate and linkage insurance on supplementary loans,

TABLE 2.5

**Gross Domestic Investment by Type of Capital Good, 1984–88**

	Current NIS million					Percent annual change						
						Quantity					Price	
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1987	1988
<b>Nondwelling construction</b>												
Structures	145	469	687	1,001	1,269	-7.0	-4.0	-5.7	16.4	5.9	25.3	19.7
Earthworks	106	360	667	991	1,250	-19.3	-3.2	22.4	19.7	6.2	24.2	18.9
Total	251	829	1,354	1,992	2,520	-12.4	-3.6	5.9	18.0	6.0	24.7	19.3
<b>Machinery and equipment</b>	655	2,595	3,567	4,534	4,488	-5.6	2.9	-3.3	6.3	-8.6	19.5	8.4
<i>of which:</i> Imported	425	1,690	2,239	2,850	2,718	-7.4	-3.8	-8.0	6.5	-9.4	19.5	13.5
Locally produced	230	904	1,328	1,683	1,770	-2.0	15.9	4.5	6.1	-7.3	19.5	13.5
Land transport equipment	113	401	833	1,343	1,717	-37.4	-15.8	21.9	33.8	13.3	20.4	12.9
Ships and aircraft	29	-8	2	163	127							
<i>Subtotal:</i> Nondwelling investment	1,049	3,817	5,756	8,032	8,852	-13.6	-5.6	2.0	15.4	-1.8	21.0	12.3
Excl. ships and aircraft	1,019	3,825	5,754	7,869	8,725	-12.7	-1.0	1.6	13.1	-1.3	21.0	12.3
Dwellings	507	1,457	2,115	2,878	3,462	-6.3	-12.0	-5.9	6.6	0.5	27.6	19.7
<i>of which:</i> Private	424	1,248	1,877	2,596	3,142	-3.2	-10.3	-2.2	8.1	1.0	27.9	19.8
Public	84	209	238	282	320	-19.6	-20.5	-27.4	-4.9	-4.0	24.8	18.2
Total fixed investment	1,556	5,275	7,871	10,910	12,314	-11.3	-7.8	-0.6	13.0	-1.2	22.7	14.3
Change in stocks	100	-10	804	61	-60							
Total gross domestic investment	<b>1,656</b>	<b>5,264</b>	<b>8,675</b>	<b>10,971</b>	<b>12,254</b>	-7.1	-10.6	10.4	3.3	-2.1	22.4	14.1

SOURCE: Central Bureau of Statistics.

TABLE 2.6

**Gross Fixed Investment by Economic Sector 1987-88**

	Current NIS million			Real annual change, percent					
	1988			1987			1988		
	Total	Machinery & equipmt.	Structures	Total	Machinery & equipmt.	Structures	Total	Machinery & equipmt.	Structures
Agriculture	498	275	223	6.8	8.4	4.2	-2.2	-12.7	16.8
Water systems	78	21	57	10.2	6.9	11.3	-37.1	-24.7	-40.9
Industry	2,103	1,850	253	6.7	7.3	-0.8	-13.4	-15.6	13.0
Construction equipment	139	139		65.2	65.2		10.9	10.9	
Electricity	529	368	161	3.1	6.9	-5.6	11.2	11.0	11.8
Transport and communications	2,946	2,349	597	37.3	39.6	27.8	7.9	6.8	13.0
Excluding transport equipment	1,103	505	597	20.3	13.7	27.8	6.3	-0.4	13.0
Private services	871	797	74	1.0	2.5	-11.1	-6.5	-4.5	-26.1
<i>Subtotal: Business sector</i>	7,163	5,798	1,365	15.8	17.0	9.6	-2.4	-4.1	6.5
Public services	1,688	533	1,155	3.4	-5.5	29.6	0.8	-6.6	5.5
Total, nondwelling	8,851	6,332	2,520	15.4	14.5	18.0	1.8	-4.3	6.0
Dwellings	3,462		3,462	6.6		6.6	0.5		0.5
Total fixed investment	12,314	6,332	5,982	13.0	14.5	11.1	-1.2	-4.3	2.8

SOURCE: Central Bureau of Statistics and Bank of Israel calculations.

the subsidy gradually declined to some 13 percent in 1984. In 1985 the loans were replaced by grants. Following that, the rate of subsidization rose slightly, mainly as a result of investment grants and a wider spread between the commercial interest rate and that on loans granted in earlier years. It should be emphasized that the subsidy discussed here is the expected subsidy, not the ex post actual subsidy, which during the 1970s was substantially higher than the expected one (see also the section on industry in Chapter 6).

The macro-economic effects of subsidizing investment are not quite clear. Preference of specific industries may crowd out others, and we have no information to tell whether subsidization contributed to increasing total investment.<sup>15</sup> The subsidies discriminated in favor of industrial investment in development areas, and without them investment in these areas was expected to be less. An empirical examination shows no significant difference between investment (relative to the labor force) in the development areas and the rest of the country. This means that the subsidies affected the geographical distribution of investment. In addition to the Law for Encouragement of Investment, a law for the encouragement of investment in agriculture was enacted in 1981. The benefits extended to entrepreneurs in this law are similar to those given to industrial enterprises. The discrimination in favor of industry, agriculture and tourism (mainly hotels) may cause a contraction of investment in other sectors, such as in construction, commerce, business services and communications.

The subsidization of capital investment, while labor is taxed heavily, promotes capital-intensive industries. Various studies in industry have shown that the subsidies reduced capital utilization, caused a waste of resources and distortions in the allocation of resources.

The overall effect of the subsidization of investment was to create a system of discriminations: There was discrimination according to purpose—between production for the domestic market and for export; by ownership—between local and foreign investors; and finally, according to location, between different regions of the country. As stated earlier, it is not clear to what extent this system of preferences contributed to increase total investment in the economy.

The subsidies were indeed an incentive for investing in development areas, but did not lead to the establishment of industries on a lasting basis. Many enterprises

<sup>15</sup> Changes in total investment depend on the changes in GNP, interest rates and the saving rate. Thus, for example, for a given GNP, subsidization will increase the eligible investments and reduce the others, without changing total investment. As against this, when the interest rate remain unchanged as a result of the subsidy, the subsidization of eligible investments will increase total investment.

set up in development areas close down when the period of benefits is over. Similar developments have also been observed in other countries

In the light of the partial findings at our disposal and the experience of other countries, it seems that in its present form the Law for the Encouragement of Investment fails to achieve its objectives efficiently, for the following reasons:

1. The law discriminates between industrial and other investment, and within industry—between 'approved' enterprises and others. Actually, the distinction is between export industries and other industries (e.g., those producing import substitutes, which contribute no differently to the balance of payments). No economic justification has been found for this discrimination.

2. The law serves two purposes: the promotion of the development areas, and a general intervention in investment in order to prevent market failures. These two objectives do not necessarily coincide. Moreover, at times the map of the development areas is 'redrawn' at the discretion of the government to meet the needs of one or the other specific project. Thus, in one example of a distorted use of the law, Haifa was recognized as a development area for a certain project.

3. The law discriminates in favor of the development areas (mainly regarding fixed investment) through different scales of grants. The very use of this single instrument for the geographic dispersal of the population leads to an expansion in capital-intensive industries, by lowering the relative price of capital, in the very areas where the government wishes to promote employment. Studies have shown that investment in infrastructure and services—at the local, regional and country-wide level—plays an important role in promoting the growth and development of backward areas. At present, no instrument that would act in this direction exists.

4. The law discriminates between local and foreign investors. The justification for this discrimination is unclear.

5. The law, as it stands at present, with its procedures and policy instruments, provides incentives for entrepreneurship and investment for a limited period, and enterprises close down when the period of benefits is over. In many cases it turns out that new enterprises were established in place of those that shut down, to produce the same goods, under a different ownership and with new equipment, with entitlement to fresh benefits. This suggests a 'leakage' of used machinery and equipment from the development areas to the central regions of the country, and also an underutilization of machinery and equipment.

6. The discriminatory nature of the law dictates a discretionary mode of implementation, with plodding bureaucratic procedures, a lengthy process of checks, approvals and follow-ups on the implementation of the investment, and the

fulfillment of other conditions. Studies have shown that a system of non-automatic, discretionary benefits deters entrepreneurs from investing, because of the dependence on the goodwill of officials.

7. The law effectively discriminates in favor of large enterprises which have access to the authorities and are familiar with their procedures, and are capable of maintaining a counter-bureaucracy to deal with the processes of obtaining approvals and benefits. This is despite the fact that investment market failures occur mostly in small firms and others which are taking their first steps.

8. It is not clear to what degree there is an effective follow-up on the filling of the conditions on which benefits were granted.

TABLE 2.A-1

**Business Sector Product Derived<sup>a</sup> from Final Uses,<sup>b</sup> 1980-88***(Percent)*

	<u>Annual average</u>		<u>Annual average</u>								
	<u>1980- 1985-</u>		<u>1981-</u>								
	1984	1988	1985	1986	1987	1988	1984	1985	1986	1987	1988
Private consumption	36.3	39.0	36.6	39.4	39.4	40.8	1.9	1.8	4.8	3.1	1.4
Public consumption	11.1	9.6	10.1	9.5	9.4	9.5	0.2	-0.1	-0.1	0.6	0.1
Fixed investment	18.5	14.9	15.5	14.7	14.6	14.6	-0.2	-0.6	-0.1	1.1	0.0
Change in stocks	0.1	-0.1	0.4	-0.1	-0.3	-0.4	0.0	0.0	-0.5	-0.2	-0.1
Total domestic uses	66.1	63.4	62.6	63.4	63.1	64.6	1.9	1.0	4.0	4.7	1.3
Exports	33.9	36.6	37.5	36.6	36.9	35.4	1.7	2.6	0.9	3.3	-1.6
of which: Tourism	3.5	3.2	3.9	3.0	3.2	2.6	0.2	0.2	-0.8	0.5	-0.6
Exports to Judea-Samaria and Gaza	1.6	1.4	1.5	1.6	1.6	1.0	0.0	-0.0	0.3	0.0	-0.6
Total final uses	100.0	100.0	100.0	100.0	100.0	100.0	3.7	3.6	4.9	8.0	-0.3

<sup>a</sup> GDP at factor cost, not including services of the public sector and nonprofit institutions, and excluding housing services.

<sup>b</sup> In order to adjust the uses to input-output analysis and to examine their effect on the business sector product, some deductions have been made from the different uses, as follows: imputed housing services and wage bill of nonprofit institutions—from private consumption; the wage bill of the public sector—from public consumption; receipts of production factors abroad, and receipts and income of local production factors—from exports. The direct import component of all uses was also deducted.

SOURCE: Input-output analysis by the Bank of Israel on the basis of data on final uses and input-output coefficients for 1982/83 estimated by the Central Bureau of Statistics.

TABLE 2.A-2  
**Private Consumption, 1985-88**  
*(Percent annual change)*

	NIS mill.		Quantity			Price		
	1988	1985	1986	1987	1988	1986	1987	1988
1. Current consumption goods	18,324	4.5	9.6	10.8	2.3	47.0	15.1	14.1
Food, beverages and tobacco	11,395	2.4	5.2	7.2	4.7	52.5	16.1	16.2
Other	6,929	8.1	17.1	16.4	-1.2	38.7	13.5	10.8
2. Services	11,485	0.3	5.7	8.6	1.5	53.5	27.8	17.6
3. Consumption of Israelis abroad	2,033	-25.4	19.9	12.4	3.2	40.7	24.0	5.4
4. <i>less:</i> Consumption of foreigners in Israel	2,440	8.0	-21.2	18.1	-12.3	44.6	24.3	15.6
5. Private consumption, excl. services of nonprofit institutions, housing and durables	29,403	-0.1	12.5	9.5	3.4	49.5	19.5	14.7
6. Durables	4,328	-0.7	47.1	12.6	2.1	41.1	18.9	9.4
7. Services of private nonprofit institutions	1,122	1.7	3.0	3.8	1.4	56.7	29.5	20.3
8. Housing services	7,471	3.3	2.6	2.3	2.2	41.5	21.8	20.7
9. Total private consumption	<b>42,324</b>	0.5	14.2	8.4	3.0	45.9	20.0	15.3
10. Total, excluding durables	<b>37,996</b>	0.7	10.2	7.9	3.1	47.8	20.2	16.0

SOURCE: Central Bureau of Statistics.

TABLE 2.A-3  
**Gross National Product and National Income, 1985-88**

	Current NIS million				Real annual change, percent <sup>a</sup>			
	1985	1986	1987	1988	1985	1986	1987	1988
1. GNP, at market prices	27,112	42,307	53,809	65,071	-5.3	6.9	6.0	4.9
2. Depreciation	4,753	7,145	8,850	10,348	-0.8	3.0	3.2	1.4
3. Indirect taxes on domestic production	3,518	6,037	7,631	8,787	18.3	17.6	5.3	-0.1
4. Subsidies to domestic production	951	875	1,063	1,589	-29.8	-36.9	1.2	29.7
5. Net indirect taxes (3-4)	2,567	5,162	6,568	7,198	58.5	37.8	6.0	-4.9
6. Subsidy element of government loans	483	626	790	704	-8.2	-11.2	5.1	-22
7. National income (1-2-5+6)	20,276	30,626	39,181	48,229	-10.8	3.5	6.6	6.8
8. National income, excl. loan subsidy	19,792	30,000	38,391	47,525	-10.9	3.9	6.6	7.4

<sup>a</sup> Deflated by the implicit price index for private consumption.

SOURCE: Central Bureau of Statistics.

TABLE 2.A-4

**Fixed Nondwelling Investment by Initiating Sector,<sup>a</sup> 1985-88**

	NIS million		Real annual change, percent			
	1986 prices		1985	1986	1987	1988
	1987	1988				
<b>Structures</b>						
Public sector <sup>b</sup>	1,057	1,157	-0.5	12.7	30.1	9.5
Public sector corporations <sup>c</sup>	286	249	-1.7	12.6	0.7	-12.8
Subtotal	<b>1,342</b>	<b>1,406</b>	-0.8	12.7	22.5	4.7
Private sector	255	287	-11.7	-15.5	-1.0	12.7
Total	<b>1,597</b>	<b>1,693</b>	-3.7	6.0	18.0	6.0
<b>Machinery and equipment</b>						
Public sector	639	549	10.3	3.7	-7.6	-14.2
Public sector corporations	748	727	5.5	-1.9	3.1	-2.7
Subtotal	<b>1,387</b>	<b>1,276</b>	7.7	0.7	-2.1	-8.0
Private sector	2,406	2,189	-0.1	-5.9	11.9	-9.0
Total	<b>3,793</b>	<b>3,465</b>	2.9	-3.3	6.3	-8.6
<b>Total</b>						
Public sector	1,696	1,706	4.3	8.5	12.8	0.6
Public sector corporations	1,033	976	3.5	2.0	2.4	-5.5
Subtotal	<b>2,729</b>	<b>2,682</b>	4.0	5.7	8.6	-1.7
Private sector	2,661	2,476	-1.8	-7.1	10.5	-6.9
Total	<b>5,390</b>	<b>5,158</b>	1.0	-0.7	9.5	-4.3

<sup>a</sup> Excluding transportation equipment.

<sup>b</sup> Government enterprises (railways, ports, airports and the Post Office), roads, afforestation, land reclamation, and some construction equipment. Includes investment of private nonprofit institutions.

<sup>c</sup> Water, electricity, estimates for public sector corporations in chemicals, oil products, mining and quarrying, industry, transport and services.

SOURCE: Based on data of the Central Bureau of Statistics .

TABLE 2.A-5

**Private Disposable Income and Saving Rate, 1985-88,<sup>a</sup> at Real Interest Rates<sup>b</sup>**

	Current NIS million				Real annual change, percent <sup>b</sup>			
	1985	1986	1987	1988	1985	1986	1987	1988
1. National income	20,276	30,626	39,181	48,229	-10.8	3.5	6.6	6.8
2. Public sector income from property	363	399	505	553	-30.1	-24.5	5.3	-4.9
3. Depreciation (private sector)	4,289	6,413	7,874	9,208	0.1	2.5	2.3	1.4
4. Gross private income from economic activity (1-2+3)	24,202	36,640	46,550	56,884	-8.7	3.7	5.8	6.0
5. Direct taxes	6,141	9,807	12,002	14,641	13.2	9.4	2.0	5.8
<i>of which:</i> Income tax	4,364	7,092	8,814	10,867	15.8	11.4	3.5	6.9
National insurance contributions <sup>d</sup>	1,777	2,715	3,188	3,774	7.1	4.7	-2.2	2.7
6. Non-recurrent property levy and other imposts <sup>e</sup>	251	430	328	358	271.9	17.1	-36.4	-5.3
7. Net compulsory loans <sup>f</sup>	-101	-321	-252	-955				
8. Net transfer payments	3,946	6,381	7,569	9,150	30.4	10.8	-1.2	4.9
9. Gross private disposable income								
from domestic sources (4-5-6-7+8)	21,856	33,106	42,041	51,989	-9.9	3.8	5.8	7.3
10. Personal transfers from abroad	807	1,607	2,201	1,987	12.7	36.5	14.1	-21.7
11. Gross private disposable income from all sources	22,663	34,713	44,242	53,976	-9.3	5.0	6.2	5.8
12. Private consumption	16,434	27,388	35,636	42,324	0.5	14.2	8.4	3.0
13. Saving rate out of domestic income [(9)-(12)], percent	24.8	17.3	15.2	18.6				
14. Saving rate out of income from all sources [(11)-(12)], %	27.5	21.1	19.5	21.6				

<sup>a</sup> See note *a* to Table 2.1.

<sup>b</sup> Interest payments on the domestic debt by the government to the public (which are included in net transfer payments) have been adjusted to reflect real long-term interest payments. The net transfer payments to the public shown in Table 2.A-3 differ from those of the present table since they include the government's nominal interest payments on the domestic debt to the public (in accordance with the accounting methods of the Central Bureau of Statistics).

<sup>c</sup> Deflated by the implicit price index of private consumption.

<sup>d</sup> Including employers' contributions for their workers.

<sup>e</sup> Non-recurrent property levy, fees, levies and fines, and inventory surtax.

<sup>f</sup> Gross compulsory loans less redemptions of compulsory loans.

SOURCE: Central Bureau of Statistics.

TABLE 2.A-6  
**Private Disposable Income and Saving Rate, 1985-88, at Nominal Interest Rates<sup>a</sup>**

	Current NIS million				Real annual change, percent <sup>b</sup>			
	1985	1986	1987	1988	1985	1986	1987	1988
1. National income	20,276	30,626	39,181	48,229	-10.8	3.5	6.6	6.8
2. Public sector income from property	149	704	548	553	-79.2	223.8	-35.2	-12.5
3. Depreciation (private sector)	4,289	6,413	7,874	9,208	0.1	2.5	2.3	1.4
4. Gross private income from economic activity (1-2+3)	24,416	36,336	46,507	56,884	-7.2	2.0	6.6	6.1
5. Direct taxes	6,141	9,807	12,002	14,641	13.2	9.4	2.0	5.8
<i>of which:</i> Income tax	4,364	7,092	8,814	10,867	15.8	11.4	3.5	6.9
National insurance contributions <sup>c</sup>	1,777	2,715	3,188	3,774	7.1	4.7	-2.2	2.7
6. Non-recurrent property levy and other imposts <sup>d</sup>	251	430	328	358	271.9	17.1	-36.4	-5.3
7. Net compulsory loans <sup>e</sup>	-101	-321	-252	-955				
8. Net transfer payments	4,300	7,026	8,445	9,956	1.2	12.0	0.1	2.3
9. Gross private disposable income from domestic sources (4-5-6-7+8)	22,424	33,446	42,874	52,796	-11.3	2.2	6.8	6.8
10. Personal transfers from abroad	807	1,607	2,201	1,987	12.7	36.5	14.1	-21.7
11. Gross private disposable income from all sources	23,231	35,053	45,075	54,783	-10.7	3.4	7.1	5.4
12. Subsidy component of government loans to the public	483	626	790	704	-8.2	-11.2	5.1	-22.7
13. Credit subsidies	476	625	788	704	-2.5	-10.0	5.1	-22.5
14. Disposable income excl. subsidy element in government loans to the public, and including credit subsidies	23,223	35,052	45,073	54,783	-10.6	3.4	7.1	5.4
12. Private consumption	16,434	27,388	35,636	42,324	0.5	14.2	8.4	3.0
13. Saving rate out of domestic income [(9)-(15)], percent	26.7	18.1	16.9	19.8				
14. Saving rate out of income from all sources [(11)-(15)], %								
a. As defined in row 11	29.3	21.9	20.9	22.7				
b. As defined in row 14	29.2	21.9	20.9	22.7				

<sup>a</sup> See note *a* to Table 2.A-2.

<sup>b</sup> Deflated by the implicit price index of private consumption.

<sup>c</sup> Including employers' contributions for their workers.

<sup>d</sup> Non-recurrent property levy, fees, levies and fines, and inventory surtax.

<sup>e</sup> Gross compulsory loans less redemptions of compulsory loans.

SOURCE: Central Bureau of Statistics.

TABLE 2.A-7

**Income from All Sources and Gross National Saving, 1985-88,  
at Effective Exchange Rate<sup>a</sup>**

	1985	1986	1987	1988
	<i>Current NIS million</i>			
1. Gross national product at market prices	27,112	42,307	53,809	65,071
2. Unilateral transfers from abroad, net <sup>a,b</sup>	5,679	7,067	6,644	6,255
3. Total gross income from all sources (1+2)	<b>32,791</b>	<b>49,374</b>	<b>60,453</b>	<b>71,326</b>
4. Private consumption	16,434	27,388	35,636	42,324
5. Domestic public consumption <sup>c</sup>	7,999	11,695	14,902	18,291
6. Direct defense imports, incl. advance payments <sup>a</sup>	2,313	3,049	3,075	2,890
7. Total consumption (4+5+6)	<b>26,746</b>	<b>42,132</b>	<b>53,614</b>	<b>63,504</b>
8. Gross national saving (3-7)	6,046	7,242	6,840	7,822
9. Gross private saving <sup>d</sup>	6,229	7,325	8,606	11,652
10. Gross public saving (8-9)	-183	-83	-1,766	-3,830
11. Gross saving rate, income from all sources:	<i>Percent</i>			
A. National [100x(8)/(3)]	18.4	14.7	11.3	11.0
B. Private [100x(9)/(3)]	19.0	14.8	14.2	16.3
C. Public [100x(10)/(3)]	-0.6	-0.2	-2.9	-5.4

<sup>a</sup> Converted into NIS at the average of the effective exchange rate of imports and exports.

<sup>b</sup> Unilateral transfers from abroad, less net interest payments of the public sector to the rest of the world.

<sup>c</sup> Total public consumption excluding direct defense imports.

<sup>d</sup> Gross private disposable income from all sources (line 13 in Table 2.A-2), less private consumption.

TABLE 2.A-8

**Income from All Sources and Gross National Saving, 1985-88,  
at Official Exchange Rate<sup>a</sup>**

	1985	1986	1987	1988
	<i>Current NIS million</i>			
1. Gross national product at market prices	28,699	45,371	57,859	69,525
2. Unilateral transfers from abroad, net <sup>b</sup>	5,194	6,370	5,976	5,610
3. Total gross income from all sources (1+2)	<b>33,892</b>	<b>51,741</b>	<b>63,836</b>	<b>75,135</b>
4. Private consumption	16,434	27,388	35,636	42,324
5. Domestic public consumption	7,999	11,695	14,902	18,291
6. Direct defense imports, incl. advance payments	2,110	2,753	2,775	2,597
7. Total consumption (4+5+6)	<b>26,543</b>	<b>41,836</b>	<b>53,313</b>	<b>63,211</b>
8. Gross national saving (3-7)	7,350	9,905	10,522	11,924
9. Gross private saving <sup>c</sup>	6,229	7,325	8,606	11,652
10. Gross public saving (8-9)	1,121	2,580	1,916	271
11. Gross saving rate, income from all sources:	<i>Percent</i>			
A. National [100x(8)/(3)]	21.7	19.1	16.5	15.9
B. Private [100x(9)/(3)]	18.4	14.2	13.5	15.5
C. Public [100x(10)/(3)]	3.3	5.0	3.0	0.4

<sup>a</sup> Converted into NIS as follows: Private consumption + public consumption + investment + exports at the official exchange rate, less imports at the official exchange rate.

<sup>b</sup> See note *a* to Table 2.A-4.

<sup>c</sup> See note *d* to Table 2.A-4.

TABLE 2.A-9

**Disposable Income and Per Capita Consumption, 1981-88***(Annual percent change)*

	1981 -1985-					
	1984	1988	1985	1986	1987	1988
<b>Total private consumption</b>	<b>3.3</b>	<b>4.7</b>	<b>-1.3</b>	<b>12.5</b>	<b>6.7</b>	<b>1.4</b>
Total private consumption, excl. nonprofit institutions, housing and durables	3.7	4.4	-1.8	10.5	7.6	1.8
Acquisition of durables	4.3	12.0	-2.4	44.8	10.8	0.5
Standard of living <sup>a</sup>	3.9	3.9	-0.6	7.8	6.2	2.2
Private disposable income from all sources	3.9	0.0	-11.0	3.4	4.5	4.1
Private disposable income from domestic sources	4.7	-0.3	-12.0	2.2	4.1	5.5
Disposable income from wages and current transfer payments	5.7	1.9	-16.2	12.4	7.7	6.3

<sup>a</sup> Defined as private consumption, excluding durables, plus an estimate of the imputed services from the stock of durables.

TABLE 2.A-10

**Acquisition of Durables and Consumption of Non-Durables, 1985-88**

	Current NIS mill.	Percent change							
		Quantity				Price			
		1988	1985	1986	1987	1988	1986	1987	1988
<b>Non-durables</b>									
Food, beverages and tobacco	11,395	2.4	5.2	7.2	4.7	52.5	16.1	16.2	
Fuel and electricity	1,370	3.2	12.2	11.1	8.4	12.8	0.5	4.9	
Clothing, footwear and personal items	3,316	14.9	21.1	20.0	-4.8	55.9	15.5	10.3	
Other non-durables	2,243	5.3	16.7	14.7	-2.2	37.7	19.9	16.5	
Total non-durables	18,324	4.5	9.6	10.8	2.3	47.0	15.1	14.1	
<b>Durables</b>									
Furniture	1,130	5.6	26.8	4.2	-2.8	38.3	20.4	3.1	
Household appliances	1,543	11.4	58.6	9.2	-4.1	38.3	17.8	13.0	
Private motor vehicles	1,655	-26.6	53.1	25.2	13.0	53.9	18.8	10.8	
Total acquisition of durables	4,328	-0.7	47.1	12.6	2.1	41.1	18.9	9.4	

SOURCE: Central Bureau of Statistics.

TABLE 2.A-11

**Resource Uses of Tradeables and Nontradeables,<sup>a</sup> 1981-88***(Annual percent change)*

	1981- 1985-		1986	1987	1988	
	1984	1988				
<b>1. Private consumption</b>						
Tradeables <sup>b</sup>	5.1	9.3	3.5	19.0	12.5	3.0
Tradeables excl. durables	4.9	8.2	4.4	13.0	12.5	3.3
Nontradeables <sup>c</sup>	4.6	3.8	1.1	7.4	3.8	3.0
Nontradeables excl. housing	5.0	4.6	-0.3	10.8	4.7	3.6
<b>2. Public consumption<sup>d</sup></b>						
Tradeables <sup>e</sup>	4.0	1.9	-0.7	-1.0	7.7	1.6
Nontradeables <sup>f</sup>	0.6	-0.4	-1.0	-4.0	0.0	3.5
<b>3. Investment</b>						
Tradeables <sup>g</sup>	9.8	-1.0	-10.3	15.8	-1.9	-5.7
Nontradeables <sup>h</sup>	-3.2	0.4	-9.3	-1.9	11.1	2.8
<b>4. Total uses</b>						
Total nontradeables	1.7	1.8	-1.4	1.9	3.6	3.2
Total nontradeables, excl. imputed items <sup>i</sup>	1.1	1.6	-2.6	1.7	4.0	3.4
Total tradeables	6.0	5.5	-0.8	14.1	8.3	1.0
Total tradeables excl. durables	5.9	4.4	-0.9	10.5	7.7	0.8

<sup>a</sup> A rough breakdown; items defined as tradeables may contain nontradeable components, and vice versa.

<sup>b</sup> Includes consumption expenditure of households (excl. housing services, other services and fresh fruit and vegetables), and consumption of Israelis abroad; excludes services of nonprofit institutions to households; and less 30 percent of the consumption of foreigners in Israel.

<sup>c</sup> Comprises 'other' services, housing services, fresh fruit and vegetables, less 70 percent of the consumption of foreigners in Israel.

<sup>d</sup> Excludes direct defense imports.

<sup>e</sup> Comprises current procurement (civilian + defense + 46 percent depreciation, excluding defense purchases of construction and earthworks.

<sup>f</sup> Wages plus taxes on wages, plus 54 percent depreciation.

<sup>g</sup> Investment in machinery and equipment, transport equipment and stocks.

<sup>h</sup> Investment in structures and other construction.

<sup>i</sup> Total nontradeables, excluding housing services and depreciation.

TABLE 2.A-12

**Gross Capital Stock by Economic Sectors, 1960-89***(Percent annual average change; beginning of period)*

	Total capital stock					Machinery and equipment					Structures				
	1960-	1976-	1980-			1960-	1976-	1980-			1960-	1976-	1980-		
	1976	1980	1989	1988	1989	1976	1980	1989	1988	1989	1976	1980	1989	1988	1989
Agriculture	4.5	4.5	1.5	0.3	0.2	5.6	7.5	2.1	1.4	0.5	4.2	3.6	1.3	0.1	0.0
Water systems	4.9	2.6	1.9	0.7	-0.3	5.3	6.4	4.4	2.6	1.3	4.9	2.1	1.5	0.5	-0.6
Industry	7.1	6.6	4.0	3.5	2.0	6.3	7.4	4.9	4.5	2.4	10.2	4.4	0.8	-0.2	0.1
Construction equipment	7.3	3.4	-2.2	0.0	0.2	7.3	3.4	-2.2	0.0	0.2					
Electricity	7.1	9.1	5.6	4.0	4.3	5.8	12.1	6.9	4.9	5.1	8.8	5.5	3.5	2.5	3.0
Transport and communications	12.0	3.0	2.3	3.5	3.2	13.9	2.2	2.0	3.6	3.0	9.9	4.3	2.6	3.3	3.6
Excluding transport equipment	10.5	4.2	3.1	4.4	4.3	14.7	4.0	5.3	9.5	7.7	9.9	4.3	2.6	3.3	3.6
Private services	11.9	5.7	5.0	3.7	2.7	16.8	6.3	6.8	5.2	3.9	9.1	5.0	2.7	1.6	1.0
<i>Subtotal: Business sector</i>	<b>8.3</b>	<b>4.8</b>	<b>3.1</b>	<b>3.0</b>	<b>2.3</b>	<b>9.1</b>	<b>5.3</b>	<b>3.8</b>	<b>4.0</b>	<b>2.8</b>	<b>7.4</b>	<b>4.1</b>	<b>2.0</b>	<b>1.5</b>	<b>1.6</b>
Public services	13.1	6.4	3.5	4.0	3.7	19.0	5.6	3.2	4.5	2.7	12.4	6.6	3.6	3.9	3.9
Total, nondwelling	<b>9.1</b>	<b>5.1</b>	<b>3.2</b>	<b>3.2</b>	<b>2.6</b>	<b>9.4</b>	<b>5.4</b>	<b>3.8</b>	<b>4.0</b>	<b>2.8</b>	<b>8.7</b>	<b>4.9</b>	<b>2.6</b>	<b>2.4</b>	<b>2.5</b>
Excluding transport equipment	8.4	5.7	3.5	3.3	2.7	8.0	7.0	4.7	4.6	3.0	8.7	4.9	2.6	2.4	2.5
Dwellings	8.9	5.8	4.2	3.1	2.9						8.9	5.8	4.2	3.1	2.9
Total capital stock	<b>9.0</b>	<b>5.4</b>	<b>3.6</b>	<b>3.2</b>	<b>2.7</b>	<b>9.4</b>	<b>5.4</b>	<b>3.8</b>	<b>4.0</b>	<b>2.8</b>	<b>8.8</b>	<b>5.4</b>	<b>3.5</b>	<b>2.8</b>	<b>2.7</b>

SOURCE: Central Bureau of Statistics and Bank of Israel calculations.