*Chapter 2*

# *Output and Demand*

*In 1993 the rate of increase of business-sector product dropped sharply, to just 3.5 percent. While activity in industries manufacturing for construction fell, the rate of increase in other industries also slowed slightly, from an average of 6 percent in 1990–92 to 5 percent in 1993. This was due to the combination of slower expansion of demand and sluggish response on the supply side. Some excess demand resulted, reflected by a moderate rise in the import surplus/GDP ratio (2 percent of GDP).*

*The slower increase of aggregate demand was due mainly to the sharp contraction of investment in government-initiated housing. With the exception of this investment, the use of resources continued expanding at a rapid 9 percent, similar to the 1992 rate. The steep rise of private-sector investment in the principal industries, and of government infrastructure investment, were prominent. Exports also rose rapidly, for the second year in succession.*

*The slow response on the supply side despite the relatively rapid expansion of capital and labor was due to two main factors—sharp changes in the composition of demand, and the replacement of workers from the administered areas by Israelis. These temporarily impeded factor utilization, and this was reflected by a fall in productivity and in the rield on capital. The unsuitability of new immigrants' original occupations to their new jobs lowered the effectiveness of the increase in labor input.*

*The transition from surplus to deficit in the current account balance of payments reflects a reduction in the national saving rate (entirely in private saving). On the other hand, there was no significant change in the rate of investment, although the share of investment in the principal industries rose.*

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**Measuring business-sector product by industry**

The estimate of change in business-sector product by principal industry (manufacturing, services, etc.) is based on changes in the output of the two-digit industries, the latter being weighted by their share of added value. Thus, changes in the product of the principal industries, as measured here, are an intermediate result between change in output and change in real business-sector product. This means that when economic conditions alter the share of the added value component of output, this estimate is biased. The large difference between the measure used here (Table 2.2) and that of the Central Bureau of Statistics (by use of resources, see Tables 2.1 and 2.3), may therefore be due to an increase in the import component of output, at the expense of the added value component—a change which gives an upward bias to the by-industry measure.

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.993 the rate of increase of business-sector product dropped sharply,[1] following rapid wth in 1990–92. There were signs of a slowdown of economic expansion during '2, and this reached its nadir in the second quarter of 1993. In contrast, economic ivity expanded greatly in the second half of 1993. The significant increase in ɔloyment of Israelis continued, and the unemployment rate fell for the first time since i7. There was no real change in the inflation rate, following its steep decline in 1992.

Activity abated in industries manufacturing for construction, but in other industries too rate of increase slowed to some extent,[2] compared with the average for 1990–92 ble 2.4). Some of these changes reflect the structural change in demand, via the wdown in their expansion: public-sector investment in residential construction fell rply, and domestic defense consumption showed some decline. In contrast, the rapid : of the other components of domestic use of resources (private consumption, public ilian consumption, private-sector investment in housing, in the principal industries, . in stocks) continued, as did that of exports. The rate of increase of total domestic use ·esources (excluding direct defense imports) slowed to about 5.5 percent, compared h 7 percent in 1992 and an annual average of 10 percent in 1990–91 (Table 2.1). vertheless, the rate of increase of domestic use of resources was still higher than that iDP, so that the civilian import surplus/GDP ratio rose, after remaining stable in 1992, . rising steeply in 1991.

There were no changes of note in import and export prices relative to product price 1ich serve as indicators of the real exchange rate), following a sharp drop in 1991 and irther decline in 1992.

iDP and business-sector product grew at similar rates, about 3.5 percent, significantly ɔw the annual average growth rates in 1990–92—about 6 percent for GDP, and 7.5 cent for business-sector product. The rate of increase of per capita business-sector duct also dropped sharply, from an annual average of 3 percent in 1990–92 to 1 cent in 1993. The slowdown in the growth of business-sector product was reflected a reduced rate of increase of labor input, and a slight fall in labor and total ductivity, following a moderate rise in 1992 and steep increases in 1990 and 1991 ble 2.3).

he rate of growth of business-sector investment in the principal industries elerated, and was reflected by the continued steep rise in gross capital stock in the

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In this chapter, business-sector product is based on national accounts data, and is measured in terms 1e use of resources (Tables 2.1, 2.2, and 2.4). According to indicators of business-sector product by 1stry (Table 2.2)—which are less reliable statistically—the growth rate was significantly higher in 2–93, the difference in 1993 being particularly notable. (For an explanation of the measurement of luct by principal industry, see box.)

According to the estimate of product by industry, the slowdown in activity occurred only in the 1stries manufacturing for residential construction. In the other business-sector industries the rate of ɛase was similar to the 1990–92 average.

**Table 2.1**
**Resources and Use of Resources, 1981–93**

(annual rate of change, percent)

| | At current prices (NIS million) | Quantity | | | | | | | Price | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1993 | 1981–85 | 1986–87 | 1988–89 | 1990–93 | 1991 | 1992 | 1993 | 1992 | 1993 |
| **Resources** | | | | | | | | | | |
| Gross domestic product | 184,078 | 3.0 | 5.1 | 2.1 | 5.6 | 6.2 | 6.7 | 3.4 | 11.5 | 11.3 |
| Imports of goods and services[a] | 91,287 | 3.6 | 14.0 | –4.0 | 12.2 | 16.1 | 9.3 | 14.5 | 7.6 | 10.8 |
| *of which* Civilian | 83,837 | 4.4 | 13.5 | 0.0 | 12.2 | 15.4 | 12.4 | 12.8 | 7.4 | 10.5 |
| Total resources | 275,365 | 3.2 | 8.3 | –0.1 | 7.8 | 9.3 | 7.5 | 7.2 | 10.2 | 10.8 |
| **Use of resources** | | | | | | | | | | |
| Private consumption | 116,315 | 4.6 | 11.8 | 2.4 | 7.2 | 7.3 | 8.2 | 7.7 | 10.7 | 10.3 |
| Public consumption | | | | | | | | | | |
| Total | 53,010 | 1.1 | 3.3 | –5.3 | 3.7 | 4.1 | 0.2 | 5.6 | 13.1 | 11.8 |
| Excl. direct defense imports | 45,560 | 1.6 | 0.6 | 2.2 | 2.5 | 1.4 | 4.3 | 1.3 | 12.8 | 12.0 |
| Gross domestic investment | | | | | | | | | | |
| Total | 44,204 | –0.1 | 6.8 | –2.3 | 18.5 | 42.0 | 6.2 | 2.9 | 9.6 | 9.6 |
| Fixed[b] | 41,615 | 0.2 | 6.7 | –2.4 | 16.3 | 39.7 | 6.3 | 0.2 | 10.6 | 10.1 |
| Domestic use of resources[c] | 206,079 | 2.8 | 7.9 | 1.6 | 8.1 | 12.2 | 6.9 | 5.2 | 10.9 | 10.5 |
| Exports[a] | 61,836 | 5.0 | 8.4 | 1.1 | 6.2 | –1.5 | 14.3 | 10.6 | 7.5 | 12.0 |
| Use of resources | | | | | | | | | | |
| Excl. direct defense imports | **267,915** | **3.5** | **8.0** | **1.4** | **7.6** | **8.9** | **8.5** | **6.5** | **10.1** | **10.8** |
| Total | **275,365** | **3.2** | **8.3** | **–0.1** | **7.8** | **9.3** | **7.5** | **7.2** | **10.2** | **10.8** |
| Net factor payments to abroad | 2,355 | | | | | | | | | |
| GNP at market prices | 181,723 | | | | | | | | | |
| Gross product of business sector[d] | 127,283 | 3.6 | 7.3 | 2.0 | 6.6 | 7.5 | 8.0 | 3.5 | 11.4 | 9.9 |

[a] Imports (c.i.f.), exports (f.o.b.), excluding factor payments and general government interest from or to rest of world. Exports at effective exchange rate.
[b] Excluding change in stock.
[c] Excluding direct defense imports.
[d] GNP *less* gross product of public services and ownership of dwellings. At market prices.

**Table 2.2**

**Product and Productivity of the Business Sector, by Industry, 1981–93[a]**

(percent)

| | 1981–85 | 1986–87 | 1988–89 | 1990–93 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| **GROSS PRODUCT** | | | | | | | | |
| **Industrial composition[b]** | | | | | | | | |
| Industry | 30.4 | 31.2 | 29.9 | 29.8 | 29.8 | 29.9 | 29.6 | 29.7 |
| Agriculture | 5.0 | 4.9 | 4.8 | 4.8 | 5.3 | 4.7 | 4.8 | 4.6 |
| Transport & communications | 12.1 | 12.2 | 12.9 | 12.5 | 12.6 | 12.5 | 12.4 | 12.6 |
| Construction | 9.4 | 7.6 | 7.9 | 9.9 | 8.7 | 10.8 | 10.7 | 9.4 |
| Trade and services | 38.8 | 39.9 | 40.4 | 38.9 | 39.5 | 38.0 | 38.4 | 39.7 |
| Water and electricity | 4.2 | 4.2 | 4.2 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 |
| Total business sector | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Tradables[c] | 44.0 | 43.9 | 42.3 | 41.8 | 42.4 | 41.0 | 41.8 | 42.0 |
| Nontradables | 56.0 | 56.1 | 57.7 | 58.2 | 57.6 | 59.0 | 58.2 | 58.0 |
| **Real annual change** | | | | | | | | |
| Industry | 3.7 | 6.4 | –0.7 | 7.0 | 6.3 | 6.7 | 8.3 | 6.7 |
| Agriculture | 5.6 | 5.8 | 0.3 | 5.7 | 15.4 | –6.0 | 13.1 | 0.4 |
| Transport & communications | 4.2 | 4.9 | 5.3 | 6.2 | 3.4 | 5.1 | 9.0 | 7.4 |
| Construction | –3.2 | 4.6 | 3.7 | 12.2 | 14.8 | 33.0[d] | 8.0[d] | –7.0[d] |
| Trade and services | 4.1 | 7.4 | 2.2 | 6.8 | 4.2 | 2.4 | 10.9 | 9.6 |
| Water and electricity | 3.1 | 6.3 | 1.0 | 6.6 | 6.0 | 6.0 | 10.0 | 4.5 |
| Total business sector | 3.3 | 6.4 | 1.6 | 7.1 | 6.2 | 6.4 | 9.6 | 6.0 |
| of which: excl. construction | 4.0 | 6.6 | 1.4 | 6.7 | 5.4 | 3.9 | 9.8 | 7.6 |
| Tradables[c] | 3.9 | 4.6 | –0.1 | 6.8 | 5.7 | 2.9 | 11.8 | 6.6 |
| Nontradables | 2.8 | 8.0 | 3.0 | 7.3 | 6.5 | 9.0 | 8.1 | 5.6 |
| **PRODUCTIVITY[e]** | | | | | | | | |
| **Labor productivity** | | | | | | | | |
| Industry | 2.4 | 3.3 | 1.7 | 2.3 | 5.3 | 2.0 | 2.2 | –0.2 |
| Agriculture | 4.8 | 5.6 | 5.2 | 10.2 | 29.0 | 5.2 | 11.3 | –4.7 |
| Transport & communications | 4.4 | 0.9 | 5.7 | 1.6 | 0.7 | 2.2 | 0.6 | 3.0 |
| Construction | –3.5 | 3.3 | 3.7 | 1.8 | 2.7 | 13.6 | –11.2 | 2.0 |
| Trade and services | 0.5 | 3.1 | –2.9 | 1.6 | 2.4 | –1.9 | 2.7 | 3.1 |
| Water and electricity | 6.4 | 1.0 | –4.7 | 3.2 | –7.8 | 8.0 | 23.0 | –10.5 |
| Total business sector | 1.6 | 3.3 | 0.7 | 2.1 | 3.8 | 1.6 | 0.9 | 2.0 |
| of which: excl. construction | 2.0 | 3.1 | 0.4 | 2.4 | 4.7 | 0.7 | 3.0 | 1.1 |
| **Total productivity[f]** | | | | | | | | |
| Industry | 1.2 | 2.9 | –0.3 | 2.7 | 4.9 | 2.6 | 2.7 | 0.5 |
| Agriculture | 4.2 | 5.5 | 3.7 | 9.1 | 25.1 | 2.0 | 12.3 | –2.9 |
| Transport & communications | 3.4 | 1.9 | 3.8 | 2.0 | 1.5 | 2.5 | 2.1 | 1.9 |
| Construction | –3.3 | 4.6 | 4.0 | 2.1 | 5.0 | 16.0 | –11.2 | –1.5 |
| Trade and services | –0.3 | 2.8 | –2.4 | 2.2 | 1.9 | –1.7 | 4.3 | 4.1 |
| Water and electricity | 2.6 | 2.0 | –3.7 | 2.2 | –3.9 | 4.5 | 14.6 | –6.4 |
| Total business sector | 1.0 | 3.4 | 0.1 | 2.6 | 4.2 | 2.1 | 2.2 | 1.7 |
| of which: excl. construction | 1.5 | 3.3 | –0.2 | 2.7 | 4.3 | 0.9 | 3.9 | 1.7 |

sector, by about 6 percent during 1993 compared with 5 percent in 1992 (Table 2.7). Most of the increase in business-sector investment is due to the sharp rise in private-sector investment.

Despite the slower rate of increase in the number of employed persons—about 4 percent in 1993 compared with 5 percent in 1992—the number of Israelis employed rose by 6 percent. The difference is explained by the steep decline in the number of workers from the administered areas, and their replacement by Israelis. Thus, the unemployment rate fell to 10 percent, in spite of the rapid rise in the labor supply (4.7 percent), mainly reflecting immigrants' rapid entry into the civilian labor force. This year too, as in the past, the persistently high unemployment rate led to a fall of about 1.5 percent, annual average, in the real hourly wage in the business sector, following a slight dip of 0.4 percent in 1992, and of about 3 percent in 1989–91. Real hourly labor costs for all employees (including workers from the administered areas) rose in 1993 because of the sharp contraction in the proportion of workers from the areas (whose wage is below the average) among the total number of employed persons. As labor productivity did not rise, the increase in the real wage led to a slight fall in the yield per unit of capital[3] for the first time since the adoption of the restructuring and rationalization programs of 1988 and 1989. The rate at which business-sector nominal unit labor costs rose was similar to that of 1992; hence, labor costs did not exert upward pressure on the price of business-sector product.

*     *     *

The low rate of increase of business-sector product in 1993—3.5 percent—resulted from slow expansion of demand and a slower response on the supply side. Thus there was a small demand surplus, which created pressure to increase the import component of production. The low level of demand surpluses was reflected by a moderate rise in the import surplus/GDP ratio (by about 2 percentage points), while the real exchange rate appreciated slightly during the year (Figure 2.1a). In 1991, by comparison, the import surplus/GDP ratio rose by 8.5 percentage points, reflecting large surplus demand, while the real exchange rate appreciated significantly. In contrast with these two years (1991 and 1993), the balanced expansion of supply and demand in 1992 left the import surplus/GDP ratio unchanged.

[3] This includes the effect of the subsidy on incremental employment of Israelis, which became especially significant in 1992–93.

**Table 2.3**
**Business-Sector Product, Factors of Production, and Productivity, 1961-93**

(percent change in quantity)

| | Annual average | | | | | | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1961–72 | 1973–80 | 1981–85 | 1986–87 | 1988–89 | 1990–93 | | | | |
| Product | | | | | | | | | | |
| Total | 10.0 | 3.1 | 3.6 | 7.3 | 2.0 | 6.6 | 7.6 | 7.5 | 8.0 | 3.5 |
| Excl. construction | | | 4.2 | 7.5 | 1.9 | 6.3 | 7.0 | 5.5 | 8.0 | 4.6 |
| Labor input[a] | | | | | | | | | | |
| Total | 3.6 | 0.8 | 1.6 | 3.0 | 0.9 | 4.9 | 2.3 | 4.7 | 8.7 | 3.9 |
| Excl. construction | | | 2.0 | 3.4 | 1.1 | 4.2 | 0.7 | 3.1 | 6.6 | 6.4 |
| Capital stock[b] | | | | | | | | | | |
| Gross | 8.7 | 6.1 | 3.4 | 2.5 | 2.8 | 3.4 | 1.6 | 2.7 | 4.2 | 4.9 |
| Net | 8.0 | 5.0 | 2.5 | 0.9 | 2.1 | 4.0 | 0.3 | 2.9 | 6.0 | 6.8 |
| Gross, excl. construction | | | 3.5 | 2.7 | 2.9 | 3.3 | 1.7 | 2.7 | 4.0 | 4.8 |
| Labor productivity[c] | | | | | | | | | | |
| Total | 6.3 | 2.3 | 1.9 | 4.1 | 1.1 | 1.7 | 5.2 | 2.7 | –0.6 | –0.4 |
| Excl. construction | | | 2.2 | 3.9 | 0.8 | 2.0 | 6.3 | 2.3 | 1.3 | –1.7 |
| Capital stock per man-hour | | | | | | | | | | |
| Gross | 5.0 | 5.3 | 1.8 | –0.5 | 2.0 | –1.4 | –0.6 | –1.9 | –4.1 | 0.9 |
| Net | 4.2 | 4.2 | 0.9 | –2.0 | 1.2 | –0.9 | –1.9 | –1.7 | –2.5 | 2.8 |
| Gross, excl. construction | | | 1.5 | –0.7 | 1.8 | –0.8 | 1.0 | –0.4 | –2.5 | –1.5 |
| Total productivity | | | | | | | | | | |
| Total[d] | 4.5 | 0.6 | 1.3 | 4.3 | 0.5 | 2.2 | 5.4 | 3.3 | 0.7 | –0.7 |
| Excl. construction[e] | | | 1.7 | 4.2 | 0.2 | 2.3 | 5.9 | 2.4 | 2.2 | –1.2 |
| Capital/GDP ratio | | | | | | | | | | |
| Total | 2.1 | 2.2 | 2.3 | 2.1 | 2.1 | 1.9 | 2.0 | 1.9 | 1.8 | 1.8 |
| Excl. construction | | | 2.4 | 2.2 | 2.2 | 2.0 | 2.1 | 2.1 | 2.0 | 2.0 |

[a] Man-hours.
[b] At beginning of year.     [c] Product per man-hour.
[d] Labor input weighted by 0.68, and capital stock by 0.32. These weights are based on the distribution of gross national income between period averages of return to labor and return to capital, and on input/output data for 1977–78.
[e] Labor input weighted by 0.66, and capital stock by 0.34. These weights are based on the distribution of gross national income between period averages of return to labor and return to capital, and on input/output data for 1977–78.
SOURCE: Based on Central Bureau of Statistics data.

**Figure 2.1**
**Civilian Import Surplus/ GDP Ratio, and**
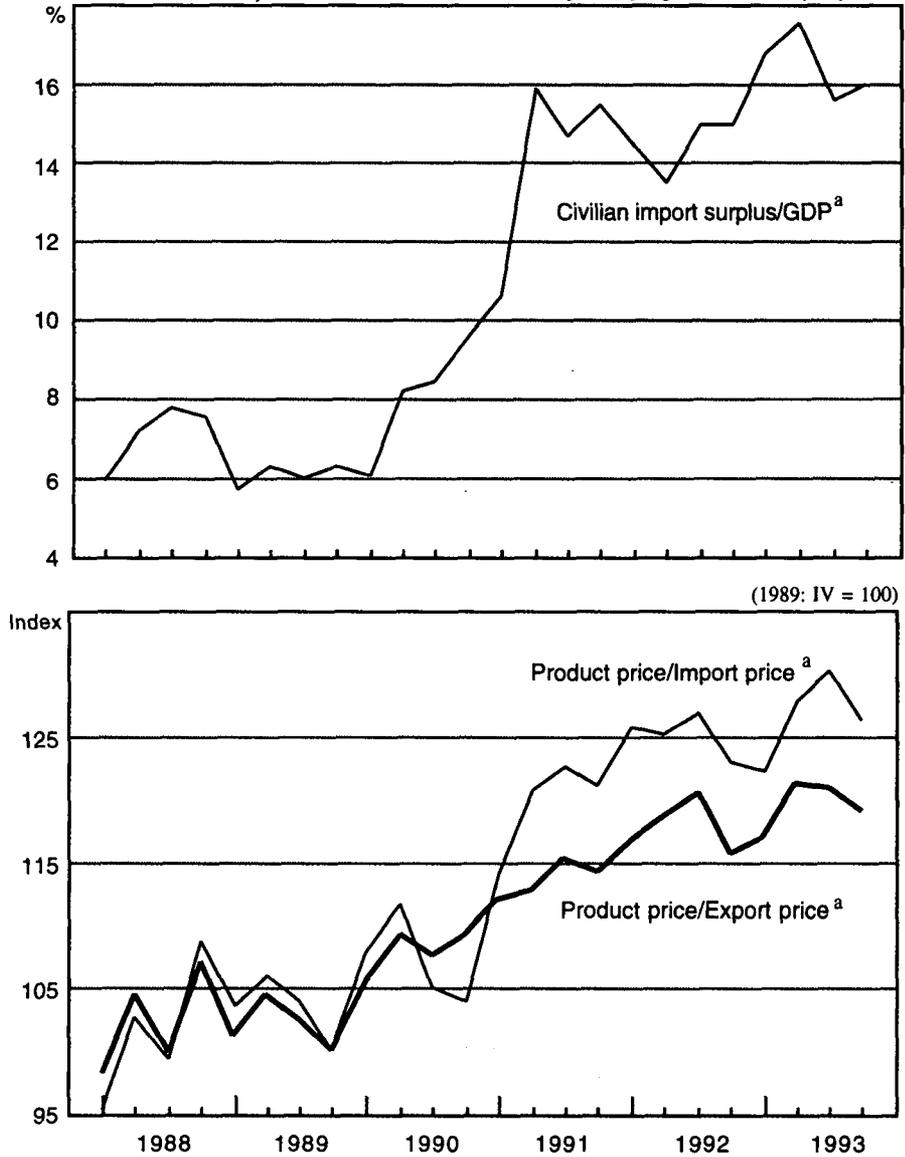**Relative Prices, 1981-93**

(annual figures)



(1986 = 100)
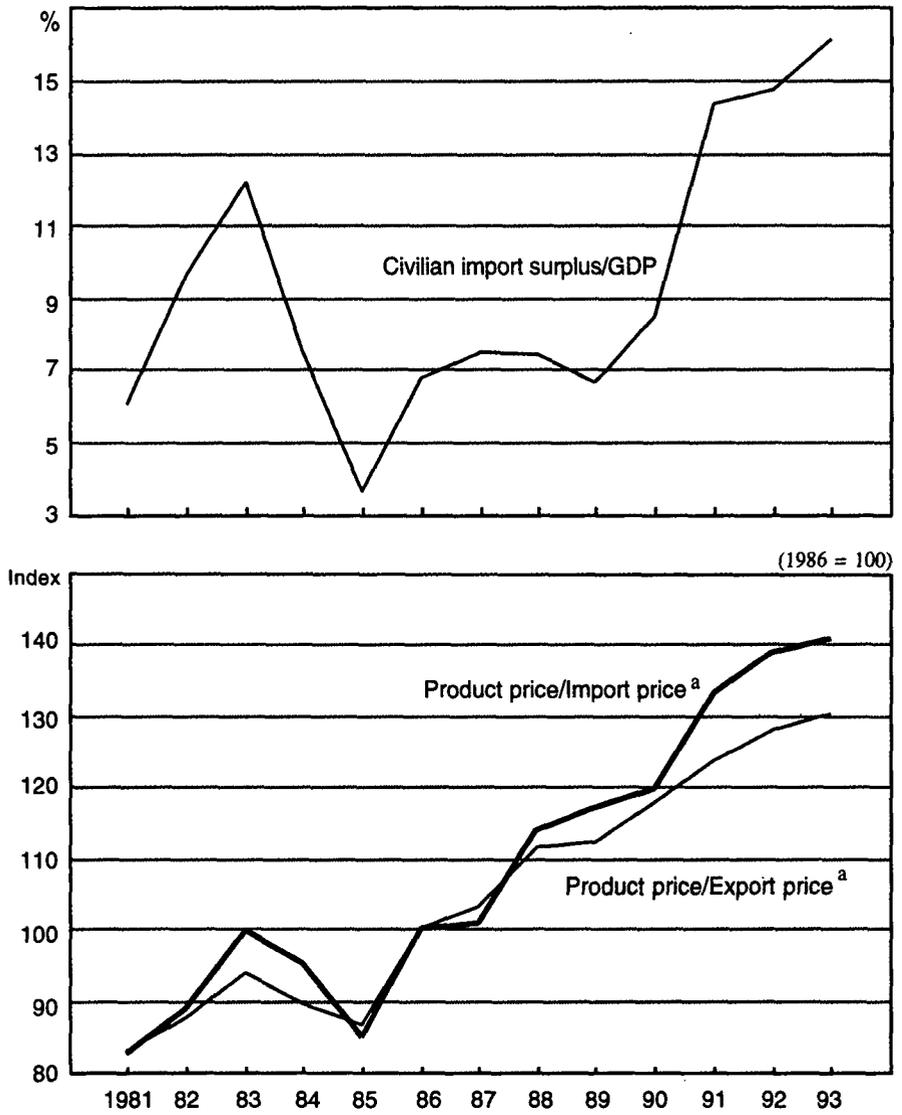
[a] Excluding diamonds.

SOURCE: Based on Central Bureau of Statistics data.

**Figure 2.1a**
**Civilian Import Surplus/ GDP Ratio, and**
**Relative Prices, 1988–93** (quarterly figures, seasonally adjusted)

%

16

14

12

10

8

6

4

Civilian import surplus/GDP[a]

(1989: IV = 100)

Index

125

115

105

95

Product price/Import price[a]

Product price/Export price[a]

1988 1989 1990 1991 1992 1993

[a] Excluding diamonds.
SOURCE: Based on Central Bureau of Statistics data.

**Table 2.4**
**Demand for Business-Sector Use of Resources and Product:**
**Tradables and Nontradables, 1981–93**

(real change, percent)

| | Annual average | | | | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| | 1981–85 | 1986–87 | 1988–89 | 1990–93 | | | | |
| Business sector | | | | | | | | |
| Use of resources | 4.0 | 9.7 | 1.4 | 8.8 | 7.5 | 10.4 | 9.9 | 7.3 |
| Product | 3.6 | 7.3 | 2.0 | 6.7 | 7.6 | 7.5 | 8.0 | 3.5 |
| Tradables | | | | | | | | |
| Use of resources[a] | 5.1 | 10.4 | 0.7 | 8.8 | 7.3 | 6.4 | 11.7 | 10.0 |
| Product[b] | 4.4 | 5.9 | –0.0 | 6.5 | 7.7 | 3.9 | 10.1 | 4.1 |
| Nontradables | | | | | | | | |
| Use of resources[a] | –0.4 | 6.8 | 3.8 | 9.0 | 8.5 | 22.1 | 5.4 | 0.1 |
| Product[c] | 3.1 | 8.0 | 3.8 | 6.8 | 7.4 | 10.1 | 6.5 | 3.1 |
| Contribution of construction[d] | | | | | 1.6 | 1.7 | 3.8 | 1.5 | –0.7 |
| *Percent* | | | | | | | | |
| Tradables/business-sector product ratio | 44.0 | 43.9 | 42.3 | 41.8 | 42.4 | 41.0 | 41.8 | 42.0 |

[a] See Table 2.4a

[b] Tradables product includes the principal industries, agriculture, sea and air freight, and tourism.

[c] Nontradables product is business-sector product *less* tradables product. This residual measure is not exact, and merely indicates the trend.

[d] And of related industries to product growth. Their share in 1990–93 was 12 percent.

The slower rate of expansion of aggregate demand in 1993 resulted from the fall in the total domestic demand of the public sector. This was due to the sharp drop in government investment in housing. An even greater slowdown of aggregate demand was prevented by two main expansionary factors: the penetration of new overseas markets, resulting in a considerable rise in exports, and the upward adjustment of private consumption to the rising trend of disposable income (expressed as a drop in the private saving rate).

The slow expansion on the supply side despite the relatively rapid increase in capital and labor (Table 2.3) is attributable mainly to temporary influences which hampered their optimal utilization:

*Sharp changes in the composition of demand* (due to the rapid contraction of government-initiated residential construction), to which production had to respond. The ability to adjust factors of production rapidly to match sharp changes, such as those in the composition of demand, is limited. As the domestic production component in investment in construction is much higher than in other resource uses, the direct effect on GDP of the contraction of construction is greater than is warranted by its share of

**Table 2.4a**

**Tradables and Nontradables: Use of Resources, 1981–93[a]**

(real annual rate of change, percent)

| | Composition | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1990 –93[b] | 1981 –85 | 1986 –87 | 1988 –89 | 1990 –93 | 1990 | 1991 | 1992 | 1993 |
| Domestic use of resources | 71.0 | 3.5 | 10.7 | 1.5 | 10.0 | 10.1 | 15.7 | 8.3 | 6.0 |
| Nontradables[b] | 26.6 | –0.4 | 6.8 | 3.8 | 9.0 | 8.5 | 22.1 | 5.4 | 0.1 |
| Construction | 11.0 | –5.4 | 3.5 | 3.6 | 15.4 | 16.5 | 47.9 | 5.3 | –8.2 |
| Other | 15.5 | 5.0 | 9.8 | 3.8 | 5.9 | 4.2 | 7.3 | 5.5 | 6.5 |
| Tradables[c] | 44.5 | 5.5 | 12.4 | 0.5 | 10.6 | 10.9 | 11.9 | 10.1 | 9.6 |
| Exports | 29.0 | 5.2 | 8.4 | 1.2 | 6.4 | 2.3 | –1.5 | 14.3 | 10.6 |
| Total tradables[d] | 73.4 | 5.1 | 10.4 | 0.7 | 8.8 | 7.3 | 6.4 | 11.7 | 10.0 |
| **Total use of resources** | 100.0 | 4.0 | 9.7 | 1.4 | 8.8 | 7.5 | 10.4 | 9.9 | 7.3 |

[a] Excluding public services and dwelling services.

[b] Consumption of other services *less* domestic consumption by nonresidents, *plus* investment in construction and earthworks.

[c] The difference between total domestic resource use and nontradables resource use.

[d] Exports *plus* domestic use of resources in tradables.

SOURCE: Based on Central Bureau of Statistics data.

resource uses. Thus, a relatively greater adjustment of the factors of production (particularly labor) to changes in demand is required. Although some changes in the composition of demand had been predicted, so that steps could have been taken to meet them, their actual extent was unexpected. This was because the government announced that it was diverting extensive resources to investment in the infrastructure, but its (initial) implementation was hesitant. It was also unclear how households would respond to the fall in the government's demand for housing. (Fears of an accelerated rise in the relative price of housing as a result of the government's reduced involvement might have brought demand forward.)

*Changes in the composition of employment,* due to the replacement of some workers from the administered areas by Israelis, which accounted for about 30 percent of the incremental employment of Israelis. This was reflected by a particularly large increase in the gross number of employed persons relative to the net increase; it is reasonable to assume, therefore, that training was of special significance, and that in the interim the output of new workers was relatively low, so that only the government subsidy made their employment worthwhile.

*Professional unsuitability* of the immigrants to the current requirements of the labor market. The cumulative increase in the proportion of immigrants not employed in their original occupations may have had a negative effect on labor productivity, limiting the

**Table 2.5**

**Indicators of Business-Sector Profitability and Investment, 1982-93**

|  | 1982–85 | 1986–87 | 1988–89 | 1990–92 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| *Index, 1986 = 100* |  |  |  |  |  |  |  |  |
| Labor costs per man-hour |  |  |  |  |  |  |  |  |
|   Total | 87.0 | 104.8 | 115.8 | 115.0 | 116.6 | 114.6 | 113.8 | 117.7 |
|   Industry | 88.4 | 101.7 | 107.8 | 116.2 | 117.4 | ·116.9 | 114.3 | 116.0 |
| Unit labor costs |  |  |  |  |  |  |  |  |
|   Total | 89.4 | 102.7 | 102.4 | 97.9 | 100.4 | 96.4 | 96.8 | 98.5 |
|   Industry | 93.6 | 99.3 | 99.2 | 95.5 | 98.4 | 96.2 | 92.0 | 92.0 |
| *Percent* |  |  |  |  |  |  |  |  |
| Gross rate of return on capital |  |  |  |  |  |  |  |  |
|   Total | 12.1 | 8.4 | 9.1 | 11.7 | 10.0 | 12.2 | 12.6 | 11.8 |
|   Industry | 17.0 | 13.3 | 13.4 | 15.6 | 13.7 | 15.0 | 18.0 | 18.0 |
| 3-month Eurodollar interest[a] | 10.2[b] | 6.9 | 8.5 | 5.9 | 8.1 | 5.8 | 3.7 | 3.1 |
| Real interest on overdrafts[c] |  |  |  |  |  |  |  |  |
|   Current year | 37.8 | 21.8 | 18.2 | 11.2 | 15.0 | 9.1 | 9.5 | 7.5 |
|   Moving 3-year average | 27.8 | 38.6 | 23.2 | 13.6 | 17.2 | 12.4 | 11.2 | 8.7 |
| Yield to maturity of |  |  |  |  |  |  |  |  |
|   10-year bonds | 3.4 | 5.8 | 3.5 | 2.6 | 1.9 | 2.9 | 2.6 | 2.9 |
| Tax rates |  |  |  |  |  |  |  |  |
|   Nonwage income, A[d] | 25.4 | 33.3 | 30.3 | 24.8 | 25.9 | 23.9 | 24.6 | 27.5 |
|   Nonwage income, B[d] | 13.8 | 26.7 | 24.8 | 20.0 | 21.2 | 19.3 | 19.5 | 21.5 |
|   Statutory corporation tax | 62.3 | 53.0 | 45.0 | 41.5 | 43.5 | 41.0 | 40.0 | 39.0 |
| Investment |  |  |  |  |  |  |  |  |
|   Investment/product ratio | 16.0 | 14.4 | 13.7 | 17.1 | 15.2 | 17.8 | 18.3 | 20.4 |
| Average age of |  |  |  |  |  |  |  |  |
|   equipment (years) | 5.9 | 6.1 | 6.3 | 6.4 | 6.4 | 6.4 | 6.3 | 6.2 |

[a] In dollar terms.

[b] 1983–85.

[c] Ex post; deflated by product prices at factor cost.

[d] Variant B is Variant A *less* credit concessions and capital grants to firms; it includes tax on managerial salaries.

SOURCE: Based on Central Bureau of Statistics data.

effectiveness of this labor input.[4] Thus, despite the large increase in labor input—due to its subsidization—GDP showed only moderate growth.

The effect of factor underutilization was reflected in a fall in total productivity (Table 2.3), with a reduction in the rate of return per unit of capital, which had risen continuously since 1990 (Table 2.5).

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[4] The steep fall in productivity in industries other than construction (using a crude assessment) is consistent with this hypothesis.

**Table 2.6**

**Gross Domestic Investment, by Type of Asset, 1981–93**

(percent)

| | At current prices (NIS million) | Change in quantity | | | | | | | Change in price | |
| | | Annual average | | | | | | | | |
| | 1993 | 1981–85 | 1986–87 | 1988–89 | 1990–93 | 1991 | 1992 | 1993 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|---|
| Nonresidential and other construction | **9,961** | −3.5 | 9.6 | 2.5 | 20.7 | 14.9 | 21.4 | 30.4 | 11.5 | 7.7 |
| *of which* Nonresidential | 4,932 | −2.3 | 1.9 | 3.5 | 18.6 | 8.7 | 22.2 | 33.5 | 11.3 | 7.5 |
| Other | 5,029 | −5.0 | 19.7 | 1.4 | 22.8 | 21.2 | 20.7 | 27.5 | 11.6 | 7.9 |
| Plant and equipment | **15,153** | 8.0 | 3.2 | −2.5 | 15.0 | 18.4 | 5.2 | 13.5 | 10.3 | 8.8 |
| *of which* Imports | 9,355 | 6.9 | −0.8 | −2.7 | 16.3 | 27.6 | −2.4 | 16.4 | 10.6 | 9.4 |
| Domestic production | 5,799 | 9.0 | 9.2 | −2.4 | 13.1 | 4.9 | 19.1 | 9.3 | 9.8 | 7.8 |
| Transport equipment | **4,872** | 1.1 | 27.2 | −16.0 | 26.5 | 64.1 | 21.7 | 4.7 | 14.1 | 23.6 |
| Nonresidential investment excl. shipping and aviation | 29,987 | 3.5 | 7.8 | −3.6 | 18.4 | 22.9 | 12.3 | 16.9 | 11.2 | 10.9 |
| Shipping and aviation | 294 | | | | | | | | | |
| Gross domestic nonresidential investment | **30,281** | 3.4 | 8.9 | −4.9 | 18.9 | 23.3 | 11.0 | 16.7 | 11.2 | 10.9 |
| Residential construction | **11,334** | −5.2 | 1.5 | 4.5 | 10.4 | 73.8 | −0.6 | −27.1 | 9.9 | 8.3 |
| *of which* Private | 8,627 | −1.7 | 4.1 | 4.8 | 5.6 | 6.5 | 9.1 | 7.9 | 9.9 | 7.3 |
| Public | 2,707 | −17.3 | −14.8 | 1.7 | 37.6 | 290.7 | −9.0 | −64.0 | 9.8 | 8.8 |
| Gross domestic investment in fixed assets | **41,615** | 0.2 | 6.7 | −2.4 | 16.3 | 39.7 | 6.3 | 0.2 | 10.6 | 10.1 |
| Change in inventories | 2,589 | | | | | | | | | |
| Gross domestic investment | **44,204** | −0.1 | 6.8 | −2.3 | 18.5 | 42.0 | 6.2 | 2.9 | 9.6 | 9.6 |

SOURCE: Central Bureau of Statistics.

**Table 2.7**

**Capital Stock, by Industry, 1981-94[a]**

(real change, percent)

| | Total | | | | | Equipment | | | | | Buildings | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1981 -85 | 1986 -89 | 1990 -93 | 1993 | 1994 | 1981 -85 | 1986- 89 | 1990 -93 | 1993 | 1994 | 1981 -85 | 1986 -89 | 1990 -93 | 1993 | 1994 |
| Industry | 4.6 | 3.6 | 3.6 | 4.8 | 6.1 | 5.6 | 4.5 | 4.4 | 5.5 | 6.7 | 1.8 | 0.0 | -0.0 | 1.1 | 3.3 |
| Agriculture | 2.4 | 0.2 | -1.3 | -1.1 | -0.4 | 3.2 | 0.6 | -2.8 | -2.7 | -1.1 | 2.1 | 0.1 | -0.8 | -0.6 | -0.2 |
| Transport & communications | 1.8 | 2.5 | 3.7 | 6.7 | 7.6 | 1.3 | 2.3 | 2.7 | 7.4 | 8.1 | 2.5 | 2.8 | 4.7 | 5.9 | 7.0 |
| *of which* Excl. transport equipment | 2.4 | 3.9 | 6.1 | 8.0 | 8.4 | 1.9 | 10.1 | 11.9 | 16.2 | 13.6 | 2.5 | 2.8 | 4.7 | 5.9 | 7.0 |
| Construction equipment | -1.4 | -4.6 | 7.3 | 11.2 | 16.6 | -1.4 | -4.6 | 7.3 | 11.2 | 16.6 | | | | | |
| Private services | 5.9 | 4.4 | 3.5 | 3.6 | 5.2 | 8.2 | 6.8 | 4.1 | 3.3 | 4.7 | 3.7 | 1.7 | 2.7 | 4.1 | 5.9 |
| Electricity | 6.7 | 4.4 | 7.5 | 7.1 | 9.0 | 8.6 | 5.2 | 9.2 | 8.7 | 10.8 | 4.4 | 3.3 | 4.7 | 4.3 | 5.7 |
| Waterworks | 2.9 | 0.5 | -0.3 | -0.1 | 0.9 | 6.1 | 2.0 | 1.8 | 2.2 | 4.8 | 2.6 | 0.2 | -0.6 | -0.4 | 0.2 |
| Earthworks | 19.2 | 3.4 | 14.8 | 27.6 | 18.0 | | | | | | 19.2 | 3.4 | 14.8 | 27.6 | 18.0 |
| Total business sector | 3.4 | 2.7 | 3.4 | 4.9 | 6.2 | 4.1 | 3.6 | 4.0 | 5.9 | 7.3 | 2.7 | 1.5 | 2.4 | 3.5 | 4.6 |
| Public services | 3.6 | 3.6 | 3.7 | 4.1 | 5.2 | 2.4 | 5.8 | 3.3 | 3.0 | 2.1 | 3.8 | 3.3 | 3.8 | 4.3 | 5.6 |
| Total principal industries | 3.5 | 2.9 | 3.4 | 4.7 | 5.9 | 4.0 | 3.7 | 4.0 | 5.7 | 6.9 | 3.1 | 2.2 | 3.0 | 3.8 | 5.0 |
| *of which* Excl. transport equipment | 3.8 | 3.2 | 3.8 | 4.7 | 5.9 | 5.1 | 4.7 | 5.1 | 6.0 | 7.1 | 3.1 | 2.2 | 3.0 | 3.8 | 5.0 |
| Residential construction | 5.1 | 3.1 | 4.8 | 5.9 | 3.9 | | | | | | 5.1 | 3.1 | 4.8 | 5.9 | 3.9 |
| Total fixed assets | 4.2 | 3.0 | 4.0 | 5.3 | 5.0 | 4.0 | 3.7 | 4.0 | 5.7 | 6.9 | 4.3 | 2.8 | 4.1 | 5.1 | 4.3 |

[a] Beginning of year figures, at 1990 prices.

SOURCE: Based on Central Bureau of Statistics data.

**Figure 2.2**
**Private Saving and Disposable Wage Income**
**as Proportion of Total Disposable Income, 1965–93**

Rates

0.6

0.5

0.4

0.3

0.2

Disposable wage income/Total disposable income

Private saving/Total disposable income

1965    70      75      80      85      90
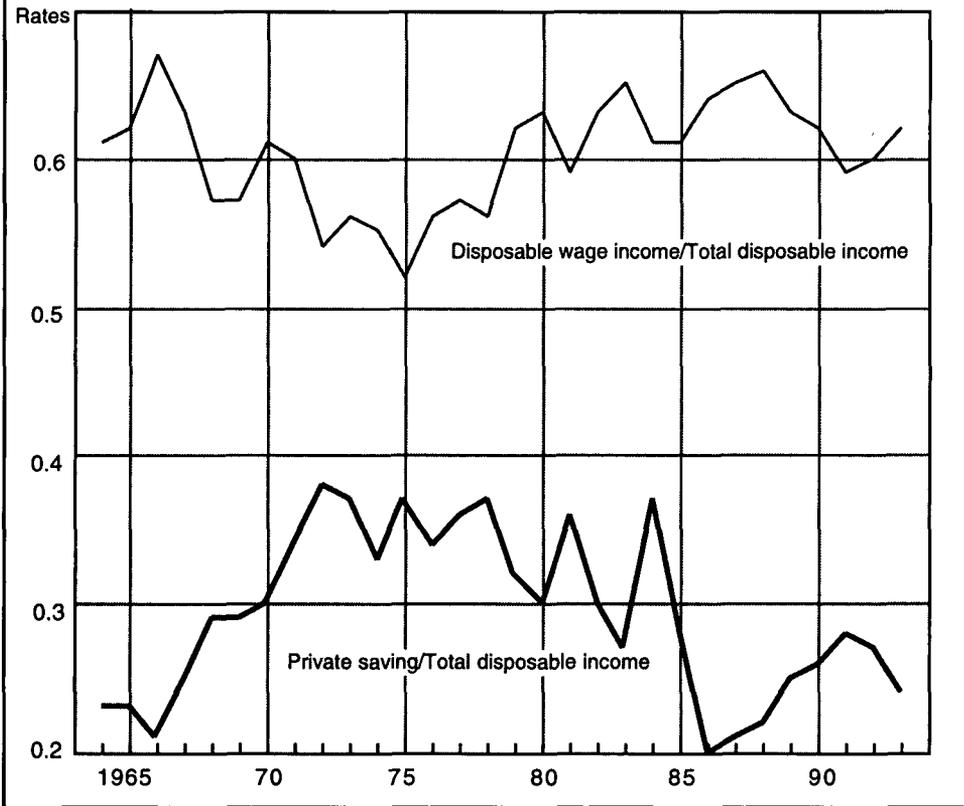
SOURCE: Based on Central Bureau of Statistics data.

The effect of the elements influencing factor utilization, reflecting adjustment or retraining processes, is mainly short term. When this effect has ended, therefore, the level of factor utilization and productivity can be expected to rise, acting to reduce the import surplus/GDP ratio. This applies especially to the effect of the changes in the composition of demand on production; changes in the composition of employment, provided training is successful, will eventually raise labor and overall productivity, otherwise the new workers may be dismissed. As time passes and the economy grows, demand for some of the immigrants' original occupations (which are currently heavily oversupplied), may increase, so that immigrants' occupations and their actual employment will match better.

**Table 2.8**

**Nonresidential Investment by Sector, 1981–93**

(percent)

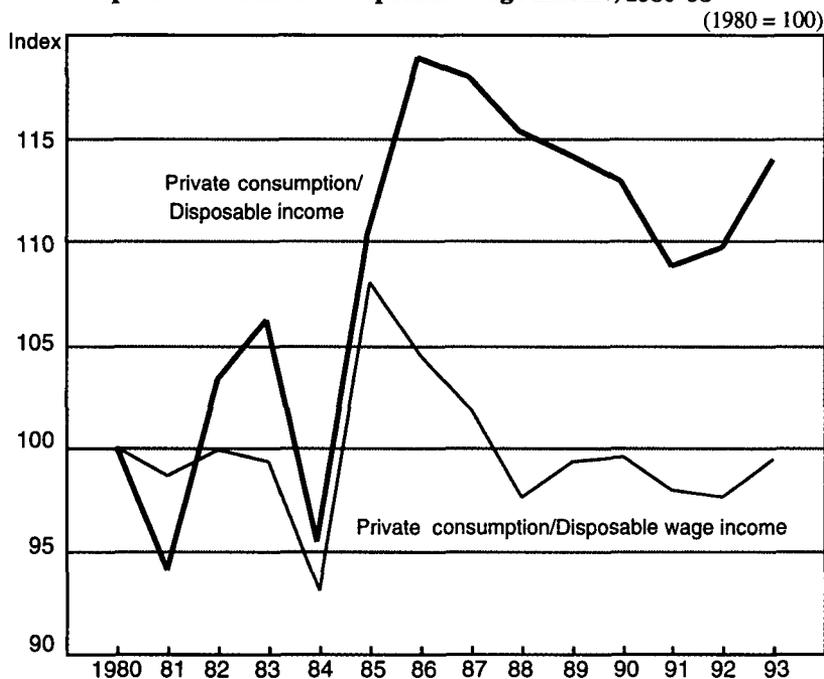| | At current prices (NIS million) | Real change[a] | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1993 | 1981–85 | 1986–87 | 1988–89 | 1990–93 | 1991 | 1992 | 1993 |
| Structures and earthworks | | | | | | | | |
| Public sector[b] | 6,605 | −3.3 | 17.9 | 2.4 | 22.7 | 18.8 | 19.2 | 38.8 |
| Public-sector corporations[c] | 1,778 | −6.9 | 7.9 | 1.8 | 14.8 | 11.5 | 17.1 | 3.4 |
| Total | 8,383 | −4.5 | 15.1 | 2.3 | 20.7 | 16.7 | 18.6 | 29.2 |
| Private sector | 1,577 | −1.4 | −10.5 | 3.7 | 21.0 | 4.1 | 40.7 | 37.1 |
| **Total** | **9,960** | **−3.7** | **9.2** | **2.5** | **20.8** | **14.9** | **21.5** | **30.4** |
| Equipment | | | | | | | | |
| Public sector[d] | 1,288 | 7.5 | 5.4 | −2.3 | 4.2 | 8.7 | 4.3 | −2.6 |
| Public-sector corporations[e] | 4,760 | 0.6 | −1.4 | 4.6 | 18.3 | 14.2 | 12.2 | 12.7 |
| Total | 6,048 | 2.9 | 0.8 | 2.3 | 14.5 | 12.8 | 10.2 | 9.1 |
| Private sector | 9,105 | 10.9 | 4.0 | −5.6 | 15.1 | 22.4 | 2.0 | 16.7 |
| **Total** | **15,153** | **8.0** | **2.8** | **−2.6** | **14.9** | **18.4** | **5.2** | **13.5** |
| Structures and equipment | | | | | | | | |
| Public sector[b] | 7,893 | 0.0 | 13.1 | 1.1 | 18.4 | 16.1 | 15.5 | 29.6 |
| Public-sector corporations[c] | 6,538 | −2.0 | 0.8 | 3.7 | 17.3 | 13.5 | 13.5 | 10.0 |
| Total | 14,431 | −0.9 | 6.7 | 2.3 | 17.9 | 14.8 | 14.5 | 19.8 |
| Private sector | 10,682 | 8.9 | 2.4 | −4.6 | 15.8 | 20.4 | 5.6 | 19.2 |
| **Total** | **25,113** | **4.0** | **4.5** | **−1.0** | **17.0** | **17.3** | **10.5** | **19.5** |
| Transport equipment[d] | 5,166 | −1.1 | 36.8 | −19.9 | 26.3 | 60.6 | 13.1 | 4.5 |
| **Grand total** | **30,279** | **3.4** | **8.9** | **−4.2** | **18.3** | **23.3** | **11.0** | **16.7** |

[a] At 1990 prices.

[b] Including investment in public services, roads, afforestation, earthworks, and land development.

[c] Public-sector corporations and local authorities; including electricity, water, estimated investment in the transport equipment, mining and quarrying industries, additional estimated investment by public-sector corporations in industry, transport, and services, as well as government enterprises (railways, ports, aviation and mail services), and some construction equipment.

[d] For practical reasons, transport equipment cannot be classified.

SOURCE: Based on Central Bureau of Statistics data.

**Figure 2.3**
**Indices of Private Consumption as Proportion of**
**Disposable Income and Disposable Wage Income, 1980-93**[a]

(1980 = 100)

Index graph with y-axis ranging from 90 to 115+ (marked at 90, 95, 100, 105, 110, 115) and x-axis years 1980 through 93.

Private consumption/
Disposable income

Private consumption/Disposable wage income

[a]Private consumption excluding durables.
SOURCE: Based on Central Bureau of Statistics data.

When GDP is examined by principal industry, the delayed response of supply to changes in demand is evident, particularly in construction and manufacturing, where factor utilization declined. This was reflected by the absence of any significant rise in total productivity in industry,[5] and its fall in construction (Table 2.2).

Private per capita consumption rose rapidly, with a concomitant drop in the private saving rate. The latter may be explained mainly as the delayed adjustment of consumption to the upward trend in disposable income, determined essentially by wage developments. The timing of the adjustment was apparently influenced by the sharp fall in the unemployment rate, which encouraged optimistic expectations of continued growth, and rising employment and wages.

The rise in business-sector investment in the principal industries reflects the large increase in private-sector investment, which enabled the rate of increase of capital stock

[5] Productivity is estimated here using labor input according to manpower surveys, in which labor input is from all sources, and includes labor services via employment agencies. In the section on industry below, however, labor input is based on industry indices which do not include such services.

to rise to about 6 percent to the beginning of 1994, despite the low rate of GDP growth. This may reflect investors' assessments that the latter is only temporary, and that rapid growth will be resumed. The timing of investment was influenced by the fall in interest rates, and apparently also by the stock-market boom of 1992–93, which enabled firms to raise large amounts of capital at relatively low cost through new issues. The significant expansion of infrastructure investment in 1992–93, particularly in roads, also stimulated business-sector investment.

The steep rise in private demand for apartments, both by immigrants and the established population, and the increase in their relative price, should be noted. The appreciable expansion of demand from new immigrants, following two years of moderate increase, seems to have been the result of their finding employment. The rise in demand from the established population can be related to monetary expansion, with the rate of mortgage interest falling, and financial assets increasing (due to the stock-market boom), with their consequent reallocation increasing the demand for real estate.

Economic activity did not expand uniformly throughout the year; a modest rise in the first half of the year was followed by rapid growth in the second. The latter seems to reflect the stabilization of the level of activity in the construction industry and the relaxation of the closure of the administered areas, i.e., an abatement of the negative effects which dampened economic activity during the first half of the year.

The signing of the agreement with the PLO in September had a far-reaching influence, mainly in the capital and real-estate markets, and through them it encouraged the expansion of economic activity.

*     *     *

Since 1991 the employment of Israelis has been stimulated by a two-year subsidy on the net increment to business-sector employment. Subsidized employment has indeed risen steeply, reaching about 55,000 (annual average) in 1993, compared with 40,000 in 1992, and 15,000 in 1991, and subsidized employees accounted for a significant share of total incremental employment. The subsidy enabled workers with relatively low initial productivity (e.g., immigrants, whose process of professional absorption is accompanied by social adaptation) to be employed. Thus, in 1993 this measure helped to increase the demand for labor and make supply more flexible, despite the rigidities described above. This instrument seems to be effective in stimulating employment in the short term, at a relatively low cost. Its long-term success will be assessed, however, in accordance with workers' absorption and productivity at the end of their training. In any event, it is no substitute for a long-term policy which will permanently and significantly reduce the tax rate (on the business sector), stimulate supply, and maintain employment. Its success in stimulating growth will also ensure that the vital objective of reducing the budget deficit/GDP ratio is not harmed in the long term.

**Table 2.9**

**Private Disposable Income and the Saving Rate, 1989-93**

(percent)

| | At current prices (NIS million) | | | | | Real change[a] | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1989 | 1990 | 1991 | 1992 | 1993 | 1990 | 1991 | 1992 | 1993 |
| National income | 60,869 | 74,220 | 96,144 | 114,219 | 132,311 | 5.6 | 10.4 | 7.3 | 5.0 |
| General government domestic income from assets | 1,203 | 2,089 | 2,351 | 3,105 | 3,884 | 50.4 | -4.1 | 19.3 | 13.4 |
| Depreciation[b] | 11,693 | 14,118 | 17,253 | 20,079 | 24,300 | 4.5 | 4.1 | 5.1 | 9.7 |
| Gross private income from economic activity | 71,359 | 86,249 | 111,046 | 131,193 | 152,727 | 4.7 | 9.7 | 6.7 | 5.5 |
| Total direct taxes[c] | 16,574 | 19,430 | 23,249 | 28,170 | 34,734 | 1.5 | 1.9 | 9.4 | 11.8 |
| Net current transfer payments | 7,409 | 9,819 | 12,563 | 14,743 | 17,228 | 14.7 | 9.0 | 6.0 | 5.9 |
| Interest on internal debt | 5,642 | 6,987 | 8,377 | 9,190 | 10,277 | 7.2 | 2.2 | -0.9 | 1.4 |
| Gross disposable income from domestic sources | 67,836 | 83,625 | 108,737 | 126,956 | 145,498 | 6.7 | 10.8 | 5.4 | 3.9 |
| Private current transfers from abroad[d] | 3,393 | 3,814 | 4,688 | 6,252 | 7,559 | -2.7 | 4.7 | 20.4 | 9.6 |
| **Total disposable income** | 71,229 | 87,439 | 113,425 | 133,208 | 153,057 | 6.3 | 10.5 | 6.1 | 4.2 |
| *Percent* | | | | | | | | | |
| Saving rate on income from domestic sources | 21.5 | 22.4 | 24.8 | 22.9 | 20.1 | | | | |
| **Total saving rate** | **25.2** | **25.8** | **27.9** | **26.5** | **24.0** | | | | |

[a] Deflated by CPI.

[b] Private sector.

[c] Direct taxes include income tax, national insurance payments (including employers' contributions), and other property taxes.

[d] Not including transfers on capital account.

SOURCE: Based on Central Bureau of Statistics data.

**Table 2.10**
**National Saving, Investment, and the Current Account, 1981–93[a]**

|  | Percent of total income | | | | | | | | Annual average ($ million) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  | 1981–85 | 1986–87 | 1986–89 | 1990–93 | 1990 | 1991 | 1992 | 1993 | 1986–89 | 1990–93 | Change |
| **Gross saving** | | | | | | | | | | | |
| General government[b] | 17.2 | 18.0 | 17.5 | 19.9 | 17.9 | 20.8 | 21.5 | 19.5 | 7,602.2 | 13,560.7 | 5,958.5 |
| Private[b] | −6.2 | 3.8 | 1.6 | 0.6 | −1.3 | −0.0 | 1.9 | 1.8 | 558.9 | 475.2 | −83.7 |
| Total | **23.4** | **14.2** | **15.9** | **19.3** | **19.3** | **20.8** | **19.6** | **17.7** | **7,043.3** | **13,085.5** | **6,042.2** |
| **Gross investment** | | | | | | | | | | | |
| Inventories | 19.6 | 17.0 | 16.4 | 20.7 | 17.7 | 22.1 | 21.7 | 21.3 | 7,138.7 | 14,118.0 | 6,979.3 |
| Fixed nonresidential | 0.3 | 0.7 | 0.5 | 0.9 | 0.6 | 1.0 | 0.8 | 1.2 | 190.8 | 638.6 | 447.8 |
| Dwellings | 12.6 | 11.9 | 11.4 | 12.9 | 11.5 | 12.4 | 13.0 | 14.6 | 4,951.1 | 8,783.2 | 3,832.0 |
| Total | **6.7** | **4.3** | **4.5** | **6.9** | **5.5** | **8.6** | **8.0** | **5.5** | **1,996.7** | **4,696.3** | **2,699.5** |
| Capital transfers | 0.7 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.6 | 0.3 | 174.0 | 287.8 | 113.9 |
| **Current account[c]** | | | | | | | | | | | |
| Civilian import surplus[d] | −1.7 | 1.5 | 1.5 | −0.4 | 0.7 | −1.0 | 0.3 | −1.4 | 637.5 | −269.5 | −907.0 |
| Civilian unilateral transfers[e] | 6.7 | 4.6 | 4.1 | 6.3 | 5.3 | 6.9 | 6.3 | 6.8 | 1,758.3 | 4,315.3 | 2,557.1 |
| Total | **5.1** | **6.1** | **5.6** | **6.0** | **6.0** | **·5.9** | **6.6** | **5.3** | **2,395.7** | **4,045.8** | **1,650.1** |

[a] The denominator is GNP (as per new SNA definitions) *plus* unilateral transfers from abroad (converted to NIS at the official exchange rate).
[b] The saving figures are based on nominal interest payments.
[c] Saving *less* investment, *plus* capital transfer.
[d] The civilian import surplus includes net payments to factors of production abroad.
[e] Calculated as the current account deficit *less* the civilian import surplus, and hence it includes some foreign-currency conversions by the IDF.
SOURCE: Based on Central Bureau of Statistics data.

## 2. TOTAL USE OF RESOURCES

Total use of resources arising from demand for business-sector product rose more slowly than in 1991–92, when it rose rapidly (see Table 2.11). Most of the slowdown can be attributed to the substantial reduction of government-initiated residential construction. Net of construction investment, the rapid increase continued in 1993, and was equal to the 1992 rate of about 10 percent per annum.

**Table 2.11**
**Use of Resources Deriving from Demand for Business-Sector Product, 1990–93**

|  | | | (real change, percent) | |
|---|---|---|---|---|
|  | 1990 | 1991 | 1992 | 1993 |
| Total use of resources for business-sector product[a] | 9.0 | 11.9 | 9.6 | 7.6 |
| Asset use of resources[b] | 29.6 | 33.1 | 12.1 | 9.9 |
| Total net use of resources[c] | 6.4 | 8.9 | 9.2 | 7.2 |
| Exports (excl. diamonds) | 5.1 | 1.3 | 14.4 | 12.5 |
| Domestic use of resources | 7.0 | 12.3 | 7.1 | 5.0 |
| Construction | 17.3 | 51.9 | 5.6 | -8.5 |
| Other | 5.5 | 5.1 | 7.4 | 8.4 |
| Use of resources excluding construction[d] | 5.4 | 3.8 | 9.8 | 9.8 |

[a] Total use of resources, excluding direct defense imports, public services, housing services, and diamond exports.
[b] Resources used for accumulation of assets, mainly imported, including consumer durables and investment in stock, motor vehicles, and imported equipment.
[c] Total use of resources (as in note a) *less* asset use of resources.
[d] Total use of resources (as in note c) *less* domestic construction.

The rapid increase in the use of resources continued despite the contractionary effect of the public sector. The expansionary factors were export demand, the drop in the private saving rate, and the large rise in private-sector investment.

Exports rose rapidly despite the slower expansion of world trade (only 2.5 percent); this resulted mainly from the continued penetration of new markets such as eastern Europe and the Far East, which showed exceptionally large increases. Economic recovery in the US also played a role in the growth of exports. In contrast, exports to the EU did not increase at all, due to the recession there.

## 3. INVESTMENT AND CAPITAL STOCK

Investment rose by about 3 percent in 1993, after increasing by 6 percent in 1992, and a hefty average annual rate of 34 percent in 1990–91 (Table 2.6). The slow rate of increase of total investments is explained by the sharp 64 percent decline in investment in residential housing by the public sector, a trend which had already started in 1992. All

38

other components of investment rose, including private-sector residential investment. The rise in investment in the principal industries was particularly prominent—some 30 percent in the public sector and about 19 percent in the private sector. The great increase in the former encompassed both public services and roads.

The level of business-sector investment in the principal industries in 1993 was twice that in 1989, before the mass immigration began. This level of investment enabled gross capital stock to increase further, and by the beginning of 1994 it had risen by 6.2 percent, following a 4.9 percent increase to the beginning of 1993 and an annual average rise of 2.9 percent in 1990–92. Net capital stock grew even faster—by about 8 percent to the beginning of 1994, representing a significant acceleration in the growth of capital stock in recent years.

The level of business-sector investment should reflect the process of adjustment of capital stock to a level which will enable the hoped-for growth rate in the coming years to be achieved, and it should be examined in this light. The influx of immigrants which began at the end of 1989 raised hopes of faster economic growth and a higher capital yield, at least in the interim period. These hopes should have been reflected by firms' greater willingness to expand and invest. Indeed, in 1991–93 the growth rate rose considerably, together with improved profitability and significantly increased business-sector investment in the principal industries. This increased investment was supported by both direct government aid and the expansionary monetary policy of those years (see Bank of Israel, *Annual Report, 1992*).

Business-sector investment in the principal industries rose by 16 percent in 1993, compared with 11 percent in 1992. Hence, despite the slowdown in the 1993 rate of growth of business-sector product (which was predicted, to a great extent), and the fall in the yield on capital, investment rose to a level which permitted an annual average growth rate of 5 percent over the next few years.[6] Furthermore, the rise of private-sector investment is prominent in business-sector investment, and this may indi-cate expectations of renewed rapid growth as the period of adjustment following the severe contraction of government-initiated residential construction comes to an end. These expectations seem to have intensified as a result of the peace process and Israel's improved international standing. Economic policy, which in 1992–93 emphasized infra-structure development, particularly transport, supported this trend. The stock-market

[6] This estimate is based on the following assumptions: the level of investment in 1993 permits capital stock to grow by 5–6 percent annually over the next few years. In the labor market—continued increase at the current rate (about 77,000 per year) ensures a 3.5 percent increase in the civilian labor force. The increase in the factors of production, together with a reasonable rise in productivity—about 1 percent annually—enable potential GDP to rise by about 5 percent annually over the coming years. The developments which support a future rise in productivity include widespread investment in equipment in recent years, lowering its average age. Moreover, it can be assumed that this investment brings with it the latest technologies, and is thus likely to increase productivity. It is also reasonable to assume that the labor productivity of immigrants will rise significantly at the end of their training period. As the proportion of immigrants with seniority in their work outweighs that of new entrants, their effect on productivity can be expected to dominate, and thus raise it.

boom in part reflected the optimism arising from these factors, and as well as providing an additional indicator of the optimistic economic atmosphere which apparently also affected investment in physical assets, made it easier for firms to raise capital by issuing shares. The high market value of companies as reflected by their share prices (relative to expected rise in profits) meant a lower long-term real return to investors in shares. In such a situation the cost of financing investment by shares issues (from the firm's viewpoint) is relatively low, thus encouraging such investments.[7] It may be assumed that there is a lag between the time capital is raised and the investment implemented.

In 1992 capital raised on the stock exchange through shares issues increased substantially, and this persisted in 1993. It would seem, therefore, that in 1993 investment was influenced by the stock-market boom of 1991–92.[8] Monetary expansion reflected by a fall in the real (annual average) lending rate, together with a large increase in bank credit to the public, directly encouraged investments. Its contribution to the rise in share prices reduced the cost of financing investment through shares issues without raising the cost of other sources of finance, thereby having a further positive effect on investment. It can reasonably be assumed that this effect operates mainly with a lag. Note, however, that an expansionary monetary policy has only a short-term beneficial effect on investment; it cannot continue long term, as it is apt to boost inflation or harm the balance of payments, thereby upsetting economic stability. The government's extensive investment in the infrastructure in 1992–93 also seems to have had a positive effect on investors.

A more liberal interpretation of the Encouragement of Capital Investments Law in 1993 than in the past may also have speeded up investment. An indication of this may be found in the rapid rise of capital grants and subsidies, whose proportion of total industrial investment rose from 10.7 percent in 1992 to 11.5 percent in 1993. The over subsidization of capital may, however, encourage inefficient investment, thereby wasting resources. Finally, the temporary increase in depreciation allowances at the end of 1992 may also have encouraged earlier investment.

It seems that in the light of companies' high liquidity—the result of raising capital on the stock exchange, investment grants, or government credit sources—the rise in the yield to maturity of government bonds does not reflect a real development exerting upward pressure on long-term interest rates (no empirical connection has been found between yield to maturity of government bonds and business-sector investment). In fact real interest on nondirected mortgages fell from 5.1 percent in 1992 to 4.4 percent in 1993. This interest was apparently a better approximation of the cost of capital facing business-sector investors than the yield on bonds.
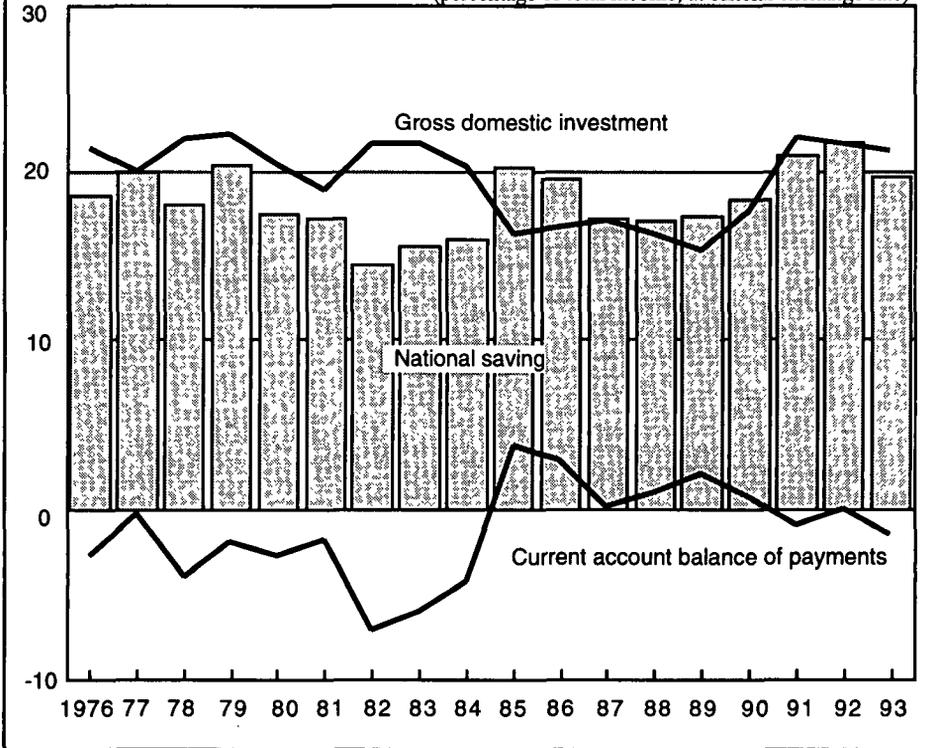
[7] This claim is equivalent to Tobin's 'q' approach, according to which as long as the market value of a company is higher than the cost of the investment, it is worthwhile for the company to issue shares to finance the investment.

[8] Note, too, that in 1992–93 new issues amounted to 30–45 percent of total private-sector investment, so that this development is not marginal, but one of serious magnitude. It seems unlikely that so many manufacturers raised so much capital for purposes other than investment in physical assets in their area of expertise.

Figure 2.4
Rate of Saving, Investment, and the Current Account, 1976–93
(percentage of total income, at official exchange rate)

Gross domestic investment

National saving

Current account balance of payments

1976 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93

SOURCE: Based on Central Bureau of Statistics data.

4. PRIVATE CONSUMPTION AND SAVING

Per capita private consumption continued its rapid rise for the second successive year, increasing by 5 percent, similar to the rate in 1992, compared with a more moderate 1.6 percent annual average in 1990–91. Private consumption excluding durables (as an estimate of current consumption) rose significantly, by 6 percent, compared with 2.5 percent in 1992 and an annual average rise of only 0.3 percent in 1990–91.

The long-term trend of the relationship between consumption and disposable wage income has been stable—despite the large influx of immigrants—in contrast to that between consumption and total disposable income (Figure 2.3). Many other factors affect consumption in the short term, for example, liquidity constraints, changes in the composition of income, expectations regarding future economic activity and policy (e.g., taxation, the exchange rate), etc. Thus, in 1993 neither disposable wage income nor total

disposable income provide an adequate explanation of the rapid rise in consumption, or of the fact that *per capita consumption rose faster than income*. The difference between the rates of increase of per capita consumption (excluding durables) and of per capita wage income in 1993 reflects the accelerated growth of consumption, whereas disposable wage income rose at a rate similar to that of 1992, i.e., about 3.5 percent.[9] However, the annual average rise of private consumption (excluding durables) for 1990–93 was similar to that of disposable wage income. The faster growth of consumption may therefore reflect a delayed adjustment of the consumption level to the trend of disposable wage income. This lag (of about two years) in the adjustment process is surprising; it may be connected with unemployment, which rose rapidly in 1990 and 1991 while wages per employed person fell. This apparently caused concern among the veteran population regarding the future wage level, and their concern was reflected by their reduced propensity to consume, although the influx of immigrants was expected to raise it overall. It seems that of the two factors, that of the established population was the stronger, so that the average tendency to consume fell. Continued economic growth in the last few years, the peace process which started with the Madrid Conference and culminated in the agreement with the PLO, together with the steep fall in unemployment in 1993, contributed to optimistic expectations and the view that the country was on a path of falling unemployment and rising wages per employee (and in general). This turnaround in expectations was reflected by a nonrecurring adjustment of consumption to the trend of disposable wage income, narrowing the gap which had been created in the past (particularly in 1991). Expansionary monetary policy, with the substantial expansion of banks' credit to the public and of the public's assets, supported the adjustment. The increased share of financial assets in total private property in 1992–93 also eased the adjustment process for individuals.

The assumption that the public attaches greater importance to the trend of disposable wage income than to other income when assessing permanent income should be explained. The reason may be that the former is transferred directly to households, whereas the mechanism for transferring some of the latter is more complex, and hence more exposed to irregularity and uncertainty. Furthermore, the wide fluctuations in economic activity and inflation in the 1980s may have affected nonwage income more than wage income, and the fluctuations in the former were reflected by the private saving rate.[10]

The more rapid rise of private consumption than of total disposable income was reflected by a significant fall in the private saving rate in recent years; in 1993 the rate was 24 percent, compared with an average of 26.7 percent in 1990–92 (Table 2.9). The drop in the rate in 1992–93 was apparently due to the reduction in households' saving rate, and matches the increased share of wage income in total disposable income (Figure 2.2).

[9] If the difference were the result of a significant slowing of the rate at which disposable wage income rose in comparison with its long-term rate of increase, as against a stable rate of increase in private consumption compared with the long-term average, it could be explained by expectations alone.

[10] Private savings include savings of households and undistributed profits of private companies.

**Figure 2.5**

**Gross National Saving Rate, by Sector, 1960–93**

(percentage of total income at official exchange rate)
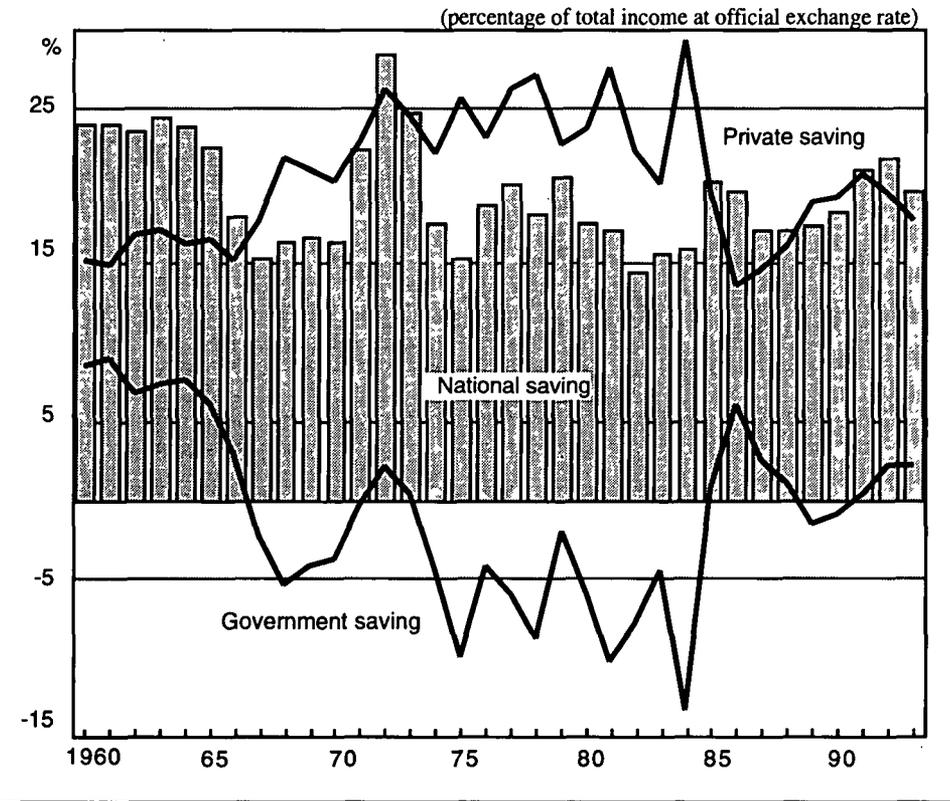
## SAVINGS, INVESTMENT, AND THE CURRENT ACCOUNT

ıe national saving rate fell by about 2 percentage points compared with 1992, and also some extent when compared with the 1990–93 average (Table 2.10). This reflects a op in the private saving rate, with the government rate unchanged. When compared ith the average rate for 1990–93, the change in the composition of savings is even ore pronounced—a drop in the private saving rate mainly offset by an increase in the ıvernment rate.

There was no significant change in the investment rate in 1993 compared with 1992, ıd a slight rise compared with the annual average for 1990–93. Here, too, its ımposition changed: the rate of investment in housing fell, approaching its 1986–89 vel, when the market was in a trough, while the rate of investment in other industries ıs high in comparison with the annual averages for both 1990–93 and the 1980s.

The combination of the drop in the saving rate and the lack of significant change in the investment rate in 1993 resulted in a deficit of $ 1.3 billion in the current-account balance of payments following a small surplus in 1992. The deficit/GDP ratio is still lower than it was in the first half of the 1980s, due to the high national saving rate.

An analysis of the reasons for the fall in the private saving rate gives the impression that in part it reflects permanent factors, i.e., the adjustment of consumption to the trend of disposable wage income. Hence, if the rate of investment remains at its current level,[11] the additional investment will be financed by increasing the external debt by an annual 1.5 percentage points of total income (i.e., by about $ 1.1 billion). In 1993 the deficit was financed by the loans guaranteed by the US government. The interest on these loans is thus the marginal long-term rate of interest for the economy. The dollar rate of interest on the loans is about 7 percent (nominal). Assessing the real long-term interest rate entails making certain assumptions,[12] which give the rate as 3.5 percent per annum. Thus, for investments to be economically viable, investors must face a similar real interest rate.[13] The annual average yield to maturity of long-term government bonds (10 years) was about 3 percent (Table 2.5). The real interest on long-term mortgages was 4.5 percent. The real long-term interest rate, calculated from these figures, was thus about 3.5 percent, consistent with profitable investments. It can also be inferred from this that financing investment by increasing the external debt was economically worthwhile. This level of interest on investments also seems reasonable from the investors' viewpoint, taking into account the net yield on capital, which also includes the risk premium; in recent years this has averaged about 11 percent.

## 6. PRINCIPAL INDUSTRIES

### Industry

Industrial output, which accounts for 30 percent of business-sector product, continued to expand in 1993, rising by 6.8 percent[14] (Table 2.12). In 1993 growth encompassed all

[11] Regarding the implications for productive capacity, see note 6 above.

[12] These are: the rate of increase of dollar prices for exports, 3 percent per annum (similar to the rate over the last decade); the revaluation of the real exchange rate by half a percent a year; the uncertainty premium regarding dollar inflation, half a percent.

Regarding the assumption about the rate of revaluation on which the calculation is based, note that the trend does exist, but it is uncertain whether it will persist, for two reasons: first, the burden of debt servicing of the guarantees will be fully felt only in the future; second, it is reasonable to assume that at some future stage housing demand will contract significantly, when the effect of the influx of immigrants is exhausted and population growth has stabilized. As a result, demand will be diverted to tradable goods, together with real devaluation, and this will offset the revaluation trend of the last decade. Hence (for the sake of caution) only a small revaluation (half a percent a year) has been assumed.

[13] As investors do not receive loans directly from the guarantees, the government could make loans available to them at a different rate of interest.

[14] Industry data in this section exclude diamonds, and are based on industry production indices and

the principal industries excluding transport equipment (Table 2.13). Both labor and capital input grew in most industries, as did productivity. Labor input (in hours) rose by 4.3 percent, while gross capital stock of buildings and equipment increased by 4.8 percent. Investment rose by 17.5 percent, after increasing by 7.5 percent in 1992. Production expansion was uneven during the year, with a marked slowdown occurring in the second quarter. There was significant (13 percent) growth in the wood, paper and print industry, and in the more export-oriented rubber, plastic, chemical and oil industry (11 percent).

Industrial exports grew by 19 percent—the highest increase since 1984—following an 11 percent rise in 1992.[15] Exports to new and emerging markets accounted for much of the increase. The growth of industrial exports in 1993 was concentrated in three of the seventeen two-digit industries which together account for 52 percent of all exports: transport equipment, exports of which soared by 46 percent despite a decline in output, electrical and electronic equipment whose exports grew by 29 percent, and chemical and oil products, which rose by 30 percent. These account for 90 percent of the increase in industrial exports; exports of other industries rose by an annual average of 4 percent.

Industrial profitability remained at approximately the 1992 levels (Table 2.12), as total real labor costs per unit of output remained unchanged, after falling by 4 percent in 1992. Both gross and net return on capital remained at 18 and 22 percent, respectively. Nonetheless, in 1993 profitability was significantly higher than in the late 1980s.

The expansion of manufacturing in 1993 was driven by exports and private consumption. This contrasts with growth in 1990–92, which was led mainly by housing construction.

In order to compare the factors contributing to industrial growth in 1993 with those of 1990–92, we isolate industrial output derived directly from construction demand from the rest of industrial production. Industrial production derived directly from construction is concentrated in industries such as quarrying, construction carpentry, metal piping, structural metal products and frames, and non-metallic mineral products such as cement, glass, and tiles. After rising by 20 percent in 1990, 32 percent in 1991, and 19 percent in 1992, production in these industries did not increase in 1993. In fact, industrial production rose significantly in 1990–92 as a direct result of construction demand: the average annual rate of increase of industrial production excluding construction was 5.4 percent, compared with 7.1 percent including construction. In 1993, on the other hand, construction demand served to moderate the growth of industrial production, which in-

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labor inputs calculated by the CBS. In 1993 there were significant differences between these indices and other statistical data: growth rates of industrial product—implicit in business-sector product according to national accounts figures—are lower than the indices given here. On the other hand, the increase in labor input according to Labour Force Surveys is greater than that reported in this section. Using a combination of national accounts data and Labour Force Surveys, rates of profitability and productivity declined considerably in 1993.

[15] In this section industrial exports include exports of computer software by firms (sometimes considered a services export).

**Table 2.12**
**Industrial Indicators, 1980–93[a]**

(annual change, percent)

| | 1980–85 | 1986–87 | 1988–89 | 1990–93 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| **Activity** | | | | | | | | |
| **Output and exports** | | | | | | | | |
| Gross value added | 2.6 | 4.3 | –2.4 | 7.0 | 6.3 | 6.7 | 8.2 | 6.8 |
| Real industrial exports | 9.2 | 7.5 | 6.5 | 9.3 | 6.2 | 0.8 | 11.4 | 18.8 |
| **Labor and capital inputs** | | | | | | | | |
| Labor input (hours) | 0.5 | 1.0 | –5.2 | 3.6 | –1.1 | 4.4 | 6.7 | 4.3 |
| Number of employees | 0.5 | 1.5 | –4.9 | 2.9 | –0.8 | 4.1 | 4.1 | 4.2 |
| Gross capital stock[b,c] | 4.8 | 4.0 | 3.2 | 3.6 | 2.1 | 3.1 | 4.5 | 4.8 |
| Real gross investment[b] | 6.7 | 2.4 | –6.4 | 15.5 | 16.6 | 20.4 | 7.5 | 17.5 |
| **Productivity** | | | | | | | | |
| Gross value-added per man-hour | 2.1 | 3.3 | 2.9 | 3.4 | 7.5 | 2.2 | 1.4 | 2.4 |
| Total productivity | 0.8 | 2.4 | 0.4 | 3.3 | 6.5 | 2.6 | 2.0 | 2.2 |
| **Profitability** | | | | | | | | |
| **Relative prices** | | | | | | | | |
| Unit labor costs[d,e] | 92 | 99 | 99 | 95 | 98 | 96 | 92 | 92 |
| Input/output prices[d] | 100 | 99 | 97 | 94 | 97 | 94 | 92 | 92 |
| **Rate of return** | | | | | | | | |
| Gross capital[f] | 18 | 13 | 14 | 16 | 14 | 15 | 18 | 18 |
| Net capital[g] | 23 | 13 | 14 | 19 | 14 | 17 | 22 | 22 |
| Real interest | 34 | 35 | 19 | 10 | 16 | 5 | 10 | 7 |
| Industrial share price index[d] | 103 | 113 | 85 | 232 | 119 | 183 | 270 | 354 |

[a] Excluding diamonds.
[b] Excluding motor vehicles.
[c] Real gross capital stock at beginning of year.
[d] Index 1986 = 100.
[e] Index of total labor cost (the multiple of labor input and labor cost), *less* the index of industrial product prices, *divided* by the index of industrial production.
[f] Calculated as the ratio of gross value added *less* labor costs to capital stock excluding vehicles.
[g] Calculated as the ratio of gross value added *less* depreciation and labor costs to depreciated capital stock excluding vehicles.
SOURCE: Based on Central Bureau of Statistics data.

creased by 7.6 percent excluding construction, and by 6.8 including construction. There were indications of a turnaround in 1992 (see Bank of Israel, *Annual Report, 1992*), as construction demand peaked in the first half of the year, thereafter contributing nothing towards expansion. Nevertheless, the contraction of government-initiated construction in 1993 was offset in part by expanded infrastructure construction initiated by the private sector.

Future industrial expansion depends largely on continued expansion of industrial exports, and on improved profitability. The latter is adversely affected by labor market rigidities, such as those evident in the defense industries, which were unable to reduce their labor costs despite the fall in demand for their products.

Investment in transportation infrastructure could also improve profitability. Privatization of government-owned corporations should enhance efficiency. The government's decision to gradually lower tariffs on imports from many Far Eastern and other sources hitherto excluded from the Israeli market enhances competition, and this process should continue.

The government implements various measures designed to stimulate business-sector output—granting incentives to hire new employees, encouraging capital investment, giving quoted industrial firms retroactive capital gains tax relief (soon to be abolished), participating in R&D and marketing costs, and supporting special technological incubation centers. It is doubtful whether the benefits of some of these programs, especially the capital subsidy under the Encouragement of Capital Investments Law, outweigh the costs and distortions incurred.

In contrast to previous years, the expansion of production in 1993 was not accompanied by improved profitability. Total unit wage cost was unchanged after falling by 4 percent in 1992 (and as stated above actually rose, according to Labour Force Surveys). The input/output price ratio did not change either, following its 2 percent drop in 1992. The gross return on capital remained 18 percent, compared with 18 percent in the first half of the 1980s and 14 percent in the second half. It is still lower than it was at the beginning of the 1970s, and below the level in other countries.

There were marked declines in profitability, particularly in textiles, clothing, and non-metallic minerals. In textiles and clothing the increase in labor costs exceeded its average increase in industry, although productivity in these industries did not rise. Furthermore, export prices fell, while the profitability of certain plants may have declined in the short term due to increased competition. The lower profitability of non-metallic minerals is connected with the contraction of construction-allied industries.

Another indicator of profitability is the level of share prices. The total return on shares in general, and that of industrial shares in particular, rose in real terms by more than 70 percent in 1992 and by more than 25 percent in 1993, indicating that profit expectations rose, assuming efficient markets[16] (Table 2.12).

Unlike in the past, and despite the fact that new issues and exercise of warrants on the Tel Aviv Stock Exchange (TASE) doubled in real terms, the rise in share prices in 1993 was not accompanied by a significant rise in flotations and in the exercise of warrants by industrial companies. These amounted to NIS 2,322 million in 1993, at current prices, compared with NIS 2,035 million in 1992. Share issues on the TASE by industrial companies accounted for about 25 percent of the capital raised by all sectors, compared

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[16] It is unclear whether this assumption applies to the Israeli stock exchange (see Chapter 7).

**Table 2.13**
**Industrial Production, Exports, and Investment, 1980–93**

(percent)

| | Average annual change | | | | Annual change | | | | Weight |
|---|---|---|---|---|---|---|---|---|---|
| | 1980–85 | 1986–87 | 1988–89 | 1990–93 | 1990 | 1991 | 1992 | 1993 | 1993 |
| **Production** | | | | | | | | | |
| Food, beverages, & tobacco | 3.4 | 13.3 | –1.5 | 3.3 | 1.1 | 1.7 | 2.8 | 7.7 | 11.4 |
| Textiles, clothing, & leather | –0.1 | 7.5 | –8.4 | 6.8 | 8.5 | 6.9 | 7.1 | 4.8 | 8.7 |
| Wood, paper, & printing | 2.1 | 11.1 | –1.5 | 7.8 | 5.6 | 3.0 | 9.8 | 12.7 | 10.6 |
| Rubber, plastics, chemicals, & oil | 4.2 | 6.8 | 1.0 | 9.0 | 7.2 | 6.3 | 11.4 | 10.9 | 16.3 |
| Mining, etc.[a] | –0.0 | 7.6 | –2.7 | 12.1 | 13.0 | 20.5 | 11.9 | 3.0 | 7.4 |
| Basic metals, etc.[b] | 2.0 | 3.4 | –2.6 | 6.9 | 6.1 | 9.1 | 6.8 | 5.4 | 16.7 |
| Transport equipment | –0.3 | –6.5 | –6.7 | 2.6 | 4.7 | 4.5 | 8.1 | –6.9 | 6.3 |
| Electrical equipment, etc.[c] | 5.8 | –3.5 | –1.2 | 7.2 | 6.6 | 5.9 | 8.2 | 8.2 | 22.7 |
| Weighted average | 2.6 | 4.3 | –2.4 | 7.0 | 6.3 | 6.7 | 8.2 | 6.8 | 100.0 |
| Weighted standard deviation | 3.8 | 6.7 | 4.8 | 3.6 | 2.7 | 4.5 | 2.6 | 4.7 | |
| **Exports** | | | | | | | | | |
| Food, beverages, & tobacco | 3.9 | 7.4 | 1.2 | 1.4 | 7.3 | –7.9 | –3.7 | 10.0 | 6.2 |
| Textiles, clothing, & leather | 5.5 | 10.4 | –4.2 | 8.4 | 13.8 | 4.4 | 12.4 | 2.9 | 9.1 |
| Wood, paper, & printing | –0.7 | 11.3 | –0.1 | 5.9 | 9.7 | 5.5 | 8.2 | 0.2 | 1.2 |
| Rubber, plastics, chemicals, & oil | 9.1 | 12.4 | 6.1 | 11.9 | 7.3 | 3.3 | 10.7 | 26.2 | 23.8 |
| Mining, etc.[a] | 11.1 | 2.8 | –4.4 | –0.7 | –3.6 | –2.2 | –3.4 | 6.2 | 2.7 |
| Basic metals, etc.[b] | 7.5 | 2.1 | 7.8 | –0.5 | 3.6 | –4.7 | –5.9 | 5.1 | 10.1 |
| Transport equipment | 4.3 | 12.5 | 13.0 | 11.2 | –13.6 | –2.4 | 15.4 | 45.5 | 9.8 |
| Electrical equipment, etc.[c] | 22.6 | 7.5 | 14.1 | 15.1 | 11.2 | 4.2 | 22.8 | 22.2 | 37.0 |
| Weighted average | 9.2 | 7.5 | 6.5 | 9.3 | 6.2 | 0.8 | 11.4 | 18.8 | 100.0 |
| Weighted standard deviation | 12.3 | 8.7 | 13.7 | 9.1 | 7.4 | 4.4 | 11.4 | 13.1 | |
| **Investment** | | | | | | | | | |
| Food, beverages, & tobacco | 12.5 | 9.4 | –8.3 | 10.0 | –6.2 | 17.2 | 39.2 | –10.3 | 6.8 |
| Textiles, clothing, & leather | 13.2 | 7.0 | –23.0 | 26.7 | 27.4 | –10.9 | 55.7 | 34.4 | 8.1 |
| Wood, paper, & printing | 8.7 | 19.2 | –17.7 | 20.4 | 24.2 | 58.2 | –12.0 | 11.2 | 5.8 |
| Rubber, plastics, chemicals, & oil | 7.9 | 18.1 | 6.6 | 10.7 | 13.8 | –2.8 | 32.8 | –1.1 | 27.6 |
| Mining, etc.[a] | –4.2 | 17.7 | –13.1 | 33.1 | 19.2 | 77.9 | –14.1 | 49.4 | 10.6 |
| Basic metals, etc.[b] | 4.2 | –7.5 | –21.3 | 17.9 | 13.8 | 36.1 | –17.3 | 38.9 | 11.5 |
| Transport equipment | 14.0 | –12.3 | –4.3 | 20.1 | 43.6 | 61.7 | –27.9 | 3.1 | 6.4 |
| Electrical equipment, etc.[c] | 16.9 | –9.3 | 2.2 | 18.6 | 17.6 | 13.7 | 5.0 | 38.2 | 23.1 |
| Weighted average | 6.7 | 2.4 | –6.4 | 15.5 | 16.6 | 20.4 | 7.5 | 17.5 | 100.0 |
| Weighted standard deviation | 21.4 | 16.1 | 13.8 | 21.7 | 10.6 | 29.3 | 26.0 | 20.8 | |

[a] Mining, quarrying, and nonmetallic minerals.
[b] Basic metals, metal products, and machinery.
[c] Electrical and electronic equipment, and other.
SOURCE: Based on Central Bureau of Statistics data.

with 50 percent in 1992 and 40 percent in 1991.[17] As in the past, most Israeli companies which offered shares in the US were industrial, mainly in electronics, and accounted for more than 50 percent of capital raised by Israeli industry in the US and Israel.

In 1991–93 capital was raised mainly by means of offers of shares, warrants, and convertible debentures, which totalled more than 99 percent of total capital raised. New issues, credit expansion, government grants,[18] and particularly corporate profits are the main sources of finance for new investment in equipment, buildings, working capital, development and investment abroad. Despite their rapid growth in recent years, new issues still account for a relatively small part of total resources. The largest resource remains corporate profits, which were four times the total value of new issues in 1993. Moreover, financial data indicate that in 1990–93 a large proportion of resources was devoted to increasing working capital and repaying loans, reflected in a lower ratio of fixed assets to working capital, and a higher ratio of shareholders' equity to total long-term credit. However, new offerings may have released credit sources for non-listed companies.

## Agriculture

Agriculture continued to contract in 1993, its share of GDP at constant prices amounting to 4.6 percent.[19] Its share of gross business-sector product (at current factor prices) also declined, to about 3.5 percent. The proportion of fresh agricultural exports ($500 million in 1993) in total merchandise exports has also fallen in recent years, and was down to about 3.7 percent in 1993, a figure which also represents agriculture's share of labor input and of the number of Israelis employed.

The situation of farmers deteriorated in 1993, after its relative improvement in 1992. The slowdown in the growth of output did not prevent a further deterioration of relative prices of agriculture (output prices relative to input prices); agricultural product hardly changed, and productivity declined—an exceptional phenomenon in this industry, where productivity has been rising for a long time—and farmers' income also fell. Although severe annual fluctuations in output, product, and income are characteristic of agriculture, their cumulative affect, because they did not offset each other, was a clear downward trend in most of its economic indicators—product, output, productivity and farmers' income (Table 2.14).

Total crop output remained unchanged, with a sharp drop in citrus, avocados, and bananas—due to the harsh winter of 1992/93, and uprooting of unprofitable groves and

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[17] Even if the effect of the privatization of the banks is excluded from the total, the share of industrial flotations has still fallen.

[18] Government grants made under the Encouragement of Capital Investments Law increased to 12 percent of total investment in 1993.

[19] Its share of GNP at current market prices comes to only 2.1 percent.

**Table 2.14**
**Indicators of Agricultural Production, 1987–93[a]**

(real annual change, percent

| | Average | | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|
| | 1987–90 | 1990–93 | | | | |
| **Output** | | | | | | |
| Total output[b] | 3.2 | 1.4 | 7.4 | –4.4 | 6.8 | 2.0 |
| Inputs[c] | 0.2 | 0.7 | 0.9 | –2.8 | 1.3 | 3.5 |
| Gross product | 6.6 | 2.1 | 15.3 | –6.2 | 13.1 | 0.4 |
| Total farm income[d] | –3.5 | –5.3 | 2.7 | –12.7 | 11.7 | –13.0 |
| **Factor input** | | | | | | |
| Labor[e] | –4.6 | –1.6 | –10.7 | –10.6 | 1.3 | 5.2 |
| Gross capital stock[f] | –0.4 | –1.3 | –1.2 | –1.4 | –1.4 | –1.1 |
| Capital-labor ratio | 4.4 | 0.3 | 10.6 | 10.4 | –2.7 | –6.0 |
| **Productivity** | | | | | | |
| Product-labor ratio | 11.7 | 3.8 | 29.1 | 5.0 | 11.6 | –4.6 |
| Total productivity[g] | 9.7 | 3.7 | 23.7 | 0.7 | 12.9 | –2.2 |
| **Exports[h]** | | | | | | |
| Citrus | –2.5 | 0.3 | 13.0 | –0.9 | –1.9 | 3.7 |
| Other | –4.6 | –16.1 | 34.3 | –22.9 | –14.0 | –10.9 |
| Total | –1.6 | 5.3 | 6.6 | 7.5 | 1.4 | 7.1 |
| **Prices** | | | | | | |
| Output | 11.0 | 7.4 | 7.1 | 9.8 | 6.9 | 5.6 |
| Purchased inputs | 14.4 | 10.5 | 7.8 | 12.1 | 10.3 | 9.0 |
| Terms of trade[i] | –3.1 | –2.7 | –0.6 | –2.1 | –3.0 | –3.1 |

[a] Calendar years after 1987 (except for data on citrus, avocado, bananas, and flowers, which are fo agricultural years). Output and productivity are according to average annual prices. Agricultura production comprises marketed produce, consumption of home-grown produce, changes in livestock intermediate output, and investment in newly-planted orchards and afforestation.
[b] Output calculated at producer prices. Including intermediate output.
[c] Purchased plus intermediate output.
[d] At fixed prices, deflated by CPI.
[e] Million man-hours; data from Labour Force Surveys and family surveys in administered areas.
[f] At beginning of previous year, at 1990 prices.
[g] Product per weighted unit of capital and labor (the average weight of labor is 59 percent).
[h] Based on data in1988 dollars (foreign-trade statistics). Excluding exports to the administered areas.
[i] Change in the index of relative output/input prices.
SOURCE: Based on Central Bureau of Statistics data.

orchards—and in olives, resulting from a combination of biennial bearing and damag due to bad weather. Farmers could control only some of these developments. Output o most other crops continued expanding rapidly, albeit at a slower rate than in 1992. Cro output suffered to some extent from the closure of the administered areas. Output o livestock grew by more than the annual population increase, apparently due, *inter alia*, t

the fact that immigrants adjusted their consumption, as well as to the real increase in the subsidy on the output of certain livestock.

These changes in output under conditions of continued excess supply were accompanied by significant reductions in consumer and producer prices (relative to the CPI and the market prices of gross domestic business-sector product respectively). Prices of agricultural product were also reduced as a result of exposure to increased imports from the administered areas—mainly of vegetables and poultry—due to the closure (as lower income reduced demand in the areas, and the increased availability of labor raised production there). On the other hand, events in the administered areas reduced fruit exports to them, increasing the excess supply on the domestic market, especially of summer fruit, and bringing its prices down.

The extent of the reduction of relative prices on the domestic market may be seen from CPI data. Prices of fresh fruit and vegetables fell by 9–10 percent, of livestock products and fish by 4 percent, and those of processed goods also fell considerably. The fall in domestic prices of agricultural products is a long-term trend, and since 1990 real prices have dropped by more than 18 percent.

Together with changes in consumer prices, there was a steep fall in the prices received by farmers on the domestic market (adjusted by the price of gross business-sector product) for nearly all agricultural produce. The prices of all crops and livestock and their products fell by 9 and 7 percent respectively. Prices of agricultural exports, most of them to Europe, fared no better, due to the recession there, greater competition from countries where wages are lower than in Israel, and the weakness of European currencies against the dollar. Note that agricultural exports recorded in the balance of payments (Table 2.14) do not correspond exactly with export production recorded for that year. In view of the collapse of prices of much of Israel's agricultural exports in the countries of destination, the government altered its policy and came to the farmers' aid, extending its support of agricultural exports, while at the same time abolishing the exchange-rate insurance premium. Following a long period in which the terms of trade of agricultural production for export deteriorated, there was a 5–6 percent improvement in 1993, in line with the index of prices of export inputs.

Agricultural production for export should expand the market for agricultural produce, providing a solution for excess capacity relative to the requirements of the domestic market, and enabling the industry to grow. In recent years agricultural exports have remained at 18–20 percent of total sales. Although there was no significant change in the amount of agricultural production for export in 1993, the drop in avocado exports was prominent, as was the persistent contraction of citrus exports, which has recently been accompanied by an increase in the share of new varieties at the expense of traditional ones.

In 1993 aggregate agricultural input purchases grew faster than the rise in output for the first time in many years. The 10 percent increase in water usage in agriculture is notable; some 40 percent of the increase resulted from the lack of rain in the autumn of 1993 (although water usage also rose in 1992, by 6 percent, this followed a year in

which it had been cut by some 25 percent). Note that in 1993 farmers failed to utilize some 20 percent of the annual allocations, despite the real 13 percent price reduction. The reason for this apparently lies in the system of determining the price of water for agriculture: it is graded by percentage utilization of the annual quota, the price for the highest bracket being considerably higher than the one below it. Note also that the consumption of animal feed (between a quarter and a third of total input costs) increased by a real 6 percent, more than is justified by the rise in the output of livestock and livestock products, due apparently to changes in stock levels.

Prices of purchased aggregate inputs dropped by less than those of output, so that the output/input prices ratio, whose decline was particularly marked in livestock, fell by a further 3.1 percent in 1993 .

Another measure of the extent of the fall in relative prices in 1993 as well as in the long term is the price of agricultural product adjusted for gross business-sector product price at factor prices. This declined by about 8 percent in 1993, after falling by 9 and 6 percent in 1991 and 1992 respectively.

The slower rate of output growth was accompanied by accelerated purchases of inputs, leading to a slight rise in agricultural product—less than half a percent. As a result, the average annual increase of product in 1991–93 dropped well below the rate for 1987–90. Agriculture's share of gross business-sector product has fallen steeply (at current factor prices), from some 6 percent in 1987 to 3.5 percent in 1993.

Agricultural investment, which has been increasing since 1990, rose slightly in 1993—by about 18 percent at constant prices. About 17 percent of the total investment was financed by government transfers in the form of investment grants (which expanded considerably) to the export-oriented sections and to preferred settlement areas. Due to these grants, among other things, gross investment in 1993 was approximately equal to the annual discard rate. This is the first time that this has occurred, after several years in which discards outweighed investment, as a result of which gross capital stock had been contracting since 1988. Developments prior to the increase of investment grants reflected the lack of reasonable profits in several areas of agricultural activity, and limited credit sources due to accumulated debt still owed by the rural sector, making it difficult to raise funds. These conditions still appear to obtain, and the reason for the increased investment of 1992–93 is the significant rise in infrastructure investment, such as land development, drainage and afforestation. Attempts to find alternative sources of income, for example by replanting orchards, together with easier financing of investment, also played a role.

In 1993 labor input grew by an exceptional 5.2 percent, after a turnaround in 1992, following years of decline. Agriculture's share of the total labor input of Israelis rose slightly, to 3.7 percent, and the number of employed persons rose by 3.2 percent, twice the 1992 rate of increase.[20] Alongside the increase in labor input and the number employed, there was a significant change in the composition of farm workers: the

[20] This does not take foreign workers employed in agriculture into account, as the data on them are not reliable.

number of those from the administered areas fell by 17 percent, and the trend away from agriculture of Israeli farm-workers who are not employees resumed, so that their share in the number of agricultural employees was 53 percent. The increase in labor seems inconsistent with an industry which is not expanding. The explanation is that the closure of the administered areas caused a faster rate of replacement of workers from the administered areas by less-skilled Israeli employees. Substituting workers with lower productivity for those more skilled requires additional labor input in order to maintain a constant level of output. Additional workers found employment in agriculture, mainly in temporary and seasonal jobs, with the help of the government subsidy. Some of the relief work, introduced as part of the government's efforts to reduce unemployment, was in afforestation, the output and measurement of which are clearly different from those of other agricultural activities. Thus, at least part of the incremental labor in agriculture in 1993 was not connected to customary agricultural activity. Erosion of the real wage, as measured by the index of agricultural input prices, continued (by 2.6 percent), so that since 1991 it has declined by about 8 percent. Total real wage costs in agriculture rose by some 11 percent.

The developments regarding product and capital and labor inputs resulted in a 6 percent fall in per capita product and a 2.2 percent decline in total productivity; these are exceptional figures even for an industry more exposed than others to the vagaries of the weather. Lower productivity is prominent in the long term too, when 1991–93 is compared with 1987–90 (Table 2.14).

Obviously, productivity of this magnitude offers no solutions to the long-term problem of the ratio of output to input prices in agriculture. As a result of the fall in productivity, total farm income plummeted by 13 percent. The 50 percent real drop in compensation paid in 1993, mainly for weather damage, also contributed to this reduction (these payments had risen significantly in 1991 and 1992 because of the serious weather damage in those years). Despite the increased support for agriculture, there was a real 25 percent annual fall in the return on own labor, entrepreneurship, and capital (including financial expenses), giving a cumulative decline since 1987 of 42 percent. In the same period the number of farmers (non-employees) contracted by 25 percent, so that average real income per farmer fell by 23 percent. Family farms were affected more than communal farms in 1993, as the former are more dependent on hired labor.

The solution to the economic situation of the rural sector lies in continued streamlining, and freeing factors of production for alternative branches of agriculture and other industries, as has in fact occurred in recent years. Nevertheless, agriculture is normally considered as contributing more to the economy, ecology, and society than is measured by its output, product, and income. The market does not usually compensate for this. If these external benefits—preserving open spaces and national land, offering advantages of security and population dispersal, providing a ready supply of fresh agricultural produce, and maintaining various environmental values—are considered worthwhile, agriculture (or the rural sector) must be subsidized. Many western

economies follow this path, giving preferential treatment to rural areas in their policy of income distribution, sometimes at the cost of accumulating large surpluses and stocks of agricultural produce, while keeping the size of the rural population steady. The fewer the resources available to the economy, the more efficient must the support policy be.

The special nature of agriculture, offering extraneous benefits on the one hand and inherent problems on the other, is reflected by international trade agreements on agricultural produce (the GATT 'Uruguay Round') signed recently. These agreements specify types of agricultural support which do not distort trade (and are hence 'permitted'); these include government subsidies for R&D, training, pest control services, aid in infrastructure development, maintaining public food stocks, payments to farmers which are not connected to agricultural production, aid for crop insurance, and for retirement and pension schemes. All these differ from trade restrictions, export subsidies, and domestic subsidies, which have a distorting effect; ways of gradually reducing them are detailed in the agreement.

In 1993 the government's policy of agricultural support was changed. This was reflected by a 44 percent increase in the direct support of agricultural output in the domestic market, mainly in the disposal of surpluses (eggs in particular), and in tackling specific problems. Support for the price of water and for agricultural exports continued.

Statistical limitations make the calculation of agricultural support and international comparisons difficult. Rough estimates show that support for agriculture amounted to about 24 percent of the value of its production. Some 60 percent of the support is used to protect against imports, taking into account differences between the prices of agricultural products abroad and on the domestic market.[21] Other components include: direct subsidy of output (1.4 percent), direct subsidy of the price of water (2.8 percent), and the imputed capital subsidy on water usage (4 percent). This estimate does not include subsidies for R&D, advisory or other services, capital grants for investment, or export subsidies. All of these apparently amounted to another 5 percent. Total support for agriculture amounts to 1.3 percent of GDP. A rough examination of international data, to be treated with caution, indicated that the subsidization of agriculture in the EU in 1992 was 47 percent of the adjusted value of production, or an average 2 percent of GDP.[22]

The *kibbutz* debt restructuring arrangement (1989), in which some debts were written off and others rescheduled as part of a very detailed recovery program, should have ended in 1993, but delays in its full implementation caused it to be extended to 1994. However, there seem to be significant additional debts, solutions for which are not part of the arrangement. The special socio-economic structure of the *kibbutzim* makes it difficult for them to raise money on the capital market in the usual manner. However, taking into account the fact that some *kibbutz* land is close to the major conurbations, that its value may rise after rezoning from agricultural to residential, industrial, and tourist purposes, and that these assets may be realized in the light of the boom in demand, this may help to solve their debt problems.

[21] For this estimate we made use of working papers and estimates of the Ministry of Agriculture.
[22] OECD data.

## Transport and communications

n 1993 output rose by a rapid 8 percent, slightly slower than in 1992 (Table 2.15). This industry accounts for some 13 percent of business-sector product, slightly higher than its hare in the last decade (Table 2.2). Total product of the industry rose by about 7 percent,[23] reflecting an increase of 3 percent in labor productivity and of 2 percent in total productivity. The increase was the result of the continued steep rise in communications output, and the increase in road haulage output, while reduced bus usage served to slow lown the rate of growth. Price increases[24] were one and a half percentage points below he CPI, due to a relatively sharp rise in the price of bus services, and a very slight ncrease in that of communications. Real wages remained at the 1992 level, although the ⸱ percent rise in communications was notable.

In 1993 there was an upsurge in investment in roads, in contrast to the slowdown in nvestment expansion in other areas of transport—except for investment in airport buildings, which doubled. Increased traffic through air and sea ports has resulted in considerable congestion. Investment in roads amounted to NIS 2 billion, an increase of i2 percent in real terms, following years of severe underinvestment due to the fact that oads were low in governments' order of priorities. This can be seen from the falling hare of road investment in GNP in the twenty years to 1983–84 (Figure 2.6). In 1993 its hare rose to 1.1 percent, far above the peak of the late 1960s. Road congestion continued to increase, however, due to the time required to complete projects and, qually important, to the renewed switch from public to private transport. This was because not enough was done to encourage the use of public transport, which is essential or reducing road congestion. Bus services did not improve sufficiently, and little use vas made of the railways, despite the great increase in investment in them during 1992– ⸱3, and no alternative mass transportation systems have yet been established.[25]

The increase in output leveled off in 1993 as a result of opposing developments: output growth slowed down to some extent in most areas, following a steep rise in 992, and services provided by travel agents grew very rapidly. The latter account for lmost all transport services not elsewhere specified, which rose by 28 percent, matching he increase in expenditure by Israelis abroad. The moderation in other areas was due nainly to the slower growth of demand in various spheres, following its rapid rise in 992. Some transfer of demand to foreign airlines continued, and there was a marked lowdown in the rate of increase in freight between foreign seaports. The increase in

[23] Product growth of the industry was estimated by the increase in product of its sub-industries, weighted according to their real increase of output (i.e., revenue), and in cases where this was unavailable for taxis, fuel and gas lines, and storage-refrigeration-terminals), the product was derived from demand by means of the input-output coefficients. For transport services not elsewhere specified, the increase in 992 and 1993 was calculated using the increase in VAT payments, and the estimated output of trucks is ased on weights taken from the 1990 survey of trucks. All the calculations are based on data from the Central Bureau of Statistics.

[24] Price indices are of output.

[25] For example, a light rail or subway system.

**Table 2.15**
**Output and Prices of Transport and Communications, 1986–93**

(percer

| | Percent of total 1992 | | Annual change | | | | | | |
| | | | Real output | | | | Price relative to CPI | | |
| | Product | Income | 1986 –90 | 1991 | 1992 | 1993 | 1986 –91 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|---|
| **Land transport** | **47.9** | **34.1** | **0.1** | **6.4** | **7.0** | **3.5** | **2.2** | **–0.9** | **–0.⸱** |
| Buses | 12.6 | 9.9 | –6.4 | –4.2 | 7.0 | –8.2 | 7.1 | 4.7 | 7.⸱ |
| Taxis[a] | 5.7 | 3.1 | 2.4 | 1.9 | 9.2 | 8.9 | 3.7 | –1.1 | 3.⸱ |
| Road haulage[a,b] | 28.6 | 20.5 | 3.1 | 11.3 | 6.9 | 8.3 | –0.7 | –3.6 | –4.⸱ |
| Railways | 0.6 | 0.6 | 6.1 | 5.6 | –5.0 | 3.9 | –2.7 | –2.0 | –1.⸱ |
| Oil and gas pipelines[a] | 0.5 | 0.0 | 4.7 | 7.5 | 7.1 | 6.6 | | | |
| **Shipping and ports** | **13.0** | **19.7** | **6.0** | **6.2** | **8.9** | **5.1** | **–8.1** | **–4.1** | **0.⸱** |
| Shipping | 8.0 | 14.8 | 5.4 | 4.5 | 8.9 | 4.7 | –9.1 | –3.6 | 3.⸱ |
| Ports | 5.0 | 4.9 | 8.7 | 15.4 | 9.0 | 6.3 | –3.4 | –5.5 | –10.⸱ |
| **Civil aviation and airports** | **9.9** | **13.6** | **4.6** | **–1.4** | **9.6** | **2.8** | **–3.7** | **–5.0** | **–0.⸱** |
| Civil aviation | 8.1 | 12.3 | 4.4 | 0.9 | 8.2 | 2.6 | –3.7 | –5.0 | –0.⸱ |
| Airports | 1.8 | 1.3 | 6.7 | –16.2 | 20.3 | 3.9 | –3.6 | –4.4 | –2.⸱ |
| **Communications** | **19.4** | **13.5** | **10.3** | **9.1** | **12.7** | **12.7** | **–1.0** | **–6.9** | **–8.⸱** |
| **Other** | **9.9** | **19.1** | **1.6** | **–2.6** | **11.0** | **21.0** | | | |
| Storage, refrigeration, terminals, parking lots[a] | 3.6 | 6.6 | 6.7 | 2.8 | 9.6 | 7.9 | | | |
| Other transport services[c] | 6.3 | 12.5 | 1.1 | –6.1 | 11.8 | 27.9 | | | |
| Total output at market prices | | **100.0** | 5.0 | 5.2 | 9.3 | 8.3 | –0.4 | –3.5 | –1.⸱ |
| Total gross product at 1988 prices | **100.0** | | 4.7 | 5.1 | 9.0 | 7.4 | | | |
| Gross investment[d] | | | 16.3 | 44.1 | 17.5 | 8.8 | | | |
| Gross capital stock[e] | | | 2.4 | 2.1 | 5.0 | 6.7 | | | |
| Employed persons[f] | | | –0.5 | 1.3 | 7.8 | 1.9 | | | |
| Labor input[f] | | | 0.3 | 2.9 | 8.3 | 4.2 | | | |
| Labor productivity[g] | | | 4.4 | 2.2 | 0.7 | 3.0 | | | |
| Total productivity[h] | | | 3.4 | 2.6 | 2.1 | 1.9 | | | |

[a] Output estimated from the input-output tables. Price estimates calculated by the Central Bureau of Statistics.

[b] Estimated increase in output from 1990 to 1993 based on the 1990 road haulage survey of the Central Bureau of Statistics.

[c] Estimated increase in output based on VAT data from the Central Bureau of Statistics.

[d] The 1986–90 figure gives the change over the preceding five years (annual rate). The year-to-year change during 1986–90 averaged one percent a year.

[e] At beginning of year.

[f] Data on communications are for Bezeq and the Postal Authority only.

[g] Output per unit of labor input.

[h] Estimated productivity is biased, as roads, which account for a large share of capital, are also used for private travel.

SOURCE: Based on Central Bureau of Statistics data.

**Figure 2.6**

**Investment in Infrastructure, 1965–93** [a,b]

(percent of GNP)

Communications

Transport, excl. roads and vehicles

Roads
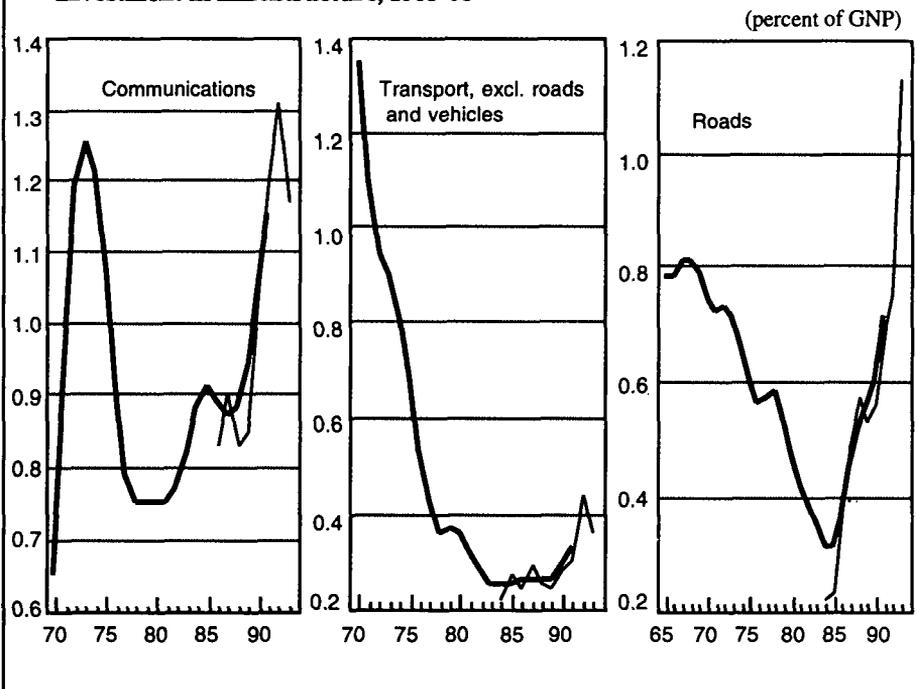
[a] The thick line—moving average.
The thin line—original data.

[b] Calculations based on current prices.

SOURCE: Based on Central Bureau of Statistics data.

oad haulage persisted in 1993; in contrast to the reduction in construction and agriculture, road surfacing and import and export cargoes grew. As stated, travel by public transport, which is included in road haulage, fell, as journeys by private vehicles, which are not included, increased.

Not enough was done to encourage competition, which is essential for efficient operation. In public transport there was no progress at all, despite the recommendations of an expert committee; moreover, the increase in the number of taxis, which could contribute to competition, was minimal. Air travel did not become more competitive either.[26] Some measures were adopted with the intention of increasing competition in communications even before Bezeq was granted a new license with that object in view.

[26] Air travel will only become more competitive, following the acceptance of the recommendations of the interdepartmental committee, if the appropriate regulations are introduced and interpreted in a way which allows competition.

**Table 2.16**
**Investment in Transport and Communications, 1986–93**

| | Composition of investment in 1993 | | Real average annual change (perc | | |
|---|---|---|---|---|---|
| | Amount (NIS million) | Share of total (percent) | 1986–90 | 1992 | 199 |
| Roads | 2,056 | 21 | 26 | 17 | 6: |
| Total vehicles | 5,166 | 52 | 10 | 13 | 4 |
| of which Trucks^a | 2,814 | 28 | 15 | 9 | 1: |
| Other transport^b | 618 | 6 | 8 | 64 | -2: |
| of which Railways | 134 | 1 | | 113 | -4. |
| Total transport | 7,840 | 78 | 12 | 18 | 1: |
| Communications | 2,176 | 22 | 10 | 16 | – |
| Total transport and communications | 10,017 | 100 | 11 | 17 | |

^a Including commercial vehicles.

^b Including railways, sea and airports, storage, terminals, parking lots, and items not specifie elsewhere.

SOURCE: Based on Central Bureau of Statistics data.

## Construction

The product of the construction industry fell by 6 percent in 1993, accounting for 8. percent of total business-sector product, and its output declined by 8 percent. Th decline reflects a 30 percent cutback in investment in residential construction, after thi had remained steady in 1992, having expanded rapidly in 1990–91 because of the influ of immigrants. However, investment in nonresidential construction rose by a steep 3 percent, and in infrastructure and earthworks by 28 percent, including a 62 percer increase in road investment. Residential construction investment declined as a result c reduced public-sector investment in that area, offset to some extent by an increase i private investment. The expansion of private residential construction did not mee demand, and the excess demand led to a substantial 22 percent rise in prices of ownei occupied apartments, equivalent to a 9.6 percent increase in their relative price.[27] Th expansion of private residential construction was accompanied by sales of land, abou half of which were in the central conurbation.

Long-term factors affecting the demand for housing include population growth an changes in permanent income, while short-term considerations of capital profit ma either bring purchases forward or defer them in accordance with market condition:

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[27] The relative price is the price of owner-occupied homes adjusted by the CPI. The prices of ownei occupied homes adjusted by the CPI excluding housing rose by 12 percent in 1993.

**Table 2.17**
**Indicators of Construction Activity, 1972–93[a]**

| | Absolute figures | | Annual change, percent | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1992 | 1993 | 1972–79 | 1980–86 | 1987–93 | 1991 | 1992 | 1993 |
| **Output** (millions of 1986 NIS) | | | | | | | | |
| Residential | 5,346 | 3,770 | −2.6 | −3.4 | 8.5 | 83.8 | −3.2 | −29.5 |
| Nonresidential | 2,529 | 3,302 | −2.4 | −3.9 | 15.0 | 14.8 | 22.0 | 30.6 |
| Other construction output[b] | 1,734 | 1,792 | 2.0 | 1.7 | 2.6 | −0.8 | 2.2 | 3.3 |
| Total | 9,609 | 8,863 | −1.6 | −2.2 | 8.9 | 42.5 | 3.4 | −7.8 |
| **Starts** (thousand sq. m.) | | | | | | | | |
| Residential | 5,610 | 5,070 | −5.8 | −6.4 | 9.2 | 55.6 | −35.7 | −9.6 |
| Nonresidential (thousand sq. m.) | 2,060 | 2,360 | −5.1 | −6.5 | 13.1 | 6.3 | 36.4 | .14.6 |
| Total | **7,670** | **7,430** | **−5.6** | **−6.4** | **10.4** | **45.7** | **−25.1** | **−3.1** |
| **Completion** (thousand sq. m.) | | | | | | | | |
| Residential | 7,620 | 5,480 | −4.7 | −2.4 | 9.4 | 68.2 | 48.2 | −28.1 |
| Nonresidential | 1,520 | 1,950 | 4.8 | −6.1 | 6.9 | 9.6 | 26.7 | 28.3 |
| Total | 9,140 | 7,430 | −2.1 | −3.6 | 8.7 | 52.8 | 44.2 | −18.7 |
| **Residential** (thousand units) | | | | | | | | |
| Starts | 45 | 34 | −8.0 | −9.6 | 8.7 | 97.1 | −46.2 | −25.1 |
| Completions | 70 | 43 | −6.5 | ·−4.7 | 10.3 | 111.8 | 65.9 | −38.4 |
| **Construction time**[c] (months) | 21 | 22 | 3.5 | 3.0 | −1.3 | −1.0 | 2.0 | 4.9 |
| **Employment** (thousands) | | | | | | | | |
| Israelis | 108 | 118 | −2.6 | −4.0 | 9.7 | 26.3 | 11.9 | 10.1 |
| From administered areas | 86 | 61 | 3.9 | 3.9 | 3.6 | 4.4 | 28.4 | −29.2 |
| Total | **193** | **179** | **−1.0** | **−1.2** | **7.3** | **16.3** | **18.7** | **−7.3** |
| **Stock of construction equipment**[d] | | | | | | | | |
| (millions of 1986 NIS) | 1,275 | 1,417 | 4.1 | −1.0 | 2.5 | 2.0 | 21.5 | 11.2 |
| Index of input prices (residential | | | | | | | | |
| construction) | 5,170 | 5,599 | 42.7 | 153.1 | 16.5 | 16.4 | 10.9 | 8.3 |
| Cement sales (thousand tons) | 4,391 | 4,668 | 1.0 | −1.1 | 12.1 | 35.6 | 12.5 | 6.3 |

[a] Calculated from unrounded figures.
[b] Includes defense construction and a rough estimate for maintenance.
SOURCE: Based on Central Bureau of Statistics data.

[c] Private residential construction.
[d] Beginning-of-year stock.

The basic demand for housing in 1993 was affected mainly by long-term factors.[28] From 1990 to the end of 1993, with the arrival of about half a million immigrants in Israel, the population grew by some 17 percent. During the immigrants' first few years in Israel, the proportion purchasing apartments increased as the time since their arriva grew. This is explained by the higher proportion of employed among immigrant labor force entrants, with their improved chances of obtaining finance. Immigran unemployment fell from some 50 percent in 1990 to about 20 percent in 1993. Having found employment, the immigrants could commit themselves to long-term loan repayments. In addition, the longer their stay in Israel, the more certain it was that they would remain in the country and that they knew where they would live. This argument is supported by the 70 percent increase in the number of immigrants using their rights to directed mortgages in 1993. Predictably, together with this increase, the number of recipients of rent-participation grants fell. In addition, some immigrants were offered the chance to receive a mortgage for the purchase of an apartment while still receiving ren support. Moreover, the effect of special sales campaigns of apartments built at the initiative of the Ministry of Construction and Housing was clear, mainly in the first hal of the year, with the number of loans taken out by eligible persons increasing steeply.[29] The Ministry of Construction and Housing acted on the demand side by increasing regional loans as well as their grant component in certain settlements. Regional loans were also granted in certain settlements to owner-occupiers. Some 54 percent of those purchasing apartments through these campaigns were immigrants.

In 1993 the number of young couples taking out directed mortgages for housing dropped below the figure for 1992, which had been a record for this group. Nevertheless, the number of young couples taking out mortgages was still high compared with previous years.

As business-sector product rose, the increase in apartment purchases in 1993 was supported by expectations of greater permanent and disposable income. These also led to a rise in demand associated with the desire to improve housing standards by moving to larger apartments. Immigrants' demand, which is essentially for small apartments contributed to this demand, raising their prices, and increasing demand for larger apartments by the established population.

[28] The basic demand for apartments in 1993 is estimated at 52,000, and includes those purchased by the established population and immigrants for accommodation, and about 4,000 purchased over and above current accommodation requirements. The number of apartments bought by immigrants is estimated at some 26,000; this is based on surveys conducted in February and November 1993 of immigrants from the CIS who reached Israel after the end of 1989. These constitute about 88 percent of all immigrants. The assumption is that the results of the survey are applicable to all immigrants, and reflect purchases during the year. Demand by the established population is estimated at some 22,000 apartments.

[29] The sales campaigns may have been perceived by the public as a unique opportunity, causing it to bring purchases forward.

**Figure 2.7**
**Government-Initiated Residential Construction as**
**Proportion of Total Residential Construction, 1980–93**
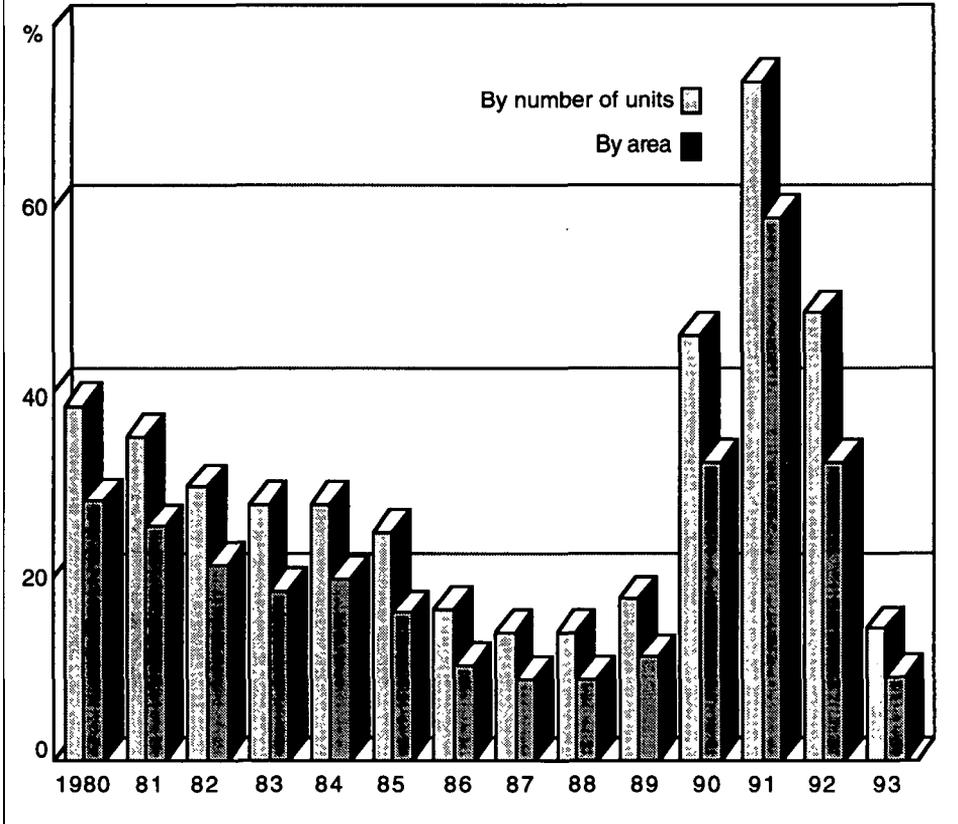
The buoyant demand for apartments in 1993 arose from the long-term factors mentioned earlier, and from purchases brought forward as a result of expectations of future increases in apartment prices. The peace process, which advanced significantly in September, created expectations of higher demand for real estate and housing by nonresidents. In addition, some people expect that after the peace agreements, inhabitants of settlements established in the administered areas will seek accommodation within the pre-1967 borders, boosting demand for housing. The resultant increase in the demand for housing will precede expansion of the stock of apartments, because of the time required to build them. Hence prices are expected to rise, pushing up present demand, and bringing purchases forward.

The increase in the demand for housing is also supported by the fall in mortgage interest rates and the rise in share prices in 1990–92. The interest rate on nondirected

**Table 2.18**

**Housing Construction, by Initiating Sector, 1970–93[a]**

(thousand units, period average

|  | Starts | | | Completions | | |
|---|---|---|---|---|---|---|
|  | Total | Private | Public | Total | Private | Public |
| 1970–75 | 56.4 | 30.2 | 26.2 | 46.8 | 26.9 | 19.9 |
| 1976–78 | 31.0 | 22.5 | 8.4 | 44.6 | 24.0 | 20.6 |
| 1979–86 | 28.3 | 19.3 | 8.9 | 29.1 | 19.6 | 9.5 |
| 1987–89 | 21.2 | 18.0 | 3.2 | 20.6 | 17.2 | 3.4 |
| 1987 | 21.7 | 18.7 | 3.0 | 20.0 | 16.4 | 3.6 |
| 1988 | 22.0 | 18.9 | 3.0 | 19.6 | 16.4 | 3.2 |
| 1989 | 19.9 | 16.4 | 3.5 | 22.3 | 18.8 | 3.5 |
| 1990 | 42.4 | 22.8 | 19.6 | 20.0 | 16.7 | 3.3 |
| 1991 | 83.5 | 21.8 | 61.7 | 42.3 | 19.1 | 23.1 |
| 1992 | 44.9 | 23.1 | 21.8 | 70.1 | 21.6 | 48.5 |
| 1993 | 33.6 | 28.9 | 4.8 | 43.2 | 21.6 | 21.6 |
| 1990 |  |  |  |  |  |  |
| I | 8.8 | 5.3 | 3.6 | 4.6 | 4.2 | 0.5 |
| II | 7.7 | 4.9 | 2.8 | 4.8 | 4.1 | 0.6 |
| III | 11.1 | 6.1 | 4.9 | 5.1 | 4.1 | 1.0 |
| IV | 14.8 | 6.5 | 8.2 | 5.5 | 4.3 | 1.2 |
| 1991 |  |  |  |  |  |  |
| I | 18.3 | 4.8 | 13.5 | 6.6 | 4.1 | 2.5 |
| II | 22.9 | 6.1 | 16.8 | 8.0 | 4.3 | 3.7 |
| III | 23.0 | 5.4 | 17.6 | 12.2 | 4.7 | 7.5 |
| IV | 19.3 | 5.5 | 13.8 | 15.5 | 6.0 | 9.5 |
| 1992 |  |  |  |  |  |  |
| I | 10.3 | 4.6 | 5.7 | 15.0 | 5.0 | 10.0 |
| II | 14.3 | 5.9 | 8.4 | 19.1 | 5.8 | 13.3 |
| III | 11.7 | 6.3 | 5.4 | 20.5 | 5.4 | 15.1 |
| IV | 8.7 | 6.3 | 2.3 | 15.5 | 5.4 | 10.1 |
| 1993 |  |  |  |  |  |  |
| I | 7.5 | 6.4 | 1.1 | 11.5 | 4.3 | 7.3 |
| II | 7.3 | 6.3 | 1.0 | 9.8 | 5.1 | 4.7 |
| III | 8.9 | 7.9 | 1.1 | 10.7 | 5.8 | 4.9 |
| IV | 9.9 | 8.3 | 1.6 | 11.2 | 6.5 | 4.8 |

[a] Calculated from unrounded figures.

SOURCE: Based on Central Bureau of Statistics data.

mortgages for more than 15 years fell from an average of 5.1 percent in 1992 to 4.4 percent in 1993. As a result of the cheap credit extended to the public by the banks and increased interbank competition, the number of nondirected mortgages granted by the banks rose considerably. Apartments represent a long-term investment, and the risk is

**Figure 2.8**
**Building Starts by Location, 1990-93**
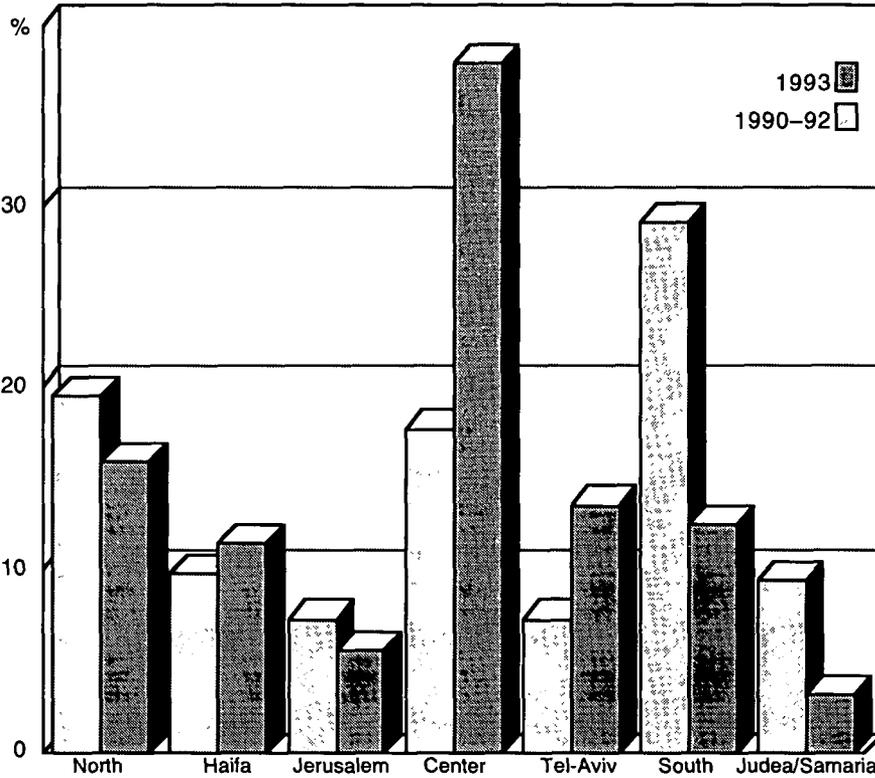


SOURCE: Central Bureau of Statistics.

ower than on the stock market, so that some of the public's income from shares in 991-92 may have been invested in the purchase of apartments.

The drop in interest on nondirected mortgages led to a lower rate of subsidy. In the irst, second, and fourth quarters this interest was below the 4.5 percent on regional oans, so that the rate of subsidization did not alter with the extra regional loans. The egional loans may have been taken by persons unable to obtain nondirected loans from he banks, however.

The number of government-initiated residential starts fell to about 5,000 in 1993 while he number of private-sector residential starts rose to some 29,000. As a result, the government-initiated share of starts fell from 49 percent in 1992 to 14 percent in 1993, ts level in 1987-88, before the influx of immigrants.

Expanded private-sector activity strengthens the role of the market in determining ndustrial activity, thereby contributing to more efficient resource allocation.

Construction of apartments by the private sector is entirely in areas of excess deman(
Thus, in 1993, when most starts were initiated by the private sector, about 38 percer
were in the central conurbation, compared with 18 percent in 1990–92, when mo:
construction was government-initiated. At the same time, there were fewer buildin
starts in the south than in 1990–92 (Figure 2.8). An increase in the relative price c
residential apartments thus boosts activity, but because of the long construction perio
(about two years), the method of financing in the industry—based partly on the sale c
apartments in the early stages of construction—and the length of time required to pla
and obtain approval for building, the supply of apartments cannot be increase
immediately. Therefore short-term misalignment of the demand for and supply c
apartments is reflected by price fluctuations.

The increase in private-sector residential construction in 1993 resulted from the highe
relative price of apartments. The fact that the public sector left the housing marke
enabled the transfer of factors of production to private-sector construction. However, th
closure of the administered areas in the second quarter of 1993 resulted in an industr
shortage of manpower, a contraction in the number of persons employed, and an eve
greater fall in the number of weekly man-hours of employees from the administere
areas. In the second half of the year, by contrast, the number of employed persons ros(
as did labor input. From the third quarter the number of private-sector residential start
began to rise considerably, mainly in the central part of the country. In this area land wa
purchased from the Israel Lands Administration at prices above the minimum, due t
fierce competition between building contractors. In accordance with the policy c
increasing land sales, the Israel Lands Council decided in October 1993 to furthe
encourage the rezoning of land from agriculture to residential construction and t
construction for industry and tourism. (From May 1992 until December 1993, 6,70(
apartments were sold in accordance with this decision, 6,500 of them in the centr;
coastal plain.) This enables the supply of land for residential purposes to expand, mo:
importantly in the main urban areas and the central conurbation, and should have th
effect of reducing land prices in these areas, and hence bringing down the prices c
apartments. This is not a short-term development, however, especially as rezonin.
involves lengthy planning and development processes.

A number of additional factors served to encourage the construction activity of th
private sector in 1993. Thus, the fall in the price of capital, and increased interban:
competition for project financing, made relatively large sources of low-cost financ
available.

As stated, in 1993 the government continued to reduce the number of residentia
starts, and undertook no further purchase commitments. Nevertheless, it affected th
housing market through sales campaigns for apartments it owned, in the context of th
surplus stock from budgeted construction, purchased from contractors under its buybac:
guarantees. These campaigns involved reducing prices of apartments in certai1
settlements, and extensive advertising to boost sales. The Ministry of Construction an(
Housing participated on the demand side too; 11,000 apartments were sold in 1993, an(

although there is still a stock, this is steadily being reduced. The public sector contributed 108,000 starts and 96,000 completions to the stock of apartments from 1990 to 1993, of which some 22,000 remain unsold. Some 8,000 of these units are intended for rental by the needy. An examination of the geographical distribution of urban building starts initiated by the Ministry of Construction and Housing shows that in and around the Tel Aviv conurbation, Haifa and Jerusalem, a large proportion of the apartments were sold to the public by contractors, with only a small share sold to the Ministry under its purchase commitment. In the Negev and Galilee, on the other hand, only a small share of apartments were sold to the public by the contractors.

The capital stock of construction equipment grew by 11 percent in 1993. The increase started in 1991, and resulted mainly from the increase in earthworks and infrastructure, in which most of the industry's capital stock is concentrated. Nonetheless, the construction industry still lacks capital and is labor-intensive. In addition, labor input fell by about 9 percent, with a 7 percent drop in the number employed, and a change in the composition of employment—the proportion of Israelis employed rose from 65 percent in 1992 to 73 percent in 1993. The number of Israelis employed rose by some 11,000, while the number of workers from the administered areas fell by some 25,000. This change in the composition of employment in the industry began in the second quarter of 1993, because of the security situation and the closure of the administered areas. Government policy also encouraged the employment of Israelis. The result of the higher proportion of Israelis and the lower labor supply was a 4.6 percent rise in the real wage per employee post in the construction industry, compared with an overall reduction of 0.5 percent. On the other hand, the index of prices of nonwage residential construction inputs, adjusted for the CPI, fell by 3.4 percent, continuing the downward trend which started in 1989.

Total productivity in the industry hardly changed in 1993 (a decline of 0.4 percent), while labor productivity rose by some 3 percent, despite the increased proportion of unskilled employees arising from the closure of the administered areas and the fall in the number of employees from there. Although the changed composition reduced labor productivity, there were a number of factors which served to raise it: first, the composition of output changed—other construction work such as roads and infrastructure are capital-intensive, while construction of buildings is labor-intensive. Hence the increased share of infrastructure work in output raises industry output per man-hour and labor productivity. Second the labor shortage encouraged efficient management, thereby raising total and labor productivity. Third, the fall in the ratio of the area of completions to starts served to raise labor productivity, as starts are capital-intensive relative to completions, which are labor-intensive. Finally, the employment of some 6,000 foreign workers, authorized by the Employment Service, raised the product of the industry; they are not included in labor input, and thus raise measured labor productivity.[30]

[30] There are also additional unauthorized foreign workers in the industry.

**Figure 2.9**
**Composition of Trade and Services Product, 1993 (percent)**
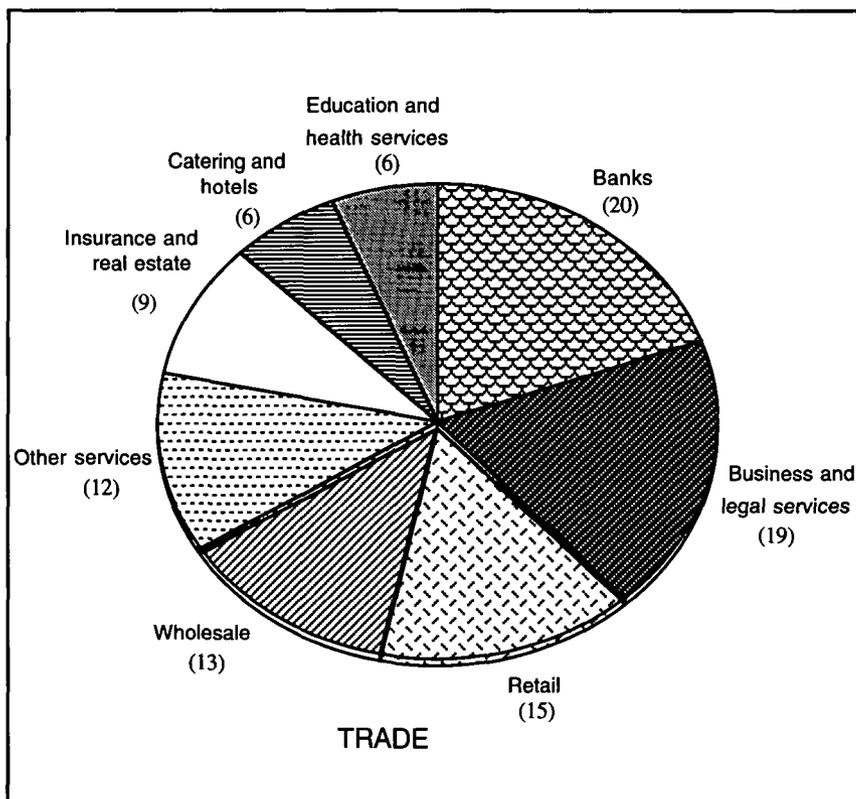
## Trade and private-sector services

In 1993 the rapid growth of trade and business services persisted; product increased by some 10 percent (Table 2.19), far above the industry average for 1989–93 (about 5 percent annually, Table 2.20), and about three times the increase of the rest of business-sector product. Hence the services industry share of total business-sector product continued growing, a characteristic of developed economies, and reached 40 percent in 1993. Labor input grew by 6 percent, and labor productivity increased by some 3

Table 2.19

Principal Trade and Services Indicators, 1988–93

(percent change)

| | 1989 | 1990 | 1991 | 1992 | 1993 | Average 1989–90 | Average 1991–93 |
|---|---|---|---|---|---|---|---|
| Product | 0.4 | 4.2 | 2.4 | 10.9 | 9.6 | 2.3 | 7.6 |
| Labor input | 4.1 | 1.7 | 4.4 | 8.0 | 6.3 | 2.9 | 6.2 |
| Capital stock[a] | 3.6 | 3.1 | 3.7 | 3.6 | 3.6 | 3.3 | 3.6 |
| Labor productivity | −3.6 | 2.5 | −1.9 | 2.6 | 3.1 | −0.6 | 1.3 |
| Total factor productivity[b] | −3.4 | 1.9 | −1.6 | 4.3 | 4.1 | −0.8 | 2.0 |
| Employed persons | 2.7 | 2.5 | 5.3 | 4.8 | 8.2 | 2.6 | 6.1 |
| Average hours per employee | 1.1 | −0.7 | −0.1 | 2.4 | −0.2 | 0.2 | 0.7 |
| Real hourly wage[c] | −3.9 | −1.6 | −3.5 | 1.1 | −0.1 | −2.5 | 0.3 |
| Relative price[d] | 1.9 | 3.8 | 2.2 | −0.1 | 2.6 | 2.9 | 2.4 |
| Exports[e] | 3.6 | 1.6 | −2.5 | 21.1 | 8.0 | 2.7 | 8.4 |
| Investment in fixed assets | 2.4 | 21.6 | 9.7 | 6.6 | 18.8 | 11.6 | 11.6 |

[a] At beginning of year.

[b] Input weighting is 62 percent labor and 38 percent capital (on the basis of the 1988 input-output tables).

[c] Wages per employee post at constant prices (deflated by CPI).

[d] Annual change in the price of business services to consumers relative to CPI excluding housing.

[e] Estimate based on 1988 input-output table.

SOURCE: Based on Central Bureau of Statistics data.

percent—a greater increase than in the business sector as a whole. The wage per employee post in the industry steadied, whereas that for the whole economy rose slightly. Prices of services rose by more than the CPI excluding housing.

It is very difficult to obtain a reliable estimate of the industry product.[31] Those presented here are derived mainly from VAT payments by the different industries, based on detailed data from a 1988 Central Bureau of Statistics survey of trade and services. The product of some sectors is estimated by means of indices—the financial sector, which does not appear in the VAT data, and hotels and real estate services, as their VAT returns do not accurately reflect their transactions.

Even if our estimate of the increase in the industry product is overstated, its rise in 1992–93—which was above the average for 1989–93—was still greater than that of the rest of business-sector product. The growth of an industry which is essentially nontradable reflects some degree of real appreciation of the local currency. This resulted from changes on both the demand and the supply sides. Demand for trade and services

[31] See: Zvi Griliches, "Productivity, R&D, and the Data Constraint," AER, March 1994, 84(1).
_____ (ed.), Output Measurement in the Services Sector, NBER Studies in Income and Wealth, Vol. 56, University of Chicago Press, 1992.

**Table 2.20**
**Private-Sector Services Product, 1989–93[a]**

(percent)

| | Share in product 1993[b] | Product per employee 1993[c] | Real change | | | | Average 1989–93 |
|---|---|---|---|---|---|---|---|
| | | | 1990 | 1991 | 1992 | 1993 | |
| Wholesale trade | 15.3 | 63 | 7.0 | 5.2 | 11.8 | 8.1 | 5.8 |
| Retail trade | 13.0 | 29 | 9.4 | 3.2 | 10.1 | 11.5 | 6.6 |
| Catering | 3.7 | 25 | 3.7 | 4.9 | 11.5 | 9.9 | 4.4 |
| Hotels | 2.8 | 35 | −5.7 | −5.1 | 20.6 | 10.7 | 4.4 |
| Total | 34.8 | 38 | 6.4 | 3.6 | 11.8 | 9.8 | 5.8 |
| Business and legal | 19.0 | 46 | 8.3 | 1.9 | 13.5 | 11.9 | 6.9 |
| Banks | 19.3 | 131 | −3.5 | 1.0 | 8.0 | 5.9 | 2.0 |
| Insurance and real estate | 9.2 | 90 | 7.6 | 3.5 | 8.5 | 7.0 | 6.5 |
| Total | 47.5 | 72 | −0.2 | 1.8 | 8.2 | 6.3 | 3.3 |
| Education services | 1.8 | | | | | | |
| Health services | 4.0 | | | | | | |
| Total | 5.8 | | 6.9 | 0.1 | 11.5 | 11.2 | 6.2 |
| Personal services | 4.7 | 30 | 10.9 | −1.8 | 12.3 | 23.6 | 8.9 |
| Household services | 4.5 | 23 | −3.2 | 9.7 | 8.8 | 10.4 | 8.2 |
| Garages | 2.8 | 21 | 1.2 | −0.4 | 10.8 | 1.8 | 3.1 |
| Total | 11.9 | 25 | 2.8 | 2.8 | 10.5 | 12.9 | 7.1 |
| Total private sector trade and services | 57,688 | 48 | 4.2 | 2.4 | 10.9 | 9.6 | 5.4 |

[a] The data on trade, catering, business, legal, education, health, personal and household services, and garages is estimated from VAT returns at constant prices; the data on hotels is from hotel income and the number of bed-nights. The data on banks is from the number of debits, labor input, active financial assets, and mortgages granted—a general index of the activity of the banks. The data on insurance and real estate is from the number of employed persons, part-time jobs, and business-sector product.
[b] At current prices.
[c] NIS thousands.
SOURCE: Based on Central Bureau of Statistics data.

has increased relatively steeply in recent years, a feature of developed economies, as noted earlier. On the supply side, the labor force rose substantially at a time when unemployment was high, raising the elasticity of the labor supply in the industry. This is borne out by the fact that employment in the industry rose while wages remained stable. Technological advances in trade and services may have been slower than in the tradables segment, and this would be consistent with both the small rise in the industry's relative price and the slight real appreciation.

The product deriving from the export of trade and services rose by some 8 percent in 1993, far above the average for 1989–93, albeit significantly below the exceptional 21 percent rise of 1992. Part of this category—e.g., hotels and restaurants, which rose by 8 percent—is a direct export, but most of the industry's exports are indirect, taking the form of services to other industries. Banking services, business and legal services, and trade made a significant contribution to the expansion of this category.

Most (61 percent) of the demand behind the increase in the product of trade and services derived from private consumption. Public-sector demand also made a large contribution (24 percent), while that of exports and tourism was a more modest 15 percent.

Significant differences between developments in segments of the industry are inevitable, as it is heterogeneous, and serves many varied groups. It covers domestic cleaning services, education, health, and legal services, business services such as advertising and computerization, and even employment (via private employment agencies).[32] In contrast to sections of the industry where growth was relatively modest, such as banking, insurance, and real estate (some 6 percent, Table 2.20)—although this is a much higher rate than in the rest of the business-sector—there were some which rose much faster, for example private services (24 percent), and business and legal services (12 percent). The latter, accounting for 19 percent of the industry product (Table 2.20), has expanded at an annual rate of 7 percent for some years, compared with 5 percent for the industry as a whole.

Demand for the industry grew faster than the rest of the business-sector product, due to the rise in the standard of living, and the development of new fields of activity (e.g., cable television, the commercial television channel, and holiday apartments). In addition, business services such as cleaning, security, advertising, computerization, equipment maintenance, and deliveries were transferred from within companies and factories to outside specialist firms, which are included in the trade and services industry. The overall increase in GDP and the persistent rapid growth of tourism added to the increased demand for the industry's services.

The number of persons employed in the industry rose by a steep 8 percent in 1993 (Table 2.19), with a slight fall in the number of hours worked per employee, following a 2 percent increase in 1992. This trend is similar to that in the economy as a whole. The addition of 42,000 employees in the labor-intensive trade and services industry represents 60 percent of the overall increase in employment. The rise occurred mainly in business and legal services (24,000, of whom 9,000 were placed through private employment agencies),[33] as well as in the retail trade (9,000)—segments which have expanded markedly. Although the real wage per employee post steadied in the industry, compared with a small rise in the general economy, in certain areas—mainly in retail

[32] Workers placed by private employment agencies are counted as being employed by them, not by the companies they work for.

[33] These employees are paid by the agencies, and there are no data on the industries in which they are employed.

trade and household services—it increased, together with a steep rise in output and the number of employees. Real wages per employee post fell very sharply in employment agencies (by 9 percent), an area where they are very low. They also fell in the ancillary services and business services not specified elsewhere (by 5.5 percent), and in the wholesale trade (by 2 percent).

Investment in the industry grew by 19 percent, significantly above the rise in 1992 and, unlike in previous years, greater than the increase in investment in the entire business sector. The industry is considerably less capital-intensive than the economy in general,[34] and its capital structure is also different, with a high proportion of equipment,[35] a feature which became more pronounced in 1993.

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[34] See Bank of Israel *Annual Report, 1992*, Table 2.20. The mirror image of this is high labor intensity which expands employment.

[35] The value of equipment in the industry is 25 percent higher than that of its buildings, whereas in the rest of the economy equipment value is 73 percent lower than that of buildings.