Chapter 6
The Balance of Payments

In 1997, the trend of Israel's balance of payments changed, as the current-account deficit declined to 3.7 percent of GDP, from 5.6 percent in 1996. The deficit's rising trend and its high level in 1996 made it essential that the balance of payments should change direction and return to a sustainable path, and this was made the main policy objective. The cut in the deficit in 1997 resulted from the marked slowdown in domestic demand relative to supply, and was aided by a notable improvement—for the second year in succession—in the terms of trade. The deceleration of public- and private-sector demand, which included slackening of private and public consumption and a real fall in investment, may be attributed to the exhaustion of the expansionary effect of large-scale immigration together with fiscal and monetary constraint. Despite the easing of demand in relation to supply, real appreciation continued in 1997 at a rate similar to the average of the early 1990s, and was expressed by lower profitability in the tradables sector. The adverse effects of appreciation were felt mainly in some export industries, particularly the traditional ones, and may also have retarded the moderation in imports. In contrast, the rapid expansion of exports of high-tech industries continued, extending the structural change in exports which has been evident in the last few years.

Capital inflow totaled more than $ 10 billion in 1997: $ 5.7 billion was long term, including $ 4.7 billion of nonresidents' investments; $ 0.9 billion was short term; and the banks imported $ 4.0 billion for the private and public sectors. In 1997, the decline in the current-account deficit and the composition of its financing was reflected by the continued fall in the external-debt/GDP ratio. The combination of the improvement in the current account and the capital inflow caused pressure which pushed the exchange rate towards the lower limit of the crawling exchange-rate band, and boosted the foreign reserves. Liberalization of the foreign-exchange market proceeded in 1997, and it was announced that this would continue at an even faster pace in 1998.

1. MAIN DEVELOPMENTS

In 1997 the trend of Israel's balance of payments changed, and the current-account deficit declined, to 3.7 percent of GDP.

The balance-of-payments current-account deficit declined to $ 3.6 billion in 1997, from $ 5.3 billion in 1996. This followed a significant rise in 1996 which continued the upward trend evident since the start of the influx of immigrants (Figure 6.1). The reduction in the deficit in 1997 resulted from the marked slowdown in domestic demand relative to supply, backed by a notable improvement—for the second year in succession—in the terms of trade, after two years of deterioration. The rate of increase in the volume of goods exports remained high, while that of goods imports slowed greatly; the services account deteriorated, however, to some extent offsetting the improvement in the current account which derived from the goods account.

Among long-term capital flows, the rise in nonresidents' investments was notable.

Capital inflow amounted to $ 10.4 billion: long-term capital inflow accounted for $ 5.7 billion, short-term for $ 0.9 billion, and the banks imported $ 4.0 billion for the private and public sectors. The improvement in the current account together with capital inflow caused pressure which pushed the exchange rate towards the lower limit of the crawling exchange-rate band, and led to a sharp increase in the foreign reserves. Among long-term capital flows, the rise in nonresidents' investments—both portfolio ($ 2.1 billion) and direct ($ 1.6 billion)—is notable.[1] The composition of capital inflow and its level changed markedly from the first half of the year to the second: in the first half, capital inflow reflected mainly foreign-currency credit taken by residents greatly exceeding the amount required to finance the current-account deficit, and it was accompanied by a surge in the foreign reserves. In the second half of the year, most capital inflow consisted of nonresidents' investments, and was slightly in excess of the deficit-financing requirement.

In terms of the savings and investment account, the reduction of the share of the import surplus in total income mainly reflects the decline of investments' share.

The current-account deficit fell sharply in 1997, to 3.7 percent of GDP. This followed two years when it had risen, reaching 5.6 percent of GDP in 1996, the outcome of a lapse in fiscal discipline—with a growing deviation from the government's target domestic deficit—and a surge in private-sector domestic demand. Contractionary fiscal and monetary policy adopted to return the balance-of-payments deficit to a sustainable path and to attain the inflation target, together with the exhaustion of the main expansionary effect of large-scale immigration, contributed to a considerable retardation of public- and private-sector demand, with private and public consumption decelerating and investment declining significantly. The notable moderation of demand with a less significant decline in supply, and the improvement in the terms of trade were reflected by a reduction of the import surplus. In terms of the savings and investment account, the reduction of the share of the import surplus in total income mainly reflects the decline of 2.2 percentage points in investments' share, with a 0.2 percentage point reduction in national savings (public-sector savings rose, and private savings fell—apparently in response).

[1] The definition of portfolio and direct investments varies from country to country. In Israel direct investment is defined as the purchase of 5 percent or more of an asset. The purchase of bonds on the stock exchange is defined as portfolio investment.

Table 6.1
Financing the Current Account, 1990–97

($ billion)

	Average 1990–94	1995	1996	1997
Current account	–0.8	–4.8	–5.3	–3.6
Total import surplus	–7.4	–12.0	–13.1	–11.6
Civilian import surplus	–5.7	–10.7	–11.4	–9.8
Exports	21.5	29.2	31.1	32.5
Civilian imports	27.2	40.0	42.5	42.3
Unilateral transfers	6.6	7.2	7.8	8.0
Financing				
Long- and medium-term loans	1.3	1.2	3.0	2.8
Net private investment[a]		1.6	2.1	2.9
Short–term capital flows	0.4	0.6	2.1	0.8
Capital flows of banking system	–0.5	1.1	–0.4	4.0
Errors and omissions	–0.0	1.5	2.1	2.4
Rise (–) in foreign–exchange reserves	–0.1	–1.2	–3.5	–9.3

[a] Including nonresidents' portfolio investment abroad in the secondary market; in the Statistical Appendix, these are included under 'Short-term capital flows'.

Despite the easing of demand relative to output, real appreciation persisted in 1997, contributing to the continued decline of profitability in the tradables sector.

Despite the easing of demand relative to GDP, real appreciation persisted in 1997 at a rate similar to that in the early 1990s, contributing to the continued decline of profitability in the tradables sector. This was felt mainly in the traditional export industries with low profitability, and prevented a greater retardation in imports. In contrast, the rapid expansion of exports of high-tech industries continued. Overall, the marked slowdown of domestic demand helped exports expand; the latter occurred essentially in high-tech industries, supported by some reduction in the demand for investment in domestically produced machinery and equipment.

Security incidents at the beginning of the year and in the summer had an adverse effect on the export of tourist services. Exports to the Palestinian Autonomy remained unchanged, the outcome of a decrease in merchandise exports and a steep increase in services exports which mainly reflected a rise in communications services. Merchandise imports from the Autonomy rose slightly, having declined greatly in 1996.

In 1997, as a result of the reduction in the current-account deficit on the one hand, and the significant increase in foreign direct investment on the other, the downward trend of the external-debt/GDP ratio continued.

In 1997, as a result of a cut in the current-account deficit on the one hand, and a significant increase in net private investment on the other, the downward trend of the external-debt/GDP ratio continued (despite the moderate GDP growth rate). However, the improvement in the deficit in 1997 was due partly to positive exogenous factors—improved terms of trade and a notable increase in world trade—partly to lower investment demand in the wake of the exceptional rise which derived from immigrant absorption, and partly to a cyclical slowdown in activity. Economic policy must therefore ensure that the deficit does not rise again as the economy reverts to faster growth. Foreign investment in Israel grew in 1997, following the trend evident in the last few years, but it is difficult to assess whether this trend is likely to continue. Moreover,

about half of foreign investment is portfolio investment, and as such may change direction very quickly, as was proven in the recent crises in East Asia. The ability to finance a deficit of the present magnitude without raising the debt burden depends on the persistence of the inflow of foreign, in particular direct, investment, which in turn depends on the continuation of a sound policy which will ensure that both growth and the balance of payments return to a sustainable path.

2. THE CURRENT ACCOUNT

General review

The marked improvement in Israel's terms of trade, with lower import and export prices, helped reduce the import surplus.

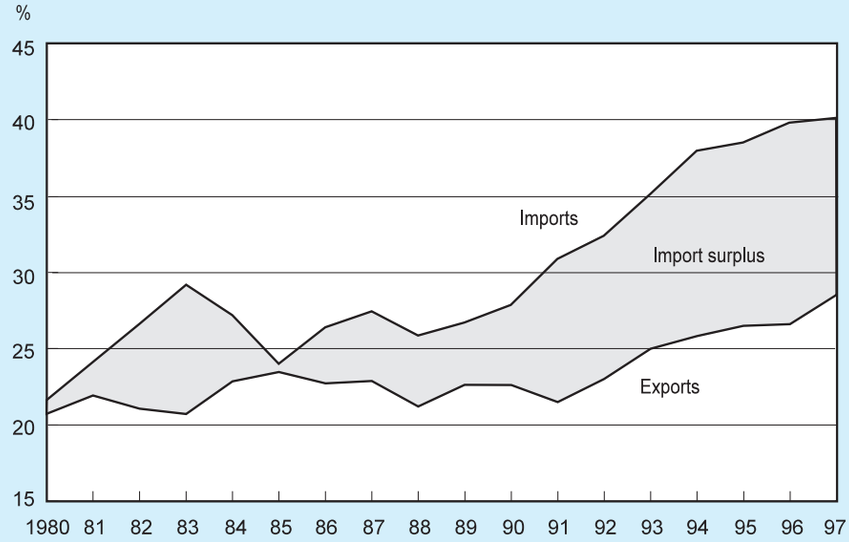
In 1997, the balance-of-payments current-account deficit fell to $ 3.6 billion. This reflects a reduction of $ 1.4 billion in the import surplus and a rise of $ 0.2 billion in unilateral transfers. The decline in the import surplus reflects a marked improvement on the goods account, partially offset by a deterioration on the services account: on the goods account the volume of imports slowed considerably, while exports continued their rapid expansion; services exports showed only moderate growth, whereas their imports surged. The marked improvement in Israel's terms of trade, with lower import and export prices, helped reduce the import surplus. An analysis of the composition of imports shows that consumer goods imports rose only slightly, with a small increase in durables; the rise in imports of production inputs (excluding fuel and diamonds) eased to about 2 percent, in line with the deceleration of GDP growth. Capital goods imports went down by about 4 percent (Table 6.6), consistent with the decline in investments, with a very sharp 20 percent fall in imports of vehicles. Exports of goods (excluding diamonds) and services showed a fine increase, led by industrial exports, while those of tourist services fell. Diamond exports declined slightly, due to the crises in Asia, after rising significantly in 1996. Goods and services exports, excluding diamonds, tourism, and exports to the Palestinian Autonomy rose by a healthy 9 percent. In the industrial exports category, the decline in the share of the traditional industries was marked, especially that of food and textiles. The rise in exports of the high-tech and human-capital-intensive industries continued accelerating (Tables 6.5, 6.A.4, 6.A.5, and Figure 6.3).

The rate of expansion of world trade accelerated in 1997 to more than 8 percent, and the terms of trade improved for the second year in succession.

The developments on the current account should be viewed in the light of the changes in external circumstances affecting Israel's economy, the security and geopolitical situation, and the macroeconomic conditions prevailing in Israel. The background conditions in 1997 acted in opposing directions: the rate of expansion of world trade accelerated in 1997, to more than 8 percent;[2] the terms of trade improved for the second

[2] Empirical research studies which estimated the elasticity of exports related to world trade found a wide range of elasticities. A Bank of Israel Research Department study by Binstock, Lavie, and Offenbacher estimated short-term elasticity of 0.7, and double that figure for long-term elasticity. In the export equation estimated in the study by Bufman and Leiderman, elasticity was estimated at 1.86.

Figure 6.1
Imports, Exports, and the Import Surplus,[a] 1980-97



[a] As a percentage of GDP, at 1995 prices. Imports excluding taxes, not including diamonds, defense imports, fuel, ships, and planes. Exports excluding subsidies, not including diamonds.

year in succession, offsetting the large deterioration which occurred in 1994–95. World trade prices continued the decline they had shown in 1996, contributing to the reduction of the import surplus. Security incidents adversely affected exports of tourist services, however, as they had in 1996.

Table 6.2
Background Conditions, 1990–97

(rate of change, percent)

World trade	Average 1990–94	1995	1996	1997
Volume expansion				
Goods and services	5.4	9.5	6.2	8.4
Goods	5.7	10.1	5.9	8.6
Prices ($)—goods and services	1.9	8.6	–1.4	–5.2
Terms of trade	–0.3	–4.6	2.7	3.6
Export prices[a] ($)	0.6	4.9	0.7	–1.7
Import prices[a] ($)	0.9	10.0	–1.9	–5.1

[a] Excluding capital services and diamonds.
SOURCE: IMF, *World Economic Outlook*, December 1997.

The improvement in Israel's terms of trade derived mainly from the strengthening of the dollar (by about 10 percent in relation to the 4-currency basket[3]), whose share in exports from Israel is greater than that in imports to Israel. The 7 percent reduction in world prices of industrial goods, the 8 percent fall in fuel prices, and the 3.6 percent decline in world prices of raw materials had opposite effects on Israel's terms of trade, as Israel imports raw materials and exports industrial goods. Prices of Israel's imported intermediates, excluding fuel and diamonds, went down by 5.5 percent.

A significant part of the reduction in the current-account deficit may be attributed to the improvement in the terms of trade.

The total change in the civilian import surplus may be divided into two parts: one reflects the direct effect on the deficit of changes in import and export prices—i.e., world prices and the terms of trade, which together constitute the total prices effect; the other reflects effect of the volume change. This division relates only to the direct effect, and does not take into account the effect of prices on volumes (both the substitution and the income effects). As Table 6.3 shows, a significant part of the reduction in the current-account deficit may be attributed to the improvement in the terms of trade. Nevertheless, unlike in previous years when the volume increase contributed on average almost $ 1 billion annually to the rise in the deficit, in 1997 it helped decrease the import surplus. Note that in assessing the contribution of the volume increase to the reduction of the import surplus in a situation of a positive surplus, if imports and exports increase at the same rates, the import surplus will increase.

The decrease of the current-account deficit in 1997 to 3.7 percent of GDP reflects the reduction of the import surplus, reversing the upward trend of the last few years. Initially the import surplus rose as a result of higher demand, including investment demand, arising from the influx of immigrants. Its continued increase to 5.6 percent of GDP in 1996, however, in the context of the large deviation from the target budget

Table 6.3
Direct Contributions to the Increase in the Import Surplus, 1990–97

($ billion)

	Average 1990–94	1995	1996	1997
Total prices effect	0.1	1.5	–0.7	–1.4
World prices	0.0	0.5	0.0	–0.2
Terms of trade	0.1	1.0	–0.7	–1.2
Volume change	0.9	1.0	0.7	–0.2
Volume change in civilian imports excluding capital and labor services[a]	1.0	2.5	0.0	–1.6

[a] The reference in this table to imports and exports excluding capital and labor is consistent with that in the National Accounts (excluding import taxes). The rise in labor-services' imports contributed about $200 million to the increase in the current-account deficit in 1997, and the net import of capital services rose by about $30 million.

[3] The German mark, pound sterling, French franc, and the yen, weighted by their shares in the basket excluding the dollar.

deficit, was perceived by policy makers as jeopardizing economic stability, and prompted them—with the aim also of attaining the inflation target—to implement restrictive fiscal and monetary policies. These contributed to a marked improvement in the current account, but with a notable slowdown in economic growth. This improvement reflects ongoing rapid expansion of goods exports—the outcome of an acceleration of industrial exports—and a considerable slowing of goods imports, consistent with the requirements associated with the rate of increase in activity and with a constant import component. However, a further deterioration in the services account, mainly reflecting the continued fall in tourism exports and the ongoing rapid rise of services imports, particularly labor services (Palestinian and foreign workers), prevented a greater improvement in the current account.

The increase of the current-account deficit to 5.6 percent of GDP in 1996, in the context of the large deviation from the target budget deficit, prompted policy makers to implement restrictive fiscal and monetary policies.

A comparison of the actual change in 1997 in goods and services imports with the expected change, derived from a simple import equation which takes into account the development of business-sector output and the real import exchange rate, shows that the actual deceleration was below the expected. This indicates that there were other forces acting to increase imports, such as the liberalization process. On the other hand, exports rose at a rate similar to that obtained from a simple export equation which reflects the effects of world trade, the terms of trade, the rise in the volume of factors of production, and changes in the export exchange rate in the current year.[4] In addition to the basic factors incorporated in the equations, there were others at work in 1997, which offset each other—tourist services exports, which were adversely affected by security problems, acted in one direction, while the diversion towards exports which resulted from the greater than expected moderation of domestic demand counteracted this effect.

One of the central issues to arise in an analysis of the changes in the balance of payments is the question whether the improvement is temporary, deriving mainly from the deceleration of economic activity, or whether it incorporates a significant component which may be permanent. The improvement occurred while there was real appreciation, in other words without being helped by relative prices, but supported by improved terms of trade due *inter alia* to the strengthening of the dollar, and by the significant expansion of world trade. Rapid growth of goods exports is consistent with a diversion towards exports in an economy with relatively moderate domestic demand. The notable growth of high-tech industries' exports, alongside the 2 percent decline in investment in domestically produced machinery and equipment, illustrates that only a small part of the rise in the exports of these industries can be attributed to a diversion from the domestic market to exports. Thus, the diversion to exports cannot be considered the major component of the explanation of the rise in exports in 1997, indicating that at least with regard to exports it may be stated that a significant part of the increase is not the result of the slowdown and is thus expected to be permanent (although the crises in Asia may yet change the picture). The shortage of skilled labor in the professions

[4] The import and export equations are calibration equations using the coefficients estimated by Y. Lavi for purposes of constructing an econometric model of Israel's economy.

The shortage of skilled labor in the professions requiring highly trained personnel may impede the continued growth of high-tech industries' exports in the next few years.

requiring highly trained personnel may impede the continued growth of these industries' exports in the next few years. Regarding imports, the moderation of the various components closely reflects the deceleration—partly due to cyclical factors and partly related to the exhaustion of the expansionary effect of the influx of immigrants—of the uses of resources, but this was slightly less than the slowdown of total resource uses,[5] possibly due to liberalization. It is therefore reasonable to assume that the rate of increase of imports will rise to some extent with an increase in domestic demand, provided there is no change in relative prices (real depreciation) which would make imports relatively less attractive. The sharp decline in exports of tourist services is likely to reverse when the security situation improves; this may be expected in light of the steep upward trend evident in these exports prior to the security incidents at the beginning of 1996. It is of course difficult to predict to what extent the positive external factors—the terms of trade and the rise in world trade—will persist. The improvement in the terms of trade in 1996–97, however, may be viewed as offsetting the deterioration experienced in 1994–95, and was greatly affected by the strengthening of the dollar against other currencies. The expansion of world trade is expected to slow down in 1998, partly because of the crises in Asia (see Box 6.2).[6]

The macroeconomic perspective supports the assessment that there is a permanent element to the improvement in the current account.

From a macroeconomic perspective, the savings and investment account shows that most of the improvement in the current account was due to the decline in the share of investment (to a level still higher than that prior to the absorption of large-scale immigration), while national savings dipped slightly (the rise in public-sector saving was more than offset by a fall in that of the private sector). The decline in investments reflects mainly the completion of the adjustment of capital stock to the immigration influx, so that its contribution to the reduction of the current-account deficit maybe considered to be of a permanent nature. The extent and timing of the fall in investment were, however, affected by restrictive fiscal and monetary policies. This supports the assessment that there is a permanent element to the improvement in the current account.

In addition to the factors which played a role in the improvement in the current account in 1997 and may be expected to persist, short-term factors also contributed to the fall in the deficit. Some of the improvement may be ascribed to external conditions, so that the degree of permanence of the improvement depends on the extent to which those factors persist. Some of the improvement, particularly the moderation of imports, was related to the slowdown of demand, which has a cyclical element expected to pass when activity accelerates, and a component consisting of investments reverting to their 'normal' level, expected to continue; the rise in the exports of high-tech industries is also likely to be permanent.

The real exchange rate—defined here as import or export prices *divided by* GDP prices—which showed a continuous trend of appreciation during the mid-1980s,

[5] According to National Accounts data, total uses excluding diamonds increased by 2 percent, and imports excluding diamonds rose by 3 percent.

[6] According to the forecasts in the IMF World Economic Outlook of December 1997, world trade is expected to grow by only 6.1 percent in 1998, after rising by 8.4 percent in 1997.

Table 6.4
Relative Prices and Exchange Rates, 1990–97

(average change, percent)

	Average 1990–94	1995	1996	1997
Import prices ($)[a]	–0.5	8.0	–1.1	–4.4
Export prices ($)	–0.2	4.5	1.0	–0.9
GDP prices	14.3	9.3	11.4	9.1
Real exchange rates				
Import prices/GDP prices	–4.7	–0.1	–7.0	–5.3
Export prices/GDP prices	–4.5	–4.4	–4.2	–3.0
Tradables/nontradables prices	–4.5	–3.1	–3.2	–2.9
Exchange rates (annual averages)				
NIS/dollar	10.6	0.0	5.9	8.2
NIS/currency basket	10.6	4.6	3.5	4.3
Dollar/4-currency basket 4[b]	–0.2	–9.2	5.6	10.5

[a] Civilian imports excluding capital.
[b] The German mark, pound sterling, French franc, and Japanese yen, in accordance with their weights in the basket of currencies excluding the dollar.

appreciated again in 1997, by 3 percent according to export prices and by 5.3 percent according to import prices, i.e., by about 1 percent less than the average annual rate in the 1990s according to export prices, and by about 1 percent more than the average annual rate in the 1990s according to import prices (Table 6.4 and Figure 6.2).[7] Part of the real appreciation in the last few years may be attributed to long-term factors typical of growing economies with a similar level of income—rising relative demand for nontradables and a diversion of growth to tradables due to a greater increase in productivity in those industries,[8] especially in high-tech. However, in 1997 real forces acted in the direction of real depreciation[9]—domestic demand in general, and for construction in particular, eased markedly, but the effect was not felt because nominal forces were acting in the opposite direction. The slowdown of prices abroad with the path of the nominal exchange rate was an important factor in preventing real

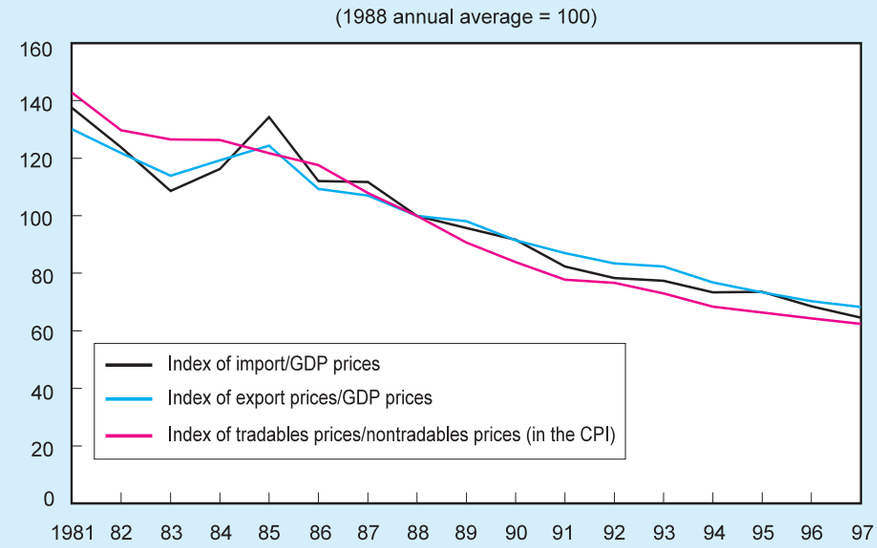
The real exchange rate appreciated again in 1997, by about 1 percent less than the average annual rate in the 1990s according to export prices, and by about 1 percent more than the average annual rate in the 1990s according to import prices.

[7] The index of prices of tradables *divided by* prices of nontradables, based on the CPI, which appears in Chapter 3, indicates that real appreciation was about 3 percent, similar to the level of 1995–96. A calculation of the real exchange rate based on adjusting the exchange rate to take account of the difference in inflation between Israel and its trading partners, also indicates real appreciation of about 3 percent.

[8] According to research (as yet unpublished) by A. Sussman, productivity differentials between tradables and nontradables contributed about 2 percent to average annual appreciation since the beginning of the 1980s.

[9] The effect of the improvement in the terms of trade on the exchange rate is not unequivocal: its income effect acts towards real appreciation, while the substitution effect acts towards real depreciation relative to exports. Regarding imports, both the income effect and the substitution effect act in the direction of real appreciation (see discussion in Chapter 2).

Figure 6.2
Indices of Relative Prices of Tradable and Nontradable Goods, 1981-97



depreciation, at least with regard to the long term (see discussion in Chapter 2). Import prices, in dollar terms, declined by about 5 percent in 1997, export prices, in dollar terms, fell by about 1 percent, yet the moderation of world prices alongside a moderate depreciation of the NIS relative to the currency basket due to interest-rate differentials and continued considerable capital inflow[10] were not translated into a significant slowdown of GDP prices: these rose at an average annual rate of 9 percent, despite the slowing of surplus demand. Some of this may be due to rigidities, *inter alia* of wages, which rose by a real 3 percent in the business sector, the rise in unemployment notwithstanding; these contributed to a partial response and to a lag in the reaction of GDP prices to real forces (see Chapter 3). Note, however, that in the second half of the year the rate of real appreciation slowed to about 1 percent according to both imports and exports.

[10] While in the first half of the year there were short-term capital flows, sensitivity to interest-rate differentials between Israel and abroad, and expectations of changes in the exchange rate—an important element in the explanation of why the nominal exchange rate adhered to the lower limit of the crawling band—these came to an almost compete halt in the middle of the year when the parameters of the band were changed. In the second half of the year, long-term capital flows, including foreign direct investment, played an important role in explaining the path followed by the nominal exchange rate.

Goods exports

In 1997 goods exports rose by about 5.4 percent, after increasing by 8.3 percent in 1996. Excluding diamonds and exports to the Autonomy and the administered areas, the rise was 11.9 percent in 1997 and 9.3 percent in 1996. The increase in industrial exports excluding diamonds accelerated to 13.5 percent, compared with 7.5 percent in 1996. Agricultural exports rose by 9 percent in terms of volume, while their prices fell by 8 percent (Tables 6.5 and 6.A.4).

Real appreciation in 1997 reflected the reduction of foreign-trade prices relative to domestic prices, and thus serve as an indicator of the profitability of exports and import substitutes in relation to the production of nontradables. Nevertheless, an analysis of the development of exports by industry shows that it was mainly those industries with relatively low profitability (the traditional ones) which were adversely affected, and they are therefore less able to absorb further adverse effects to their profitability. The high-tech industries, on the other hand, continued their rapid expansion despite real appreciation, and the main constraint preventing faster expansion may have been the shortage of skilled personnel, and in particular of engineers and technicians in specific spheres. The fact that most exports of the traditional industries are destined for Europe, together with the weakness of European currencies, in contrast with high-tech exports which are directed primarily towards the dollar bloc, together with the further strengthening of the dollar in 1997, contributed to the differences in the effective rates of real appreciation in different industries. Note that the conditions which reduced the effect of real appreciation on some components of exports will not necessarily continue, and there may be limited ability to absorb further whittling away of profitability by

The high-tech industries continued their rapid growth despite real appreciation, and the main constraint preventing faster expansion may have been the shortage of skilled personnel.

Table 6.5
Goods Exports, 1991–97

(rate of volume change, percent)

	Average 1991–94	1995	1996	1997	Distribution 1997
Total net goods exports	9.7	7.2	8.3	5.4	100.0
Total (foreign trade data)[a]	11.3	1.3	11.0	9.1	68.8
Total (balance-of-payments data)[a]	10.2	4.8	9.3	11.9	71.3
Industrial[a]	11.2	3.5	7.5	13.5	65.6
of which Traditional industries[b]	5.2	6.5	–4.7	–3.4	8.0
Mixed industries[b]	7.6	14.0	7.3	2.7	12.3
Human-capital intensive industries[b]	18.5	2.0	11.2	20.5	42.9
Agriculture	3.3	16.9	17.6	9.0	3.7
Processed diamonds	4.6	8.4	1.9	–2.4	19.1
Raw diamonds	21.2	41.1	16.0	9.2	4.2
Goods exports to Autonomy and administered areas	10.3	62.0	1.3	–4.4	7.2

[a] Excluding diamonds, and exports to the Palestinian Autonomy and administered areas.
[b] See note to Figure 6.4 for the classification of industries.

appreciation. Thus, to the extent that appreciation continues, its effect will be felt in the future, particularly in light of the crises in East Asia which are likely both to reduce demand for Israel's exports via their effect on demand from countries affected and on world trade in general, and harm the ability of Israel's exports to compete against the exports of those countries whose currencies devalued sharply.

Box 6.1: The Structural Change in Industrial Exports

This box describes the main developments in industrial exports since the mid-1970s—those of industries requiring a high level of education and those with mainly unskilled labor,[a] and in demand and supply factors affecting them. In 1975 the two groups' shares of total exports were similar (Figure 1). Since then, exports of the high-education group have accelerated, while those of the industries with unskilled labor have risen slowly. The gap between their rates of growth widened greatly in the 1990s, as exports of the first group surged and those of the second dipped.

Figure 2
The Share of Exports of Israel's Industries Requiring Higher Education and Unskilled-Labor-Intensive Industries, in World Trade in these Items, 1975-93

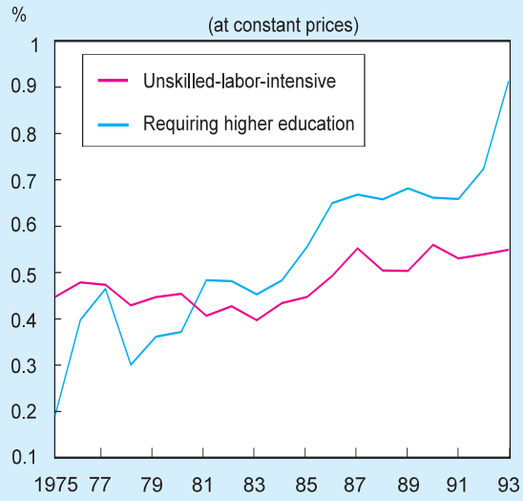
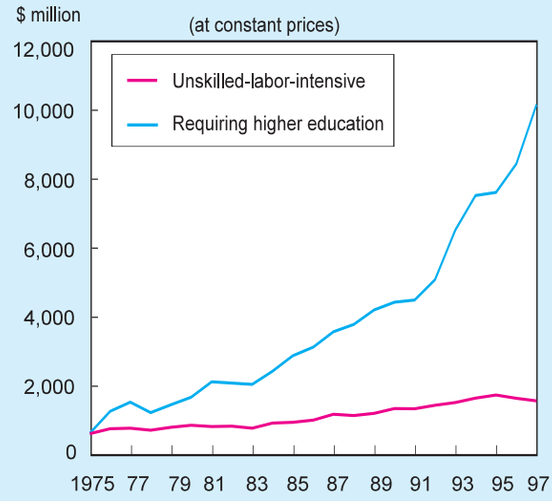


Figure 1
Exports of Israel's Industries Requiring Higher Education and Unskilled-Labor-Intensive Industries, 1975-97



[a] An industry is considered requiring a high level of education if its share of engineers and others with academic degrees, technologists and technicians is significantly higher than the industrial average (see Figure 6.3 for details). Further details are available from the Bank of Israel Research Department.

The rapid increase of exports of the high-education industries was due in part to that of world trade in these goods, but the fact that Israel's share of world trade in these goods grew indicates that other factors played a part, too (Figure 2). Until the early 1980s the share of Israel's exports in world trade of high-tech goods fluctuated widely. In the middle of the 1980s its share increased, and from 1986 to the beginning of the 1990s it remained stable.

In the early 1990s the share of Israel's high-tech goods exports in world trade of these goods surged again. The share of Israel's exports of goods of industries with unskilled labor in world trade of such goods, on the other hand, was stable until 1983, rose until 1987, and then stabilized again.

On the supply side, the rise in exports of high-tech goods was supported by the rapid increase of physical capital stock, reflected in the rapid rise in physical capital stock per unit of labor, in contrast to stable physical capital stock per unit of labor in labor-intensive industries (Figure 3). The rapid expansion of the number of the technically qualified in the work force in the 1990s resulting from the influx of immigrants also helped the growth of exports of high-tech industries.

Figure 4
Total Factor Productivity Index in Industries Requiring Higher Education and Unskilled-Labor-Intensive Industries, 1975-97

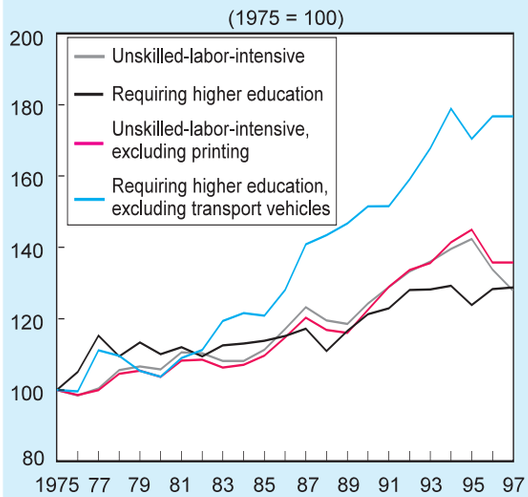
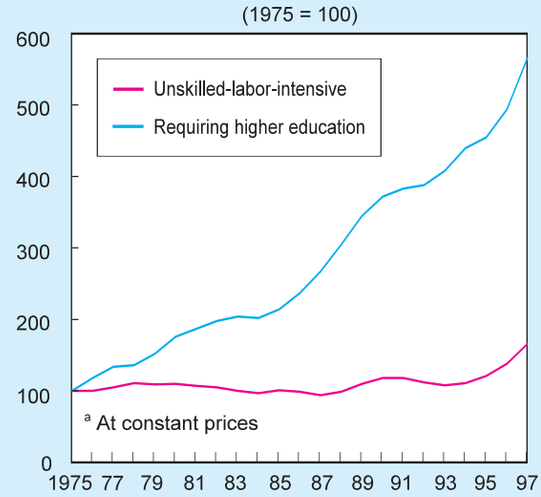
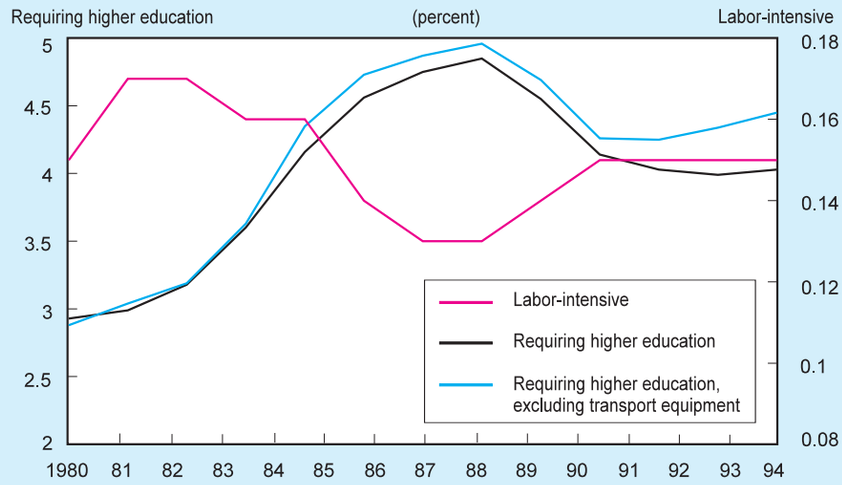


Figure 3
Physical Capital[a] Per Hour Worked in Industries Requiring Higher Education and in Unskilled-Labor-Intensive Industries, 1975-97



Total factor productivity of the high-tech industries (excluding vehicles) rose relatively fast from the beginning of the 1980s until 1994, and fluctuated widely in the last few years. However, a sharp decline in the productivity of the vehicles industry since the early 1980s was reflected in a far lower rise in productivity since

Figure 5
The Ratio of Current Expenditure on Research and Development to Output, by Type of Industry, 1980-94[a]



[a] Five-year moving average.

the early 1980s if vehicles are included. Productivity of the labor-intensive industries, on the other hand, rose very slightly throughout the period. Productivity increase may derive from investment in non-physical capital such as research and development (R&D). Over the last two decades, some 90 percent of R&D expenditure in industry has been in high-tech industries; the share of the vehicle industry declined by 20 percentage points with a corresponding rise in other high-tech industries.

Current expenditure on R&D in high-tech has risen steadily since 1975 (apart from the years of high inflation), so that its level in 1994 was more than five times greater than that at the beginning of the period (at constant prices). Nevertheless, expenditure of R&D relative to sales revenue reached a peak in 1989, and has fallen since then (Figure 5). R&D expenditure in labor-intensive industries was very volatile, and its share of total industrial R&D fell from about 6 percent in the 1980s to 3 percent thereafter. Expenditure on R&D in these industries is about 0.15 percent of revenue, compared with about 4.5 percent in high-tech.

Features of the labor market may constitute another factor in the competitiveness of different goods. A comparison of the wage levels of electronics and mechanical engineers [b] in Israel and abroad shows that the former are paid significantly less than their colleagues in countries competing with Israel. Wages of textile workers in Israel, on the other hand, are relatively high compared with those in Israel's main competitors. [c]

[b] UBS data of wages in selected occupations in various cities throughout the world.

[c] The wage differentials between Israel and its competitors may arise from differences in workers' relative productivity, and not from relative supply. In such a case wage differentials do not reflect a manufacturer's relative advantage in international competition.

In 1997, the relative profitability of exports was affected also by the lower price of imported intermediates, whose share in production for exports exceeds that for the domestic market, so that the fact that they became relatively cheaper improves export's relative position. Another measure of the profitability of industrial exports is the index of unit labor cost in industrial exports.[11] The 4.5 percent rise in this index, after its cumulative 15 percent rise from 1994 to 1996, expresses the continued erosion of the profitability of industrial exports, but the fact that it is an aggregate index, encompassing industries whose developments differ, is important (see the section on manufacturing industry in Chapter 2). Another indicator of profitability is the rate of return on capital, and this also points to an erosion of profitability in 1997 (see Chapter 2).

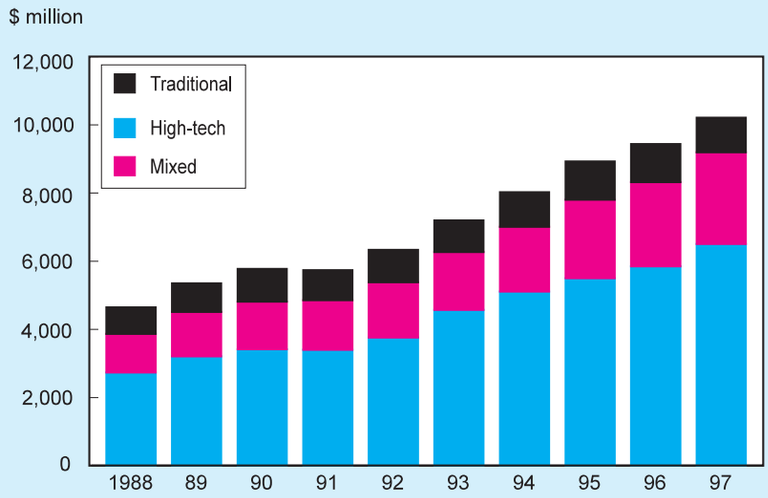
Alongside the indices of profitability indicating its erosion, there were some factors at work which supported exports, which are not covered by the indices: the opening of new markets, the large increase in capital stock in the last few years, and in a less direct manner, trade liberalization. The latter may contribute to the development of exports in the long term in two ways: it encourages streamlining of plants in the traditional industries, and will thus enable them to compete in overseas markets, and makes it easier to penetrate into markets in countries with whom Israel did not trade hitherto by establishing trading relations with them. The rise in exports to Asian countries until 1997, imports from which have surged in the last few years, provided an indication that this process had started, but in 1997 penetration of these markets slowed very considerably because of the crises in those countries (see Box 6.2 on the crisis in Asia and its implications for Israel). Data on goods exports for the last quarter of 1997 show that they stopped rising, with a decline in those of communications, control, supervision and medical equipment, exports of which to East Asia rose especially quickly in recent years. This latest development is an early indication of the effect of the crises. Exports to South America accelerated, however, and the rapid growth of exports to new markets in Europe (mainly East Europe) also continued.

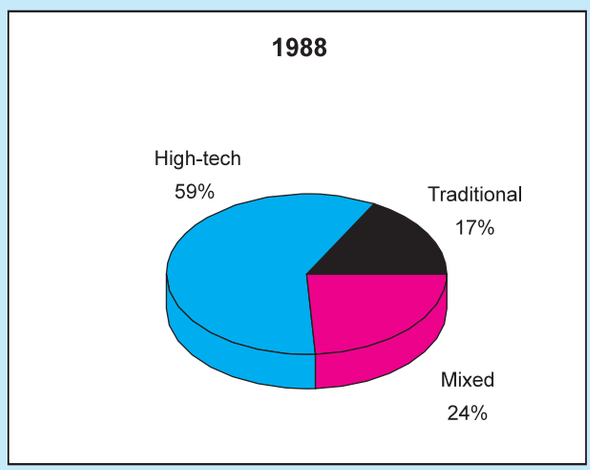
A close look at the development of industrial exports by principal industries reveals mixed trends (Tables 6.5 and 6.A.5): on the one hand, the main traditional, unskilled-labor-intensive industries showed a real decline or very slight growth, while on the other, the rapid growth of exports of most high-tech industries—the main part of whose output is export oriented— continued (see Box 6.1 on the structural change in exports). The traditional industries found it more and more difficult to compete on world markets as the process of globalization—i.e., lower tariffs and the removal of trading barriers—continued, as the preferred status of Israel's exports declined in relation to those of

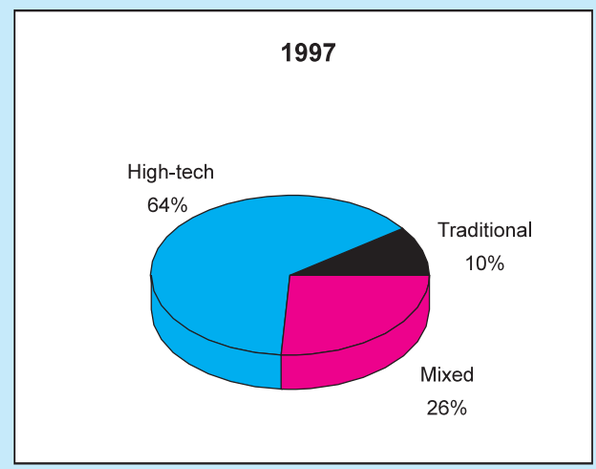
The traditional industries found it more difficult to compete on world markets as globalization—i.e., lower tariffs and the removal of trading barriers—continued.

[11] This index must be treated with caution, as data on wage costs and productivity relate to the whole industry, and not just its exporting part. Moreover, GDP prices in exports are an estimate derived from output prices, from the assumption made regarding their share of inputs (about 40 percent), and from the assumption that the prices of imported intermediates for exports acted in the same way as production inputs in industry as a whole. Unit labor cost adjusted by export prices indicates a greater rise, 5.4 percent, as it does not take the drop in the price of inputs into account.

Figure 6.3
Goods and Services Exports, by Principal Industries, 1988-97







Electronic components, office machinery, computers, communications, control and medical equipment, chemicals and oil products, transport equipment, machinery, and software.

Mining and quarrying, basic metals, metal products, rubber and plastic (products), diamonds, ornaments, etc.

Leather and leather products, wood and wood products, textiles and clothing, food, drink, and tobacco, paper and paper products, printing and publishing.

countries with whom it does not have trade agreements. This difficulty was aggravated with the marked rise in the cost of labor, in particular unskilled, for which the Minimum Wage Law was partly responsible, as workers earning the minimum wage in these industries constitute a large share of the total work force.[12] The relative weakening of European currencies and the relatively large share of these industries' exports directed towards Europe also weakened their ability to compete.

Box 6.2: The Crises in East Asia and their Implications for Israel

During 1996 and at the beginning of 1997 economic conditions in several of the 'Asian tigers' altered: growth rates slowed, the rate of increase of exports fell, the external debt of the private sectors, including short-term debts, swelled, and balance-of-payments deficits reached very high levels.

Fast growth prior to the crisis was accompanied by large capital inflows and rapid expansion of credit to the private sectors. Banks, expecting government support should they run into difficulties (partly because of their owners' close ties to the ruling powers) and the continued maintenance of exchange rates within narrow bands, failed to internalize the business risks and the exchange-rate risk they were incurring in their credit policy. These factors combined to create a financial bubble and to boost prices of real estate. The situation made the crisis which erupted when conditions changed even more acute, as the financial bubble burst and real estate prices plunged.

This led to a series of speculative attacks on the currencies, and the central banks' attempts to stabilize their currencies led to the loss of foreign reserves, along with sharp depreciation in local-currency values. The currency crises began in Thailand, in July 1997, and spread to other countries in the region (the

Industrial Exports to East Asia,[a] 1994–97

(percent)

	1994	1995	1996	1997
Volume change in total exports	13.2	9.1	6.1	13.5
of which East Asia	29.3	25.9	26.3	10.5
Share of East Asia in total exports	6.7	7.7	9.2	7.6
Contribution of East Asia to total export growth	2.0	2.0	2.4	0.8

[a] Indonesia, Hong Kong, Taiwan, Malaysia, Singapore, the Philippines, and Thailand. Excluding diamonds.

[12] Unlike other industries, hardly any foreign workers go into manufacturing industry, so that their effect on reducing the wages of unskilled workers there is very slight.

Philippines, Indonesia, Malaysia, and South Korea).

The developments in South East Asia have two main implications for Israel's exports. One is the effect deriving from the reduction of the global growth rate which leads to deceleration of demand, including demand for Israel's export goods. The other is the adverse impact on Israel's ability to compete against goods originating in South East Asia: the sharp depreciation of those countries' currencies, which may be expected to be partly translated into real depreciation domestically, and the absence of the 'law of one price' at least in the short term, may improve the competitiveness of those countries' goods in world markets vis-à-vis Israel's. It is difficult to assess these effects on the relative competitiveness of Israel's exports quantitatively, so that the focus below is on the effect of the reduction of global demand in general, and demand of countries in East Asia in particular.

One positive effect, which partially offsets the negative ones, derives from the fact that some of Israel's exports to that region consist of sales of inputs (intermediates) to companies in Asia, and these sales are likely to benefit from the improved ability of those companies to compete. Furthermore, depreciation of those countries' currencies will make imports from them cheaper. It is reasonable to assume that their share in imports will rise, reducing the average price of imports.

Israel's exports (goods and services, excluding capital services), estimated at $ 30 billion in 1997, are expected to suffer from the effects of the slowdown in world trade. This is likely to be even more severe, however, as rapid export growth in the last few years was to a great extent based on the penetration of new markets, including those in East Asia. Most exports to that region, excluding diamonds, are in the high-tech area, advanced systems, semi-conductors, and communications systems, etc. Some companies in the semi-conductor and communications field, whose business is dependent on the Asian markets, will suffer also as a result of fiscal cuts imposed in the countries affected as part of the process of dealing with the crises.

Estimates of the effect of the crises on growth rates in industrialized countries vary from a reduction of half a percentage point to a decline of one percentage point. The fall in the growth rate is expected to retard the rate of increase of world trade by about 0.7 percentage points. [a]

Assessments of the expected effect of the reduction of demand of the countries of South East Asia on Israel's industrial exports are based on the contribution of exports to that region to the total growth of exports in the last few years. Industrial exports to the region, excluding diamonds, totaled $ 1.1 billion in 1996 (9 percent

[a] From the December 1997 forecast of the IMF.

[b] Estimates of elasticity of exports in relation to world trade vary from 0.7 to 0.86.

of total industrial exports of $ 13 billion, excluding diamonds). Rates of growth of industrial exports to these countries in the last few years exceeded the all-country average, and contributed on average about 2 percentage points to the rise in industrial exports (Table 1).

The combination of the two adverse effects—that on world trade (assuming unitary elasticity of exports in relation to world trade[b]) and the direct effect of reduced demand in the countries in South East Asia, assuming that exports to them do not rise—is equivalent to a 2–2.5 percent reduction in the expected rate of increase of industrial exports. This assessment is based on the assumption that in the short run (up to one year) the ability to switch exports from the markets affected to others is limited. As the reduction in world trade includes the cutback in imports into the countries of South East Asia, the assessment here gives partial weight to the reduction in world trade, reflecting the adverse effect on Israel's exports to the rest of the world.

East Asia currently accounts for between 30 and 35 percent of Israel's diamond exports. The major importers are Japan (about 15 percent of diamond exports), and Hong Kong (15 percent). The region's diamond bourse is situated in Hong Kong, and it serves to transship diamonds to other countries in the region. The rise in exports to the region did not exceed the industry average. Also, because of low added value in the diamond industry, changes in its exports have little effect on GDP or the balance of payments (assuming that a decline in exports will cause a similar fall of imports).

It is estimated that GDP will be reduced by between 0.6 and 0.8 percent in 1998 as a result of the effect on exports.[c] An early indicator of the effect on exports is the development of exports to the area in the last quarter of 1997. In that period goods exports (excluding diamonds) to the five countries experiencing crises fell by about $ 70 million from the average level of the first three quarters, a decline of about 33 percent in exports to the region. Diamond exports to the area (including Japan and Hong Kong) fell by some $ 200 million in the fourth quarter from the level in the first three quarters, but the decline of the export surplus in that quarter, which gives a better indication of the adverse effect on domestic added value, was much lower, about $ 20 million.

The effect of the crises in East Asia on the (nominal) level of imports is not clear: on the one hand, lower prices of imports may result in a volume increase in total imports (at the expense of domestic production of import substitutes); on the other, the fact that those imports have become relatively cheaper may cause a switch to the cheaper sources, thereby strengthening the effect of cheaper imports, lowering the nominal rise in imports, and improving the terms of trade.

[c] Clearly, these estimates are sensitive to the assumptions on which they are based. If exports to East Asia rise moderately (instead of remaining steady, as assumed above), or if some exports are diverted to other markets, then exports will suffer to a smaller extent, 1–1.5 percent, and the effect on GDP will be modified accordingly, to 0.4–0.5 percent.

Table 6.6
Goods Imports, 1991–97

(rate of volume change, percent)

	Average 1991–94	1995	1996	1997	Distribution 1997
Total net goods imports[a]	13.7	10.8	6.7	1.6	100.0
Total civilian imports[b]	13.9	11.2	5.5	1.8	97.5
Total civilian imports excl. fuel, etc.[c]	16.0	8.7	7.7	0.8	72.0
Consumer goods	18.0	11.6	12.4	2.8	13.5
of which Durables	18.0	12.9	10.4	1.6	6.3
Intermediates	11.8	12.7	4.7	2.9	70.0
of which Excluding fuel and diamonds	13.6	10.1	7.3	2.2	45.8
Capital goods	19.7	3.6	10.4	–4.2	16.9
of which Plant and equipment	16.5	11.7	11.2	–0.2	12.4

[a] According to foreign-trade figures.
[b] According to balance-of-payments figures.
[c] Excluding fuel, diamonds, and imports from the Autonomy and the administered areas.

Goods imports

Civilian goods imports rose by 1.8 percent (in volume terms) in 1997; excluding fuel, diamonds, and imports to the Autonomy and the administered areas, the rise was 0.8 percent (the increases in 1996 were 5.5 percent and 7.7 percent, respectively). Dollar prices of imports fell by 5 percent in 1997 (with an 8 percent drop in fuel prices).

All categories of imports according to their economic uses showed a marked deceleration, consistent with that of domestic uses.

All categories of imports (i.e., imports divided according to their economic uses) showed a marked deceleration, consistent with that of domestic uses. Imports of consumer goods moderated in line with the slowdown in the rise of private consumption, with only a small rise in imports of durables, prominent among which was a 9 percent reduction in vehicle imports, despite the large number of vehicle thefts. The rise in imports of intermediates excluding fuel and diamonds eased to 2 percent, similar to the rate of increase of GDP and business-sector product. The slowdown in imports of consumer durables was expected after the steep increases in the last few years when the new immigrants were purchasing appliances. The decline in imports of capital goods and the standstill in imports of machinery and equipment were the result of the sharp fall in investments, reflecting at least partially the completion of the process of adjustment of capital stock to the influx of immigrants.

The services account[13]

In 1997, the deficit on the services account (in this section capital services and the Autonomy and the administered areas are excluded) grew to $ 1.7 billion. Services

[13] Excluding capital services and the Autonomy and administered areas.

imported increased by a nominal 5 percent, while their exports grew by only 4.3 percent (Table 6.A.10). Services exports rose by 1.6 percent in volume terms. The rise in income from services exports was affected by a decline in tourist services exports, the income from which dropped by a real 10 percent, following a 4 percent decline in 1996. The reduction in income from tourist services in 1997 amounted to almost $ 200 million. As is well known, the severe fluctuations of this item in the last few years are closely related to security incidents. Exports of other services increased by a nominal 9 percent.

The rise in income from services exports was held back by a real 10 percent decline in tourist services exports.

In 1997, services imports rose by 10 percent in volume terms, with a 4.5 percent reduction in prices. The different components of imports did not rise at the same rate. Imports of tourist services and transport accelerated slightly, whereas imports of labor services (foreign workers and Palestinians) rose steeply. Against this, imports of most other services slowed. The significant increase in imports of tourist services, despite the low occupancy level in the domestic market deriving from the fall in incoming tourism, reflects *inter alia* changes in relative prices (and their rigidity), or in other words, real appreciation.

3. CAPITAL FLOWS

General review

Capital inflow totaled more than $ 10 billion in 1997, a rise of some $ 4 billion from 1996. The increase in capital flows was particularly notable in the first half of the year, when domestic banks imported capital to extend foreign-currency credit to residents. This flow eased in the second half of the year, as the flow of this type of credit ceased, but it remained at a relatively high level as nonresidents continued investing considerable sums in Israel, and both the government and the private sector continued borrowing abroad.

In the first half of the year, private-sector capital import exceeded the current-account-deficit financing requirement, and the excess supply of foreign currency obliged the Bank of Israel to purchase almost $ 7 billion from the private sector in less than six months in order to keep the exchange rate against the currency basket within the crawling band. Currency conversions on an unprecedented scale, more than $ 1 billion a month on average during that period, made a change in policy necessary. Against this background, and in the context of both continued liberalization and the aim of developing and deepening the foreign-exchange market, on June 18, 1997 the government decided to widen the crawling exchange-rate band. The upper limit was raised by almost 15 percent, with its slope remaining at 6 percent per year, while the lower limit was kept at its existing level, but its slope was reduced to an annual 4 percent. Following the change, which was accompanied by a 1.2 percentage point reduction in the interest rate (partially offset two months later), and which led to internalization of exchange-rate risk, foreign-currency conversions at the Bank of Israel ceased until the end of the year. In the second half of the year, the government absorbed the excess private-sector

supply of foreign currency: in the framework of privatization, the government received some $ 800 million from the private sector, not via the trading room of the Bank of Israel, and this was deposited in the Bank of Israel. The effect of the government's receiving foreign currency in this way is, practically speaking, the same as Bank of Israel intervention in foreign-exchange trading at a fixed exchange rate.

In 1997, there were two notable features in the field of capital flows: one was the significant increase in nonresidents' investments in Israel, and the other, capital imports by residents in the first half of the year in the form of foreign-currency loans, which they then converted into local currency. Nonresidents' investment flow in 1997 amounted to $ 3.7 billion, a rise of more than 30 percent from the 1996 level; 45 percent was direct investment, and the rest was portfolio investment in the Tel Aviv Stock Exchange (TASE) and in Israeli shares traded abroad. Nonresidents' investments in Israel have risen constantly since the early 1990s, with a notable increase in scale in 1995, when nonresidents began investing directly in Israel other than in real estate. Among the factors which led to the huge increase in nonresidents' investments in Israel were the peace process, large-scale immigration, and receipt of US-government loan guarantees which improved Israel's credit risk rating. The general rise in investments in emerging markets in the last few years, and in issues abroad by Israeli companies (considered as nonresidents' investments in Israel) also contributed to the considerable increase of foreign investment in Israel.

In 1997, there were two notable features in the field of capital flows: one was the significant increase in nonresidents' investments in Israel, and the other, the rise in foreign-currency loans taken by residents.

Table 6.7
Capital Inflow,[a,b] 1994–97

($ billion)

	1994	1995	1996	1997	1997 Jan–Jun	1997 Jul–Dec
Capital inflow	**2.2**	**4.5**	**6.7**	**10.4**	**8.8**	**1.6**
Public sector	**2.2**	**–0.3**	**2.5**	**1.2**	**1.0**	**0.2**
Long- and medium-term loans	2.2	0.9	1.7	1.2	1.0	0.2
Short-term capital flows	0.0	–1.2	0.8	0.0	0.0	0.0
Nonbanking private sector	**1.3**	**3.8**	**4.7**	**5.3**	**2.6**	**2.7**
Nonresidents' investments in Israel[c]	0.9	2.3	2.8	3.7	1.6	2.1
Residents' investments abroad	0.4	0.6	0.7	0.8	0.4	0.4
Medium- and long-term loans	0.6	0.3	1.3	1.6	0.2	1.4
Short-term capital flows	0.2	1.8	1.2	0.9	1.2	–0.4
Trade-related credit	–0.5	0.9	0.6	1.2	0.8	0.4
Reduction in deposits abroad from issues[d]	0.1	–0.1	–0.2	–0.4	0.0	–0.3
Direct short-term loans	0.0	0.1	0.0	0.0	0.0	0.0
Other short-term capital flows	0.6	0.9	0.8	0.0	0.4	–0.4
Capital flows of the banking system	**–1.3**	**1.1**	**–0.4**	**4.0**	**5.2**	**–1.2**

[a] Figures may not add due to rounding.
[b] A positive sign signifies capital inflow, except for the item "Investments abroad by residents."
[c] Including nonresidents' portfolio investment abroad. In the Statistical Appendix these are included under "Short-term capital flows," in accordance with the Central Bureau of Statistics definition.
[d] Proceeds of issues abroad of Israeli shares, left abroad on deposits (negative signs).

The greatest part by far of the import of capital by residents was carried out via the domestic banking system by Israeli firms taking foreign-currency credit and converting into local currency for domestic uses. Liberalization of foreign-exchange control led to lower interest on this credit, which has represented a significant factor in the inflow of capital to the nonfinancial private sector since the beginning of 1995. In the first half of 1997, the net foreign-currency credit flow of the Israeli banking system was $ 4.2 billion, and in the second half—$ 0.2 billion. The extent of new credit has varied very considerably in the last three years in response to changes in macroeconomic factors which affect its relative cost. The main factors influencing the extent of new foreign-currency credit taken include interest-rate differentials between local and foreign currency, expectations of a change in the exchange rate, and expectations of a change in monetary policy which will lead to a change in interest differentials. The rate of increase of total credit also affects the expansion of foreign-currency credit. In December 1997 credit from the Israeli banking system in or indexed to foreign currency accounted for 27 percent of nondirected credit, a rise of 9 percentage points since December 1994.

Liberalization in the field of foreign-exchange control continued in 1997. For example, the limit on portfolio investments abroad by Israeli firms was abolished, the limit on provident funds' investments abroad was raised, as was that on mutual funds' investments abroad (this limit was abolished in January 1998), and the amount which residents may transfer abroad as transfer payments or gifts was increased. Policy makers have announced that a reversal in the General Permit of the Controller of Foreign Exchange is planned for 1998. Whereas currently all foreign-exchange transactions are forbidden unless specifically permitted, in future all transactions will be permitted unless specifically forbidden.

Investments

Nonresidents' investments

The flow of nonresidents' investments in Israel reached unprecedented levels in 1997, $ 3.7 billion, or 3.8 percent of GDP. Nonresidents' investments (after offsetting residents' investments abroad) represent about one third of private-sector capital inflow to Israel, and their scale indicates the confidence which nonresidents have in Israel's economy and its growth potential (Table 6.8). Both direct and portfolio investments rose; the former surged by 20 percent in 1997, and reached a level four-and-a-half times that of 1994. These investments are very concentrated. In 1997, two of them—that in Bank Hapoalim and the purchase of shares in the Migdal Insurance Company by Generali—accounted for 40 percent of total gross direct investments (excluding real estate). These investments were the outcome of opportunities which arose from the process of privatization and the restrictions imposed on banks' holdings in real corporations.

The flow of nonresidents' investments in Israel reached an unprecedented $ 3.7 billion in 1997.

Direct investments are very concentrated.

Direct investments make a significant contribution to the economy. Investment in an exporting company may help in the marketing of its goods via the use of the foreign investing company's well known brand name and its marketing channels. Cooperation in research and development, which has the advantage of economies of scale, also helps the progress of the Israeli company.

Direct investments make a significant contribution to the economy.

Table 6.8
Net Investments in Israel by Nonresidents, and Investments Abroad by Residents,[a] 1994–97

($ billion)

	1994	1995	1996	1997	1997 Jan–Jun	1997 Jul–Dec
1. Investments in Israel by nonresidents	**0.9**	**2.3**	**2.8**	**3.7**	**1.6**	**2.1**
Foreign direct investment[b]	0.4	1.3	1.4	1.6	0.7	0.9
Foreign portfolio investment	0.6	1.0	1.4	2.1	0.9	1.1
In TASE[c]	0.2	0.4	0.3	0.7	0.5	0.2
In secondary market abroad[d]	0.3	0.3	0.3	0.3	0.1	0.2
In issues abroad of Israeli shares	0.1	0.3	0.8	1.1	0.3	0.7
2. Investments abroad by residents	**0.4**	**0.6**	**0.7**	**0.8**	**0.4**	**0.4**
Direct investments abroad by residents	0.7	0.6	0.7	0.7	0.5	0.2
Portfolio investments abroad by residents	–0.3	0.0	–0.1	0.2	–0.1	0.2
3. Net private investments in Israel (1–2)	**0.5**	**1.6**	**2.1**	**2.9**	**1.2**	**1.7**

[a] Figures may not add due to rounding.
[b] This item differs from that appearing in the Statistical Appendix because it does not include nonresidents' investments in issues abroad of Israeli shares, which are included under 'Foreign portfolio investments'.
[c] Tel Aviv Stock Exchange.
[d] This item appears in the Statistical Appendix under 'Short-term capital flows'.

Unlike these, some foreign companies' investments are intended to utilize the domestic company's marketing channels to break into the domestic market with imported goods. The entry of foreign companies with local representation in the domestic market increases competition and obliges domestic firms competing against them to streamline.

Direct investments are usually affected more by long-term considerations such as growth and the penetration of new markets than short-term ones like expectations of devaluation or short-term-interest differentials, and they thus have another advantage. They cause less fluctuation to the exchange rate than do portfolio investments, and there is little likelihood that direct investments will be hurriedly withdrawn from the economy. The gradual nature of the rise of foreign direct investment in Israel indicates that there is a long learning process, and that there is a lag between making an investment decision and implementing it.

Foreign direct investment in emerging economies multiplied several times over in the 1990s, and reached more than $ 90 billion in 1995. Against this background, Israel's improved credit risk rating, together with the huge influx of immigrants, facilitated foreign direct investment in Israel and enabled Israel's share of total foreign direct investment in developing countries to increase.[14]

[14]At the end of 1995, Standard and Poor's accorded Israel an A– rating, and Moody's awarded an equivalent one; since then it has been ratified several times. For a detailed description of the methods used by the international rating agencies, see the 1995 and 1996 Annual Reports of the Controller of Foreign Exchange.

Table 6.9
Foreign Direct Investment (FDI) in Selected Countries,[a] 1994–96

	1994		1995		1996		
	$ million	% of GDP	$ million	% of GDP	$ million	% of GDP	Direct investment defined as
Chile	1,770	3.5	1,670	2.5	4,090	5.9	
Mexico	10,970	2.6	9,530	3.3	7,620	2.3	10 percent or more of the ownership held by a nonresident.
Brazil	3,070	0.55	4,860	0.7			
Argentina	3,070	1.1	4,180	1.5	4,220	1.4	10 percent or more of the ownership held by a nonresident.
Colombia	1,670	2.4	2,320	2.9	3,320	3.9	
Peru	3,080	6.2	2,040	3.5	3,580	5.9	10 percent or more of the ownership held by a nonresident.
South Korea	810	0.2	1,780	0.4	2,320	0.5	20 percent or more of the ownership held by a nonresident.
Thailand	1,370	1	2,070	1.3	2,340	1.3	
Indonesia	2,110	1.2	4,350	2.2			
Malaysia	4,350	6.2	4,130	4.7			
Israel	360	0.5	1,260	1.4	1,350	1.4	5 percent or more of the ownership held by a nonresident. In 1997 FDI totaled 1.9 percent of GDP.

[a] The countries differ in the definitions used and in their data-collection methods. The quality of the data is seriously affected by the collection method used.
SOURCE: IFS data.

New issues abroad of Israeli companies rose to an unprecedented $ 1 billion.

Nonresidents' portfolio investments in Israel rose by 45 percent in 1997. Investment in new issues abroad of Israeli companies went up by 40 percent, and reached $ 1 billion. This unprecedented level of new issues was made possible by the strength of the New York Stock Exchange in the first three quarters of the year. In the third quarter these new issues totaled $ 580 million. In November and December, following the eruption of the crises in East Asia and the sharp falls in stock exchanges world wide, there were no significant new issues abroad, as companies preferred to defer their flotations. Net investments in the Tel Aviv Stock Exchange (TASE) doubled in 1997, to $ 700 million. Here, too, the effect of the crises in East Asia was felt, and in November and December nonresidents realized their stock-exchange investments. The flow of nonresidents' investments in Israeli companies on the secondary market abroad was at a similar level to that of previous years, $ 300 million.

Nonresidents did not exploit the yield differentials between local and foreign currency, at least not on the credit side.

In 1997, too, as in previous years, nonresidents' investments in local-currency bonds or local-currency interest-bearing deposits were at a very low level. Thus, nonresidents did not exploit the interest differentials between local and foreign currency or the changes in the exchange rate to make profit, at least not on the credit side. Financing of investments by residents by means of local-currency credit was, however, also on a very low scale, although most investment in Israel gives a local-currency return (with the exception of export-oriented companies). Hence, on the credit side nonresidents acted the same way as did residents, preferring foreign-currency credit to local-currency credit.

Residents' investments abroad

In 1997, there was no significant change in residents' investments abroad.

Residents' net investments abroad totaled $ 820 million in 1997, slightly exceeding previous years' amounts, with that in foreign securities at a low level. Since 1993 the trend has been one of net repatriation; although this was not actually the case in 1997, net investments amounted to a mere $ 150 million, so that there is no evidence of a change in the trend. Regarding directives of the Controller of Foreign exchange, liberalization is almost complete. Individuals' portfolio investments abroad are not restricted, the only condition being that they must carry out such investments via an authorized dealer.[15] Portfolio investments abroad by Israeli companies had a ceiling, which was generally not binding; the limit was abolished at the beginning of 1998.[16] Provident funds may invest abroad up to 2 percent of their assets.[17] Despite all the above, Israelis' portfolio investments abroad are almost zero.

[15] An authorized dealer bank is a banking institution which has received a permit to act as an authorized dealer from the Controller of Foreign Exchange.

[16] Until 1997, companies were permitted to hold financial assets abroad whose total value at any one time did not exceed 5 percent of its sales turnover or 10 percent of its equity, whichever was higher. The change increased this limit to 15 percent of sales turnover, or 25 percent of equity, whichever is higher. In January 1998, the limit on companies' permitted portfolio investment abroad was abolished, and since the companies may hold unlimited assets, excluding deposits, abroad.

[17] In June 1997 the limit on permitted investment—according to the directives of the Controller of Foreign Exchange—was raised to 5 percent. However, as the directives of the Commissioner of the Capital Market, Insurance, and Savings have not yet been changed, as far as the provident funds are concerned the limit is still 2 percent.

There are two possible explanations for this. One is that taxation on financial investments abroad discriminates against them in comparison with investments on the TASE. The other is that the relatively slow rate of depreciation of the NIS against the currency basket in the last few years, and the expectation that this will persist, *inter alia* due to monetary policy, adversely affect the local-currency return on assets denominated in foreign currency.

Discriminatory taxation and the relatively slow rate of depreciation of the NIS against the currency basket make portfolio investments abroad less profitable for Israelis.

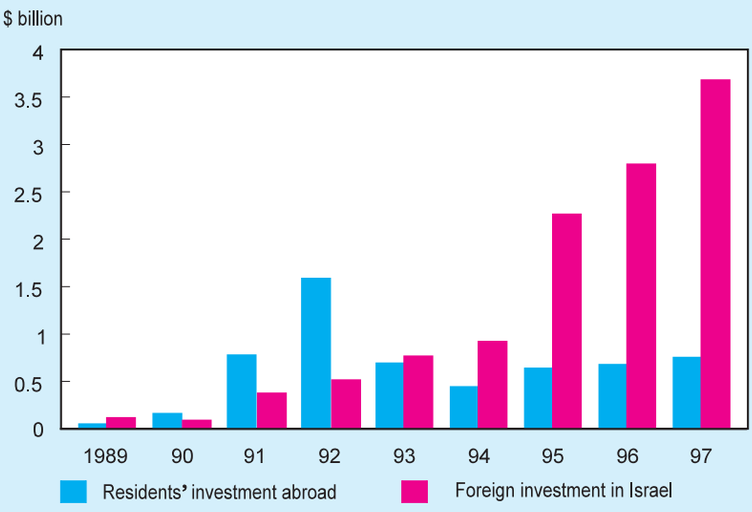
In 1997, Israelis' net direct investment abroad came to $ 670 million, similar to the annual amounts from 1992 to 1996. Individual Israelis are not permitted to make such investments (except for investments in time-sharing vacation units abroad), only companies may do so. Such investments often serve as means of cooperating with foreign companies, for such purposes as using each other's marketing channels, exchange of know-how, and exploiting economies of scale to increase market share.

Loans

The nonfinancial private sector

The nonfinancial sector's foreign-currency loans were taken mainly from Israel's banking system. Liberalization of foreign-currency control, which had started towards the end of the 1980s, greatly reduced the differentials between interest rates on foreign-

Figure 6.4
Residents' Investment Abroad and Foreign Investment in Israel,[a] 1989-97



[a] Since 1994, purchases abroad of Israeli securities by residents from nonresidents have been recorded as repatriation of investments by nonresidents in Israel. Until 1994 they were recorded as residents' investments abroad.

SOURCE: Based on Central Bureau of Statistics data.

currency credit from Israeli banks and those on credit abroad. Lending overseas incurs the cost of becoming familiar with the foreign lender, and is therefore not worthwhile for small borrowers. As taking foreign-currency credit from domestic banks is a foreign-currency transaction between Israelis, it is not recorded in the balance-of-payments statistics, but is reflected in different items in the balance of payments according to the sources from which it was taken.

The improvement in the current-account deficit, expectations that the crawling exchange-rate band would be widened, and the assessment that the Bank of Israel would not permit significant depreciation of the NIS resulted in a foreign-currency credit flow in the first half of the year.

In the first half of the year the stock of residents' foreign-currency credit from domestic banks (henceforth credit from authorized dealers) increased by $ 4.2 billion, slightly faster than its rise at the beginning of 1995 when there was a surge in foreign-currency credit. The background to the sharp rise in the net credit flow in the first half of 1997 compared with the second half of 1996 consisted of the improvement in the current-account deficit, expectations that the crawling exchange-rate band would be widened, enabling the NIS to appreciate, and the assessment that the Bank of Israel would not permit significant depreciation of the NIS so as not to jeopardize the chances of attaining the inflation target. Towards the end of June, with the changes to the exchange-rate band and the reduction of the key interest rate on the Bank of Israel sources by 1.2 percentage points, the flow of credit from authorized dealers halted. At the same time, residents' foreign-currency deposits started rising.

It is difficult to determine the main or the most important cause of the cessation of the net foreign-currency credit flow to residents from the domestic banks, most of which is short term, but several contributory factors which combined caused this effect may be enumerated.

The main reasons for the halt in the foreign-currency credit flow were the contraction of yield differentials and the rise in exchange-rate risk.

- *The contraction of the differential between interest on local currency and that on foreign currency*: the Bank of Israel gradually reduced its key interest rate from 17 percent in July 1996 to 12.5 percent at end-June, 1997. The cuts, except for the last, did not exceed 0.7 percentage points, and were generally between 0.3 and 0.5 percentage points. In June, in the framework of the changes in parameters of the crawling exchange-rate band, the Bank of Israel cut the interest rate by 1.2 percentage points (part of which was offset two months later); at that time there was no significant change in the Euro-dollar or Euro-basket[18] interest rates. The change in interest in June greatly reduced the differential between taking foreign-currency credit and converting foreign currency into NIS.
- *Widening of the crawling band*: widening the band from 14 percent to 28 percent in June 1997 increased exchange-rate risk and the probability of a large depreciation. Widening the band accorded with the Bank of Israel's trend of reducing the extent of its intervention in foreign-currency trading. The trend had started in July 1994 with the transition to two-sided trading in foreign currency whereby the exchange rate is determined by inter-bank trading throughout the day. In June 1995 the band was widened from ±5 percent to ±7 percent, and the Bank of Israel allowed the exchange rate against the currency basket to fall almost as far as the band's lower limit. In February 1996 the

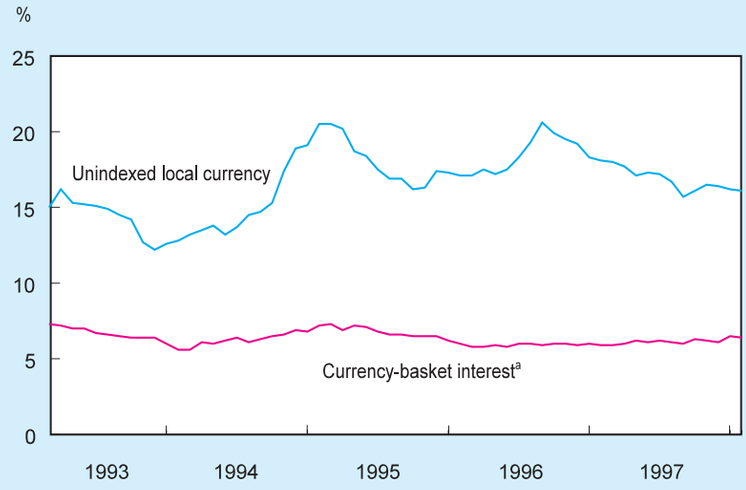
[18] Calculated from the interest rates and the weightings of the five currencies which constitute the basket.

Bank stopped intervening in foreign-currency trading within the limits of the band, and currently intervenes only when the rate touches one of the limits. In this regime, exchange-rate risk is greater, and it is less worthwhile to take credit in foreign currency.

- *The end of expectations of NIS appreciation*: the change in the slope of the band in June ended expectations of local-currency appreciation. The fact that the NIS had remained at the lower limit of the band since August 1996 (except for a few short periods) created expectations that the band would be widened downwards, i.e., that the lower limit would be moved further down, allowing the NIS to appreciate. These expectations undermined the credibility of the band's lower limit, increased the private sector's supply of foreign currency, and made very heavy central bank intervention in foreign-currency trading necessary. As time passed and it was apparent that the Bank of Israel would find it difficult to continue purchasing foreign currency from the public on such a scale, expectations that the band would be extended downwards—and that the NIS would appreciate—grew. The changes in the band reestablished its credibility and removed expectations of appreciation, and thus made the conversion of foreign exchange into NIS less worthwhile.
- *Developments in East Asia*: at the beginning of July the crisis in Thailand erupted, pulling in its wake countries in South East Asia, and then also South Korea and Japan (see Box 6.2). Depreciation in countries such as Thailand and Indonesia which had long benefited from capital inflow, made investors internalize exchange-rate risk. As a result of the crises in Asia, investors may reduce their investments in emerging markets, including Israel. As the crises grew, there was concern that Israel's exports would suffer in two ways: a reduction of demand in the markets of the Far East, and a decline in the global growth rate and in world trade, which would harm demand for Israel's exports. The probability of a drop in capital inflow and a rise in the current-account deficit increases exchange-rate risk and the chances of depreciation, and thus reduces the attraction of taking foreign-currency credit.
- *The share of credit in and indexed to foreign currency in total credit*: The stock of credit from Israel's banking system in and indexed to foreign currency rose from 18 percent of all nondirected credit at the end of 1994 to 27 percent in December 1997.[19] Foreign-exchange-control data show that over this period this trend was evident in all industries. It is difficult to assess how much of the increase in this credit was intended to cover risks from the past, but it is reasonable to assume that the rise in credit raises the private sector's exposure to exchange-rate risk. The higher the share of credit in and indexed to foreign currency and the greater the exposure to exchange-rate risk, the lower the inducement to continue taking this type of credit.
- *The reduction of banks' sources from which to extend foreign-currency credit*: the rise in demand for foreign-currency credit prompted the banking system to find other sources of foreign currency. In 1997 the banks borrowed about $ 1 billion from a consortium of foreign banks and by issuing capital notes on the Euro market via

[19] From the borrower's point of view there is no difference between credit in foreign currency and credit indexed to it.

Figure 6.5
Interest on 3-Month to One-Year Credit, 1993-97



[a] Interest on the five currencies in the basket weighted by their shares in the currency basket.

Table 6.10
Implied Capital Imports and Yield Differentials between Assets in Israel and Abroad, 1994–97

($ billion)

					1997	
	1994	1995	1996	1997	Jan–Jun	Jul–Dec
Private-sector capital imports	1.5	7.4	6.7	11.4	8.7	2.7
Capital imports of the nonfinancial private sector[a]	3.2	11.7	8.0	11.0	8.1	2.9
Contribution of private investments to capital imports	0.5	1.6	2.1	2.9	1.2	1.7
Contribution of credit from authorized dealer to capital imports	1.5	5.8	2.2	4.4	4.2	0.2
Interest on						
3-month local-currency credit	15.1	17.1	17.6	16.2	16.8	15.7
3-month foreign-currency credit[b]	6.3	6.8	6.0	6.2	6.1	6.3
Yield to maturity on 3-month Treasury bills	12.2	14.4	15.5	13.6	13.9	13.4
Libor currency-basket interest	4.6	5.3	4.6	4.9	4.8	5.0
Slope of lower limit of band	6.0	6.0	6.0	5.0	6.0	4.0
Rate of NIS/currency-basket depreciation[c]	5.4	5.8	3.0	3.7	5.1	2.3

[a] Including capital imports via the banking system for the nonfinancial private sector.
[b] In currency-basket terms.
[c] During the period, in annual terms.

subsidiaries, guaranteed by the issuing banks. The reduction of domestic sources of foreign-currency credit and the need to raise foreign currency via loans from abroad to meet the demand for such credit apparently raises its cost and makes it less worthwhile.

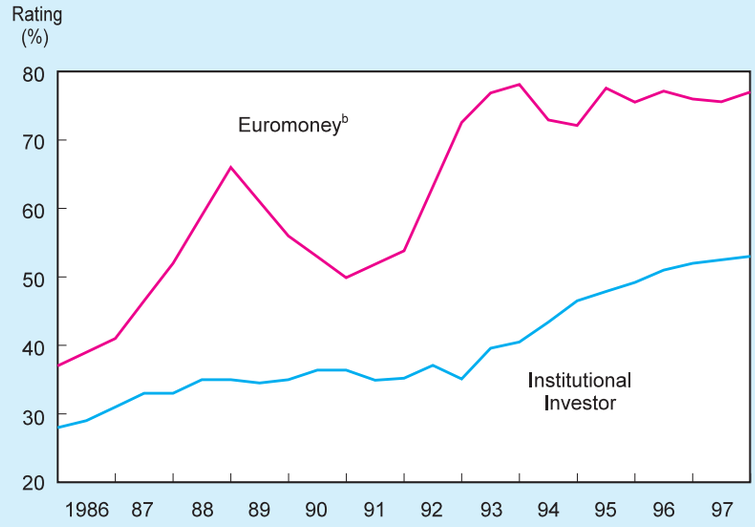
Most direct loans from abroad by the nonfinancial private sector were long term. This area, too, is highly concentrated. A small number of loans account for more than 50 percent of total gross long-term direct loans. Direct loans rose in 1997, to $ 1.6 billion. These loans were made possible by Israel's improved credit risk rating, and followed the government's issue abroad of bonds outside the framework of the US guarantees.

The public sector

In January 1998, the five-year period in which Israel raised $ 9.4 billion on the US bond market in the framework of the US government guarantees ended.

In 1997, net borrowing by the public sector totaled $ 1.2 billion. Borrowing within the framework of the US government guarantees totaled $ 1.3 billion in 1997, leaving $ 1.4 billion to be raised in 1998 in the guarantees framework (this was borrowed in January 1998). This last tranche signifies the end of the five-year period in which Israel raised $ 9.4 billion on the US bond market in the guarantees framework. The US government provided the guarantees for loans taken by the Israeli government to help Israel absorb the influx of immigrants by easing the financing of the increase in the current-account deficit deriving from the rise in demand for consumption and capital goods related to the immigration. In 1993, the first year of borrowing within the guarantees framework, the private sector purchased $ 1.5 billion of foreign currency

Figure 6.6
Israel's Credit Risk Rating,[a] 1986-97



[a] A higher rating means a lower credit risk.
[b] Until 1992 on an annual basis, thereafter half-yearly.

from the public sector, and from 1993 to 1995 the public sector enabled the private sector to take foreign-currency credit totaling $ 1.7 billion from sources covered by the guarantees.[20] In 1995–97, despite the high current-account deficit, there was no need for the public sector to borrow under the terms of the guarantees as a backup to the reserves, because the private sector imported capital on a large scale. In those years some of the government's borrowing was an alternative to local-currency borrowing. Viewed from the aspect of the whole of the public sector, borrowing abroad to finance domestic expenditure is inefficient, because of the differential between interest paid on the external debt and that received on foreign-currency reserves. Nevertheless, as the government preferred to take full advantage of the guarantees framework, even when there was no shortage of foreign-currency sources, in the five years from March 1993 to January 1998 it borrowed the maximum amount agreed with the US government.

Following the policy of gaining access to new capital markets for borrowing in the future, in 1997 the government issued ¥ 20 billion of bonds on the Japanese market.

As the time approached when the US government will no longer guarantee Israel's government loans, the government issued bonds on the international capital markets intended to gain access to new capital markets for borrowing in the future. Thus, in August the government issued ¥ 20 billion of bonds (about $ 170 million at the time of issue) on the Japanese market. The bonds were for ten years, considered to be relatively long for a first issue on that market, and the cost of the issue came to 0.49 percentage points more than that of Japanese government bonds. Since December 1995 the government has also issued bonds on the US and European markets.

As part of planned privatization, in 1997 the government sold NIS 8.5 billion of assets, of which NIS 2.8 billion was received in foreign currency (about $ 800 million), from nonresidents and residents. The foreign-currency proceeds of privatization served to reduce the public-sector external debt, and, from this aspect, the currency of payment (NIS or foreign currency) determines to what extent privatization will reduce the external debt and to what extent the public sector's internal debt.

The banking system

In the first half of 1997, in order to satisfy the demand for foreign-currency credit, banks reduced their deposits abroad.

In 1997, capital imports of the banking system reached an unprecedented $ 4 billion, mostly intended for extending foreign-currency credit to the nonfinancial private sector. In 1997 the process of lowering the liquidity requirement on restitutions deposits which started in 1991 was completed, and the rates applicable are the same as those on residents deposits. The stock of banks' foreign-currency deposits in the Bank of Israel declined by $ 320 million in 1997. In the past the reduction of these deposits was used to extend foreign-currency credit to the nonfinancial private sector. In 1997, with the completion of the process of lowering the liquidity requirement, and with the Bank of Israel reducing the balance of swap auctions which also serve as a source of credit, banks chose to cut their deposits abroad by $ 2.3 billion to be able to meet the demand for foreign-currency credit.

[20] Companies which in 1993–95 received most of the credit extended to the private sector in the framework of the guarantees took direct credit from abroad in 1996–97, outside the framework.

By reducing deposits abroad, which give a low but secure return, and instead granting credit which gives a higher return but carries a higher risk, the banking system faces a challenge. Clearly, using foreign-currency sources to extend credit, in place of depositing abroad, may raise banks' profitability, but they must proceed with caution in assessing borrowers' repayment ability, especially as there is the possibility of a sharp depreciation of the NIS.

In 1997 banks raised about $ 1 billion abroad for the medium and long term.

In 1997, banks started borrowing foreign currency from additional overseas sources in order to increase and diversify the sources from which to extend foreign-currency credit to residents. Money was raised by receipt of credit from a consortium of banks and by issuing capital notes on the Euro market via subsidiaries, guaranteed by the banks. In 1997 banks raised about $ 1 billion in this way, for periods of five to ten years, enabling closer accord between sources and uses when long-term foreign-currency credit is granted to Israeli companies.

The external debt and the reserves

The gross outstanding external debt was $ 52.9 billion at the end of 1997. Nine percent of the debt consists of the public sector's and the nonfinancial private sector's liabilities of up to one year, 58 percent is those sector's liabilities of over one year, and the rest is the banking system's foreign liabilities, mainly nonresidents' deposits in Israeli banks.

The increase in nonresidents' investments in Israel in the last few years allowed a large current-account deficit to exist (between 3.4 and 5.6 percent of GDP in 1994–97), with no significant rise in the economy's net external debt. Financing by means of nonresidents' investments is in effect financing via the sale of residents' assets to nonresidents. The advantage of this method of financing is, as stated, that it does not raise the external debt; its disadvantage is that the fruits yielded by the assets belong to nonresidents.

In 1997, the external-debt/GDP ratio continued its downward trend.

The net-external-debt/GDP ratio serves as an indicator of the economy's ability to repay abroad. The ratio has been falling since 1984 (except for 1992), from a level of 79 percent in 1984 to 19 percent in 1997. The change in the ratio may be attributed to four factors: the change in the net external foreign-currency debt, the real change in GDP, the change in the real exchange rate, and the change in world prices.[21] Real appreciation reduces the debt/GDP ratio. A rise in world prices, which means a reduction of the debt in real terms, will also lower the ratio. If the real exchange rate is moving along a path which is not one of long-term equilibrium, it may distort the debt/GDP ratio, and the distortion will only be removed when the real exchange rate reverts to its equilibrium path.

Table 6.11 shows the changes in the ratio from 1986 to 1997 and the contributions of different elements to these changes. There were two main causes of the reduction in

[21] World prices are affected by two factors: inflation levels abroad, and the changes in cross rates which affect prices in dollar terms. A weakening of the dollar, for example, will raise world prices in dollar terms and reduce the debt/GDP ratio.

Table 6.11
Debt/GDP Ratio, 1986–97

(percent of GDP, annual average)

	1986	1987–89	1990–92	1993–95	1996	1997
Debt/GDP ratio (end-year, percent)	56.4	35.2	27.9	23.5	20.8	19.1
Change in ratio (annual average, percentage points[a])		–7.1	–2.4	–1.5	–2.7	–1.7
Contribution of real change in GDP		–1.7	–1.9	–1.4	–1.0	–0.4
Contribution of change in real exchange rate[b]		–0.4	–0.1	–1.4	–1.3	–0.1
Contribution of change in nominal net debt		–1.6	0.4	1.5	–0.3	–1.3
Contribution of change in world prices[c]		–3.7	–0.9	–0.2	–0.2	0.1

[a] The sum of the contributions to the change in the ratio do not add up exactly to the change in the ratio because the contributions were calculated by first-order approximation.
[b] The real exchange rate here is the ratio of export prices to GDP prices.
[c] The contribution has two components; inflation abroad, which reduces the debt/GDP ratio (it reduces the real value of the nominal debt), and the change in cross rates.

the ratio: one was economic growth which greatly exceeded the rise in the dollar debt—a process made possible by nonresidents' investments—and the other, continued real appreciation.

The foreign reserves rose by $ 9 billion in 1997, to reach an unprecedented $ 20.6 billion. The nonfinancial private sector contributed some $ 6.8 billion to the rise, continuing the trend evident in the last few years, of reducing foreign-currency assets and increasing foreign-currency liabilities. The public sector contributed $ 2.3 billion to the rise, the source of which was net loans abroad and that sector's current-account surplus.

Liberalizing foreign-exchange control

As part of the policy of liberalization, the process of gradually removing foreign exchange control restrictions continued in 1997. It is planned that in 1998, according to statements made by policy makers, liberalization will proceed even faster, and there will be a reversal in the General Permit of the Controller of Foreign Exchange. Whereas currently all foreign-exchange transactions are forbidden unless specifically permitted, in future all transactions will be permitted unless specifically forbidden. The plan is that in the first stage, nonresidents will be able to undertake unlimited activities in local currency; they will be able to convert NIS into foreign currency without needing to provide documents proving the origin of the NIS.

The main foreign-exchange limitation still in force is the prohibition preventing residents (individuals) from making direct investments abroad. Also, tax discrimination makes Israelis' (both individuals' and financial institutions') portfolio investments

abroad less worthwhile (see Box 6.3). In 1997 the limitation on Israeli companies' portfolio investments abroad was abolished,[22,23] the ceiling on provident funds' investments abroad was raised from 2 percent of their assets to 5 percent, and that on mutual funds' investments abroad was raised (and finally abolished in January 1998). The sum which a resident may transfer abroad as support payments or gifts was increased to $ 10,000 a year. Since January 1998 residents may purchase foreign currency to deposit it in a foreign-currency deposit, and may carry out unlimited NIS/foreign-currency futures transactions.

Box 6.3: Asymmetry in Capital Flows

In the last few years there has been a continuous and significant increase in the flow of net investments by individuals (foreign direct investment in Israel *minus* Israelis' investments abroad, Table 6.8). If the flows in the two directions are viewed separately, a clear picture emerges: the flow of investment by nonresidents into Israel has risen year by year, while Israelis' investments abroad have remained stable at between $ 600 million and $ 700 million a year. Most of the latter is direct investment, whereas the flow of portfolio investments since 1993 has generally been negative (i.e., repatriation of investments).

The reasons for the increase of nonresidents' investments in Israel are quite well known, and relate to the basic conditions prevailing in Israel since the early 1990s: the peace process, the influx of immigrants, and the structural changes taking place in Israel's economy, including privatization and capital-market reforms—particularly liberalization of foreign-exchange control. The increase in worldwide capital flows should be added to this list. Foreign-exchange liberalization enables nonresidents to invest in the economy almost completely freely, whether investing from local currency, e.g., by taking bank credit and thereby reducing exchange-rate risk, or whether from a foreign-currency source. There are no limitations on transferring abroad the returns on an asset or proceeds from selling it.

Unlike the almost complete liberalization of capital import by nonresidents, several restrictions still apply regarding residents' exports of capital, and there is discriminatory taxation between residents' (tax-free) financial investments in Israel and their investments abroad. The major limitation on individuals is the prohibition of direct investments abroad (except for purchase of time-sharing in vacation units for $ 15,000). Regarding portfolio investments, directives of the Controller of Foreign exchange permit Israelis to invest abroad in any security quoted in one of the international data networks, but discriminatory taxation

[22] For details of changes in the directives, see the Annual Report of the Controller of Foreign Exchange, Bank of Israel, 1997.

[23] See note 17 above.

greatly reduces the profitability of this type of investment. The tax on portfolio investment in foreign securities is 35 percent of the profit in foreign currency (including capital gains). A situation could arise in which an individual would pay tax even though in real terms, i.e., in terms of the Consumer Price Index, he or she has incurred a loss. To ensure payment of the tax, banks deduct 5 percent of the value of the investment when it is sold. The individual can perform calculations regarding offsetting vis-à-vis the income-tax authorities at a later stage. Provident funds may invest abroad 2 percent of their assets,[a] but here too discriminatory taxation effectively prevents them from investing on a serious scale. Most capital export by Israelis is that carried out by companies, in the form of direct investments abroad.

The rise in nonresidents' investments worldwide derives from the advantage of dispersing investments among international markets. The correlation between different types of investment in a particular economy is higher than that between investments in different economies. Some economies are high-risk and offer high rates of return, and others are low-risk, with low returns. Hence, dispersing investments among different economies enables total risk to be reduced without harming the rate of return, and may sometimes even raise the expected return of an investment.

The importance of the effect of asymmetry arising from limitations and discriminatory taxation on capital flows has increased in the last few years because of the rise in capital inflow, of both nonresidents and residents, and because investment opportunities in emerging economies have arisen. A rise in capital inflow (*per se, ceteris paribus*) acts in the direction of nominal and even real local-currency appreciation, which are likely to reduce the profitability of production of tradables. Without discriminatory taxation and the limitations on direct investment abroad, the rise in capital inflow may have been accompanied by capital exports by Israelis, which would have moderated both the pressure arising from excess supply in the foreign-currency market and the extent of appreciation.

Asymmetry in capital flows calls for a solution on two levels, a gradual removal of restrictions on Israelis' direct investments abroad, a limitation which derives from foreign exchange control, and making tax rates on portfolio investments in Israel and abroad uniform. This solution will lead to a better spread of investment of Israeli assets, and will support real depreciation. With continued liberalization in the coming year, these two topics are likely to feature, and progress in this field may be expected.

[a] See note 18 above.