Chapter 7
The Balance of Payments

- The current account had a surplus of about 3 percent of GDP in 2007 ($5 billion), as compared to a surplus of 6 percent of GDP in 2006, which was an exceptionally high level. The reduction in the current account surplus is a result of the rapid and significant growth in imports and the worsening in the terms of trade. Alongside the reduction in the current account surplus, the surplus in net investment abroad also declined. From a longer-term perspective, the transition from an average deficit of about 3 percent of GDP during the period 1995–9 to a surplus of about 3 percent of GDP this year is a result of the reduced deficit in the goods and services account and the improvement in the income account, alongside a reduction in current transfers.
- The reduction in the current account surplus was the result of a drop in private saving and an increase in investment in the economy. The drop in private saving was in response to the high increase in purchases this year and surprisingly high public saving during the previous two years (when the budget deficit was lower than planned). The increase in investment was the result of the continuing growth in the economy and the increase in employment. In addition to these forces, the level of the current account surplus contributed to a real appreciation which acted as a mechanism to balance the current account.
- The investment in the economy by foreign residents and investment abroad by Israeli residents remained at high levels in 2007 and no major changes were observed in their characteristics or magnitudes. Since 2004 there have been signs of stability in gross and net investment, particularly in foreign direct investment (FDI). The financial crisis, which affected global markets this year, had only moderate effects on Israel's financial account in 2007, which is evidence of the economy's relative resilience to shocks.
- The most significant changes in investment abroad by Israeli residents this year were the acceleration in direct investment in the real estate industry and the continued high level of investment by institutional investors in foreign securities.
- This year was characterized by continued high levels of FDI in Israel and the growth of portfolio investment, against the background of volatility in international financial markets. On the other hand, foreign residents realized investments in government bonds this year against the background of the market-makers reform in 2006 and the financial crisis.
- The lion's share of investment in the economy by foreign residents during the period 2001–07 consisted of direct investment, while the share of portfolio and other investment declined. This may be partly explained by the ending of the US debt guarantees, the bursting of the hi-tech bubble and the global trend in investment via mergers and acquisitions (M&A).

1. THE CURRENT ACCOUNT

a. The current account, the real exchange rate and the terms of trade

The current account had a surplus of 3 percent of GDP, as compared to the exceptionally large surplus of 6 percent of GDP in 2006.

The current account had a surplus of $5.0 billion in 2007 which represents about 3 percent of GDP. This compares to a surplus of 6 percent of GDP in 2006, which was an exceptionally high level. The reduction in the current account surplus is an expression of the worsening situation in the goods and services account, which had a deficit equal to 1.5 percent of GDP in 2007 as compared to 0.8 percent in the previous year. The reduction in the exceptionally large current account surplus was a natural outcome of the increasingly strong economic forces working to balance the current account relative to the forces that have worked to increase the surplus during the previous three years[1] (Figure 7.1 and Table 7.1).

The reduction in the current account surplus was the result of a decline of one percentage point in the rate of national saving out of the economy's total income and an increase of 1.4 percentage points in the rate of investment.

The reduction in the current account surplus was a result of a decline of one percentage point in the national rate of saving out of total income and an increase of 1.4 percentage points in the rate of investment.[2] The decline in the rate of private saving, which led the drop in the national rate of saving, was this year supported by a large increase in wealth, a sharp drop in the relative price of imported consumption goods and an unexpected rise in the rate of public saving during the last two years (when the budget deficit was lower than planned), which had a delayed effect on private saving. However, the level of private saving is still high in historic terms, primarily due to the weakening of the social welfare net, which has led to a high rate of precautionary saving. The increase in the rate of investment this year was a manifestation of the pressure to increase the stock of capital once full utilization of existing capital was reached. The drop in the relative price of imported investment goods also contributed to the increase in investment.[3] The rate of investment in the economy is similar to that in other developed countries and is in line with the high rate of growth in the stock of capital. The continued acceleration in the growth of the number of employed in the economy is liable to also increase investment in order to maintain the capital-to-worker ratio.

The decline in the relative price of imports, which implies a real appreciation of the foreign exchange rate, contributed this year to a reduction in the current account surplus by supporting the decrease in saving and the increase in investment.

The drop in the relative price of imports or, in other words, the appreciation of the real exchange rate contributed, as mentioned, to the reduction in the current account surplus this year through its effect in reducing saving and increasing investment. Essentially, the real exchange rate balances the demand and supply of foreign currency and its movements reflect the forces acting on the economy. In previous years, the demand for investment abroad dominated the demand for foreign currency while its supply was provided by the current account surplus. At the beginning of 2006, about a year after the reform of taxation on investment abroad and the expansion of investment

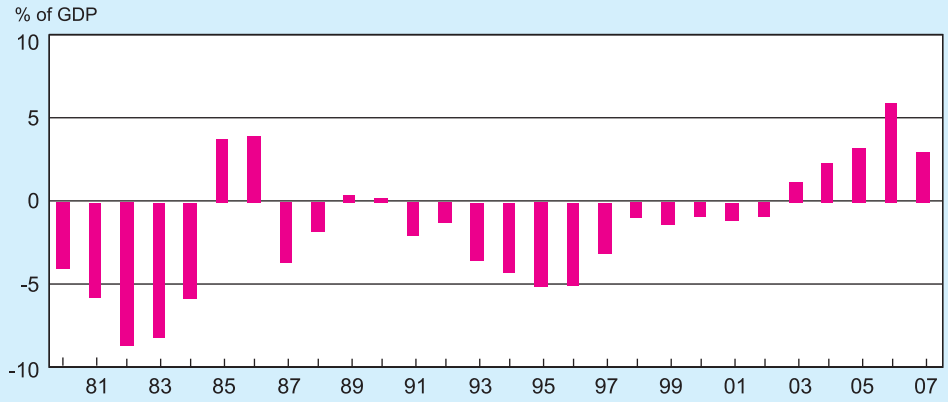
[1] For a discussion of the exceptionally high current account surplus last year and for an international comparison, see Chapter 7 of the 2006 Bank of Israel Annual Report.

[2] The gap between saving and investment is equal to the surplus in the economy's current account.

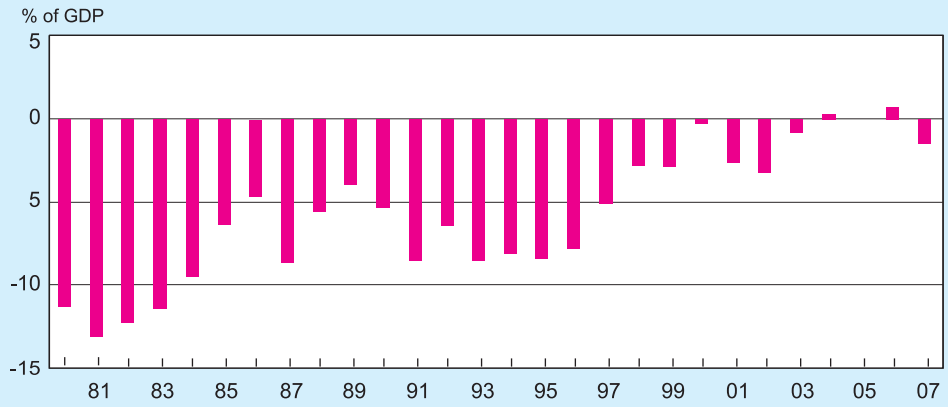
[3] For a comprehensive discussion of the gap between the level of saving and the level of investment, see the 2006 Bank of Israel Annual Report, p. 250.

Figure 7.1

a. Current Account as Share of GDP, 1980-2007



b. Goods and Services Account as Share of GDP, 1980-2007



SOURCE: Central Bureau of Statistics.

abroad by institutional investors (which together produced an unusually high demand for foreign currency), the real exchange rate (measured as the ratio between import and output prices) reached its lowest level in many years. The expansion of the current account surplus in itself, which reached a record level last year, combined with a limited decline in the net demand for investment abroad during the previous 18 months, facilitated a process of real appreciation and acted to decrease saving and increase investment.

The real exchange rate measured by the ratio between export and output prices appreciated sharply this year by a rate of 3.8 percent, which exceeded the long-term trend of real appreciation.[4] The real exchange rate measured by the ratio between import and output prices appreciated at a more moderate rate of 1.7 percent. The

[4] Between the years 1986–7 and 2005–6, the real exchange rate, measured as the ratio between export and output prices, appreciated by close to 2 percent annually. The real exchange rate, measured by the ratio between import and output prices, appreciated during that same period by 1.5 percent annually.

Table 7.1
The Balance of Payments, 1996–2007

($ billion)

	1996-1999	2000-2003	2004	2005	2006	2007
(1) The current account	-2.7	-0.5	3.0	4.3	8.5	5.0
The goods account	-5.2	-3.7	-2.8	-3.8	-3.2	-5.5
Goods exports	23.3	29.2	36.7	40.1	43.7	50.2
Goods imports	-28.5	-32.9	-39.5	-43.9	-47.0	55.8
The services account	0.3	1.8	3.2	3.7	4.3	3.2
Services exports	9.7	13.2	16.0	17.5	19.3	21.2
Services imports	-9.4	-11.5	-12.8	-13.7	-15.0	18.0
The income account	-4.0	-5.1	-3.7	-1.7	0.0	0.1
Net investment income[a]	-1.6	-2.4	-1.8	0.2	1.9	2.3
Residents' income[b]	2.1	2.7	2.7	5.2	7.9	9.6
Nonresidents' income[c]	-3.7	-5.1	-4.5	-5.0	-6.0	7.4
Compensation of employees	-2.4	-2.7	-1.9	-1.8	-1.9	-2.2
Of which to foreign workers	-1.8	-2.4	-2.0	-1.9	-1.9	2.2
to Palestinians	-0.8	-0.5	-0.3	-0.3	-0.4	0.6
Current transfers	6.1	6.6	6.3	6.0	7.5	7.3
(2) The capital balance	0.7	0.5	0.7	0.7	0.9	1.0
(3) The financial account[d]	1.8	-0.6	-3.7	-8.7	-8.6	-5.0
Direct investments, net	1.1	1.9	-2.5	1.9	-0.3	3.2
Israelis' investments abroad	-0.9	-1.8	-4.5	-2.9	-15.0	-7.1
Nonresidents' investments in Israel	2.0	3.7	2.0	4.9	14.7	10.3
Portfolio investments	3.1	-0.7	4.9	-4.0	-1.0	-6.4
Israelis' investments abroad	-0.1	-2.7	-2.4	-8.2	-9.8	-6.6
Nonresidents' investments in Israel	3.2	2.0	7.3	4.2	8.8	0.3
Other investments, net	1.5	-1.5	-5.7	-4.7	-6.9	-3.5
Government	0.0	-0.1	0.0	1.0	-0.4	-0.6
Banks	1.2	0.0	-4.8	-4.9	-5.9	2.1
Other sectors	0.2	-1.3	-1.0	-0.9	-0.5	-5.0
Financial derivatives	0.1	0.0	0.0	0.0	0.0	0.0
Change in the foreign exchange reserves[e]	-3.9	-0.3	-0.3	-2.0	-0.4	1.7
(4) Statistical discrepancies	-0.2	1.1	0.7	3.7	-0.1	-1.0

[a] Including interest payments and receipts on loans, deposits and bonds, dividends, and undistributed profits.
[b] From investments abroad.
[c] From investments in Israel.
[d] A negative sign indicates capital outflow.
[e] A negative sign indicates a rise in the level of the reserves.
SOURCE: Central Bureau of Statistics.

gap between the two indexes was the result of the increase in the global prices of raw material, which offset part of the real appreciation, as measured by the ratio between import and output prices. The real exchange rate, as measured using the PPP approach, appreciated by only 1.6 percent and thus remained below its average

rate during the period 1990–2001 by close to 20 percent. Two reasons can be given for the gap between the sharp appreciation in the real exchange rate measured by the ratio between export and output prices and that measured according to the PPP approach:[5] The first involves a long-term effect, according to which the relative price of tradable goods (which is represented by export prices) declines over time relative to the price of non-tradable goods (and therefore also with respect to output prices), which is not reflected by the exchange rate measured according to the PPP approach. The second reason is the medium-term effect that is the result of the weakening of the dollar relative to other currencies and the share of exports that are dollar-denominated (75 percent). Assuming a certain amount of price inelasticity in dollar-denominated export prices, the weakening of the dollar is causing a decline in export prices relative to output prices. (Table 7.2).

With regard to imports and exports, the rapid increase in imports this year is what led to the reduction in the current account surplus.

From the point of view of imports and exports, the rapid increase in imports this year is what led to the decline in the current account surplus. Thus, the import of goods and services increased this year by more than 12 percent (the highest increase since 2000), while the export of goods and services grew by only 8 percent. The large increase in imports reflects, as mentioned, the macroeconomic forces that worked to increase private consumption and investment, as well as the drop in the relative prices of imports, which encouraged the purchase of imported goods and services.

The sensitivity of the export of goods and services to the real exchange rate is smaller than that of the import of goods and services. As a result of the process of greater expertise in exports during the last decade, the shift of goods intended for sale abroad to the local market (and vice versa) is almost impossible. A large proportion of the goods produced for export do not have any local market or only a limited one. Therefore, in the event of a real appreciation, exporters are forced to absorb a reduction in profit and in most cases are unable to shift sales to the local market.[6] In the longer term, the real exchange rate and exports will tend to balance each other. Thus, the high rate of growth in exports will create pressure for a real appreciation and a real appreciation will create pressure that will reduce exports.

An analysis of the current account from a longer-term perspective shows that the transition from an average deficit of about 3 percent of GDP during the period 1995–9 to a surplus of about 3 percent of GDP this year is a result of the improvement in the goods and services account and the income account and a reduction in current transfers. Thus, the average deficit in the goods and services account during 1995–9

[5] This exchange rate is measured as the ratio between the CPI in Israel and the weighted average of the CPIs of Israel's trading partners in shekel terms. This index takes into account the differences in inflation and foreign exchange rate changes between Israel and its trading partners.

[6] Lavi and Friedman (2006), "The Real Exchange Rate and Trade in Israel," Bank of Israel Economic Review, 79, p. 74. They found that the real exchange rate (defined as the ratio between export and output prices) did not influence exports in the short term following the Stabilization Program. Their main hypothesis is that the process of specialization in exports, which is described in detail in this section, is what led to this result. Sopher (2005) "Measuring the Real Exchange Rate in Israel and its Effects on Exports and Imports," Issues in Foreign Exchange, Bank of Israel, pp. 30–31 found that hi-tech exports and mixed/hi-tech exports weaken the link between the real exchange rate and the export of goods.

Table 7.2
Background Conditions to the Balance of Payments—International Trade, the Real Exchange Rate, and the Terms of Trade, 2000–07

	2000-03	2004	2005	2006	2007
	(rate of change, percent)				
World trade					
Volume increase, goods and services	5.3	10.8	7.5	9.2	6.6
Volume increase, goods	5.5	10.9	7.4	6.3	6.3
Prices of manufactured goods	1.6	9.5	3.7	3.8	7.9
	(nominal rate of change, current dollars)				
US and EU imports					
Low-tech industries	5.5	13.0	7.7	8.0	5.0
Medium-low-tech industries	6.6	25.1	11.1	25.7	19.2
Medium-high-tech industries	4.8	15.3	9.3	11.7	9.7
High-tech industries	4.1	17.5	9.0	7.2	9.0
	(indices)				
Relative prices					
Export prices/GDP prices	102.8	105.2	106.9	107.1	103.1
Import prices/GDP prices	103.6	112.9	117.1	119.0	117.0
Real exchange rate based on the CPI[b]	107.6	125.4	128.1	128.1	126.0
Terms of trade in the goods account[c,e]	99.0	92.3	89.2	87.5	85.0
Goods export prices[d,e]	98.8	104.1	106.6	109.4	113.9
Goods import prices[d,e]	100.0	113.0	120.4	126.2	135.3
Fuel import prices[e]	94.4	127.0	175.5	206.4	234.5

[a] The ratio of prices, based on National Accounts data.

[b] The ratio of prices abroad multiplied by the nominal exchange rate to domestic prices.

[c] Export prices divided by import prices.

[d] Prices in current dollars, year 2000 = 100.

[e] Excluding ships, airplanes and diamonds.

SOURCE: World trade—IMF, *World Economic Outlook*, October 2007; US and EU imports —United States International Trade Commision, Comext-Eurostat; relative prices—data of the Central Bureau of Statistics and the IFS (International Financial Statistics of the IMF).

stood at 5.3 percent of GDP while in 2007 it was less than 2 percent of GDP. The income account showed a change of similar magnitude of more than 3 percent of GDP. Current transfers have been declining since the Stabilization Plan in 1985 although in recent years the rate of decrease has slowed (Table 7.3).

The terms of trade in the goods account worsened this year by 2.8 percent and over the last five years by 12 percent, at a direct cost of more than $5 billion a year.

The terms of trade in the goods account (excluding diamonds) worsened by about 2.8 percent this year and by about 12 percent over the past five years. The worsening in the terms of trade this year contributed to the reduction of more than one billion dollars in the current account although it is possible that the indirect effects of the growth in exports and the pressure for a reduction in imports due to the change in price ratios offset part of this direct effect. One source of the worsening in the terms of trade in 2007 was the increase in the prices of energy and other raw materials. Thus,

Table 7.3
The Current Account: A 30-Year Perspective, 1975–2007

(percent of GDP, annual averages)

	Current account	Goods and services account	Goods account	Services account	Revenue account	Current transfers
1975-79	-6.0	-16.2	-17.9	1.7	-4.0	14.2
1980-84	-6.5	-11.4	-12.5	1.1	-5.3	10.2
1985-89	0.6	-5.8	-7.0	1.2	-6.0	12.4
1990-94	-2.1	-7.3	-6.7	-0.6	-3.0	8.2
1995-99	-3.1	-5.3	-5.5	0.1	-3.6	5.8
2000-04	0.2	-1.3	-3.0	1.7	-4.1	5.6
2005	3.3	0.0	-2.9	2.8	-1.3	4.6
2006	6.0	0.8	-2.3	3.0	0.0	5.3
2007	3.1	-1.5	-3.4	2.0	0.0	4.5

SOURCE: Based on Central Bureau of Statistics data.

for example, the prices of unprocessed foods rose by almost 30 percent, the price of iron rose by about 15 percent and the price of wood and wood products rose by more than 10 percent (in dollar terms). The direct cost of the worsening in the terms of trade during the last five years comes to more than $5 billion per year, which translates into a reduction of 4 percent in disposable private income. It is reasonable to assume that without the weakening in the terms of trade, the current account surplus this year would have been higher and the real exchange rate would have appreciated to a greater extent.

b. Exports

The export of goods and services grew in real terms this year at a rate of 8 percent. As opposed to previous years, the growth in exports was led by a rapid increase in the export of hi-tech and medium-high-tech goods.

The quantity of goods and services exported this year grew by 8 percent, which is similar to last year's rate of growth and is higher than the growth in business sector output. In contrast to previous years, the growth in exports was led by an increase of about 20 percent in the export of medium-hi-tech products while the export of hi-tech products rose by only 10 percent, which was slightly higher than the rate of growth in the total export of goods and services. The export of hi-tech services also rose by a moderate rate relative to previous years (Table 7.4).

Exports are particularly affected by global demand, particular demand in the US. Globalization and the opening of the economy to competitive imports have led to a process of specialization in production. This involves the accumulation of skills and expertise in the production of goods for which Israel has a relative advantage and the reduced importance of industries that are unable to compete with imported products. As a result of this process, production and exports are now more dependent on foreign demand than in the past.

Table 7.4
Goods and Services Exports, 2000–07

	2007		Volume change (percent)				
	Composition (percent)	$ billion	2000-2003	2004	2005	2006	2007
Goods and services	100	71.4	3.3	17.7	3.6	5.7	8.0
Goods and services excluding diamonds	85	61.0	3.0	19.3	5.5	9.1	8.5
Manufacturing exports (excluding diamonds)[a]	48	34.3	5.1	17.6	5.0	11.8	12.1
High-tech industries	22	15.8	6.3	23.1	10.0	20.0	10.3
Medium high-tech industries	14	9.8	4.9	11.4	-2.0	0.9	19.2
Medium low-tech industries	9	6.4	4.5	17.2	2.4	7.7	10.5
Low-tech industries	3	2.2	0.2	8.9	0.8	-0.6	-1.0
Diamond exports	15	10.5	4.9	10.4	-6.0	-13.9	3.8
Services exports	30	21.2	3.1	22.8	6.6	6.8	7.3
Of which Tourist services[b]	3	2.4	-27.9	33.8	29.4	-8.1	16.5
Other services[c]	19	13.5	14.0	24.4	2.9	12.8	4.4

[a] Foreign trade data.These data are not consistent with the balance of payments data because in this table they do not include exports to the Palestinian Autonomy and also because of statistical adjustments.

[b] After deducting expenditure in Israel by foreign workers.

[c] According to balance of payments definitions, excluding insurance services and transportation services.

SOURCE: Central Bureau of Statistics.

Exports were affected to a great extent by global demand, particularly in the US. Many industries produce for export and the proportion of their revenues from exports can reach more than 80 percent.

In 2006, the proportion of exports within total manufacturing revenues stood at 43 percent, as compared to 30 percent in 1995. This means that only somewhat more than half of manufacturing production is designated for the local market, with the rest being exported. This phenomenon is even more pronounced in certain industries within the manufacturing sector, in which more than 80 percent of revenues are derived from exports. In contrast, there are industries in which all output is destined for the local market and which do not compete in markets abroad.

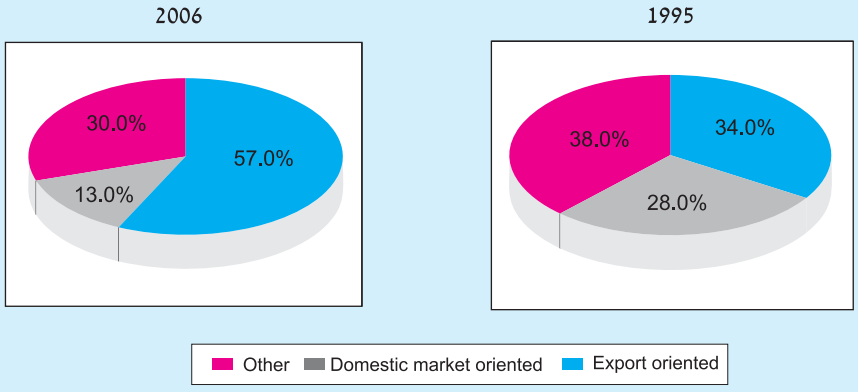
In order to assess the degree of specialization in manufacturing exports, we divided the manufacturing sector into three groups according to proportion of sales revenue from abroad. The first group includes industries whose output is oriented towards export. The industries in this category derive more than two-thirds of their sales revenue from exports. This group includes electronic components (industry 32), electronic communication equipment (industry 33) and industrial control and monitoring equipment (industry 340). The second group includes industries whose output is primarily destined for the local market (less than two-thirds of their sales revenue originates from abroad). The group includes industries such as food,[7]

[7] Apart from "processed fruits, vegetables and fish" (industries 141 and 142).

beverages, paper and wood and wood products (industries 14–16, 20 and 21). The rest of the industries were classified into the third group.[8]

Figure 7.2 presents the breakdown of manufacturing exports according to the three groups described above for the years 1995 and 2006. In 1995, manufacturing exports were almost equally divided between export-oriented industries, domestic-oriented industries and the rest. This means that during that period, the export-oriented and domestically-oriented industries contributed about equally to exports. Between 1995 and 2006, the share of the export-oriented industries rose and that of domestically-

Figure 7.2
Specialization in Exports: the Share of Export Oriented Industries, Domestic Market Oriented Industries, and Other Industries in Total Goods Exports, 1995-2006



Export oriented industries: industries whose sales abroad constitute more than two-thirds of their revenue.
Domestic market oriented industries: industries whose domestic sales constitute more than two-thirds of their revenue.
Other industries: industries whose sales abroad constitute between one-third and two-thirds of their revenue.
The division of industries into the three groups was carried out separately for 1995 and 2006.

SOURCE: Based on Central Bureau of Statistics data.

oriented industries declined. This illustrates the process of specialization in exports, as a result of which export-oriented industries now produce the majority of manufacturing exports while domestically-oriented industries produce only a small proportion.[9]

Industries with more than two-thirds of their sales abroad find it difficult during periods of low foreign demand to shift their sales to the local market and thus are highly dependent on the situation in foreign markets. Thus, for example, more than 85 percent of the revenues of the pharmaceutical industry derived from sales abroad in 2006 as clearly domestic demand is small relative to the quantity exported. Another

[8] The classification of the industries into groups was done according to industrial category on the three-digit level.

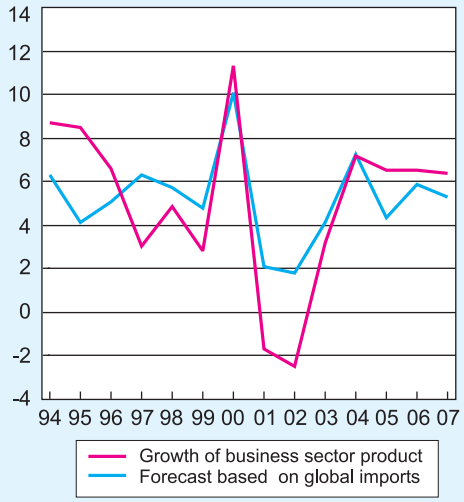
[9] The categorization into three groups was done separately for 1995 and 2006.

example is the telecommunication equipment industry in which foreign sales account for more than 80 percent of revenue. These two branches are relatively large and make an important contribution to exports (accounting for 23 percent of manufacturing exports, excluding diamonds, in 2006). Thus, the specialization process has reinforced the link between global demand, growth in exports and business output (see Box 7.1).

Box 7.1
The effect of foreign demand on business sector exports and output

The added value of exports constitutes part of GDP and thus it is of interest to examine the effect of exports on GDP. However, since exports and GDP tend to move together and each affects the other, it is difficult to determine to what extent the growth in GDP is influenced by the growth in exports using the correlation between them. To illustrate, when exports manage to penetrate new markets abroad, it leads to growth in GDP, but when the rise in GDP derives from technological progress, there is no causality between GDP and exports. In both cases, the data show a correlation between exports and GDP but, as mentioned, in only one of them does growth in exports lead to growth in GDP.

Figure A
Growth of Business Sector Product and Changes in Exports (which depend on volume imports of the US and the rest of the world), 1994-2007



SOURCE: Central Bureau of Statistics, World Trade Organization, IFS and Bank of Israel.

Globalization and the process of specialization in exports have created a partial differentiation between goods destined for exports and goods destined for the local market. Many of the goods destined for export have no local market and in general it is difficult to sell goods destined for the local market abroad. As a result, foreign demand has a strong effect on Israel's GDP through its influence on exports.

The strength of the link between Israel's exports and foreign demand was estimated using a linear regression, in which the annual quantitative change in the export of goods from Israel (excluding diamonds) is a function of

the quantitative change in the world import of goods. It was found that the quantitative volume of world imports[1] explains about 50 percent of the annual variation in the growth of Israel's export of goods during the last 25 years. No other explanatory variable had an effect on Israel's export of goods and certainly not of that magnitude. The calculation of the effect of foreign demand on Israeli exports shows that growth of one percent in the imports of the US and the rest of the world increased (on average and during the sample period) Israel's export of goods (excluding diamonds) by a rate of 1.4 percent.[2] The regression also shows the relative importance of US demand for Israel's exports.

The close link between world quantitative imports and Israel's exports and the exogeneity of world imports from the viewpoint of the Israeli economy enables us to identify the effect of foreign demand on business sector output through its influence on exports using a two-stage least-squares regression.[3] The regression was run using annual data for various sub-samples during the last 30 years. The explanatory power of the second-stage regression is a result of the changes in world demand, exports and business sector output during the last decade. As mentioned above, this phenomenon is explained by the process of specialization in exports, which creates the close link between world demand, exports and business sector output. An analysis of the regression coefficients shows that an increase of one percent in the quantitative imports of the US and the rest of the world contributed from 0.25–0.5 percent (and perhaps somewhat more) to the growth in Israel's business sector output during the last decade.[4]

[1] World imports enter the regression through two explanatory variables: quantitative US imports and quantitative imports of the rest of the world.

[2] The elasticity of greater than one between world imports and Israel's exports is explained by the large proportion (45 percent) of hi-tech exports in Israel's total manufacturing exports as compared to only 21 percent in world imports and the fact that trade in hi-tech goods is one of the leading factors in the growth of world trade.

[3] In the first stage, growth in exports was estimated as a function of world imports, as described above, and in the second stage the growth in business sector output was estimated as a function of the growth in exports (obtained from the first stage).

[4] The effect of world demand on business sector output through the influence of the export of goods appears to be significant, since the added value of the export of goods accounts for about 10 percent of business sector output. However, it should be remembered that part of the estimated effect reflects the link between world demand and the export of services and its contribution to business sector output. An elasticity of 0.25–0.5 of business sector output with respect to world demand is in line with the elasticity derived from the Research Department's macroeconomic model, which is used to produced forecasts of GDP and business sector output.

Figure 7.3 presents the annual quantitative change in the export of goods (excluding diamonds) compared to its forecast. The forecast was derived from a linear regression in which the dependent variable is the quantitative change in exports and the explanatory variables include the quantitative change in US imports and the

Figure 7.3
The Growth of Goods Exports (Excluding Diamonds) and Forecast of Export Growth Based on the Volume of Global Imports, 1994-2007

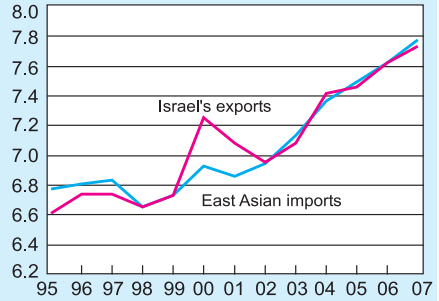
SOURCE: IFS and Bank of Israel data.

quantitative change in the imports of the rest of the world. The forecast of exports is based on the quantitative index of world imports in which US quantitative imports have a weight of about 50%. Figure 7.3 illustrates the extent to which world imports can explain Israel's exports in recent years. The small drop in the growth of the export of goods (excluding diamonds) in 2007 is in line with the quantitative decline in the weighted imports of the US and of the rest of the world in that same year.

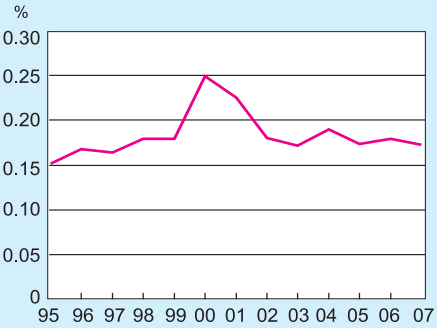
In the last six years, Israel has maintained a stable market share in East Asia. This supports the hypothesis that in the short and medium run Israel's exports and foreign demand are closely linked.

The growth in Israel's exports to the Far East continued this year, although at a somewhat slower pace that total exports. Figure 7.5b shows that during the last six years, Israel has maintained a stable share of these markets. The comparison of Israel's exports to the Far East relative to its exports to the OECD (Figure 7.4c) is meant to neutralize the possible effect of the growth in regional

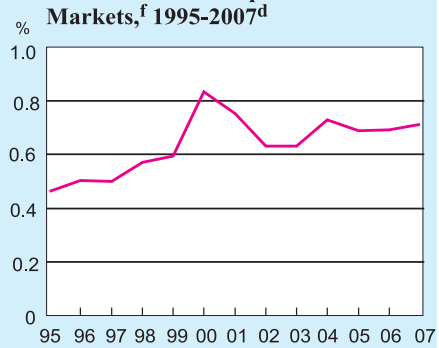
Figure 7.4
A. Israel's Goods Exports[a] to East Asian Emerging Markets,[b] and Those Markets' Goods Imports,[c] 1995-2007[d]
(Logarithmic scale)[e]



B. Israel's Share[a] of Goods Imported[b] by East Asian Emerging Markets, 1995-2007[d]



C. Israel's Goods Exports[a] to East Asian Emerging Markets Relative to OECD Goods Exports to Those Markets,[f] 1995-2007[d]



[a] Excluding diamonds.
[b] China, India, Indonesia, Taiwan, South Korea, Singapore, Philippines, Malaysia and Thailand.
[c] Excluding fuel.
[d] 2007 data are estimates.
[e] The logarithmic scale is based on data in current dollars.
[f] Excluding Japan and South Korea, both of which are part of the East Asian geographical region.
SOURCE: Based on data from the Central Bureau of Statistics and the OECD.

trade in the Far East. It was found that Israel's market share remained unchanged in recent years, which provides support for the hypothesis that there is a very close link between Israel's exports and foreign demand in the short and medium term.

The export of services grew this year by about 7 percent. It is composed essentially of three components: other business services (65 percent), which includes software services, R&D and other services, transportation services (20 percent) and tourist services (15 percent). The growth in the export of services this year was led by tourist services and transportation services. The added value in the export of transportation services is low and therefore its contribution to the growth in output is small. In contrast, the added value of tourist services and other business services is high and therefore their contribution to the growth in GDP is significant. This year, in contrast to 2006, the rate of growth in the export of other business services (of which about 50 percent are hi-tech services) was more moderate than that of the export of goods and services and was not a leading factor in the growth of total exports.

The export of services grew this year by 7 percent. The export of tourist services grew this year at a rapid rate of 17 percent and its contribution to business sector output was estimated at about 0.2 percent points.

The export of tourist services grew rapidly this year at a rate of 17 percent and its contribution to the growth in business sector output was estimated at about 0.2 percentage points. The recovery in the tourism industry following the second Lebanon war lasted for a period of 6–8 months, which was somewhat longer than the recoveries following the first and second Gulf wars. The proportion of the tourism industry in the total export of goods and services (excluding diamonds) is similar now to what it was in 2005 (about 4 percent). Although this is a relatively low figure, the tourist industry makes an important contribution to growth, as mentioned above. The industry has a high added value and depends on unskilled workers, among whom unemployment is over 10 percent.

Box 7.2
The slowdown in the US and its influence on Israel's exports

In 2006, following a number of years of rapid growth in the US, the deficit in the US current account reached 6.2 percent of GDP, which is considered large and non-sustainable. In 2007, a process of adjustment began: the dollar weakened relative to most of the world's currencies, the rate of growth in US imports of goods slowed and the upward trend in the current account deficit was halted (although it remained high at 5.7 percent of GDP). The financial crisis in the US is also expected to lead to a slowdown in private consumption and imports already in 2008.

The US is one of Israel's most important export markets. Thirty percent of Israel's exports of goods (excluding diamonds) during 2000–06 went to the US and the contribution of exports to the US to the growth in total exports during that period was even higher. Thus, during that period, total exports of goods (excluding diamonds)

in current dollar terms grew at an annual rate of 8.6 percent and the growth in annual exports to the US contributed 34 percent of this increase on average.

The slowdown in US imports of goods in 2007 was already felt in Israel's export data (Table 1).[1] The more serious slowdown expected in US imports is liable to have an even greater effect on the growth of exports and to slow the growth in GDP. Based on the assumption of unitary elasticity between Israel's exports to the US and US imports, the direct effect of US imports on Israel's total exports can be derived: as the US absorbs 30 percent of Israel's exports, each one percent decline in US imports reduces Israel's exports by 0.3 percent. This is only the direct effect since the slowdown in US imports from other countries will have an influence on Israel's exports.

Table 1

The Increase in Israel's Goods Exports (Excluding Diamonds),[a] by Region, 1997–2007

	Share[b]	1997–2000	2001–03	2004	2005	2006	2007
				percent			
Total exports	100	11.8	-2.4	22.1	8.3	14.7	16.4
Exports to US	31	16	-2.9	16.4	9.8	26.6	4.2
Exports to EU	34	7.6	-3.1	20	11.1	12.1	19.4
Exports to rest of the world	35	13.2	-1.3	28.5	4.9	8.0	24.4

[a] In current dollars.

[b] In 2006.

SOURCE: Central Bureau of Statistics.

Israel's export of goods is hi-tech-intensive. Thus, more than 60 percent of the export of goods (excluding diamonds) during the last decade was accounted for by hi-tech and medium-hi-tech goods. These branches contributed more than 75 percent of the growth in exports during the last two decades. In many cases, these are not finished goods but rather intermediate goods or production factors for innovative products, which are exported by Israel to countries in which the final product is made and then shipped to the US or to one of the other developed countries. The slowdown in US demand will lead to a drop in the production of these advanced goods in the producer countries and as a result also in Israel's exports to these countries. This represents the indirect effect of the US market, which, as can be seen from the data, has a major effect on Israeli exports.

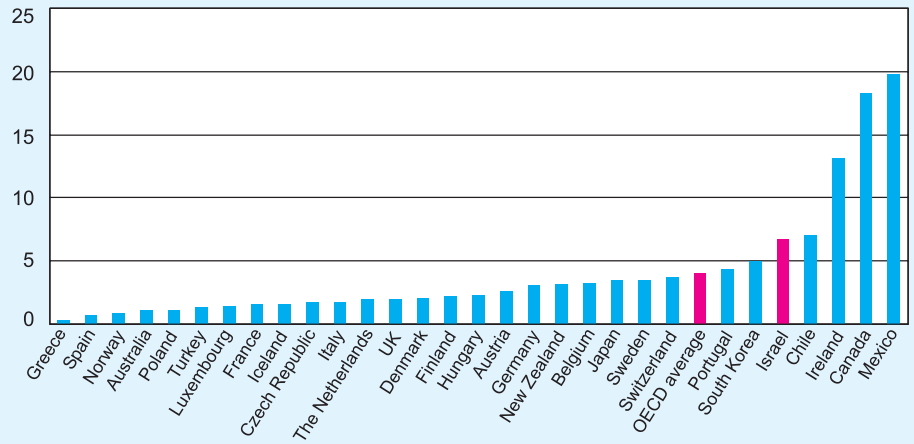
The combination of the direct and indirect effects of the slowdown in US imports on Israel's exports is estimated using the regression described in Box 7.1. The regression

[1] In order to avoid conclusions on the macro level that are the result of a particular industry, we also examined the growth in exports to the US without the pharmaceutical industry (which accounted for about one-quarter of the exports to the US in 2005–6) and came to a similar conclusion: exports to the US, excluding pharmaceuticals, hardly grew this year.

results show that a decrease of one percent in the rate of growth of US imports leads to a reduction of 0.6 percent in Israel's total export of goods (excluding diamonds)[2] and a reduction of 0.15–0.25 percent in the growth of business sector output. This is double the direct effect of US imports on Israeli exports and is evidence of the importance of the indirect effect, which acts through the demand for Israeli goods in third countries.[3]

The weight of exports to the US in Israel's total exports is double that of the US in world imports, which is an indication of the importance of the US market for Israel, relative to other countries. Exports to the US as a percent of GDP in comparison to other countries paints a similar picture: in 2006, Israel's export of goods to the US (excluding diamonds) stood at 6.7 percent of GDP compared to only 4 percent of GDP for the OECD countries. This level of exports to the US puts Israel in fifth place among OECD countries, after Canada and Mexico (which border the US and whose exports to the US equal more than 18 percent of their GDP) and Ireland and Chile. The importance of the US market to the Israeli economy in comparison to its importance to most other developed countries indicates that the effect of the expected US slowdown on Israel is likely to be of greater magnitude than for other countries.

Exports to the US (excluding fuel)—Israel and OECD Countries, 2006 (percent of GDP)



SOURCE: Based on United States International Trade Commission and IFS data.

[2] Not all of the reduction in exports as a result of the slowdown in US imports is manifested in the net goods account since the slowdown in exports also creates pressure for a slowdown in imports.

[3] It is possible that part of the link found between the demand for Israel's exports in the various countries is an indication of the link between exports and variables that are exogenous to the economy and correlated with world demand. An example of this would be the variable representing the productivity of tradable goods industries in the US which is likely to influence Israel's exports by trickling down to Israel's tradable goods industries.

Despite the above, it is important to mention that in the medium and long term the growth of exports and its contribution to the growth is mainly determined by the ability to maintain Israel's relative advantage in its technological industries. This relative advantage is what will make it possible to penetrate new markets and to maintain growth. Israel's proportion of world trade is tiny and therefore there is significant potential for growth. Thus, for example, Israel's proportion of world trade in electronics is about 0.5 percent. Although in certain sub-categories, Israel's exports constitute significantly more than 0.5 percent of US and EU imports (and in some cases reaches 10 percent) there still exists potential for growth, particularly through the expansion of manufacturing and service exports in other sub-categories and to other countries, in which Israel's market share is smaller.

c. Imports

The import of goods and services grew by 12.3 percent, which is an exceptionally high rate relative to the rate of growth of less than 5 percent in the previous two years.

The import of goods and services rose by a rate of 12.3 percent this year, which is an exceptionally high level relative to the slow rates of growth (less than 5 percent) during the previous two years. The growth in imports this year is the macro effect of the increase in private consumption and investment. It is also the result of the decline in the relative price of imports—particularly the price of consumer and investment goods whose demand is relatively elastic. The rapid growth in imports was due to both goods and services. The import of consumption goods rose by more than 20 percent and the import of investment goods rose by a similar amount. The import of "other business services," which includes all services apart from tourist, transportation and insurance services, rose by a rapid rate of more than 30 percent (in current dollars) and the import of tourist services (travel abroad) rose by 10 percent in real terms. The import of raw materials (excluding diamonds and fuel) rose more slowly, at a rate of only 5 percent (Table 7.5).

The price of imported consumption goods dropped sharply this year by a rate of close to 8 percent relative to the CPI. The price of imported investment goods relative to the price of output fell by 5.3 percent and the relative price of raw materials fell by 5 percent.

Table 7.6 presents the changes in the prices of imports relative to local prices. The price of imported consumer goods fell sharply this year by almost 8 percent relative to the CPI and the relative price of imported durables fell by an even larger amount. It is reasonable to assume that the elasticity of consumer good imports relative to their price is high, so that the fall in the relative prices of imports certainly contributed to the exceptionally large increase in the import of consumer goods this year.[10]

The prices of imported raw materials and investment goods were analyzed relative to output prices. The relative price of imported investment goods fell by 5.3 percent and the relative price of raw materials fell by 4.9 percent. The elasticity of the import

[10] It is difficult to calculate the contribution of the reduction in taxes on imported consumption goods to the decline in the relative price of these goods though it appears that its influence was small relative to the magnitude of the drop in price.

Table 7.5
Goods and Services Imports, 2000–07

	2007		Volume change (percent)				
	Composition (percent)	$ billion	2000-2003	2004	2005	2006	2007
Goods and services	100	73.8	1.0	11.9	4.5	2.4	12.3
Goods and services excluding diamonds	87	64.1	0.4	11.3	6.2	5.3	14.3
Goods	76	55.8	0.4	10.9	3.8	1.3	9.8
1. Goods (excluding fuel and diamonds)	50	37.2	-1.2	12.2	5.6	7.1	13.0
Consumer goods	10	7.5	2.3	12.2	6.3	9.2	23.4
Of which Durables	5	3.5	-1.5	18.6	8.4	8.8	37.9
Production inputs[a]	29	21.4	-1.4	14.7	1.8	6.2	6.5
Investment goods	12	8.6	-3.4	10.4	7.9	7.9	23.2
2. Fuel	12	8.9	3.2	-4.2	8.7	-6.3	5.5
3. Diamonds	13	9.6	4.7	15.2	-3.5	-13.8	-1.1
Services	24	18.0	2.7	14.7	6.5	5.3	18.9

[a] Excluding fuel and diamonds.
Data on the volume of imports in this Chapter are based on balance of payments data, and differ slightly from the National Accounts data.
SOURCE: Central Bureau of Statistics.

of raw materials relative to price may be reasonably assessed as low due to the lack of import substitutes for these goods. On the other hand, it seems that the drop in prices of imported investment goods contributed to the rise in their imports.

The increase in the prices of raw materials (including fuel), for which demand is relatively inelastic, contributed this year to the significant increase in imports in terms

Table 7.6
Change in the Relative Price of Goods Imports, 1998–2007 (percent)

	1998–2002	2003	2004	2005	2006	2007
Imported consumer goods prices relative to the CPI	0.7	2.6	1.4	-1.3	0.9	-7.8
Imported non-durable goods prices relative to the CPI	0.1	1.3	1.0	0.0	2.3	-6.6
Imported durable goods prices relative to the CPI	1.4	4.2	2.0	-2.8	-0.7	-9.7
Imported investment goods prices relative to the GDP deflator	0.6	1.3	0.6	-3.2	-3.9	-5.3
Imported raw materials prices (excl. fuel and diamonds) relative to the GDP deflator	0.5	1.0	-0.3	-3.6	-3.6	-4.9
Fuel prices relative to the GDP deflator	6.5	8.2	25.1	36.3	14.7	4.4

SOURCE: Central Bureau of Statistics.

of current dollars. The import of fuel totaled about $9 billion which represents about 5.5 percent of GDP as compared to 2.7 percent during 2001 and 2002. Following five years of sharp increases in the price of oil, it is still difficult to identify a significant change in the quantity of oil imported; however, it is reasonable to assume that in the long run the increase in the price of oil will lead to changes in consumption habits, increased efficiency in energy use and a transition to alternative energy sources.

d. The shifting of trade

The decline in the relative price of goods imported from the US led to an expansion of imports from the US.

In 2007, the dollar weakened significantly relative to the euro and other currencies. This translated into a decline in the price of imports from the US relative to imports from the rest of the world. The drop in the relative price of imported goods from the US is expected to bring about an expansion of imports from the US already in the short term.

The identification of the expansion in imports from the US is not simple. There are no quantitative figures on imports from the US and we must make do with a comparison of imports measured in terms of current dollars. The difficulty with this type of comparison, which involves the nominal measurement of imports, is that the weakening of the dollar, in and of itself, increases imports from the EU (measured in current dollars for purposes of comparison with imports from the US) and in fact works to reduce the proportion of the US in imports. Only a significant quantitative change in imports from the US can change the trend and lead to an increase in the proportion of imports from the US.

Table 7.7 presents the proportions of the US, the EU and the rest of the world in Israel's total trade. The table shows a decline over time in the share of the US and

Table 7.7
Geographical Distribution of Goods Imports and Exports (Excluding Diamonds), 1998–2007 (percent)

	1998–2002	2003	2004	2005	2006	2007
			Exports			
US	28.8	29.2	27.9	28.3	31.2	27.9
EU	36.4	34.2	33.6	34.5	33.7	34.6
Other	34.8	36.5	38.5	37.2	35.1	37.5
			Imports			
US	22.7	18.0	16.9	14.9	13.4	14.9
EU	43.4	41.6	39.8	37.3	37.1	35.5
Other	33.9	40.4	43.3	47.8	49.4	49.6

SOURCE: Central Bureau of Statistics.

the EU in Israel's imports and an increase in imports from the rest of the world. This is a result of globalization and the increase in Israel's imports from countries with a relatively low per capita GDP. In view of this trend, the increase in the share of imports from the US by 1.6 percentage points is particularly noticeable and can reasonably

be attributed to the decline in the relative price of imports from the US. Taking into consideration the nominal effect of the weakening of the dollar, as described above,[11] it appears that the shift to imports from the US was considerable.[12]

As in the case of imports, the weakening of the dollar is likely to lead to a shifting of Israeli exports from the US to other countries. This may be the result not only of the weakening of the dollar but also of the decline in US demand for imports. The proportion of export of goods (excluding diamonds) to the US declined this year by three percentage points. It can be assumed that the weakening of the dollar contributed somewhat more than one percentage point to the reduction in the proportion of the US in exports (the effect that was described above) apart from the quantitative change in exports. It is reasonable to assume that part of the remaining reduction in the proportion of the US in total exports was a result of the shifting of exports to other countries, which was due to the weakening of the dollar and the decline in US demand for imports.

e. The income account and current transfers

The income account was balanced this year.

The income account was balanced this year, similar to last year and compared with an average of 3.6 percent of GDP during the period 1995–99. The improvement in the income account this year was a result of the improvement in the investment account, i.e. an increase of about $2 billion in income from investments as compared to an increase of only about $1.1 billion in expenses. The net payments abroad for salaries remained unchanged this year at about $2 billion.

The increase in the short-term interest rate on foreign currency, particularly on the dollar, was an important factor in the changes in the income account during the last three years. A large portion of the foreign debt assets held by Israeli residents are short- and medium-term investments and therefore the return on these investments is sensitive to short-term interest rates. In contrast, a large proportion of the investments held by foreign residents in the form of debt assets in Israel is in long-term government bonds with fixed interest rates. The return on these investments does not change over the life of the bond and therefore their sensitivity to short-term interest rates is minimal.[13]

Figure 7.5 presents the yields on the investments of Israeli residents and of foreign residents in debt assets, as well as the short-term dollar interest rate.[14] It shows the sensitivity of the income of Israeli residents from debt assets relative to the interest

[11] Without the change in quantitative imports, the weakening of the dollar by 9 percent relative to the euro (as occurred this year) and the rest of the world currencies leads to a decrease in the proportion of imports from the US by one percentage point.

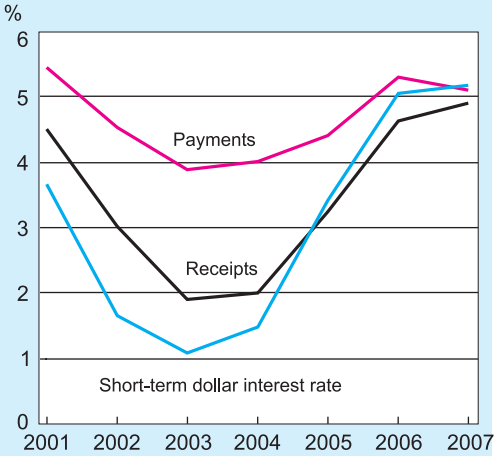
[12] If we look at the share of import of goods according to country, excluding vehicles, ships and planes (this year there was a one-time import of planes from the US), the shifting of imports to the US this year decreased to 0.7 percentage points (instead of 1.6 percentage points).

[13] Changes in the yield on government bonds are expressed as changes in the bonds' prices and are not relevant to the balance of payments.

[14] The yield on the investments was calculated as the ratio between the income on debt assets in a particular year and the balance of debt assets at the end of the year that preceded it.

rate, as compared to the smaller effect of the interest rate on the yield that foreign residents receive on the debt assets they hold. An attempt to estimate the effect of the short-term interest rate on income from net investments shows that an increase in the short-term interest rate on the dollar from one percent in 2003 to an average of 5 percent in 2007 increased income by about $2.5 billion.

Figure 7.5
Yield on Israelis' Debt Instruments Abroad and on Nonresidents' Debt Instruments in Israel,[a] and the Short-Term Dollar Interest Rate, 2001-07



[a] Receipts/payments divided by assets/liabilities in the previous year.
SOURCE: Based on Central Bureau of Statistics data.

From a longer-term perspective, there has been significant change in the net income account, as well as in gross flows. Thus, during the period 1995–99, the economy made average annual payments abroad of $3.5 billion on debt securities and equity held by foreign residents; the income of Israeli residents from abroad totaled only $1.9 billion during this same period. In contrast, payments to foreign residents in the investment income account totaled $7.2 billion in 2007 and the income of Israelis was even higher at $9.5 billion.

The transition from a deficit in the net investment account to a surplus was the result of: a) the decrease in total net liabilities as a percentage of GDP, and b) the transition of the economy from net liabilities in debt securities to net assets.

The transition from a deficit in the net investment account to a surplus is a reflection of two processes in recent years: The first is the decrease in the net balance of liabilities (in debt assts and equity combined – the net international investment position (IIP)) as a percentage of GDP. Thus, during the period 1995–99, the balance of the economy's foreign liabilities stood at an average of 32 percent of GDP as compared to 16 percent of GDP in 2007. The drop in net liabilities works to reduce net payments abroad in the income account. The second process is the transition of the economy from net liabilities in debt securities to net assets. This resulted from investment by foreign residents in equity in Israel and the investment these proceeds by Israeli residents in debt securities abroad, and from the surplus in the current account which also led to the accumulation of debt securities abroad. Since the yield on equity owned by foreign residents is relatively low,[15] the exchange of securities between Israeli residents and foreign residents contributed to the improvement in the income account.

[15] There are a number of possible explanations for the low yield received by foreign residents on equity assets: First, foreign residents benefit from an increase in the value of firms they hold, which is not reflected in the balance of payments; second, part of the yield on the assets of foreign residents is not recorded in the income account but rather in the services account; and third, part of the investment by foreign residents essentially involves the purchase of services that were incorrectly recorded in the economy's balance of assets and liabilities and thus, total investment by foreign residents in Israel is lower than that recorded in the balance of assets and liabilities.

Table 7.8
Israel's International Investment Position, 1995–2007 ($ billion)

	Net liabilities			Assets			Liabilities		
	Total	Equity	Debt Instruments	Total	Equity	Debt Instruments	Total	Equity	Debt Instruments
1995–1999	34.0	20.4	13.6	43.7	1.0	42.7	77.6	21.4	56.2
2000	50.8	44.5	6.3	68.2	8.0	60.1	119.0	52.6	66.4
2001	35.5	34.2	1.3	72.2	7.3	64.9	107.7	41.5	66.2
2002	27.3	28.0	-0.7	78.0	7.9	70.1	105.3	35.9	69.3
2003	34.0	39.2	-5.1	88.9	11.8	77.1	122.9	51.0	72.0
2004	32.1	42.2	-10.1	105.1	18.1	87.1	137.2	60.3	76.9
2005	30.6	51.0	-20.3	122.0	25.4	96.6	152.7	76.4	76.3
2006	13.6	45.9	-32.3	160.2	42.8	117.4	173.9	88.7	85.1
2007	24.5	65.3	-40.8	179.7	51.8	127.8	204.1	117.1	87.0

SOURCE: Central Bureau of Statistics.

Current transfers totaled $7.3 billion in 2007, which represents 4.5 percent of GDP. During the past four years, current transfers totaled less than 5 percent of GDP on average, as compared to 5.8 percent of GDP during the period 1995–99 and 8.2 percent of GDP during 1990–94. The decrease in current transfers as a percentage of GDP is a result of the real decline in transfer payments from the US government, a relatively fixed nominal level of compensation from Germany and the growth in the economy. Despite these factors, current transfers, which primarily consist of donations to institutions in Israel, remained stable.

2. THE FINANCIAL ACCOUNT

a. The net financial account and main background conditions

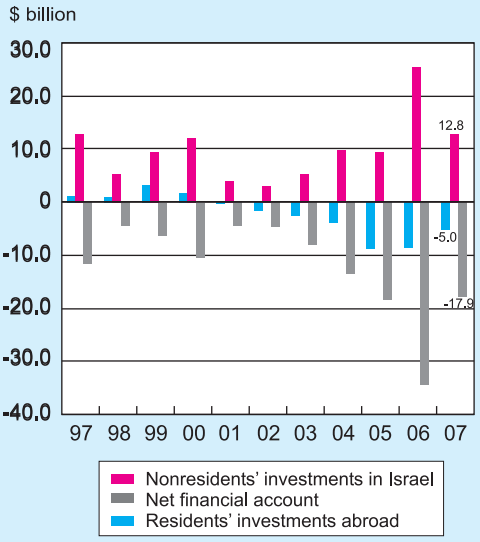
i. The net financial account

The net financial account deficit totaled about –$5 billion in 2007. Since 2001, Israeli residents have been net investors abroad and their total foreign investments reached a peak in 2005–06 (see Figure 7.6). The transition to net investment abroad occurred against the background of the move to a surplus in the current account, the growth in the economy's assets abroad, structural changes in retirement savings and an ongoing deficit in the US trade account.

The high volume of investment by foreign residents in Israel and by Israeli residents abroad continued in 2007 though they did not reach the exceptionally high levels of

2006.[16] This occurred against the background of the financial crisis in world markets and despite only a small number of large-scale investment transactions. The moderate influence of the crisis on the economy in 2007, relative to its potential, was evidence of the economy's resilience to shocks. In addition, the lack of exceptionally large investment transaction is an indication that the substantial scope of investment flowing into and out of the economy is a result of long-term influences on the financial account. These primarily include accelerated economic growth, globalization and technological progress (which worked to increase direct incoming and outgoing investment), as well as structural changes in retirement savings, which brought about an increase in investment by Israeli residents in traded securities.

Figure 7.6
Nonresidents' Investments in Israel, Residents' Investments Abroad, and Net Financial Account, 1997–2007



SOURCE: Central Bureau of Statistics.

Net FDI (Foreign Direct Investment)[17] returned to being positive and totaled about $3.2 billion. In recent years, there has been a noticeable absence of trend and high annual volatility in the net flow of FDI. The positive flow of net FDI is an indicator of the desirable growth in basic long-term investment, which is considered to have a larger effect on growth than other types of investment.

ii. The effect of global trends on financial markets and real activity

The Israeli economy was influenced by global trends.

The improvement in the economy's fundamental conditions increased its attractiveness to foreign investors. On the other hand, Israel's increasing integration within the global economy means that it is affected to a greater extent by trends in the flow of international capital. These trends include: the increase in direct investment, particularly by way of mergers and acquisitions; the export of capital from developing economies to developed ones, including a significant flow of direct investment (which has been particularly evident in the US due to its fiscal and current account deficits in contrast to the saving surpluses in the emerging economies); and the increased flows of portfolio investment between economies, and the increasing correlation between them, particularly in a period of shocks.

[16] In 2006, there were a number of exceptionally large investment transactions (Teva's investment in IVAX and the sale of Iscar) and a one-time structural change (the investment in government bonds as part of the market-makers reform).

[17] Direct investment is investment in non-tradable assets or in tradable assets where the percentage of holdings is greater than 10 percent.

Global economic and financial conditions during most of 2007 encouraged investment in the economy and the economy's investment abroad.[18] Strong growth continued worldwide and inflation remained under control despite the rise in the prices of oil and food. Liquidity surpluses and low assessments of risk drove activity in the financial markets until the onset of the financial crisis. The US economy suffered from the persistence of the twin deficits—fiscal and current account—from the dilemma of how to use interest rate policy, due to inflationary pressures on the one hand and the credit crunch on the other; and the increased fear of a recession, which was being fed by monetary restraint and the financial crisis. Other developed economies remained stable and the emerging economies enjoyed continued growth and convenient and abundant financing.

The conditions in the global credit market worsened significantly starting in July with the development of the financial crisis.[19] The reappraisal of credit risk led to increased volatility and loss of liquidity in the markets; issues of high-yield corporate bonds came to a halt; and the yields on government bonds sank as investors sought refuge in them. In September, the markets got some relief with the cut in US interest rates. This led to a recovery in share prices, which had declined as a result of the crisis.

The emerging economies benefited in 2007 from capital flows that originated in their current and capital account surpluses. The capital flows to emerging economies have continued at an accelerated pace in recent years. These have primarily been in the form of direct investment though investment in tradable securities grew at a faster pace. In emerging economies, direct investment is driven by forecasts of growth. There were also capital flows in the form of bank loans and bond issues in the international markets (denominated in foreign currency), which facilitated a boom in credit and consumption. Economies with high revenues from oil ("petrodollars") increased their direct investments in the developed economies and economies with a surplus in their current accounts increased their savings in the form of foreign reserves.

During the financial crisis, the emerging economies displayed a relatively high degree of resilience. Although they experienced capital outflows as a result of the crisis, the damage was minimal since the main effect of the crisis was felt in complex financial vehicles, which are not characteristic of the investment in the emerging economies and also because the emerging markets had reduced their external vulnerability by, for example, shrinking their national debt. Nonetheless, the emerging markets that experienced increased short run activity suffered from financial pressure. The accelerated growth in private credit that had characterized these economies came to a halt at the end of 2007. The effects of the financial crisis on **Israel's** financial account were only moderate and were manifested primarily in the selling of shares and bonds in Tel Aviv, though on a relatively small scale.[20] The crisis also resulted in an increased risk premium on bonds, in losses for Israeli banks abroad from their

The financial crisis had only a moderate effect on Israel's financial account and was reflected primarily in the sale of shares and bonds in Tel Aviv.

[18] The survey is based on, among others, the publications of UNCTAD, IIF, OECD, GFSR and IMF-WEO.

[19] For more details on the financial crisis, see Section 2 of Chapter 4.

[20] Ibid.

foreign investments and from the realization of investments abroad by institutional investors and households. The real estate sector, which is more exposed than other sectors to foreign influences and credit conditions, experienced sharp drops in the prices of shares and an increase in credit spreads.

Many of the trends observed in the financial accounts of emerging economies could also be seen in the Israeli economy. Israel's transition to net investment abroad could also be observed in many emerging economies and was also driven by the US current account deficit. There has been a noticeable increase in inward FDI to the emerging economies which is expected to continue though there is also outward FDI from them, as a result of the activity of multinational corporations that are based in these economies (such as Teva in Israel) and of sovereign wealth funds based there. A manifestation of this in Israel was the turnaround this year in the net investment of the private sector from being balanced in 2005–06 to a negative balance, of –$3.5 billion, this year. The private sector invested more abroad than foreign investors invested in it. We would mention that in Israel, as in other emerging economies, most investment is direct and portfolio investment is more volatile.

One of the phenomena observed worldwide is the increase in investment, particularly direct investment, in sectors influenced by the higher price of commodities, such as energy, alternative energy and food. The Israeli economy can benefit from this trend due to its technological advantage in agriculture and alternative energy ("cleantech"––investment in clean environmental technologies). On the other hand, Israel is not a natural candidate for investment in sectors based on natural resources. This year, there are several indicators of investment with this motive, primarily through direct investment in the Tel Aviv Securities Exchange but also through private investment. The flow of investment in these areas is likely to strengthen in coming years.

iii. Local effects

The positive fundamental conditions of the Israeli economy encouraged investment by foreign residents again this year. Continued growth, the surplus in the current account, fiscal discipline and the continuing effect of the reforms in increasing the efficiency of the financial markets worked to encourage investment. Financial reforms continued and also worked to increase investment abroad by Israeli residents and the diversification of the economy's investment risk. The geopolitical uncertainty that prevailed during the second quarter led to a slowdown in investment in tradable securities.

The resilience of the economy this year was also manifested in the invitation to Israel to join the OECD[21] and the raising of Israel's sovereign credit rating by S&P from 'A–' to 'A'. There is no direct link between these developments and the growing investment in the economy and there are those who feel that the increased confidence in Israel has already had its effect on investment in previous years. An analysis of the

[21] Israel was invited to open discussions for membership of the OECD only in 2007. The acceptance and final approval process has not yet been completed.

future effects of these developments on the capital flows into the economy shows them not to be significant.[22] This was done by looking at the effect of joining the OECD on other countries. It was found that joining the OECD did not significantly increase capital movements beyond the global trends that characterized the control group.

Another hypothesis that was tested[23] states that investment in the economy, particularly in tradable securities, will decline since, as the result of the improved status of the country, it will no longer be considered an emerging economy and therefore will no longer be included by index funds.[24] It was found that foreign investment in economies that were reclassified as developed economies according to MSCI[25] share indices (on which many of the index funds are based) was not affected in the long run.

b. Investment in the economy by foreign residents

The investment in the economy by foreign residents totaled about $12.8 billion in 2007 as compared to about $25.6 in 2006, which was an exceptionally high level.[26] The main aspects of investment by foreign residents in Israel this year were continued FDI and sales of bonds against the background of the completion of the market-makers reform and the financial crisis, especially in the third quarter. With regard to portfolio investment in Tel Aviv, its volatility rose, with cycles of investments and realizations against the background of the fluctuations in international financial markets. Investment by foreign residents—both direct and portfolio—was concentrated in the hi-tech industries while there was a weakening in investment in traditional industries, which had been dominant in 2006.

In recent years, investment by foreign residents in the economy has primarily been in the form of direct investment. A comparison of investment between the periods 1997–2000 and 2001–07 shows a significant increase in direct investment and a significant decrease in other investment (Figure 7.7). During the first period (1997–2000), the breakdown was almost even and the economy enjoyed investment in bonds covered by the US government guarantees and a boom in the hi-tech industries. During the second period (2001–07), there was a decline in issues of bonds under the US guarantees and the hi-tech industries had entered a slump; on the other hand, direct investments in the form of mergers and acquisitions (M&A) increased.

[22] Shelly Rice and Nimrod Mevurach, "The effects of Israel's expected entry into the OECD and the possible transition to the MSCI list of developed countries," internal paper, Foreign Exchange Activity Department, Bank of Israel, October 2007. See also Box 4.4 in Chapter 4.

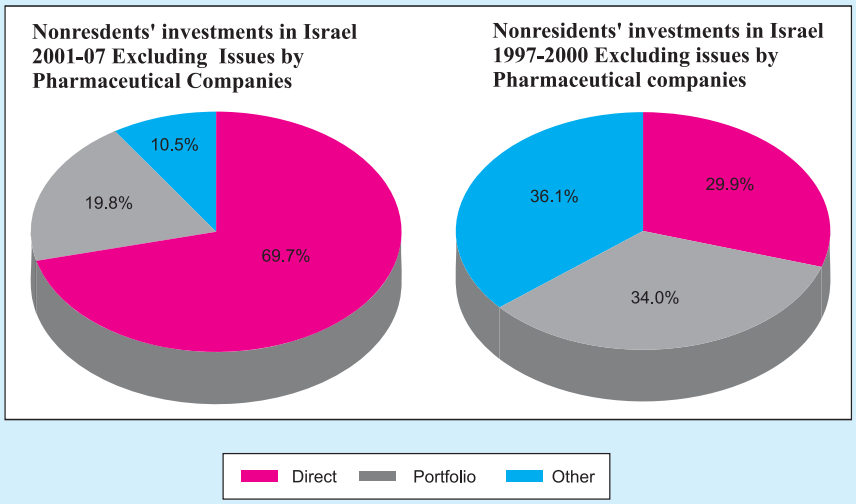
[23] Ibid.

[24] Index funds are international investment funds that invest in emerging markets according to their proportions in widely-followed share indices .

[25] Morgan Stanley Capital International produces indices for shares, bonds and other interest instruments. Investment companies of various types use these indices as a basis for their investments worldwide and create financial instruments that track them, such as ETFs.

[26] See footnote 16.

Figure 7.7
Distribution of Nonresidents' Investments in Israel, by Type of Investment,

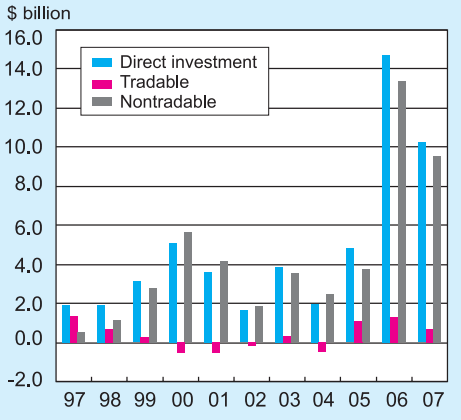


SOURCE: Bank of Israel.

i. Direct investment

The volume of direct investment in 2007 was higher than the average for 2004–06 (Figure 7.8) although it was less than their exceptionally high level in 2006.[27] The degree of concentration in direct investment—measured according to the proportion of large transactions in total investment—again declined this year after growing during the period 2005–06. The high volume of investment was particularly noticeable in view of the exhaustion of the privatization process and the decline in concentration in investment and is likely to be an indication of a broad consensus among investors regarding the attractiveness of long-term investment in the Israeli economy.

Figure 7.8
Nonresidents' Direct Investment in Israel, by Tradability, 1997-2007



SOURCE: Based on banks' and companies' reports.

FDI in Israel is affected by global developments in direct investment. The volume of direct investment worldwide rose in 2006 for the third year in succession in economies

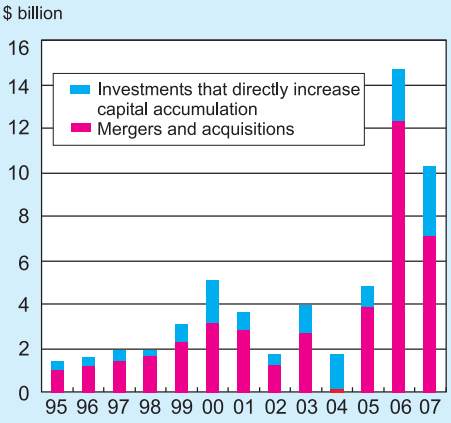
[27] In 2006, the Iscar company was bought for $4.0 billion.

at all stages of development: advanced,[28] emerging and in transition. Direct investment rose by 38 percent and almost returned to its record level of $1,411 billion in 2000. M&A activity of the private equity funds supported this growth. Direct investment in recent years has been driven primarily by investment in the development of natural resources in the emerging economies; from the funds of developing economies that accumulated capital in the weakened American economy; investment by private equity funds that took advantage of convenient financial conditions for the financing of leveraged transactions; and investments by companies in their own industry in order to increase their ability to compete through the purchase of competitors or of companies in complementary industries.

Most of the FDI-related policy changes in 2006 tended to encourage FDI though new restrictions were placed on FDI in a number of countries. The service industry continued to be the leading destination of investment, though investment in the exploitation of natural resources also grew as a result of the surge in commodity prices worldwide.

FDI in Israel is primarily determined by the attractiveness of its hi-tech industries, which is characteristic of developed economies, and by expectations of growth.[29] Most of the flow of investment is made up of a few large transactions that are implemented when their negotiations are completed and which are less influenced by current market conditions. As a result, and due to their long-term nature, it is more accurate to examine averages of investment over time. The growth in direct investment in the Israeli economy is part of the trend that has dominated the world economy in recent years. Most of the direct investment in Israel has been carried out by private equity funds or companies making acquisitions in their area of activity.

Figure 7.9
Nonresidents' Direct Investments, by their Direct Contribution to Capital Accumulation, 1995-2007



[a] According to the dissection of about 80 percent of total direct investments.
SOURCE: Based on banks' and companies' reports.

Direct investment in the form of mergers and acquisitions accounted for the lion's share of investment again this year (Figure 7.9). It is accepted practice to classify direct investment into two categories according to their direct effect on a country's capital stock: a. Direct investment that leads to a direct accumulation of capital (green field,

[28] Source: UNCTAD.

[29] According to a survey of financial managers of multinational enterprises (MNEs) carried out by UNCTAD, the most important factors affecting the decision to make a direct investment in a particular economy are macroeconomic and political stability, the quality of communication infrastructure and the supply and cost of skilled manpower.

reinvested earnings, investment in start-up companies and extension of capacity) and b. Investments that do not lead directly to an increase in capital accumulation but rather involve the transfer of ownership (i.e., M&A).[30] According to empirical studies, investment that leads to the direct accumulation of capital is usually considered to be preferable since it represents an increase in physical capital while the benefit from transfer of ownership is less clear. The transfer of ownership is likely to indirectly increase investment through a number of channels: the creation of access for the purchased company to foreign sources of financing for additional acquisitions, through additional investments in equity towards the improvement and upgrading of productive capacity or through the reinvestment of sales revenue in a more efficient manner. On the other hand, it is possible that direct investment through the transfer of ownership will be used to finance operating expenses rather than physical investment. In any case, the main disadvantages are manifested in the short run while in the long run, the differences between the two types of investment become blurred since both have indirect effects, such as improvements in technology, productivity, management and access to financing.

Direct investment was again concentrated in the hi-tech industries this year (63 percent) following somewhat of a decline in 2006 (45 percent).

There was only limited direct investment on the Tel Aviv Securities Exchange as well, due to, among other things, the exhaustion of the privatization process. In addition, a direct investor who is seeking to gain influence, control or greater freedom of action in a company, will find it more difficult to do so in a publicly-held company. Most of the direct investments in the economy over the years have been in non-traded companies while only a few were in publicly-traded companies (Figure 7.8). Part of the investment made this year in Tel Aviv was due to the struggle for control of an alternative energy company.

Total FDI (as of November 2007) stood at about 5 percent of the total market value of shares and was concentrated in a number of large companies.

This year saw an increase in investment in start-ups. This investment is perceived as evidence of Israel's attractiveness in the area of high-tech.

The investment in start-up companies is one of the clearest expressions of Israel's attractiveness in the area of technology. Additional factors behind these investments include the growth in hi-tech industries in the US and the conditions in the financial markets. This year, there was a limited increase in these investments, which totaled about $1.2 billion as compared to $0.8 billion in 2006. Additional indicators of this activity, such as the accumulation of commitments to venture-capital funds and the comparison to the activity of equity funds in the US, provide evidence of a some strengthening of investment in Israel.

[30] For further details on the phenomenon of mergers and acquisitions and the division of investment between green field and M&A, see Chapter 7 of the 2006 Bank of Israel Annual Report.

Box 7.3
The attractiveness of the Israeli economy for foreign direct investment relative to other countries

This box presents indicators of Israel's international status with regard to FDI as measured by international bodies. Many economies compete for direct investment in a variety of ways, in recognition of the major benefits derived from this type of investment. Countries offer packages of economic, financial and legal incentives in order to attract investors and in certain cases even compete for the funds of specific investors through special packages of incentives. Thus, it is of interest to examine how Israel compares with other countries in this area. This box is based on two reports published this year:

1. The United Nations Committee for Trade and Development (UNCTAD) published a report on international investment in 2007 which contains information on about 200 countries and an analysis of the current trends in direct investment.[1]

The report examines a number of indices . The first attempts to measure potential Foreign Direct Investment (FDI) for each country on the basis real and structural macroeconomic variables relative to those of other countries.[2] Israel is ranked 26th according to this index which is in the upper part of the range and is the same position it held in the previous year. In general, the comparison to previous years shows no major changes in the ranking of countries over time, as would be expected for an index that is composed mostly of long-term variables.

The second index of FDI measures the success of a country in attracting direct investment relative to other countries.[3] Israel improved its position according to this index from 69th in 2005 to 42nd in 2006, which means that in relative terms Israel now enjoys a greater share of global direct investment.

[1] World Investment Report 2007 (WIR07). For further details, see also Box I.c.1 "Foreign Investment in Israel, Potential and Reality" in the 2004 Bank of Israel Annual Report, in the section of the Foreign Exchange Activity Department, pp. 56–58.

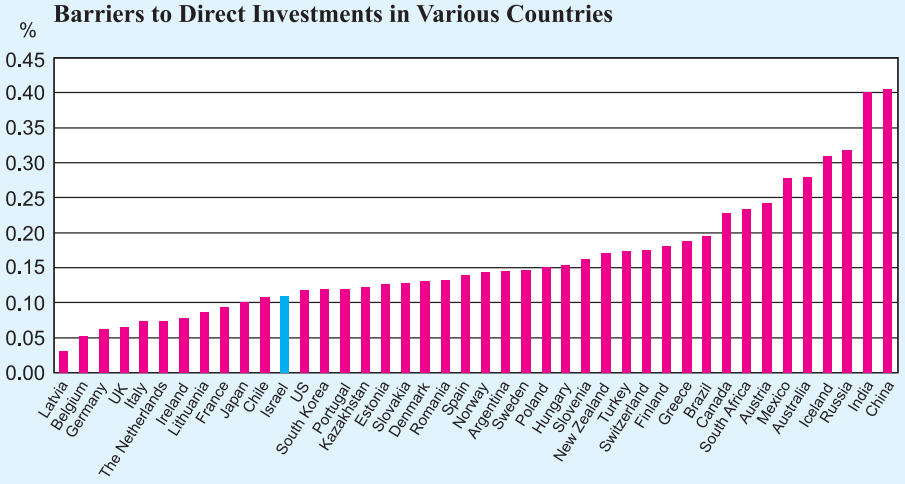
[2] The index for potential FDI is based on 12 economic and structural variables that are measured on a scale of 0 to 1. The variables include per capita GDP, real growth, the proportion of exports in GDP, communication infrastructure (landline and cellular phones per 1000 residents), per capita consumption of commercial energy, the proportion of R&D expenditure in gross national income, the proportion of the population studying towards a PhD, the country's risk, the export of natural resources as a proportion of the world total, the import of electronic and car parts as a proportion of the world total, the export of services as a proportion of the world total and total direct foreign investment as a proportion of the world total.

[3] The performance index for an economy in the area of foreign direct investment measures the scope of direct investment in the country relative to the size of its economy. The index is calculated as the economy's proportion of global FDI relative to its proportion of global GDP.

A third index measures an economy's investment abroad. Israel's ranking on this index rose from 23rd in 2005 to 15th in 2006.[4] The report made special mention of Israel having joined the top 20 countries despite the fact that it is a relatively small economy.[5]

The comparison of the index of performance to the index of potential makes it possible to categorize the various economies into four groups according to the extent to which their potential is being realized—from countries with high levels of potential and performance to countries with low levels of potential and performance. Israel is among the frontrunners in FDI with high levels of both potential and performance. The report also states that according to data for the period 2002–06, Israel's green field initiatives worldwide grew almost without interruption, as did the number of foreign green field initiatives in Israel.

Barriers to Direct Investments in Various Countries



SOURCE: Takeshi Koyama and Stephen Gloub, OECD's FDI Regulatory Restrictiveness Index: Revision and Extension To More Economies, Working Papers on International Investment, Number 2006/4, December 2006.

2. A publication of the OECD examined the extent of regulatory barriers to direct investment in various countries.[6] Regulatory barriers to FDI take many forms and there is an extensive literature that attempts to measure their effect. While barriers are in general treated as a group, in this publication statutory barriers that discriminate

[4] The performance index for an economy in the area of direct investment abroad measures the scope of the economy's direct investment abroad relative to its size. The index is calculated as the economy's share of direct investment abroad relative to its share of global GDP.

[5] As a result of the investment by Teva in IVAX.

[6] "Measuring FDI Regulatory Restrictiveness," *OECD Investment Newsletter*, Issue 3, February 2007 and the source: Takeshi Koyama and Stephen Golub, *OECD's revision and extension to FDI regulatory restrictiveness index: more economies*, working paper on international investment, Number 2006/4, December 2006.

against foreign investors are divided into three categories: the restrictions on foreign ownership, special approval processes that apply only to foreign investors and restrictions on management and operations following an acquisition. The regulations are given a score according to their degree of importance. Thus, for example, the restrictions on foreign ownership were attributed a high degree of importance while approval process and reporting were given low importance. The sum of the scores for all of a country's restrictions is then located on a scale of zero (fully open to foreign investment) and one (prohibition of FDI). The index was calculated for the 29 OECD countries and 13 countries that are not members of the OECD, including Israel.[7] The index itself is calculated on the industry level and the national index is a weighted average of the results for the various industries.

In general, it was found that OECD countries in Europe are open to FDI, due to their membership in the EU. Countries outside the EU were found to have a higher level of restrictions. On the industry level, it was found that the restrictions in each country were quite similar. The restrictions in the electricity, transportation, communications and finance industries were higher than in the manufacturing, tourism, construction and distribution industries.

The Israeli economy received a score of 0.11, which puts it among the countries more open to FDI (see figure on previous page). Israel's score is higher than the average of non-member countries (0.19) and even than that of OECD members themselves (0.15). The report concludes that Israel's restrictions on FDI are at a low level by international standards, which tends to make Israel more attractive to this type of investment.

An analysis by industry shows that in Israel the airline cargo and electricity industries have the most restrictions, as expected. In these two industries, Israel's level of restrictions is higher than both OECD members and non-members. Most of the restrictions in Israel are administrative/operative which follow acquisition; the rest are ownership restrictions. No approval restrictions were found that discriminate against foreign investors.

[7] See footnote 21 to the text.

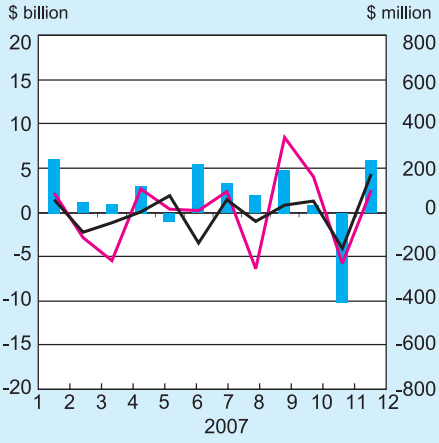
ii. Portfolio investment

The investment by foreign residents in tradable securities totaled about $0.3 billion, which represents a significant decline relative to the high level of investment in 2006 ($8.8 billion).[31]

[31] In 2006, there was a large volume of share and bond issues (about $5 billion) for the financing of Teva's investment in IVAX.

The investment in tradable securities on the Tel Aviv Securities Exchange fluctuates widely from year to year and from month to month as a result of the sensitivity to conditions in the international financial markets and the local geopolitical conditions. The investment by foreign residents is carried out primarily by emerging market index funds (54 percent of their holdings of tradable securities) which focus on large companies. The activity of index funds affects month-to-month fluctuations and results in a high degree of correlation with global markets.[32] There were cycles of investments and realizations again during 2007 that were correlated to a large degree with the investment flows into and out of the emerging economies (Figure 7.10).[33] It is generally thought that the Israeli economy is perceived by foreign financial investors, particularly index funds, as a defensive investment or in other words, that the correlation between the local share index and the share indices in other emerging markets is smaller than one.[34]

Figure 7.10
Nonresidents' Portfolio Investments and Investments in Portfolio Funds in Emerging Markets, 2007



SOURCE: Based on Emerging Portfolio Funds Research data.

The investment in shares in Tel Aviv grew this year, particularly in the first quarter. In subsequent quarters, the pace of investment slowed. There was a large volume of investment in the banking industry ($0.6 billion) and in the traditional manufacturing industries ($1 billion). It is possible that some of the investment in the traditional industries was motivated by increased oil and food prices worldwide. The influence of the financial crisis led to a relatively small amount of selling, which diminished shortly afterward. At the end of 2007, foreign residents held about 16.3 percent of the tradable securities on the TASE, about two-thirds of which was concentrated in the largest companies (the Tel Aviv 25).

On the other hand, there was significant selling of government bonds by foreign residents starting in August. The factors behind this include the financial crisis, the

[32] An analysis showed a correlation of about 0.4 between the index of emerging economies and the TASE index. Ilan Sociano and Michal Zilberberg, *The Israeli Share Index and Various Worldwide Share Indices : Links and Investment Risk*, Foreign Exchange Activity Department, November 2006, http://boisite/deptdata/neumim/neum212h.pdf.

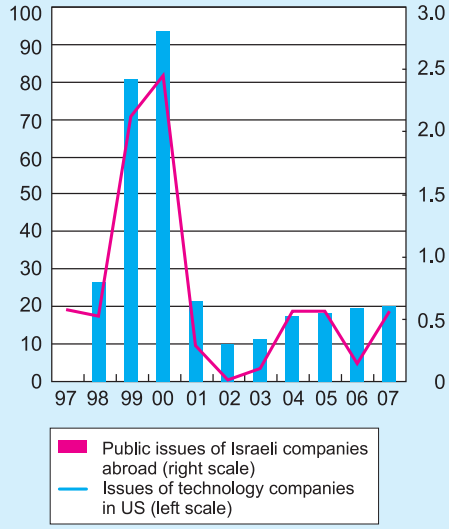
[33] See Section 4 in Chapter 4.

[34] It should be mentioned that it is difficult to calculate the correlation between investments in tradable securities on the TASE and similar investments in emerging economies due to problems in the quality and frequency of the data. Nonetheless, the stability over time of Israel's share in the indices of investment in emerging economies may be evidence of such a connection.

end of the cuts in the shekel interest rate and the increase in the rate of inflation. At the end of 2007, foreign residents held about 3.2 percent of the government bonds traded on the TASE.

The issue of securities abroad by Israeli companies totaled $0.5 billion this year, which included seven initial public offerings (IPO). The total volume of the issues was relatively low due to the scheduled redemption of bonds, though the volume and number of share issues was similar to the average for the years subsequent to the bursting of the hi-tech bubble (excluding 2006, in which a large issue of shares was carried out for a specific transaction). Most of the Israeli companies issuing in the US are hi-tech firms and therefore the demand for hi-tech technology in the US has a significant effect on the volume of issues there (Figure 7.11). Most of the issues this year were on the NASDAQ exchange while the volume of issues on the AIM exchange in London declined.

Figure 7.11
Issues of Technology Shares in US and of Israeli Shares Abroad, 1997-2007 (excl. Issues of Pharmaceutical Companies), ($ billion)

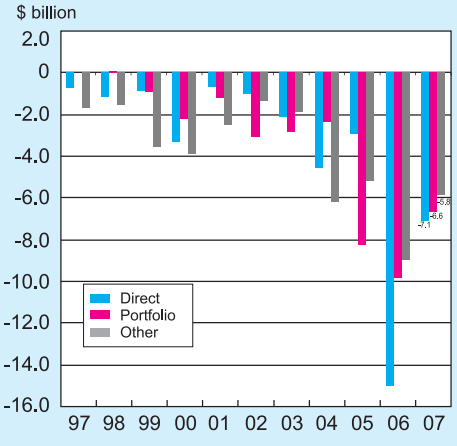


SOURCE: Direct reports of issuing companies and Bloomberg.

c. Investment by Israeli residents abroad

Investment abroad by Israeli residents totaled about $17.9 billion in 2007 as compared to the exceptionally high level of $34.2 billion in 2006 (Figure 7.12).[35] Excluding a single large direct investment, the decline occurred primarily in investment by the banks and the non-banking private sector in foreign bonds. Direct investment continued at a high level, particularly in the real estate industry. The investment in tradable securities was driven primarily by the continued effort by institutional investors to diversify assets abroad, though during the second half of

Figure 7.12
Israelis' Investments Abroad, By Type of Investment, 1997-2007



SOURCE: Central Bureau of Statistics.

The investment by Israeli residents abroad was characterized this year by an acceleration in direct investment by the real estate sector and the continuing large investments by institutional investors in foreign securities.

[35] The sharp drop is due primarily to the implementation of the Teva-IVAX deal in 2006.

the year there was realization of investments abroad as a result of the financial crisis.

The increase in investment by Israeli residents abroad has numerous benefits for the economy: companies are able to increase their efficiency and competitiveness and to expand their markets; households and institutional investors can diversify risk by investing abroad; the possibility for Israeli residents to take their money out of the country makes it easier for the monetary system to neutralize the effects of large capital flows on the economy without the intervention of the Central Bank; and in recent years, the movement of capital by residents of Israel back into the country as a result of shocks to the global financial system has helped moderate the effects of rapid capital outflow from the economy on the foreign exchange rate and therefore on the rate of inflation. Disadvantages include the greater complexity and higher costs in obtaining information on investments abroad and the exposure to foreign exchange risk in a currency that is not the economy's primary currency of activity.

i. Direct investment abroad

Direct investment abroad by Israeli residents totaled about $7.1 billion in 2007. This is a historically high level which was exceeded only in 2006.

Direct investment abroad by Israeli residents is part of the growth process of Israeli companies abroad in which they attempt to increase their profitability and/or their ability to compete globally. Some companies are seeking to widen the markets they operate in. Many large and cash-flushed Israeli companies expand their operations through the purchase of a foreign company. In recent years, this phenomenon has also been observed in other developing economies that are characterized by a few large multinational companies and a relatively small local market. An Israeli company with a high level of productivity can also choose to establish a new factory abroad.

An examination of the average breakdown by industry during the period 2002–07 shows that most investments were made in pharmaceuticals (63 percent), the real estate industry (12 percent), hi-tech (9 percent) and banking and finance (6 percent).[36] It should be remembered that large single transactions have a significant effect on the breakdown by industry.

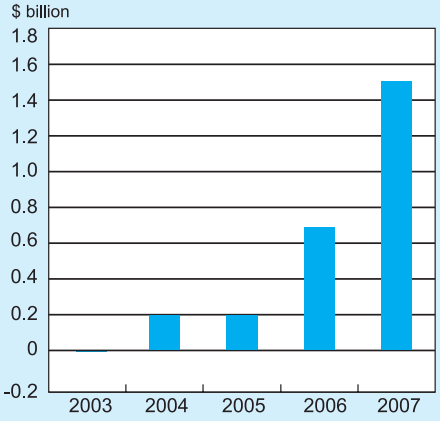
More than half of the investment this year (52 percent) was made by the real estate industry (Figure 7.13).[37] The volume of investment in 2007 stood at about $1.6 billion as compared to $0.7 billion in 2006 and $0.2 billion in 2005. Israeli real estate companies began investing abroad at the beginning of the 2000s in an attempt to exploit opportunities there and in reaction to the slowdown in the local market. The investment

[36] This figure primarily reflects the large investments by the Teva pharmaceuticals company.

[37] The figures in this analysis are estimates based on the direct reports of the companies to the Bank of Israel and the processing done by the Foreign Exchange Activity Department. The calculation of the estimates is problematic due to the non-uniformity in the classification of industries. Note that we are dealing here with investment in the shares of real estate companies and not the direct purchase of real estate (which appears in a different category). The analysis is based partly on an internal paper by Daniel Blinder (10/2007) of the Non-Banking Private Sector Unit which discusses the changes in real estate investment in recent years.

in real estate is characterized by a low proportion of equity capital, with the balance being financed by non-recourse loans.[38] As a result, the value of assets held abroad by Israeli residents is larger than the flow of direct investment. Israeli companies invest in real estate using equity, funds obtained from the global banking system and funds raised through the issue of bonds and shares by their subsidiaries abroad.[39] The investment in real estate is dispersed among three main areas: North America (41 percent), Western Europe (32 percent) and East Europe (6 percent).

Figure 7.13
Israelis' Estimated Investment in Real Estate, 2003-07



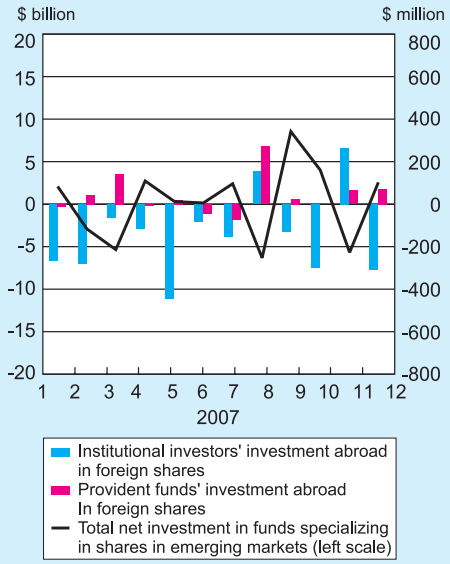
SOURCE: Based on banks' and companies' reports.

ii. Investment in tradable securities

The investment by Israeli residents in tradable securities totaled about $6.6 billion in 2007, most of which ($4.9 billion) was in shares. Relative to 2006, this represents a significant decline, particularly in the investment of the private sector in foreign bonds.

Most of the portfolio investment was by institutional investors. Their investment increased significantly in 2005 to more than $3 billion annually. This year as well institutional investors invested about $3.8 billion, primarily in shares. The change in the pace of their investment was due to the implementation of the structural reforms in taxation and retirement savings.[40] During the months August and November, there was significant realization of investments abroad against the background of the financial crisis (Figure 7.14). The scope of investment abroad by **households** was relatively limited this year though it appears that they react with greater intensity to changes in world financial markets.

Figure 7.14
Portfolio Investments of Israeli Institutional Investors and Households, and Investments in Portfolio Funds in Emerging Markets, January-December 2007



SOURCE: Based on banks' and companies' reports.

[38] The collateral for which is only the asset itself.
[39] In 2007, the institutional sector in Israel also issued bonds for the purpose of investing abroad.
[40] More details on the activity of institutional and other investors, such as households, can be found in Section 4 of Chapter 4.