

Overview and Policy

Israel's external and forex activity in 2001 was typified by stability in several respects, pursuant to developments since late 1998—despite the internal and external shocks that have been buffeting the economy since late 2000—and the continuation of long-term trends in several other respects, after an anomalous year in 2000.

The shocks pertained to two fields. The first was economic: the global economic slowdown, an intensification of the domestic recession, especially in high-tech industries, and a slump in the capital market. The second was related to security: the ongoing confrontation with the Palestinians and the terror attacks in the US in September and their implications.

Stability in external and forex activity,¹ despite the shocks, was evident in three domains:

(1) *The deficit on current account and its financing*: even though the global slowdown dampened high-tech exports, and despite the steep decrease in tourism revenues—mainly due to the domestic security situation—the current-account deficit increased only slightly and remained low in historical perspective, because imports and factor input payments also declined. The deficit was small enough that there was no need to increase the external debt to finance it.

(2) *The financial account*: although nonresident investments declined precipitously, mainly because of the global high-tech slowdown, capital inflows continued, albeit at a much lower level than in 2000. In particular, direct nonresident investments continued, pursuant to the long-term trend (from which 2000 deviated). Since resident external investments decreased, the shocks did not set a capital flight in motion even though the year ended with a net capital outflow.

¹ On December 25, the key NIS interest rate was reduced surprisingly steeply and related measures in regard to foreign-currency liberalization, the exchange-rate band, and Treasury bills were announced. In the aftermath of these developments, the NIS depreciated rapidly. As of the present writing, the effects of these measures on the financial market have exhausted themselves. (What is more, in March 2002 the Bank of Israel raised the key lending rate by 0.6 of a percentage point.) Since it is premature to make inferences about the extent of their impact on financial stability, the discussion in this part of the Report focuses on the period preceding the measures.

(3) *The NIS-forex market*: despite the increase in uncertainty occasioned by the shocks, the contraction of nonresident investment, and speculative activity by foreign financial institutions—which generated depreciation pressure during most of the period reviewed—the NIS did not depreciate steeply (until late December) and exchange-rate volatility occurred in both directions, depreciation and appreciation. This was due to a moderating response by residents—the business sector injected forex in the short term and the non-business sector refrained from joining the demand for foreign currency when the currency depreciation accelerated.

This stability, especially in the NIS-forex market, is the result of the *decrease in Israel's external financial vulnerability* and the expansion of external activity since late 1998. The decrease in vulnerability was evident in several important respects, mainly a decline in net external debt, an increase in forex liquidity, a decline in the business sector's exposure to depreciation risk, and greater efficiency in foreign currency trading. The improvement in these indicators of external financial vulnerability is the result of two long-term processes: (1) an improvement in the management and attainments of macroeconomic policy—especially in respect to disinflation, liberalization of foreign currency, broadening of the exchange-rate band, and non-intervention in foreign currency trading, even amidst shocks; and (2) an adjustment to global processes—an upturn in private capital investments in developing and emerging markets and in demand for high-tech products, coupled with domestic economic restructuring, as reflected in the proportional growth of high-tech industries at the expense of traditional industries. This adjustment, which led to large nonresident investments, helped the nonbanking private sector to increase its external and foreign-currency assets.

In sum, the stability in important aspects of external and forex activity in 2001, despite the many shocks, is neither a random nor a passing effect but the outcome of domestic and global processes that have made Israel's economy less vulnerable to shocks. At a time of greater openness to foreign markets, the continuation of stability in the future depends heavily on these global processes, over which Israel has no control. This dependency, however, merely underscores the importance of wise economic-policy management in accordance with international standards. Importantly, Israel should use the auspicious results of this stability to continue making progress in policy fields that are directly related to external and forex activity, i.e., the exchange-rate band and taxation, amidst continued close monitoring of capital flows and forex activity and regular analysis of the sources of external financial vulnerability. These policy fields are described below.

The *exchange-rate band* mitigates the public's exchange-rate risk by capping the exchange rate for exporters and holders of forex assets and limiting it at the bottom for importers and holders of forex liabilities. The exchange-rate risk declined due to the Bank of Israel's undertaking to defend the limits of the band when necessary, thereby creating an insurance policy of sorts, of which the public is the beneficiary without paying a premium. Since the middle of 1997, the band has been widening considerably because its limits slope at different rates—6 percent for the upper slope against 2 percent for the lower one. For this reason, and because

the NIS appreciated against the five-currency basket, the NIS-basket exchange rate has verged on the lower limit of the band for most of the time in recent years. The main hazards that exist when the exchange rate bumps against the lower limit for lengthy periods are related to the need to sterilize the injection of NIS that results from foreign-currency purchases—an injection that may impair the efficiency of monetary policy and make the allocation of the public's assets less than optimal. When foreign financial institutions embarked on speculative activity in the NIS-forex market in the course of 2001, there was reason for concern that the adherence to the lower end of the band would cause much larger injections than those that occurred in 1996 and 1997.

In December, the lower limit of the exchange-rate band was reduced by 1 percentage point and its slope was flattened to zero after having been set at 2 percent for several years. Even so, there is concern that if the global economy and, especially, the issues market surge again, the NIS will again face appreciation pressure and the Bank of Israel will have to intervene in foreign currency trading.

Over the past decade, there has been a global tendency, especially in emerging markets, to adopt more liberal exchange-rate regimes. Most countries that changed their regimes moved from fixed exchange rates to an exchange-rate band or no exchange-rate limits at all. Only a few countries have made their exchange rates more rigid. Data from a sample of 145 countries show that 49 percent of the countries had fixed exchange-rate regimes in 2001 as against 61 percent in 1990, the share of countries that keep their exchange rates within a band declined slightly, and the proportion of countries that have totally tradable currencies rose from 13 percent in 1990 to 28 percent in 2001. Globalization, harmonization, and the dramatic increase in private capital flows to emerging markets make greater exchange-rate flexibility all the more needed.

Since the exchange-rate band no longer serves as a peg for price stability, it has become unnecessary. Were it to be abolished, financial stability would improve and the forex market would become more efficient. Abolishing the exchange rate would:

- obviate the need to apply a policy that has two clashing goals—price stability and defending the exchange rate, due to the effect of the exchange rate on prices;
- relieve the Bank of Israel of the need to intervene in the market whenever the exchange rate falls to the lower limit of the band; thus, it would prevent the Bank of Israel from becoming overinvolved in the deposit markets due to the need to offset the injection of NIS that results from its purchases of foreign exchange;
- enhance the market's motivation to develop derivative financial instruments, which would serve as alternatives to the band and help to eliminate imperfections in the forex market;
- make it possible to maintain the price stability at a lower interest rate, due to the greater market perfection occasioned by the elimination of the band.

The *foreign-currency liberalization* that began more than a decade ago will be completed on January 1, 2003, when the last remaining restriction on institutional investors will be rescinded. The completion of the liberalization process will make the NIS fully convertible and is expected to stimulate NIS-forex trade. Thus far, investors who are already allowed to acquire external and forex assets have not exercised the privilege fully, mainly due to tax discrimination. Tax discrimination in additional areas of external and forex activity has created distortions in the structure of the public's portfolios. However, the economy will not gain the full advantages of the liberalization as long as the allocation of the public's assets and liabilities remains suboptimal. This explains the need promptly to equalize taxation of domestic and external assets and taxation of NIS and forex assets. Such equalization would expand the international investment and forex position in the public's portfolio, at the expense of the NIS position. (For more on taxation, see Box 3.2.)

In conjunction with the liberalization process, *information and reporting* on external and forex activity have been bolstered. The Foreign Exchange Control Act requires residents who carry out external and forex transactions to report them to the Controller of Foreign Exchange, applies this requirement to the financial intermediators by whose means the transactions are performed, and stipulates the provision of information on transactions to financial intermediators. On the basis of these reports, other reports to the Bank of Israel, and other information sources, the Controller of Foreign Exchange has developed information systems that gather comprehensive and detailed data about external and forex activity. This information is used in several contexts: decision-making in monetary affairs, monitoring of Israel's external financial stability, and collecting of statistics on the balance of payments—movements and balances of the International Investment Position (of which the external debt is a part) and forex activity. The information gathered is processed and published regularly and with a minimum lag—in various ways, including the Internet—to improve the quality and availability of information for those who operate in the financial markets. This activity is prompted by the awareness that transparency in the markets helps to enhance market efficiency and, thereby, Israel's financial stability.

The Controller of Foreign Exchange strives continually to make the reporting more comprehensive and reliable and to perform more intensive analysis of, and research on, Israel's external and forex activity. Obviously, the micro-level data—those of individual customers or banks that report to the Department—are kept in total confidence, in accordance with a special clause in the Foreign Exchange Control Act that applies the secrecy provisions of the Banking Ordinance to all information that the Controller obtains. (For an expanded discussion of the Controller's functions in the post-liberalization era and issues related to information and reporting, see the appendix at the end of this Report.)

OVERVIEW AND POLICY

This Report is composed of two parts. Part 1 describes domestic economic activity vis-à-vis nonresidents, including the current account and the financial account of the balance of payments and Israel's International Investment Position (in forex and NIS combined). Part 2 discusses activity in the NIS-forex market—activity of nonresidents in NIS assets and liabilities only (including NIS-forex forwards transactions) and resident activity in forex assets and liabilities (those that are indexed to and denominated in foreign currency, vis-à-vis nonresidents and domestic banks). This two-part taxonomy, reflected in the array of data and the method of analysis, helps to explain developments in these two fields.

The framework for analysis of activities in the NIS-forex market and the differences between this framework and the balance of payments are described in the appendix to Part 2. The concepts and terms that appear in the Report are defined in the appendix at the end of the Report. The main sources of data in this Report are reports from banks, companies, institutional investors, and individuals to the Controller of Foreign Exchange. The Report also cites banks' reports to other departments of the Bank of Israel, data from the Accountant General at the Finance Ministry concerning government activity, Securities Authority data, and current-account data from the Central Bureau of Statistics. Since the statistics from the different sources do not fully correspond, estimates and assumptions were made to bridge the gaps, especially in reconciling flows and balances in the financial account and the data that are used to analyze the NIS-forex market. This was essential for the analysis of the topics presented in the Report; what is more, it has no adverse effect on the validity of the findings and the main conclusions.

Part 1

*The Balance of Payments:
Israel's External Activities*

Chapter 1

Main Developments

Israel's external activity contracted in 2001, as reflected in various components of the balance of payments. The current-account deficit worsened slightly and the financial account ended the year with a small net capital outflow. These developments occurred mainly under the influence of a severe domestic and global economic slowdown, especially in high-tech industries, that came about in the aftermath of security events and Israel's strong external market openness.

The *current account* had a deficit of \$ 1.7 billion in 2001. The deficit in terms of GDP, 1.6 percent, surpassed the 2000 deficit (1.3 percent of GDP) but was smaller than the average deficit in 1996–2000 (3 percent of GDP) (Table 1.1). The deficit increased relative to 2000 chiefly because the security events depressed tourism revenues severely. The global and domestic slowdown affected various components of the current account, especially in high-tech, in contrasting directions that canceled each other out; therefore, its effect on the deficit was scanty.

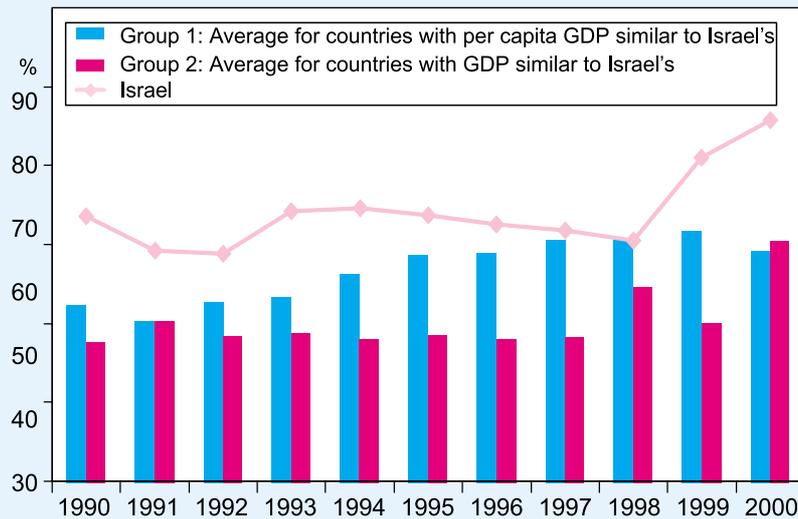
The *financial account* recorded a net capital outflow of \$0.3 billion. The transition from inflow in 2000 to outflow this year was occasioned by a steep 60 percent decline in nonresident investment and a less acute contraction, 52 percent, in resident external investments. Both decreases were caused mainly by the abrupt changeover in high-tech industries from vigorous growth that crested in 2000 (the 'bubble effect') to a trough that was reflected in high-tech companies' activities, earnings, and share prices. The effect of security events on the financial account was less severe; its main manifestation was a slight decline in nonresident deposits with Israeli banks. Notably, direct investments—of nonresidents in Israel and of residents abroad—were less affected by the adverse developments and maintained their long-term trend.

The current and financial account developments described above took place in view of Israel's strong openness to the global economy in its financial and nonfinancial activity, a state of affairs that gives external and domestic developments a greater impact than they would otherwise have. The nonfinancial openness of Israel's economy surpasses that of similar economies elsewhere and has been rising since 1999 (Figure 1.1). Financial openness is also rising, although it still falls short of the level in similar countries (Figure 1.2). Even though Israel has a very open economy, its external financial vulnerability has decreased in the past three years.

The *main external developments* in 2001 were the global economic slump—reflected in a decline in the demand for high-tech products, in a slowdown in the growth rate of global trade, and a slump in capital markets—and the events of September 2001, which were adverse to global tourism. (See Box 1.1).

The main *domestic developments* were intensifications of the economic slowdown and the confrontation with the Palestinians. The effects of these processes, which have been evident since the fourth quarter of 2000, became increasingly perceptible as the year went on, due to their protracted nature and the lag in their impact on the balance of payments.

Figure 1.1
Real Openness Index:^a Israel vs. Similar Countries,^b 1990-2000



^aIndex: imports plus exports divided by GDP.

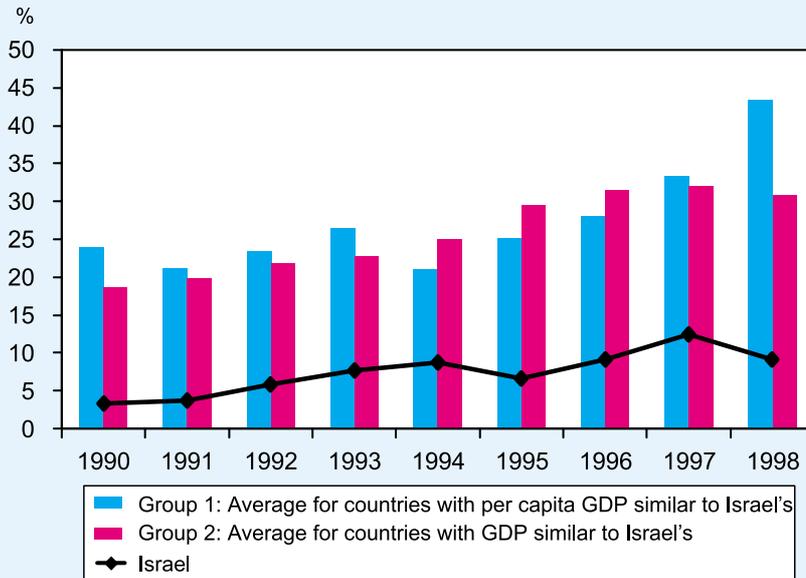
^bGroup 1 is composed of seven countries with per capita GDP similar to Israel's (\$15,000-\$21,000). Group 2 is composed of nine countries with GDP similar to Israel's.

SOURCE: WDI and IMF.

The effect of externalities is reflected mainly in a decrease in volume of activity in the current account.

Since the Israeli economy is small, open, and technological, *the impact of external developments on its current account* is reflected mainly in changes in the volume of its external activity. A global economic boom, for example, is reflected in an increase in global trade (Figure 1.3) and demand for Israeli products—especially in high-tech—and leads to growth in exports of goods and services. Concurrently, imports—which serve in part as export inputs and for domestic uses—also increase. The terror attacks in the US in September 2001 caused the decline in net tourism revenues to accelerate, coinciding with a general slump in

Figure 1.2
Financial Openness Index:^a Israel vs. Similar Countries,^b 1990-1998



^aIndex: imports plus exports divided by GDP.

^bGroup 1 is composed of seven countries with per capita GDP similar to Israel's (\$15,000-\$21,000). Group 2 is composed of nine countries with GDP similar to Israel's.

SOURCE: WDI.

global tourism and a decline in demand for high-tech products (especially software) that dampened the exports of software and knowledge-service enterprises.

External developments also have a significant effect on the *financial account*. Nonresident investments and resident external investments are affected by the state of global capital markets. Prosperity leads to an increase in nonresident investments (*ceteris paribus*) and, thereby, stimulates capital inflow and makes external investments (capital outflow) more worthwhile (Figure 1.4).

The main impact of *domestic developments* was evident in the size of the *current account* deficit. The economic slowdown dampened the growth in import, consumption, and investment demand, and the security situation severely reduced revenues from tourism and, to some extent, net revenues from the Palestinian Autonomy. Most of the increase in the current-account deficit, \$2 billion, is traceable to the impact of the adverse security developments on tourism.

The effect of *domestic developments* on activity in the *financial account* in 2001 was weaker than the effect of external developments. Investments in domestic equity instruments decreased in Israel, as in other economies, mainly due to the global high-tech slump. In contrast, domestic debt issues continued with no increase

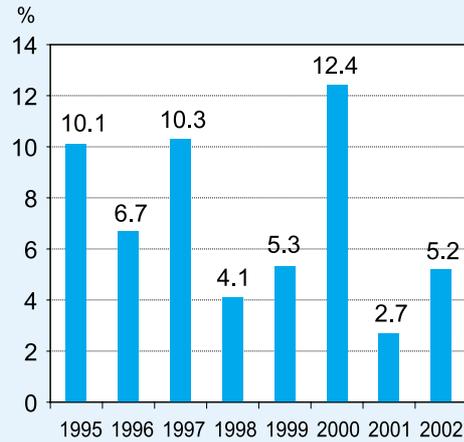
The effect of domestic developments on activity in the financial account in 2001 was weaker than the effect of external developments.

in cost (risk premium). Additionally, long-term effects of the foreign-currency liberalization helped to stimulate external investments by private and institutional investors who wished to attain a higher return than the domestic return and to spread risks. Evidently, however, nonresidents were also affected by the geopolitical uncertainty, as reflected in a decrease in the growth rate of their foreign-currency deposits with domestic banks.

The *high-tech sector* has had a substantial effect on Israel's economic growth and balance of payments in recent years (Box 1.2) because firms in this field are heavily involved in external activity. Accordingly, certain external components of the balance of payments that are related to these firms' activity were more volatile in 2001 than before. Furthermore, high-tech industries had a dominant external impact as against the estimated secondary importance of domestic factors, foremost geopolitical

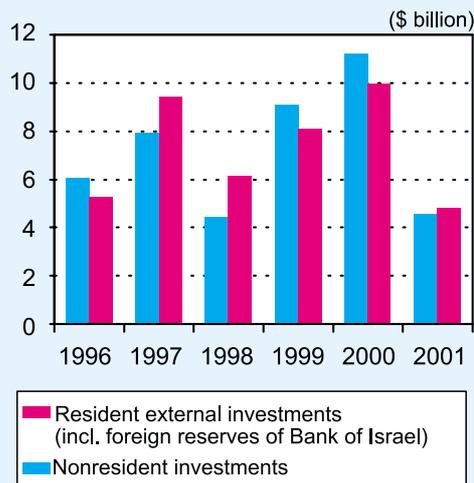
uncertainty. High-tech industries were adversely affected in 2001 by financing difficulties, occasioned by the slump in global capital markets, and by a decline in overseas demand for their products. The impact of the high-tech slump on the balance of payments was evident mostly in the financial account—in the slowdown of nonresident investments and resident external investments, which correspond to nonresident investments rather strongly for reasons including share swaps that are recorded on both sides of the financial account. The main effect of the high-tech slump on the current account was a decline in exports of software and knowledge services; since this was partly offset by a decrease in payments of dividends to shareholders abroad, the total

Figure 1.3
Growth Rates of Global Trade, 1995-2002



SOURCE: World Economic Outlook, IMF, October 2001.

Figure 1.4
Nonresident Investments and Resident External Investments, 1996-2001



SOURCE: Reports from banks and companies to Controller of Foreign Exchange.

contribution of high-tech industries to the increase in the current-account deficit was not severe. As for the financing of high-tech firms in debt/equity terms, the share of debt financing increased in 2001 because the option of equity financing, which has become increasingly accepted in recent years, was less available (Figure 1.5).

The stability of *direct investment* relative to other types of investment has a stabilizing effect on the balance of payments components. Nonresident direct investment declined in 2001, but less so than other forms of investment (Figure 2.1). In the long term, direct investments are less volatile than portfolio investments; this is predictable, since such investments have long horizons and are less sensitive to changes in capital markets. Direct external investments by residents also decreased in 2001 but have been rising in the long term (except for 2000, an exceptional year) (Figure 3.2.2).

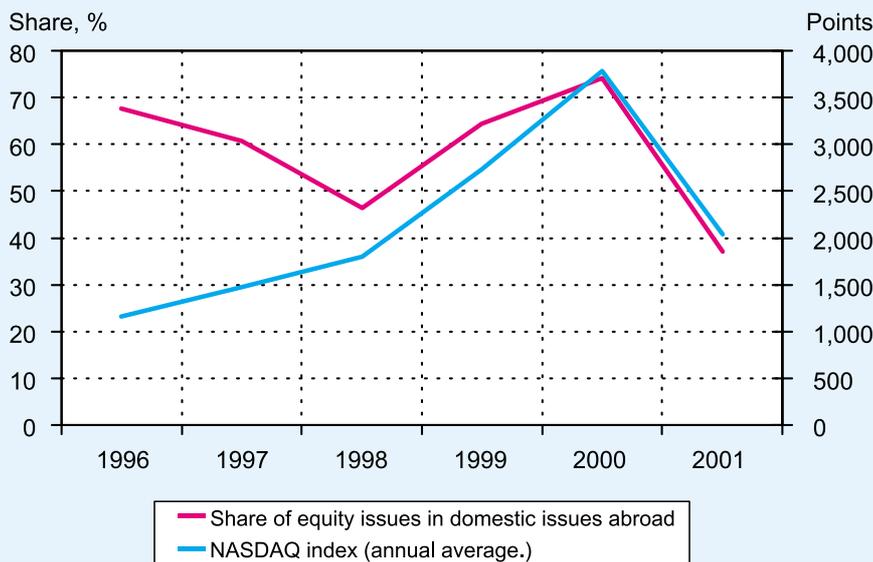
Residents and, in the main, domestic firms that operate internationally expanded their external deposits and portfolios in 2001, under the influence of the forex liberalization and globalization processes and as part of long-term trends that were prompted by considerations of yield. (See Box 3.2.2.) Furthermore, institutional investors, for which the share of assets that may be invested abroad and in forex was raised to 5 percent, increased their external investments, although not up to the limit.

Israel's *external financial vulnerability* decreased in most respects this year, mainly due to a decrease in the net external debt, an increase in the foreign-currency

Mild changes occurred in direct nonresident investment and resident external investment.

Residents expanded their external deposits and portfolios in 2001, under the influence of the forex liberalization and globalization processes.

Figure 1.5
Share of Equity Issues in Domestic Issues Abroad and the NASDAQ Index, 1996-2001



SOURCE: Reports from banks and companies to Controller of Foreign Exchange.

Table 1.1
Israel's Balance of Payments, 1997–2001

	(\$ million)				
	1997	1998	1999	2000	2001
1. Net goods, services, and factor inputs	-10,054	-7,522	-9,374	-8,018	-8,100
a. Net goods	-5,239	-3,341	-4,514	-3,350	-3,549
Exports	22,698	22,974	25,577	30,837	27,395
Imports	-27,937	-26,315	-30,091	-34,187	-30,944
b. Net services	-882	-410	245	1,995	-1,191
Exports	8,350	9,172	10,904	14,342	11,316
Imports	-9,232	-9,582	-10,659	-12,347	-12,507
<i>of which: Tourism</i>	592	286	990	1,015	-731
Revenues	2,875	2,759	3,556	3,819	2,166
Expenditures	-2,283	-2,473	-2,566	-2,804	-2,896
Other services	758	1,564	1,669	3,715	2,528
c. Factor revenues	-3,933	-3,772	-5,105	-6,663	-3,361
1. Net interest and dividends	-1,707	-1,029	-2,186	-3,661	-896
2. Net wages	-2,226	-2,774	-2,919	-3,002	-2,465
<i>of which: Wages of foreign workers</i>	-1,802	-1,890	-2,022	-2,201	-2,512
Wages of Palestinian workers	-597	-981	-1,055	-966	-118
2. Net current transfers	6,049	6,084	6,330	6,602	6,370
3. Current account (1 + 2 = 3)	-4,005	-1,439	-3,045	-1,416	-1,730
4. Capital account and financial account	747	-36	3,097	2,971	-761
a. Capital account	723	577	569	494	446
b. Financial account (excl. net reserve assets)^a	9,403	1,267	3,636	3,068	-1,330
1. Direct investments	833	697	2,083	1,591	1,856
2. Portfolio investments	4,075	2,495	1,775	2,131	-598
3. Other investments	4,496	-1,925	-222	-654	-2,589
c. Net reserve assets^a	-9,379	-1,880	-1,108	-591	124
5. Statistical discrepancies (4 – 3 = 5)	3,258	1,475	-52	-1,555	2,491
Current-account deficit as percent of GDP	-3.9	-1.4	-3.0	-1.3	-1.6

^a Capital inflows and increases in liabilities are marked with a positive sign (+); decreases in liabilities and increases in assets are marked with a negative sign (-); increases in reserve assets are marked with a negative sign (-).

SOURCE: Based on Central Bureau of Statistics data.

Israel's external financial vulnerability continued to decline this year.

position of the business sector, and greater efficiency in the NIS-forex market. Analysis of long-term trends in vulnerability indicators in main fields of external and forex activity shows that even though Israel has made progress in its economic globalization—as reflected in an increase in external assets and liabilities, which makes the country more susceptible to external events—its external financial vulnerability has been decreasing since 1999. This is due to an improvement in the indicators of its external debt, indicators related to the business sector's exposure to depreciation risks, the efficiency of its NIS-forex market, and main underlying factors.

The ratio of net external debt to GDP continued to decline this year, even though the ratio of gross external debt to GDP increased.

The ratio of *gross external debt* to GDP increased this year, in contrast to previous years, but that of *net external debt* to GDP continued to decline (Figures 4.1 and 4.2). The decline occurred because two sources that are used to finance the current-account deficit, transfers and investments that do not generate debt, surpassed the financing needs in 2001 once again (\$8.8 billion vs. \$5.6 billion) (Figure 2.15).

Box 1.1

Global Developments

The steep decline in global growth rates in 2001 was reflected in decreases in international trade and investments, among other things. The real growth rate in OECD countries was estimated at 1 percent in 2001 as against actual growth of 3.7 percent and 3.1 percent in 2000 and 1999, respectively.

One manifestation of the activity decline is the contraction of global trade, which accounts for 26 percent of global economic activity today as against 17 percent two decades ago.

According to various estimates, OECD countries' exports of goods and services slipped by 0.5 percent in 2001 after expanding by 11.7 percent in 2000 and by 4.2 percent in 1999, and their imports of goods and services decreased by 0.7 percent as against increases of 12.4 percent in 2000 and 8.4 percent in 1999.

The activity slowdown that began in the US in the middle of 2000 spread to other countries by the mechanisms of global trade and financial markets, due to the globalization and integration of these markets. The main reasons for the slowdown were the following:

- a. The financial bubble burst and demand for high-tech products decreased. Stock indices began to lose ground with technology shares but the decline spilled into 'old economy' shares as well and, by means of the wealth effect, affected households' ability and propensity to save. The steep downtrends on stock exchanges, especially in technology shares, which began late in the first quarter of 2000 and gathered strength in the third quarter of that year, continued in the course of 2001 and reached a nadir after the terror attacks in the US on September 11.
- b. The increase in oil prices in 1999 and 2000 triggered by a cutback in production, cut into households' disposable income and manufacturing firms' earnings. Only after the events of September 2001 did a decline in demand for oil cause the price of this commodity to decrease significantly.
- c. Corporate earnings, especially in high-tech, slumped due to excess production capacity.
- d. The American economy slowed as various industries adjusted stocks that they had amassed in late 1999 in fear of mishaps in production processes (the 'Y2K bug').

The US growth rate was about 1 percent in 2001 as against 4 percent in each of the two previous years. The American economy has a much greater effect on the global economy than any other country. Japan, for

example—the world’s second-largest economy—has been mired in economic lethargy for years, but this has not brought on a global slump as did the downturn in the U.S.

In response to the decline and the rising level of risk in global stock markets, international investors divested themselves of some of their holdings and turned to less risky and more liquid alternatives. This aside, specific events in emerging markets such as Argentina and Turkey, where economic woes came into sharp focus this year, prompted a steep decrease in capital movements to emerging markets at large, which are perceived as of relatively high financial risk. In terms of the main global indicators by which most international investors manage their portfolios, Israel belongs to the class of emerging markets. According to the Institute of International Finance, private capital flows to emerging markets fell from \$170 billion in 2000 and \$140 billion in both 1998 and 1999 to \$115 billion in 2001. This decrease was manifested in divestiture of equities, intensified withdrawals from bank deposits, and, most conspicuously, reduction in credit. This was due mainly to the effect of the crises in Turkey and Argentina, which triggered a capital flight from those countries, and the decrease in credit demand because of the activity slump.

The high-tech crisis was evidenced in the number of IPOs in 2001. In the U.S., ninety companies “went public” this year as against 395 in 2000. The value of merger-and-acquisition transactions in 2001 was less than half the 2000 level (\$1.65 trillion vs. \$3.4 trillion). The decrease in corporate earnings, foremost in high-tech, makes companies that are candidates for acquisition less attractive and dictates a policy of caution and selectivity. Acquiring companies are less able to raise capital and, because the value of their shares is declining steadily, less able to pay with shares for the acquisition.

The diminished attractiveness of high-tech also impaired the capital-raising ability of venture-capital funds, which provide technology firms with their main source of finance. In the United States, venture-capital funds raised \$35 billion in the first three quarters of 2001 as against \$80 billion in the same period a year earlier, and the picture is even grimmer when the second and third quarters of 2001 are compared with the corresponding quarters in 2000. The deteriorating situation of the venture-capital funds affected the investment rounds of technology companies and led to a 70 percent decline in the sums they raised in the US this year.

Box 1.2**The Effect of High-Tech on Selected Balance-of-Payments Items**

High-tech is of particular interest because of its rapid development in recent years; its contribution to economic growth, employment, and the balance of payments; and the abrupt transition from surging global demand for its products in 2000 to a setback in 2001. The share of high-tech industries—pharmaceuticals, electronics, aviation equipment, communications, software, and R&D—is particularly salient in Israel relative to other countries. Information technology exports, for example, accounted for 30 percent of exports in Israel as against 13 percent in OECD countries and 12.9 percent of total business-sector product as against 7.4 percent, in 1998.¹

These industries are vulnerable to exogenous events in two senses: external demand for their products, which accounts for nearly all of demand, and sources of finance abroad, which have generated most nonresident investments in recent years.

From a long-term perspective (see table on next page),² there was a rapid uptrend in 1997–2000—particularly in 2000—in high-tech exports, resident external investments, and nonresident investments, whereas all of these indicators declined in 2001. However, the export decrease in 2001 was gentler than the decline in nonresident investments and resident external investments in these industries.

Exports of high-tech goods and services expanded vigorously in 1996–2001 and accounted for 70 percent of the total increase in goods and services exports (excluding tourism) during that time. In 2001, these industries' exports contracted by 13 percent in year-on-year terms, as against an 8 percent decline in other industries. The decrease in exports did not affect all high-tech firms equally; those with innovative technology and unique niches suffered less than other technology firms. The share of high-tech in total exports rose in 1996–2000 and flattened out in 2001 even though the global economic slowdown was most severe in high-tech. This was more observable in goods than in services, which were more volatile both in 2000 and in 2001.

Resident external investment in high-tech industries and nonresident investments in these industries in Israel increased vigorously in 1997–2000, its share in total investments climbing to 49 percent and 71 percent

¹ *Information and Communications Technologies (ICT) Sector 1990–2000*, Central Bureau of Statistics, Publication 1164.

² Sources of data: exports (goods and services)—Central Bureau of Statistics; financial account—Bank of Israel, Controller of Foreign Exchange.

High-Tech in Selected Balance-of-Payments Components, 1996–2001

(\$ billion)

	All industries						Percent change	
	1996	1997	1998	1999	2000	2001	2000	2001
Total exports	23.8	25.8	27.0	30.1	38.8	34.8	29	-10
Goods exports	18.8	20.3	20.6	22.8	28.3	25.7	24	-9
Services exports (excl. tourism)	5.0	5.5	6.4	7.3	10.5	9.1	44	-13
Financial account	-0.7	1.5	1.7	-0.9	-1.3	0.6	44	-146
Residents	5.3	9.4	6.1	8.1	9.9	5.2	22	-47
Nonresidents	6.0	7.9	4.4	9.0	11.2	4.6	24	-59
High-tech industries								
Total exports	6.6	7.5	9.0	10.0	16.4	14.3	64	-13
Goods exports	5.1	6	6.8	7.5	11.2	10.1	49	-10
Services exports	1.5	1.5	2.2	2.5	5.2	4.2	108	-19
Financial account		1.2	-0.2	3.0	3.0	0.5	0	-83
Residents		0.5	1.6	1.2	4.9	2.3	308	-53
Share of residents' investments in high-tech traded securities in total investment (%)		0	-2	2	20	16		
Nonresidents	2.4	1.7	1.4	4.2	7.9	2.8	88	-65
Share of nonresidents' investments in high-tech traded securities in total investment (%)	1.8	14	5	18	39	8		
Share of high-tech industries in total (%)								
Total exports	28	29	33	33	42	41		
Goods exports	27	30	33	33	40	46		
Services exports (excl. tourism)	30	27	34	34	50	46		
Financial account								
Residents	n.a.	5	26	15	49	44		
Nonresidents	40	22	32	47	71	61		

SOURCES: Goods exports: foreign-trade data, Central Bureau of Statistics. Services exports: balance-of-payments data, Central Bureau of Statistics. Financial account: Controller of Foreign Exchange.

in the respective years. The abrupt declines in 2001, after perceptible upturns in 2000, caused the investment levels of both residents and nonresidents to decrease severely. However, nonresidents responded more vehemently, lowering the share of high-tech in their total investments by 10 percentage points while resident investments declined by only 5 percentage points.

The main reason for the difference in residents' and nonresidents' behavior has to do with the composition of their investments. In 1999 and 2000, investments in high-tech companies' traded securities accounted for 30 percent of total nonresident investments as against only 11 percent of resident investments.

There are two main reasons for the positive correlation of nonresidents' and residents' investments in high-tech. First, in 1998–2001 nonresidents paid \$6.7 billion to acquire Israeli high-tech

companies, and much of this consideration was made in the form of shares of the acquiring companies, as part of a “share swap.” The steep decline in high-tech share prices severely reduced the level of such transactions on both sides. Second, much of the proceeds of the overseas issues of Israeli firms—almost all of which are in high-tech—are deposited in the issuing companies’ accounts abroad. Since Israeli companies’ overseas issues have been the most important factors in nonresident investments in Israeli technology firms in recent years, these firms’ deposits, which are included in resident external investment, increased. Thus, the slowdown in issues was manifested in a parallel decline in resident external investments and in net withdrawals of overseas deposits in 2001.