Part 3

External Financial Stability

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Israel's financial stability improved in 2003. Domestic and external financial markets were less uncertain and volatile than in 2002, the structure of domestic liabilities in forex improved, and the underlying domestic and global conditions for financial stability were better. Developments in financial stability were affected mainly by the decrease in Israel's country risk, abetted by the redirection of global capital flows from developed markets to developing markets—among which Israel is included—and by an improvement in the credibility of economic policy and the state of the domestic economy.

The effects of events in 2002—foremost the substantial capital outflow by households and the increase in risk and uncertainty in view of the economic downturn and geopolitical developments—were hardly in evidence by the beginning of 2003. The trend in Israel's International Investment Position in 2003 pointed to greater exposure to exchange-rate changes but the composition of assets and liabilities changed in a way that expressed greater financial stability. On the liabilities side, there were several positive developments; the shares of the nonbanking private sector in total liabilities, of capital instruments, and of direct investment increased. On the assets side, although vulnerability to market risks increased (asset prices declined and the NIS appreciated), the nontradable proportion of total assets declined.

The ratios of short-term external debt to short-term assets and liquid assets of the Bank of Israel (foreign reserves) were low, indicating that the liquidity of the domestic economy improved. Net external debt continued to decrease and Israel was a net lender to the rest of the world for the second year.

The process of development in the NIS-forex market spent itself in 2003, as indicated chiefly in the deceleration of growth in trading volumes. However, the share of nonresidents in trading remained higher than in the past. This aside, trading margins widened and exchange-rate volatility was lower at the end of 2003 than before December 2001. It is not clear whether

this marks a level of long-term stability in the NIS-forex market or a passing phenomenon.

Outstanding gross external debt was $ 71 billion at the end of December 2003—$ 3.4 billion (5 percent) higher than the 2002 level. The gross debt/GDP ratio declined (in dollar terms) from 65 percent in 2002 to 63 percent in 2003 due to appreciation of the NIS during 2003.

The structure of external debt and external debt assets is very important in assessing the financial strength of an economy. Israel's share of tradable debt in gross external debt climbed to a record level of 30 percent in 2003 as against 28 percent in 2002. The tradable proportion of total government external debt also established a record at 56 percent. An increase in tradable debt means that financial stability has worsened, since under such conditions foreign creditors may offer their debts for sale in the market in one stroke, thereby raising the price of debt issues to the government and other debtors. However, Israel's large surplus of short-term assets—$ 29 billion at the end of 2003, up $ 4 billion (18 percent) from the end of 2002—reflects its ability to pay back short-term debt.

At the end of 2003, the exchange-rate exposures of different sectors headed in different directions relative to December 2002. The depreciation exposure of the business sector decreased considerably; the vulnerability of households, due to their appreciation exposure, remained relatively high.

Developments in 2003 underscore the powerful effect of global developments on Israel's financial stability and, accordingly, the need to monitor continually the state of the economy vis-à-vis the rest of the world. However, economic policy also had a vast influence on the relative standing of Israel's economy.

1. INTRODUCTION

Financial stability denotes the ability of the financial system—markets, intermediaries, and main players—to conduct financial intermediation efficiently and uninterruptedly and to withstand financial and other shocks. Financial stability is usually said to be in existence when the probability of a financial crisis, i.e., substantive dysfunction in financial markets, is low. Examples of crises are those in the fields of credit allocation, pricing of financial assets, and the payments and clearing system.[1] This chapter focuses on financial stability as it relates directly to Israel's external and forex activities and the stability of its NIS-forex market.

[1] This definition resembles that chosen by the Bank of England. See *Financial Stability Review,* Bank of England, June 1999.

The frame of analysis is as follows:

* Developments in Israel's external financial activity and the NIS-forex market in 2003 in terms of financial stability, and the analysis of phenomena carrying potential instability risk, nonresident short-term capital inflows, and the contraction of forex trading volumes;
* Israel's forex assets and liabilities, including external debt and sectoral exchange-rate exposure.
* The efficiency of the NIS-forex market.

2. DEVELOPMENTS IN FINANCIAL STABILITY IN 2003

Financial stability improved in 2003 under the influence of domestic and global developments. Underlying conditions and resident capital flows showed perceptible upturns.

The underlying conditions for financial stability improved. The situation in real activity, which underlay the financial deterioration in 2002, took a turn for the better. The current account was balanced in 2003 for the first time in many years. GDP returned—albeit slowly—to a growth trajectory after a lengthy period of contraction. Long-term capital flows increased; public confidence in macroeconomic policy improved, and country risk diminished. Most global factors that may contribute to economic recovery also showed signs of improvement: growth accelerated, trade increased, and financial markets took off. The government deficit and the public debt expanded, but the effects of these trends were eased by measures to return the deficit to a controllable path and the mobilization of credit by means of US Government guarantees.

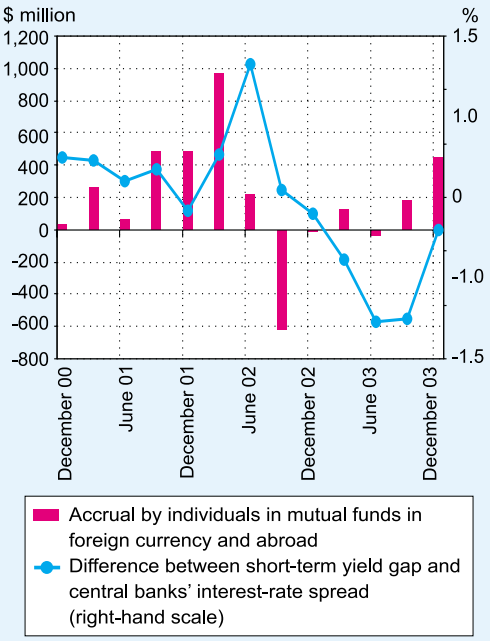
Israel's country risk declined steeply due to a combination of global and domestic developments.

Yields and domestic risk vis-à-vis abroad, which have a strong and rapid effect on short-term capital flows, changed abruptly during 2003 as country risk plummeted and yields and interest spreads vis-à-vis abroad narrowed. Country risk declined due to a combination of global and domestic developments; exchange-rate risk decreased perceptibly during the second half of 2003 and ended the year at a historically low level. The various interest and yield spreads[2] vis-à-vis abroad narrowed rapidly in the second half of the year and verged on the 2000 and 2001 levels by year's end, because they declined in Israel and ceased to fall abroad.

The effects of events in 2002—vigorous capital outflow by households and an upturn in risk and uncertainty due to the economic slump and geopolitical developments—were hardly in evidence in 2003. Economic agents, particularly households, stopped

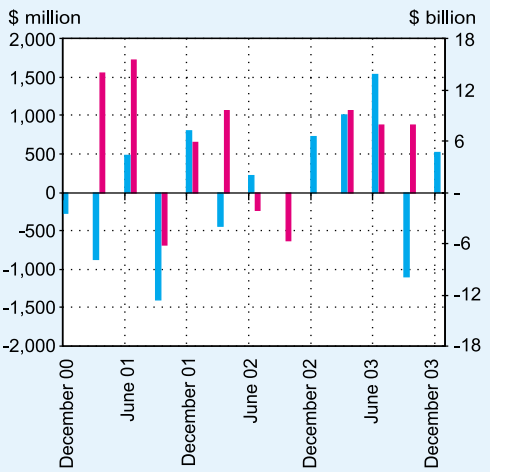
[2] It is important to distinguish between central-bank interest rates and interest on deposits and loans, on the one hand, and yields, on the other. Interest rates are predetermined; yields are derived from the prices of tradable assets, such as bonds, and are considered more indicative of the expectations of financial markets, e.g., in regard to inflation expectations.

Figure 3.1
Indices of Containment of Households' Capital Outflows, Dec. 2000–Dec. 2003



SOURCE: Based on funds' reports to Bank of Israel.

Figure 3.2
Indices of Nonresidents' Short-Term Capital Inflow to Israel and Emerging Markets, Dec. 2000–Dec. 2003



SOURCE: Based on banks' reports to Bank of Israel and IMF.

The effects of events in 2002 were hardly in evidence in 2003.

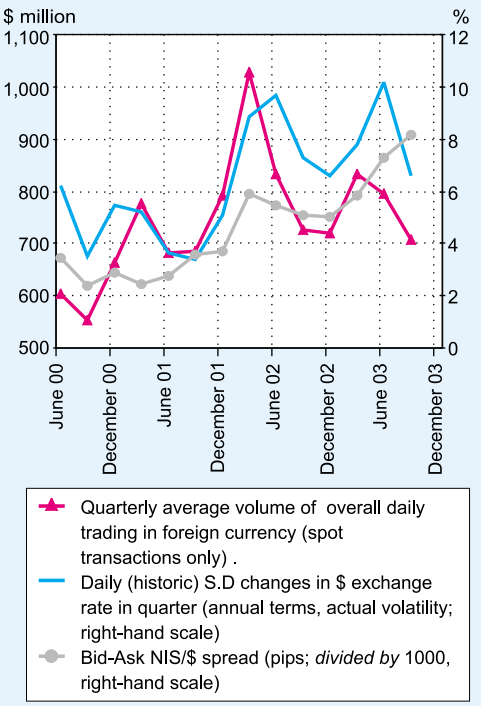
redirecting their money to forex and external assets in 2003. For example, households stopped removing deposits from the country and repatriated some deposits that they had expatriated in 2002 (Figure 3.1); the non-business sector amassed forex assets at a slower rate; and foreign investment increased. The improvement in public confidence in economic policy was manifested in a decline in inflation expectations and in yields on NIS bonds at all points on the yield curve, due to which the NIS-dollar interest spread narrowed.

Nonresidents generated a sizable short-term capital inflow in the second quarter of 2003.

In the second quarter of 2003, as the aforementioned change in residents' activities occurred, nonresidents generated a brisk short-term capital inflow that caused the NIS to appreciate swiftly and unusually (by 7.2 percent on quarterly average); the same happened simultaneously in other developing countries (Figure 3.2). This foreign investment focused on interest-based NIS assets such as forwards and government bonds. Forex trading volumes spiked (Figure 3.3) and nonresidents accounted for a higher share in forex trading than before. The correlation between Israel and other developing economies in financial activity—capital flows, country risk, exchange-rate risk, and exchange-rate trend—became much stronger.

The capital inflow was instigated mainly by the redirection of flows from developed countries to emerging markets, starting at the end of 2002—mainly for the purchase of

Figure 3.3
Level of NIS-Forex Market Perfection, June 2000–Dec. 2003



SOURCE: Based on banks' reports to Bank of Israel.

bonds—after rate-cutting in developed countries made nonresidents more willing to take risks. Moreover, the steep decline in Israel's country risk in the second quarter of 2003 caused the yield/country-risk ratio to rise swiftly and become more attractive, especially since yields were high due to the circumstances that had led to the rate hike in the middle of 2002. The appreciable decline in country risk and the redirection of capital flows to emerging markets amounted to a financial shock that induced a rather large capital inflow and currency appreciation.

The significant fall in country risk, and the trend of diversion of capital flows to emerging markets constituted a financial shock that led to notable capital inflow and NIS appreciation.

The capital inflow seemed to have the potential of impairing financial stability due to its intensity, its speed, and the fact that it took place largely in derivatives. The same combination of circumstances had triggered crises in several countries. However, the potential was not realized in Israel. The short-term capital inflow was stanched rather quickly by the end of the second quarter, as the yield/country risk ratio declined on both the yield and the risk sides. On the yield side, the key-rate trend, the decline in long-term yields (related to fiscal policy), and the stability of external interest rates brought yields down. On the risk side, the accumulation of short-term capital gave residents a larger depreciation exposure.

The sizable nonresident short-term capital inflow in early 2003 affected the exchange rate but less so than the resident capital outflow in 2002, because the public did not perceive it as a threat even though it was roughly as large as the earlier outflow. In this context, it is important to stress that the capital imported in the second quarter of 2003 was not the same capital as that exported in the first half of 2002.

Another phenomenon that could have harmed financial stability began in July 2003: a decline in the volume of NIS–forex conversion transactions, coupled with a decrease in NIS–dollar exchange-rate volatility and a widening of trading margins (Figure 3.3). This phenomenon, too, had no substantive impact on financial stability; trade continued soundly throughout the period at issue. The reasons for the decline in volume of activity are not clear. The decline may have reflected a decline in nonresident interest in emerging markets, including Israel, or it may have been a 'correction' after the steep increase that followed the 2002 capital inflow, meaning that the current situation represents long-term stability.

3. EFFECT OF FOREX AND EXTERNAL ASSETS AND LIABILITIES BALANCE SHEET ON FINANCIAL STABILITY

This section examines Israel's financial stability from a balance-sheet perspective,[3] with an overview of Israel vis-à-vis the rest of the world and in terms of sectors that operate in forex. To accomplish this, we examine Israel's total external exposure, the structure of its assets and liabilities,[4] and sectoral exposure to exchange-rate changes. The analysis aims to estimate the sensitivity of the financial system to exchange-rate changes and an exceptional financial event, and the sensitivity derived from the structure of financial exposures.

The extent and structure of exposure reflected in the IIP affect the economy's ability to withstand financial crises.

The extent and structure of exposure, as reflected in the International Investment Position (IIP), affect the ability of the economy to withstand financial crises. In the 1990s, balance-sheet problems led to a number of financial crises: the public-sector debt structure in Russia, Mexico, and Brazil; liquidity problems in the South Korean banking system—originating in external debts, among other things; the structure of external exposure of the nonbanking private sector in Indonesia; and the foreign-exchange exposure of the business sector in Finland. The factors that count in assessing financial stability are sectoral IIP, the distribution of investments by types, the distribution of debt and capital instruments in which residents and nonresidents invest, and the distribution of assets by tradability.

This section provides a lengthy description of trends in Israel's external debt because external debt is central in assessing the country's financial stability. The realization of foreign investments may have an especially important effect on financial stability in an open and relatively small economy that maintains large short-term external debt. The effect of a capital outflow on the exchange rate, for example, immediately makes external-debt servicing more expensive and, therefore, heightens the probability of insolvency. A salient uptrend in external debt (especially in its net short-term component) may deter nonresidents from financing additional debt, impairing the economy's ability to roll over debt or to raise longer-term debt.

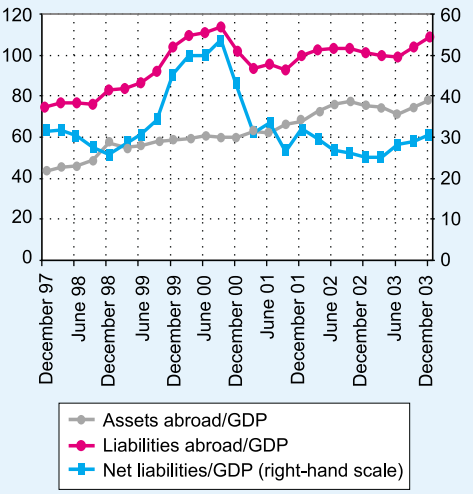
Global economic integration is doing much for the Israeli economy even as it makes the country more vulnerable to new financial risks.

Importantly, global economic integration is doing much for the Israeli economy even as it makes the country more vulnerable to new financial risks.

[3] This approach resembles the analysis of an individual corporation's balance sheet. In Berganza, Chang, and Herrero, "Balance Sheet Effects and the Country Risk Premium: An Empirical Investigation" (October 2003), an empirical correlation was found between changes in balance-sheet structure and an economy's risk premium.

[4] The Bank of England publishes an annual analysis of an International Investment Position (IIP) report from the standpoint of financial stability, titled *External Balance Sheet.* The analysis examines, among other things, the structure of currency and geographical exposure as derived from the various sections of the report.

Figure 3.4
Measures of Israel's International Investment Position (IIP), Dec. 1997–Dec. 2003 (percent)



SOURCE: Based on data from the Ministry of Finance, the CBS, and banks' and companies' reports to Bank of Israel.

a. External Economic Activity

(1) Net external liabilities

Net external liabilities increased by $ 8.5 billion in 2003 and came to $ 35 billion after a net decrease in the previous two years (Table 3.1). The changes in 2003 and in previous years were driven by the nonbanking private sector. The net increase in liabilities this year traced entirely to net foreign direct investment and an upturn in prices of Israeli shares that they held. The net liabilities/GDP ratio improved perceptibly relative to its historical level (Figure 3.4).

Net external debt

The trend that was typical of past years continued in 2003, as the increase in net external assets ($ 7.5 billion) outpaced the increase in external debt ($ 3.4 billion). This resulted in negative debt balances of $ 2.9 billion at the end of 2002 and $ 7 billion a year later, meaning that the domestic economy has become a net lender to the rest of the world. This attests to a large improvement in financial stability from the standpoint of nonresidents (lenders and investors alike). However, the net increase in external assets makes residents who invest abroad somewhat more vulnerable.

Israel's economy has become a net lender to the rest of the world.

Israel's short-term assets surplus, large to begin with, increased steadily during 2003 and stood at $ 29 billion at year's end, $ 4 billion (18 percent) greater than the end-of-2002 level. The surplus originates in the fact that most of the economy's debt is long-term government debt while most private-sector assets and the foreign reserves are short-term. The structure of the external debt and the level of external debt assets (including the reserves) have an immense effect on the financial strength and stability of the economy. Accordingly, the reduction of net debt and the steep increase in the short-term assets surplus caused Israel's financial stability to improve relative to 2002.

Financial stability improved due to a proportional increase in direct and portfolio investment (equity instruments) and a proportional decrease in credit and other investments (debt instruments).

(2) External liabilities

Nonresident assets were $ 123 billion in 2003, $ 18 billion greater than in 2002 (Table 3.1). The increase was induced mainly by a moderate recovery in high-tech and rising share prices of firms in these industries; it was abetted by an increase in direct investment and government capital mobilization abroad. Although the expansion of credit could have reduced stability, it was offset by the parallel increase in assets.

Table 3.1
Israel's International Investment Position (IIP), 2003

($ million)

	Position as of Dec. 2002	Transactions	Price changes	Exchange-rate changes	Other adjustments	Position as of Dec. 2003
Assets						
Total assets	**78,359**	**7,039**	**858**	**1,858**	**–114**	**88,000**
Of which Debt instruments	70,266	5,970	130	1,782	–357	77,791
Direct investment abroad	**10,622**	**1,551**	**3**	**76**	**–115**	**12,137**
Equity capital	6,346	561	3	76	189	7,175
Real estate			–17			17
Equity holders' loans	4,276	1,007			–321	4,962
Portfolio investment	**10,162**	**2,933**	**725**	**221**	**–287**	**13,754**
Equity securities	1,747	888	725		–326	3,034
Debt securities	8,415	2,045		221	39	10,720
Other investment abroad	**32,647**	**1,593**		**711**	**–64**	**34,887**
Residents' investment	11,786	–210			–64	11,512
Deposits of Israeli banks	7,679	1,763		436		9,878
Loans	6,157	–187		120		6,090
Trade credits	7,025	228		154		7,407
Public-sector assets abroad	24,928	1,324	130	850	–11	27,222
Resident deposits (reserves)	23,670	929	130	1,051		25,780
Derivatives		**–363**			**363**	
Liabilities						
Total liabilities	**104,576**	**5,744**	**11,458**	**2,140**	**–1,177**	**122,737**
Debt instruments	67,360	1,677		1,696		70,729
Direct investment	**25,116**	**3,746**	**3,270**	**311**	**–1,028**	**31,415**
Equity capital	23,390	3,240	3,270	302	–569	29,633
Real estate		459			–459	
Equity holders' loans	1,726	47		9		1,782
Portfolio investment	**32,424**	**2,425**	**8,188**	**422**	**–149**	**43,310**
Equity securities	13,826	368	8,188	142	–149	22,375
Debt securities	18,598	2,057		280		20,935
Other investment	**47,036**	**–427**		**1,407**		**48,012**
Nonresidents' deposits	21,270	–634		755		21,391
Deposits of foreign banks	3,235	160		44		3,439
Loans	17,520	–83		380		17,813
Trade credits	5,011	130		228		5,369
Net liabilities	**26,217**	**–1,295**	**10,600**	**282**	**–1,063**	**34,737**
Net debt instruments	–2,906	–4,293	–130	–86	357	–7,062

SOURCE: Based on reports from banks, companies, the Securities Authority, and the Ministry of Finance.

Another indicator of improved stability is the composition of investments—a larger share of direct and portfolio investments (equity instruments), a smaller share of credit and other investments (debt instruments), and a proportional increase in long-term credit. However, stability was slightly impaired by a proportional increase in tradable

assets at the expense of nontradable ones. This change was occasioned mainly by price increases in capital markets, as reflected in an upturn in the balance of tradable shares, accompanied by a drawdown of nonresident deposits with Israeli banks and a decrease in nontradable external credit. Direct foreign investment is also rather vulnerable in this respect due to its severe centralization, ten entities accounting for more than 30 percent of total investment of this type.

Total external debt

The gross debt/GDP ratio (in dollar terms) dipped from 65 percent in 2002 to 63 percent in 2003.

Israel's total gross external debt was $ 71 billion at the end of 2003, up $ 3.4 billion (5 percent) from 2002 after a $ 2.6 billion increase in 2002 relative to 2001 (Table 3.3). The gross debt/GDP ratio (in dollar terms) slipped from 65 percent in 2002 to 63 percent in 2003 due to NIS appreciation in 2003 (Table 3.2). The share of short-term debt in gross debt declined from 44 percent at the end of 2002 to 41 percent a year later.

Table 3.2
Financial Stability Indicators of the External Debt, 1994–2003

(end period, percent)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
External debt (assets) ratios										
Gross debt/GDP	58	56	52	55	63	60	55	60	65	63
Assets/GDP	34	32	33	40	53	53	53	61	68	69
Net debt/GDP	24	23	19	15	9	7	3	0	–3	–6
Short-term[a] debt/gross debt	44	46	43	40	41	42	43	43	44	41
Short-term[a] assets/total assets	88	88	89	88	89	87	84	80	78	75
Short-term[a] assets/short-term debt	118	112	130	160	186	185	187	187	184	201
Reserves/short-term[a] debt	35	38	53	91	94	86	85	83	79	89
Credit rating										
Standard & Poor's	BBB+	A–	A–	A–	A–	A–	A–	A–	A–	A–
Moody's		A3	A3	A3	A3	A3	A2	A2	A2	A2
Fitch	BBB+	A–	A–	A–	A–	A–	A–	A–	A–	A–
Institutional Investor[b]	47	49	52	53	53	56	64	60	59	53
Euromoney[b]	72	76	76	77	76	71	73	72	69	68
Spreads above US Treasuries (basis points)										
of Israeli government $ bonds maturing in 2010							215	135	140	
of Israeli government $ bonds maturing in 2013										96

[a] Short-term: maturing (realizable) in up to one year.
[b] A grade out of 100 points (100 points = no risk).
SOURCE: Bank of Israel and Central Bureau of Statistics data.

The government continued to raise debt abroad as it had in 2002, but in larger quantities. After the US government approved the guarantee arrangement, the government of Israel made this its main mobilization vehicle, although it also raised debt by issuing (non-negotiable) Israel Bonds and global bonds.

Table 3.3

Gross and Net External Debt Balances and Forward Amortization,[a] 2000–2003

(balances, $ million)

	Total balance 31.12.00	Maturity		Total balance 31.12.01	Maturity		Total balance 31.12.02	Maturity		Total balance 31.12.03	Maturity	
		Within a year	Over a year		Within a year	Over a year		Within a year	Over a year		Within a year	Over a year
Gross external debt												
Public sector	27,175	2,277	24,898	26,672	2,164	24,508	27,074	3,091	23,983	29,470	2,846	26,624
Nonbanking private sector	14,195	5,612	8,584	14,330	5,640	8,691	15,782	7,054	8,727	16,430	6,926	9,504
Banking system	22,668	19,405	3,263	23,790	20,233	3,557	24,505	19,644	4,861	24,829	19,348	5,481
Total	**64,039**	**27,294**	**36,745**	**64,792**	**28,036**	**36,756**	**67,360**	**29,789**	**37,571**	**70,729**	**29,121**	**41,608**
Percent	**100**	**43**	**57**	**100**	**43**	**57**	**100**	**44**	**56**	**100**	**41**	**59**
Assets abroad[b]												
Public sector	23,958	23,797	162	24,506	24,358	148	24,995	24,860	136	27,276	27,091	185
Nonbanking private sector	21,256	15,799	5,457	25,245	17,320	7,925	29,906	18,926	10,979	32,248	19,174	13,074
Banking system	15,674	11,332	4,341	15,573	10,651	4,922	15,365	10,988	4,378	18,267	12,237	6,030
Total	**60,888**	**50,928**	**9,959**	**65,324**	**52,329**	**12,995**	**70,266**	**54,774**	**15,493**	**77,791**	**58,502**	**19,289**
Percent	**100**	**84**	**16**	**100**	**80**	**20**	**100**	**78**	**22**	**100**	**75**	**25**
Net external debt												
Public sector	3,217	–21,520	24,737	2,166	–22,194	24,360	2,078	–21,769	23,847	2,194	–24,245	26,438
Nonbanking private sector	–7,060	–10,187	3,127	–10,914	–11,680	766	–14,124	–11,872	–2,252	–15,818	–12,248	–3,570
Banking system	6,995	8,073	–1,078	8,217	9,581	–1,365	9,140	8,656	483	6,563	7,111	–549
Total	**3,151**	**–23,634**	**26,786**	**–532**	**–24,293**	**23,761**	**–2,906**	**–24,985**	**22,079**	**–7,062**	**–29,381**	**22,319**

[a] Israel's external debt and assets include direct credit (including trade credits), bonds, and deposits.

[b] Debt instruments and the Bank of Israel's foreign exchange reserves.

SOURCE: Based on reports from banks, companies, and the Ministry of Finance.

The share of tradable debt in total gross external debt rose to a record 30 percent in 2003 as against 28 percent in 2002. The share of tradable debt in total external government debt also set a record at 56 percent, 3 percentage points higher than the year-earlier level. The proportion of tradable debt is expected to continue rising in the next few years as the US guarantees are put to full use. This reflects Israel's integration into global financial markets and attests to the ability of various sectors to raise debt abroad. However, an increase in the tradability of debt makes the economy more vulnerable to risk.

Public-sector external debt

Gross external debt of the public sector stood at $ 29 billion at the end of 2003, up $ 2.4 billion (8.8 percent). Central government is the main borrower in the public sector; its share in total gross external debt was 42 percent at the end of 2003. During the year, the government raised debt by issuing $ 4.6 billion in bonds (tradable and nontradable) abroad and paying back $ 2.7 billion in external debt (Table 3.4). After the US government approved $ 9 billion in guarantees for Israel government bond issues, the government carried out a $ 1.6 billion issue in September 2003—$ 1.15 billion for twenty years and $ 0.45 billion for thirty years, at 5.5 percent interest and an average yield of 30 basis points over US Treasury bonds. In December, the government used the same program to issue $ 750 million in twenty-year bonds, also at 5.5 percent. The guarantee program is structured in such a way that the government is to issue $ 6 billion in US-guaranteed bonds in 2004 and 2005 (about $ 3 billion per year). If this comes to pass, it will increase the gross external debt of the public sector and the share of tradable debt in total external debt.

The planned issues of US-guaranteed bonds will increase gross public-sector external debt and the share of tradable debt in total external debt in the years to come.

Table 3.4
Net Government Borrowing Abroad, 2000–2003

($ million)

	2000	2001	2002	2003
Total borrowing	**1,285**	**1,532**	**1,735**	**4,644**
Bonds under US government guarantee				2,350
Unguaranteed bonds	500	162	425	750
State of Israel bonds (nontradable)	785	1,145	1,310	1,544
Foreign banks		225		
Repayment	**1,351**	**1,926**	**1,936**	**2,708**
Net borrowing	**–66**	**–394**	**–201**	**1,936**

SOURCE: Based on data from Ministry of Finance and commercial banks.

In 2003, the government issued a record $ 1.5 billion in nontradable Israel Bonds and redeemed $ 1.2 billion. Of the bonds sold in 2003, $ 1 billion were five- and ten-

year Jubilee Bonds that had average spreads of 1.1 percent and 1.5 percent, respectively, over US Treasury notes. In recent years, after the previous US guarantees agreement expired (1998), non-negotiable Israel Bonds have been a major source of government mobilizations abroad. There were $ 9.9 billion in outstanding Israel Bonds at the end of 2003, 34 percent of the total gross external debt of the public sector. Additionally, the government raised $ 750 million in ten-year, 4.6 percent global bonds on the open market.

Table 3.5
Government's Dollar Debt: Average Interest Rates and Credit Term, 1999–2003

	1999	2000	2001	2002	2003
Average interest on loans taken during year (%)	**6.1**	**7.1**	**5.3**	**5.4**	**5.1**
Medium-term credit	6.1	6.1	5.1	4.7	3.9
Long-term credit	6.1	7.5	5.7	5.9	5.3
Average credit term on loans taken during year (years)	**7**	**8**	**7**	**7**	**15**
Average interest on end-year outstanding credit (%)	7.1	7.2	6.4	6.3	6.0
International interest rates (%, annual averages)					
6-month Libor	5.6	6.7	3.8	2.0	1.3
US 10-year T-Notes	5.6	6.0	5.0	4.6	4.0
US 20-year T-Bonds	6.2	6.2	5.6	5.4	5.0

SOURCE: Based on data from Ministry of Finance and commercial banks.

The average cost of raising dollar-denominated debt was 5.1 percent in 2003 as against 5.4 percent in 2002 (Table 3.5). The total cost is worked out by weighting the cost of raising debt in various ways—US government guaranteed bonds, nontradable Israel Bonds, and tradable bonds in international capital markets. The cost is affected by Israel's credit risk rating, changes in interest rates on tradable bonds, and interest rates on Israel Bonds. Long-term rates around the globe were relatively stable in 2003 after having fallen by 2 percentage points during the previous three years. Medium-term debt cost 3.9 percent; long-term debt cost 5.3 percent.

The government makes long-term capital issues abroad in order to lighten the burden of short-term redemptions. Much issuance under the previous US guarantees arrangement (1993–1998) was composed of zero-coupon bonds, on which the interest is payable upon the redemption of the principal, a method that reduces the burden of debt servicing in the short term. Under the new guarantees agreement, approved in 2003, interest payments will be made once every half-year. Over the next four years, the government will pay $ 3.5 billion-$ 4.1 billion in principal and interest each year. The average term of issuance was fifteen years in 2003 as against seven in previous years. This reflects the fact that the new US-guaranteed bonds were issued for longer terms.

Box 3.1
The Guarantees Arrangement from the Perspective of Financial Stability

The US–Israel guarantees agreement allows Israel to issue $ 9 billion in tradable bonds in the American market, with a US government guarantee, over a three-year period at $ 3 billion per year. The government of Israel began to utilize the arrangement in 2003 by raising $ 2.35 billion in two issues, one in September and one in December.

The guarantees arrangement has several aspects that relate to financial stability. On the positive side, the receipt of the guarantees has helped Israel to maintain its sovereign rating (A–) despite its recession and fiscal deficit. By having a favorable effect on nonresidents' view of Israel's country risk, the arrangement has helped to lower Israel's risk premium. Some proceeds of the guaranteed issues are deposited with the Bank of Israel, thereby building up the foreign reserves. By means of the guaranteed issues, the government can make smaller domestic issues and refrain from crowding the private sector out of the Israeli capital market.

However, issuance under the guarantees arrangement has several potentially negative aspects. (a) Reportage about the guarantees agreement led to a decrease in the risk attributed to Israel, resulting in rapid adjustment of the financial environment—as reflected, among other things, in appreciation of the NIS during 2003. The appreciation was detrimental to the profitability of exports, which had been struggling due to the decline in demand abroad. (b) The US government, practically speaking, assumed Israel's country risk and gave it an 'insurance policy' that reduced the risk premium that Israeli borrowers have to pay. From the standpoint of financial stability, this is actually a distortion in resource allocation that may create a moral hazard—an incentive to take excessive risks against the Israeli economy and the NIS—that may force the financial markets into disequilibrium.

External debt of the nonbanking private sector

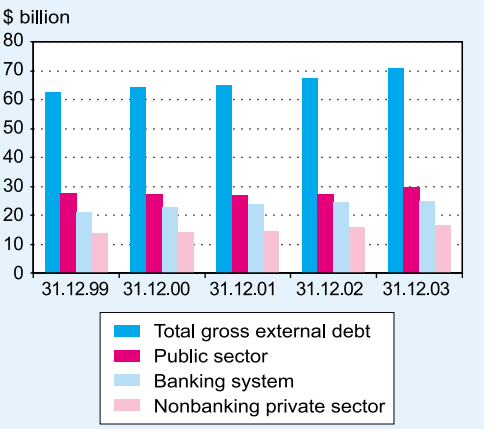
The nonbanking private sector had $ 16.4 billion in gross external debt in December 2003, 4 percent higher than the end-of-2002 level (Figure 3.5). The increase occurred due to new borrowing and exchange-rate differentials caused by dollar depreciation against other currencies. In recent years, the nonbanking private sector has amassed rather large net mobilization (issues less redemptions) by issuing bonds abroad.

External debt of the banking system

The banking system had $ 24.8 billion in external liabilities in December 2003, up $ 0.3 billion from the end of 2002. Foreign banks' deposits increased gently during the

year after a $ 2 billion upturn in 2001 and 2002. Although nonresidents continued to draw down their deposits in 2003, the balance of such deposits increased slightly due to exchange-rate differentials.

Figure 3.5
Gross External Debt, by Sector, Dec. 1999–Dec. 2003



SOURCE: Based on data from the Ministry of Finance, and commercial banks.

(3) External assets

The recovery of global financial markets increased Israel's financial vulnerability.

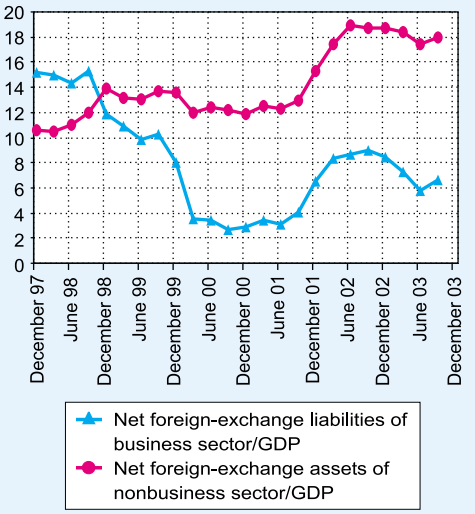
Financial stability in 2003 was affected by the recovery of financial markets around the world. The recovery increased Israel's financial vulnerability by exposing more assets to market risks (price decline and currency appreciation). External investment increased by $ 10 billion and came to $ 88 billion at year's end. The vulnerability originating in the external assets/GDP ratio remained high by historical standards. Direct external investment increased by $ 1.5 billion, to $ 12 billion at year's end, and was centralized among a small number of companies. The strongest increase—$ 3.6 billion—was in portfolio investment, which climbed to $ 14 billion by the end of December. Public-sector assets, chiefly the foreign reserves, increased by $ 2.3 billion to $ 27.2 billion. The growth in reserves was due to profits of the Bank of Israel and US-guaranteed government bond issues, somewhat offset by the lowering of secondary liquidity ratios on banks' forex deposits with the Bank of Israel.

The effect of the composition of the assets portfolio on financial stability was not clear-cut. The tradable component rose at the expense of the nontradable component, largely due to price increases. The proportions of debt instruments and equity instruments did not change substantially and the distribution of assets between foreign reserves and the private sector was similar to that in 2002.

b. Sectoral exposure to exchange-rate risk

The stability of various sectors that engage in forex activity moved in oppposing directions during 2003. The depreciation exposure of the business sector decreased perceptibly during the first half of the year (Figure 3.6). In contrast, the vulnerability of households, resulting from their appreciation exposure, remained relatively high because their forex assets had been rising swiftly since December 2001. In fact, the appreciation risk came to pass somewhat in the second quarter of 2003, as the NIS appreciated rapidly and eliminated nearly all of the exceptional depreciation that occurred in the second half of 2002.

Figure 3.6
Main Developments in Israel's Foreign Exchange Account, 1997–2003
(percent)



SOURCE: Based on banks' and companies' reports to Bank of Israel.

Importantly, despite the rather vigorous appreciation of the NIS and the decline in measured exchange-rate risk, households did not reduce their forex assets and, for this reason, continued to maintain a large appreciation position. This is a natural development, since households are defined as surplus spending units.

In the business sector, the trend in exposure points to widening heterogeneity between holders of assets and holders of liabilities, a development that lowers vulnerability. In contrast, this sector still makes little use of hedging instruments against abrupt exchange-rate changes (in either direction).

The vulnerability of the business sector to depreciation decreased perceptibly, but that of households remained relatively high due to their exposure to appreciation.

4. EFFICIENCY OF THE NIS–FOREX MARKET

Financial stability is affected by the degree of efficiency of the NIS-forex market.[5] If the market is inefficient—if it lacks sufficient depth or if its liquidity or tradability are low, for example—an aberrant financial event will develop unchecked and may worsen. Inefficiency may even instigate an aberrant financial event.

Efficiency in the NIS-forex market continued to improve in 2003, although more slowly than in the past, as evinced mainly in the continued uptrend in trading volumes (Figure 3.3) and the maintenance of nonresidents' share in trading. However, exchange-rate volatility was lower in December 2003 than the pre-December 2001 level, and it is not clear whether this represents a stable level for the NIS-forex market or a temporary situation. The widening of buy–sell margins in trading[6] reflects a decrease in market efficiency since it may point to the absence of competitive market forces that might narrow the margins, e.g., an undesirably small number of market makers. There are indications of heterogeneity in nonresident activity, even though such activity decreased slightly in the second quarter of the year. Resident activity is more heterogeneous because residents outnumber nonresidents in the market.

Efficiency in the NIS-forex market continued to improve throughout 2003, although more slowly than in the past. However, exchange-rate volatility was relatively low in December 2003.

[5] The reference is to the market's operating efficiency. Market efficiency pertains to various aspects of operating efficiency, such as continuity of trade, the variety of instruments available to investors, and the cost and availability of information. The main factors in market efficiency, however, are liquidity, tradability, and rate volatility.

[6] The two indicators—exchange-rate volatility and trading margins—are also used to estimate exchange-rate risk; an increase in these indicators reflects an increase in risk.