Chapter 7
The Money and Capital Markets

Monetary policy in 1998 focused, as in the past few years, on attaining the government's inflation target and acted to consolidate a low inflation environment consistent with the government's long-term goal—the attainment over time of price stability as accepted in the industrialized countries—and conducive to sustainable growth. Developments in monetary policy in 1998 can be divided into three periods. In the first, lasting until August, inflation slowed markedly to an annual rate of 4 percent, indicating unexpectedly rapid progress toward the long-term target set by the government. Concurrently, the Bank of Israel gradually and cautiously lowered the nominal interest rate, to consolidate the decrease in the inflation environment and mitigate the impact of global financial shocks on the domestic economy. In August, the government set the 1999 inflation target at 4 percent and the slope of the lower limit of the crawling band was reduced to 2 percent. Pursuant to these measures, the Bank of Israel lowered its key rate by 1.5 percentage points. In the second period, from mid-August until November, shocks in overseas financial markets affected financial markets of industrialized economies and Israel's too, as reflected *inter alia* in a substantial currency depreciation, a serious upturn in exchange-rate volatility, and increases in prices and inflation expectations. To minimize the inflationary effects of the shocks and to make them nonrecurrent, the Bank of Israel raised the November key rate twice, by 4 percentage points cumulatively. The Bank refrained from direct intervention in foreign-currency trading during this time, and the exchange rate developed in accordance with market forces. In the third period, after the key interest rate was raised, the inflation environment began to move back toward the low trajectory that preceded the shocks: the December 1998 and January and February 1999 price indices were very low and inflation expectations decreased significantly.

An additional phase in the foreign-currency liberalization process was set in motion this year; for the first time, households were allowed to invest overseas without any statutory limit. However, households and institutional investors did not increase their overseas investments significantly. Evidently, the advantages of the liberalization will be fully exploited only if the taxation disparity between overseas and domestic investments is narrowed.

In the capital market, bond prices decreased in 1998, but not consistently during the year: prices fell in the first half of the year and in the last two months, and rose in July-October. Long-term-bond prices fell by almost 10 percent in real terms. Salient factors behind the increase in long-term interest included upturns in short-term interest, in the risk premium in response to financial turmoil abroad, and in the domestic fiscal deficit.

Share prices declined—largely under the influence of falling prices in foreign bourses between August and October, and in reflection of changes in domestic interest rates and another year of poor corporate profitability.

1. MAIN DEVELOPMENTS

Monetary policy focused on attaining the government's inflation targets.

Monetary policy this year, as in the past years, focused on attaining the government's inflation target and acted to consolidate a low inflation environment consistent with the government's long-term goal—to achieve price stability over time, at a level conventional in industrialized countries—and conducive to sustainable growth. The following analysis divides the year into three periods. In the first period, January-August, the trend evident in the last four months of 1997 continued. Inflation decreased and inflation expectations fell to the vicinity of 4 percent in annual terms—approximating the level in the developed economies. During this period, the Bank of Israel lowered the nominal interest rate cautiously and gradually (Figure 7.1 and Table 7.1) for two main reasons: (a) to create conditions in which the lower inflation environment could become consolidated, and (b) ensure that the narrowing of the interest differential between Israel and abroad would not destabilize domestic financial markets in view of financial turmoil abroad. As a result of this strategy, the real expected interest rate in the second half of 1998 rose to about 7 percent, exceeding the late-1997 level. At the end of this period,—in view of the decrease in the inflation environment, the government's decision in August to set the 1999 inflation target at 4 percent, and the introduction of a gentler slope in the lower limit of the exchange-rate band—the Bank of Israel lowered its key interest rate by 1.5 percentage points.

The second period ensued when the crisis in Russia worsened and spilled over into other financial markets. Turbulence abroad affected Israel's markets at this time, as manifested mainly in a steep currency depreciation that animated a process of price increases. Inflation expectations also rose and it was feared that the process would culminate with a higher inflation environment. To avert this possibility, the Bank of Israel raised its interest rate twice in November, by 4 percentage points cumulatively. Convinced that the foreign-currency market was functioning in an orderly manner, the Bank did not intervene in trading. This was pursuant to the non-intervention strategy adopted in February 1996, which aims to facilitate more accurate pricing of exchange-rate risks and to allow supply and demand forces, emanating from the business sector, to play a larger role in setting the exchange rate. The large interest-rate increase, coupled

Table 7.1
Monetary Indicators, 1992–8

(percent)

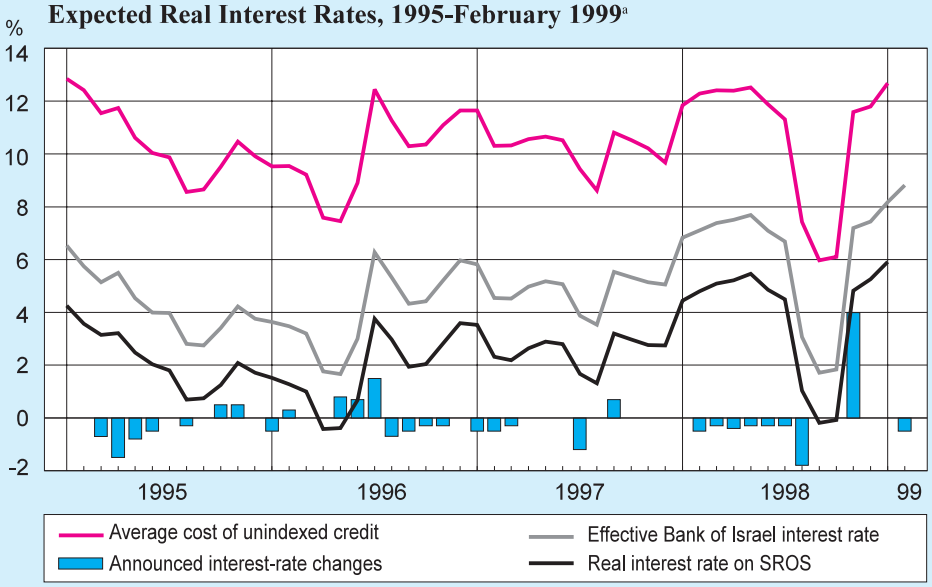
	Average 1992–94	1995	1996	1997	1998	1998 Jan–Jun	1998 Jul–Sep	1998 Oct–Dec
Nominal interest								
Monetary loans	12.8	15.6	16.1	14.3	12.0	12.8	10.4	12.1
Banks' deposits with Bank of Israel			18.1	15.1	12.6	13.4	10.9	12.6
Unindexed credit	18.5	20.2	20.7	18.7	16.1	17.0	14.5	16.2
SROs[a]	10.5	13.3	13.8	12.2	10.1	10.9	8.7	10.5
Real yield to maturity on 10-year bonds	3.0	4.3	4.5	4.0	4.8	4.8	4.8	5.0
Real interest on mortgages	4.8	5.4	5.6	5.1	5.9	5.9	6.3	5.6
Monetary aggregates[b]								
M1	22.9	16.5	11.9	14.1	12.8	9.0	41.4	–3.7
M2	32.9	34.4	26.2	24.8	17.3	20.5	22.5	6.4
Credit, total	33.0	22.0	21.5	16.3	19.3	14.8	18.9	29.3
Local-currency-indexed and unindexed	35.4	13.0	19.3	13.1	17.0	13.7	14.3	27.0
In and indexed to foreign currency	24.1	63.2	28.4	25.6	25.3	17.6	31.6	35.5
Banks' deposits with Bank of Israel (NIS million)[c]			5,000	27,500	7,500	3,700	–1,100	4,900
Inflation expectations (gross)	10.5	10.8	11.9	9.3	6.3	5.7	6.8	6.9
Inflation expectations (net)	9.7	12.5	13.7	10.6	7.6	7.1	8.2	8.1
CPI (change during period)[b]	11.7	8.1	10.6	7.0	8.6	4.5	7.4	18.8
Change in NIS/currency-basket exchange rate	10.1	4.6	3.4	4.3	9.6	4.6	7.7	74.8
Average during period	9.4	5.7	3.1	3.6	20.8	6.4	28.1	46.9
Private sector foreign-currency conversions ($)	–1,345	6,165	1,892	6,848	313	389	–50	–26

[a] Self-renewing overnight deposits.
[b] The rate of change during the year is calculated on the basis of the December averages of the previous and the current years. The average rate of change is calculated on the basis of the year-on-year averages.
[c] At Bank of Israel auctions; period-on-period change.
SOURCE: Based on Central Bureau of Statistics data.

with the Bank of Israel's non-intervention in the foreign-currency market this year, mitigated the inflationary effect of the depreciation and ensured that the price increases occasioned by the depreciation would be nonrecurrent.

In the third period, beginning in December, the economy began to move back toward an inflation environment approximating the 1999 target—as evidenced in the low Consumer Price Indices in December 1998 and January and February 1999.

Figure 7.1
The Bank of Israel Interest Rate and Expected Real Interest Rates, 1995-February 1999[a]



[a] At effective rates.

Dates on which interest-rate changes were announced in 1997, 1998 and 1999 (up to February): 22.2.99, 12.11.98, 26.10.98, 6.8.98, 27.7.98, 22.6.98, 25.5.98, 27.4.98, 23.3.98, 23.2.98, 26.1.98, 25.8.97, 18.6.97,24.2.97, 27.1.97.

The foreign-currency market operated without central-bank intervention.

The growing importance of market forces was also reflected in the field of foreign-currency liberalization.

As stated, the foreign-currency market operated throughout 1998 without central-bank intervention.[1] The growing importance of market forces in setting the exchange-rate was also reflected in the field of currency liberalization. Almost all restrictions on Israelis' foreign-currency activity and on nonresidents' domestic activity were abolished. Thus, for the first time, households were allowed to invest abroad with no statutory limit. However, the tax system as currently structured diminishes the profitability of direct overseas investments by households, and the institutional players that act as conduits for long-term savings are still barred from or limited in investing abroad. Therefore, the advantages of the liberalization were not fully utilized and were put to particularly scanty use in diversifying the public's financial portfolio and spreading its risks more efficiently.

Real short- and long-term interest rates rose in 1998. The real expected interest rate on Bank of Israel deposit auctions climbed by about 1 percentage point to 6 percent, and the real average yield to maturity on CPI-indexed bonds increased.[2] The interest

[1] With the exception of four days in early 1998.

[2] There were perceptible differences between periods during the year: real interest rates declined in July-October.

rates themselves dampened domestic demand and inflation. Apart from the nominal short-term interest rate, the transmission channels of monetary policy during the year were inflation expectations—which decreased on average—and the exchange rate. The latter was not an inflationary factor during the first period of the year; because capital inflows continued (among other factors), it fluctuated near the lower limit of the exchange-rate band. The behavior of the exchange rate and the decrease in import prices helped restrain price increases.

Real interest rates—short- and long-term—rose in 1998.

Yields to maturity on long-term CPI-indexed government bonds climbed to 5 percent on average (as against 4 percent in 1997). This development traces back to the increase in real short-term interest rates, a slight slackening of fiscal discipline relative to 1997—manifested in an increase in the shares in GDP of the fiscal deficit and debt—and an increase in the risk premium pursuant to overseas financial shocks. CPI-indexed bonds delivered a negative real total yield (-1 percent after tax, and -6 percent in long-term bonds).

The stock exchange generated negative yields.

The total real return on the Tel Aviv Stock Exchange—affected by volatility in world capital markets, higher interest rates, and low business profitability—was also negative (-5 percent).[3] In comparison with other stock exchanges, returns on shares in Israel fell short of those in most developed countries but exceeded those in many emerging markets.[4]

Changes in the composition of the public's financial assets were relatively mild.

Despite the overseas shocks and their impact on the domestic markets, the public behaved rather moderately in adjusting the composition of its financial assets this year. The proportion of assets indexed to exchange rates increased (in a departure from a decade-long trend), foremost in the second half of the year. This occurred because the currency depreciation inflated the value of these assets and because the increase in demand for them was met, inter alia, by government issues indexed to exchange rates. In respect to local-currency aggregates, the growth rate of the money supply (M1) continued to outpace nominal GDP and uses. The proportional increase in unindexed assets (M1, and, in the main, local-currency deposits) in the total financial portfolio slowed in 1998 after years of rapid growth. The share of NIS-denominated assets in the portfolio continued to rise in the first period of the year and declined between August and November.[5] The proportion of CPI-indexed assets in the portfolio continued to decline in 1998, but the rate of the decrease slowed in the second half of the year as overseas financial turmoil began to affect the domestic markets. Provident funds, which

[3] However, a recovery was observed in the first ten weeks of 1999.

[4] Such is the case both in dollar terms and in purchasing power parity. In comparison with emerging markets, returns on the Tel Aviv Stock Exchange fell short of those in Asian stock exchanges in 1998 but from a two-year perspective exceeded those in Asia and South America.

[5] The share of these assets climbed again in December and in early 1999.

Table 7.2
The Capital Market as at December 31, 1998, and Change from Previous Year

(NIS billion)

	Total	Shares[a]	Negotiable bonds[b,c]	Indexed earmarked bonds	Treasury bills[b]	Other held by institutions
Institutions						
Provident funds	135.2	16.0	63.8	10.2	2.6	42.5
Change (%)	–3.0	–6.6	–3.6	–20.9	–28.2	7.8
Pension funds	100.2		0.6	95.2		4.4
Change (%)	5.2		51.0	5.3		0.2
New pension funds	3.2		0.6	2.2		0.4
Change (%)	54.6		52.4	61.8		25.8
Life insurance plans	57.5	2.0	9.9	31.8		13.8
Change (%)	10.4	–4.4	44.3	3.5		11.1
Mutual funds[d]	22.0	5.7	11.6		3.4	1.4
Change (%)	5.4	–24.6	17.5		25.3	71.6
Households and companies	79.7	42.6	26.4		10.6	
Change (%)	2.2	8.0	–13.3		31.7	
Nonresidents[e]	33.5	32.3	0.9		0.3	
Change (%)	–3.2	–3.4	–2.8		13.8	
Commercial banks	44.9		38.3		6.6	
Change (%)	1.1		4.3		–14.4	
Total	474.6	98.6	152.0	139.4	23.5	61.1
Change (%)	1.9	–1.0	0.2	3.0	5.1	8.0
Real change in price[f,g] (%)	–2.5	–7.5	–2.3	–0.4		–0.4
Change in quantity (%)	4.6	7.0	2.6	3.3	5.1	8.4

[a] Excluding market value of quoted companies derived from their holdings in other quoted companies ('double counting'), and government-owned companies.
[b] Excluding securities held by the Bank of Israel.
[c] Government and corporate bonds.
[d] Adjusted for provident funds' and nonresidents' holdings in mutual funds.
[e] Excluding $15 million of other financial assets held by nonresidents in mutual funds.
[f] Total real return *minus* interest and dividend.
[g] Prices of earmarked bonds and other institutional holdings declined in real terms in 1998, as indexation is calculated on the rise in prices from November 1997 to November 1998. This rise was 8.2 percent, whereas inflation from December 1997 to December 1998 was 8.6 percent.
SOURCE: Bank of Israel Research Department.

hold a large share of indexed government bonds, continued to experience withdrawals in 1998. In contrast, the share of assets in pension funds, which invest mainly in earmarked bonds, and in life-insurance plans rose.[6]

[6] Earmarked bonds were issued for 'old' insurance plans, i.e., those begun before 1992. The quantity of earmarked bonds in these plans has increased in real terms in the past few years, and their share in domestic debt is not declining.

Total bank credit rose at a rate similar to that in 1997, but the composition of the increase changed. The share of foreign-currency credit in the total credit increase declined—especially in the last few months of the year, after the exchange-rate volatility risks associated with taking such credit became real—thus halting three consecutive years of increases. However, pursuant to the currency depreciation, outstanding credit denominated in and indexed to foreign currency continued to rise as a fraction of total bank credit.[7]

Total bank credit rose at a rate similar to that in 1997, but the composition of the increase changed.

2. MONETARY POLICY

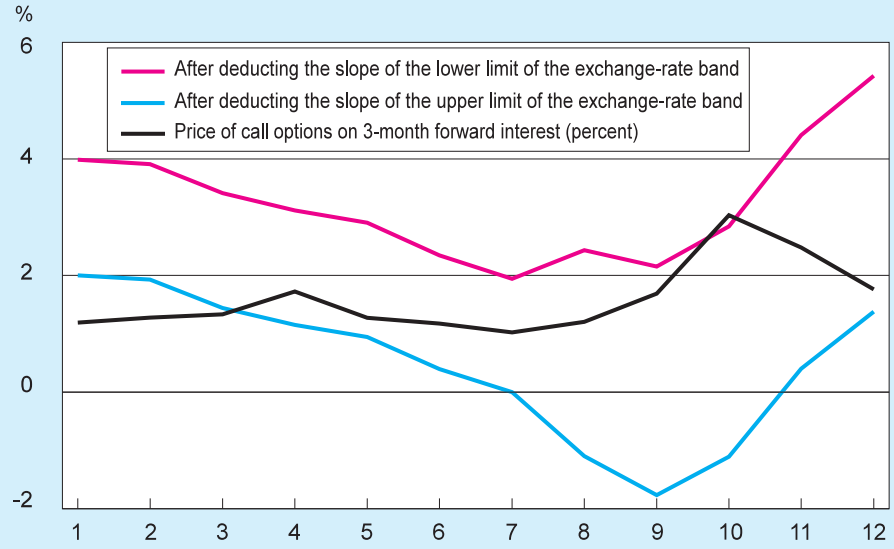
The comparative advantage of monetary policy is its effect on the trajectory of prices and the creation of nominal conditions of economic stability with which the economy may fulfill its long-term growth potential. For this reason, in the early 1990s the government of Israel began to set inflation targets that guided the monetary policy of the Bank of Israel—mirroring the conventional approach in Western Europe and various countries in Eastern Europe, North and South America, and Asia. Most of these countries have chosen low inflation or price stability as a target.

At the same time, the exchange-rate policy was also modified from a regime of daily intervention in the foreign-currency market—meant to influence the exchange rate, which was confined within a relatively narrow band—to one of steadily widening exchange-rate fluctuations in response to market forces, within a crawling band that is widened periodically. The width of the band came to more than 35 percent in 1998, and its intermittent broadening has given the central bank greater latitude in setting its key rate (Figure 7.2b). Since February 1996, the Bank of Israel has refrained from intervening systematically in the foreign-exchange market except when the exchange rate verges on the limits of the band or when activity in this market is irregular. From July 1997 to the present writing, except for several days in late 1997 and early 1998, such intervention has been unnecessary and the exchange rate has been set by market forces only.

The main instrument that the Bank of Israel may use to attain the inflation target is the interest rate on monetary loans to banks or the interest paid on banks' deposits with the Bank of Israel. These rates affect the entire matrix of interest rates on unindexed local-currency deposits and credit. In view of inflation targets and additional factors—such as the level of interest in the recent past, fiscal policy, the exchange rate, expectations, monetary aggregates, and prices abroad—the Bank of Israel sets the interest rate in order to affect the inflation environment and keep it in line with the targets.

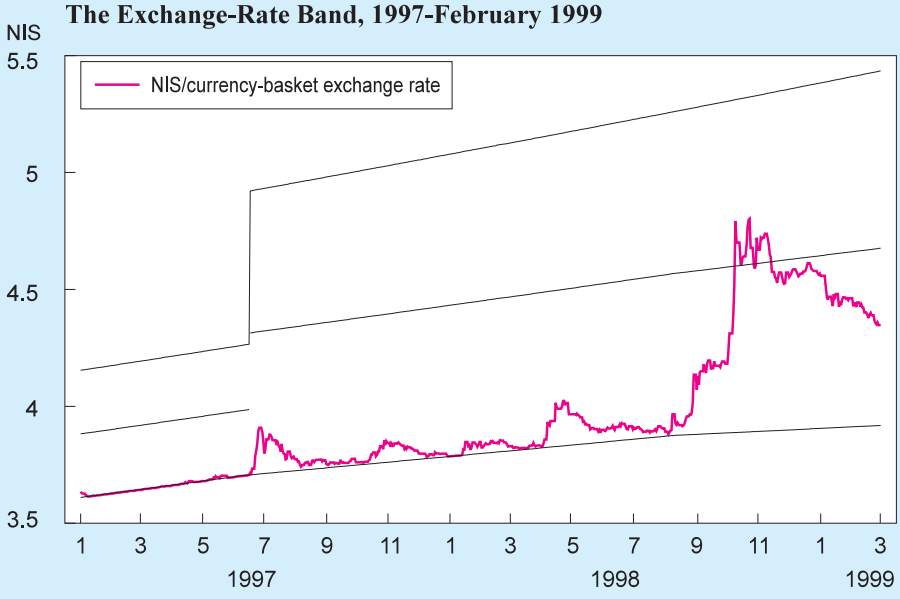
[7] Concurrently, greater use was made of hedges against exchange-rate volatility, especially from August.

Figure 7.2A
The Spread between Interest on Credit in Local Currency and that in Foreign Currency, 1998[a]



[a] Calculated as the differences between interest on local-currency 3-month credit *minus* the weighted interest on the currencies in the basket *minus* the slope of the exchange-rate band and country risk (see Box 6.4).

Figure 7.2B
The Exchange-Rate Band, 1997-February 1999



Monetary policy in January-August 1998

The inflation rate slowed perceptibly in the first seven months of 1998.

The first period of the year, until the middle of August, was an extension of the last few months of 1997. The inflation rate slowed considerably—from 7 percent in 1997 to 4 percent, in annual terms, in the first seven months of 1998. Such an inflation rate fell below the lower limit of the 1998 inflation target range (7-10 percent) and would have brought Israel's economy close to the government's long-term goal of price stability over time at a level considered conventional in the industrialized countries, more quickly than the plans had envisioned. The decrease in the inflation environment was abetted by monetary restraint. Additional background factors—the ebbing of mass integration, structural changes, a decrease in tourism, and meager business-sector profitability—had similar effects. These factors combined to dampen domestic demand, foremost for investments, which decreased by 8 percent in 1998, mainly in inventory and residential construction. Some of the slump in demand, however, is traceable to other factors (see Chapter 2). The decrease in import prices and the movement of the exchange-rate close to the lower limit of the crawling band, affected by policy and other factors, made up the backcloth to the leveling of increases in the prices of tradable goods and housing, relative to the 1997 inflation rate and the 1998 inflation target.

The Bank of Israel gradually lowered the nominal interest rate in the first seven months. Accordingly, expected real interest rates rose.

In response to the sharp and unexpectedly rapid decrease in the inflation environment, the Bank of Israel lowered the nominal key lending rate gradually in the first seven months of the year, causing the annual effective rate to decline from 14.3 percent in January to 11.6 percent in July.[8] To make the disinflation permanent and to minimize the threat of a spillover into Israel of financial turmoil abroad—especially in view of the exchange-rate regime and the business sector's large foreign-currency liabilities—the interest-rate reductions were smaller on average than the declines in inflation expectations. Thus, the expected real interest rates set by the central bank, relative to the second half of 1997, climbed to 7 percent on average (Figure 7.1 and Box 7.1). The other short-term local-currency interest rates fluctuated in tandem with fluctuations in the central bank's key lending rate. Nominal interest on unindexed bank credit to the public decreased in the first half of the year, but in view of the decline in inflation expectations this rate rose in real terms to more than 10 percent on average. Yields to maturity on two-year CPI-indexed bonds also climbed—to 6.5 percent in real annual terms.

The phenomenon of rising real interest rates amidst disinflation is not unique to the Israel economy.

The phenomenon of rising real interest rates amidst disinflation is not unique to the Israel economy. Other countries' central banks also usually respond to disinflation by moving cautiously—reducing the nominal interest rate slowly—in order to sustain the disinflation. When such a policy is applied, real interest rates attain higher levels for rather long periods of time.

[8] The decreases went into effect between February and August.

Box 7.1: The Real Interest Rate as a Monetary Conditions Index

Traditionally, the expected real interest rate of the Bank of Israel is calculated by subtracting the expected inflation rate from the Bank's nominal interest rate. To perform this subtraction, it is conventional to use inflation-expectation estimates for one year ahead, as derived from capital-market indicators (Figure 7.3). The resulting real interest rate serves as a monetary conditions index.[1]

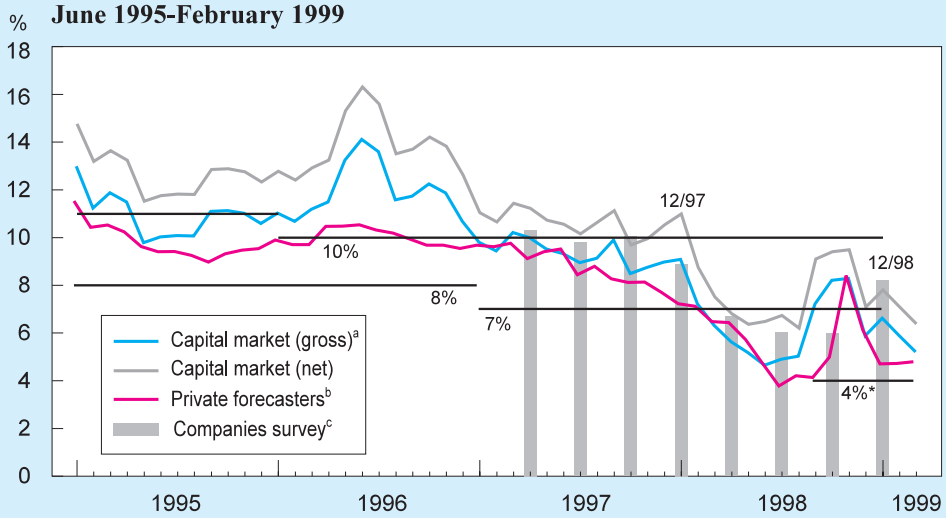
The traditional estimation of real interest, calculated by subtracting one-year inflation expectations from the short-term interest rate in a given month assumes that the nominal interest rate will remain constant during the year. However, in the first half (and the last two months) of 1998, the interest curve evidently included an inherent expectation of a decrease in the short-term nominal rate. When the average expected interest rate is calculated on the basis of decreased expectations that are built into the slope of the interest curve for Treasury bills (Table 7.A.8), one finds that the expected real interest rates in the first half of 1998 were more than 1 percentage point lower than the estimate obtained in the conventional way (Figure 7.4).

In addition to inflation estimates derived from capital-market indicators (gross and net), private forecasters and participants in various surveys (such as the Bank of Israel survey of companies) make their own inflation forecasts—which are also problematic. One may also use these forecasts to calculate the expected real interest rate. The estimates of real interest and the times at which this indicator changes vary from estimate to estimate, thus indicating the caution that should be applied in using them.

[1] In other countries, monetary conditions indices include an exchange-rate variable.

As stated, the inflation rate in the first half of the year was 4 percent in annual terms, as against 7 percent in 1997 and an inflation target of 7-10 percent in 1998. This development, coupled with the slowdown in all components of the Consumer Price Index, indicated that the inflation environment was settling at a lower level than in the past and that the government's long-term target—price stability over time, at the level accepted in the industrialized countries—was being approached with greater celerity than the plans had envisaged. On August 6, 1998, the government expressed this outlook by setting the 1999 inflation target at 4 percent and reducing the slope of the lower limit of the exchange-rate band from 4 percent per year to 2 percent. These decisions allowed the government to predicate its fiscal, wage, and price policies on low expected inflation rates. The reduced slope also gave borrowers and investors a more accurate basis for estimation of the risks associated with foreign-currency activity, thus making monetary policy more effective. After the government took these measures, the Bank

Figure 7.3
Expected Inflation for 12 Months Ahead, and the Annual Inflation Targets, June 1995-February 1999



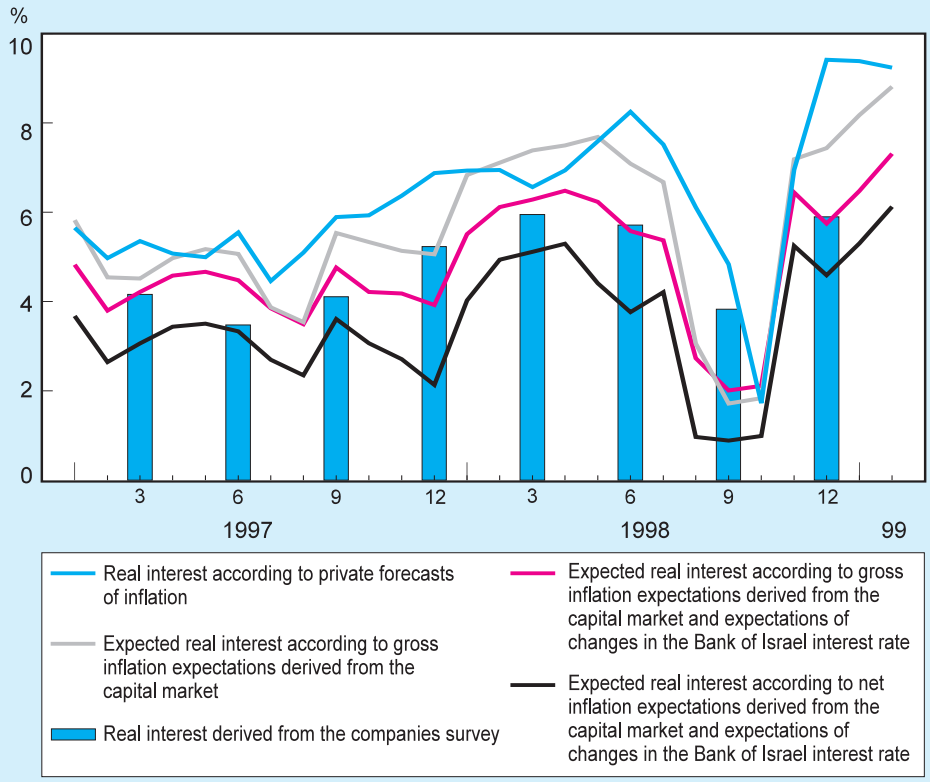
[a] Expected inflation derived from capital market assumes full tax-exemption for the investor in indexed bonds, calculated from monthly average.

[b] The index of private forecasters averages the inflation forecasts for 12 months of the major banks and several economic consultants and forecasters.

[c] Quarterly forecast received for the last few days of the quarter.

* Inflation target for 1999 announced.

Figure 7.4
Bank of Israel Real Interest Rate, 1997-February 1999



of Israel announced a 1.5 percentage point decrease in the key lending rate (after the rate for August had already been lowered by 0.3 percentage point), resulting in an effective rate of less than 10 percent.

The lowering of interest in August and the upturn in inflation expectations were reflected in a decline in real interest.

The reduction in nominal interest in August and the upturn in inflation expectations that followed it were reflected in a 3 percentage-point decline in the expected real monetary lending rate. Yields to maturity of CPI-indexed bonds declined.

Monetary policy since the second half of August 1998

At the beginning of the second period in 1998—in mid-August, after the government of Russia unilaterally defaulted on its foreign debts—the ruble depreciated, as did the currencies of many countries—including the NIS, which lost 5 percent against the five-currency basket. Demand for foreign currency resumed in early October with greater vigor, the NIS depreciating by 15 percent, amidst considerable exchange-rate volatility.

The shocks in the foreign-currency market in August and October were affected by developments in world markets.

The foreign-currency turmoil in August and November was affected by developments abroad. A crisis that began in Thailand in July 1997 initially spilled over into other Asian countries and subsequently into Russia, South Africa, and Latin America. The resulting crises underscored the fact that many Western investors had underestimated the risks of investing in emerging markets. When financial institutions in developed economies faced liquidity difficulties in 1998, and after the Federal Reserve Board came to the aid of the large hedge fund LTCM—which in late September faced the possibility of imminent collapse—the risk exposure of investors and the financial sector was further underlined.[9] These developments raised many countries' risk premiums and, in the course of August, widened the spread between yields on Israeli bonds in the United States and on US government bonds (see Chapter 6). They also prompted nonresidents to repatriate financial investments in many emerging markets, including Israel, raising demand for foreign currency and depressing prices on the Tel Aviv Stock Exchange. Domestic players, including some who had taken foreign-currency credit and now feared continued currency depreciation, also exhibited demand for foreign currency. The domestic foreign-currency market experienced unprecedented large trading volumes during that time.

Developments in the foreign-currency market were affected by currency positions and the narrowing of yield differentials between Israel and abroad.

The domestic foreign-currency developments were affected by the sizable foreign-currency position of the business sector. This position made the business sector more sensitive to exchange-rate changes and may have contributed to a more rapid rise of the exchange rate because of businesses' attempts to reduce their exposure. These developments were also influenced by the contraction of yield spreads versus abroad as the central bank lowered its key lending rate in the first period of the year (Figure 7.2), which made foreign-currency credit less worth taking. An upturn in expected

[9] The fact that several of this fund's managers had won Nobel Prizes in economics for their work in risk estimation further emphasized the seriousness of the problem.

risks in the foreign-currency market also seems to have contributed to the depreciation in October. Until the depreciation in late August, the exchange rate had remained near the lower limit of the exchange-rate band for two years and had shown little volatility. The public seems not to have expected substantial exchange-rate volatility, as evidenced in the protracted increase in foreign-currency credit and the relatively low prices of foreign-currency derivatives. After the 6 percent August depreciation, depreciation expectations mounted and the public began to place more of its financial portfolio in deposits indexed to or denominated in foreign currency, to buy into foreign-currency mutual funds, to become more active in the market of financial hedging instruments, and to reduce the share of foreign-currency credit in total credit.

When it became absolutely clear that there was a substantive inflation risk, the Bank of Israel raised the November interest rate.

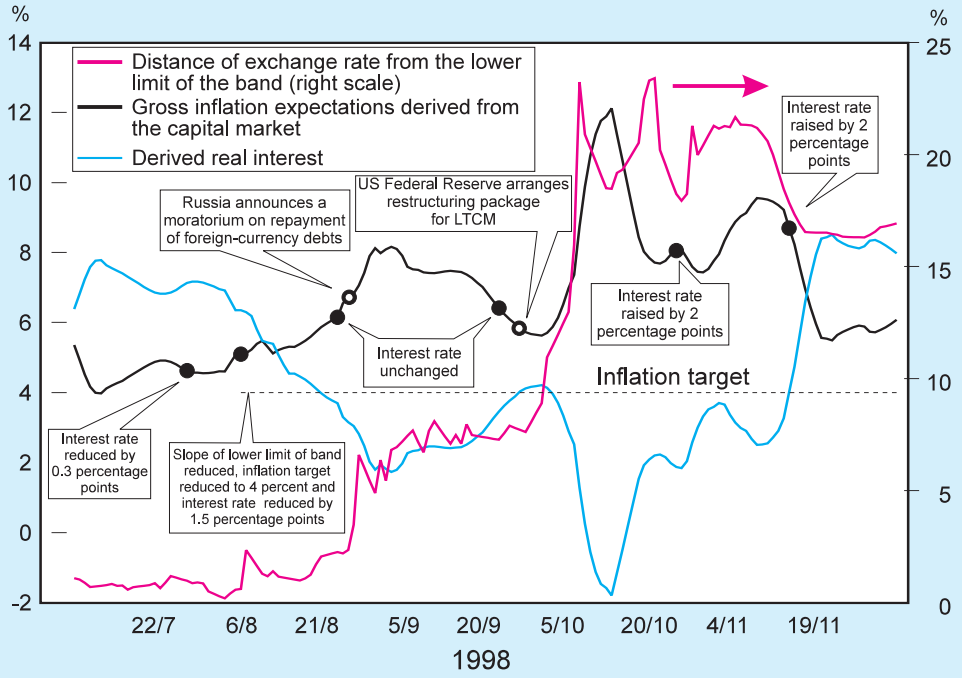
After the early October depreciation—which at 15 percent was the steepest in recent years over such a short period of time, and which was affected by market forces—a process of price increases ensued, inflation expectations soared, and fears of an upturn in inflation surfaced. To prevent this, the Bank of Israel raised the November key lending rate by 2 percentage points on October 26 and by another 2 points on November 12. These increases set inflation expectations on a downward path, and, together with the easing of turbulence in overseas markets, caused the exchange rate to retreat somewhat. Volatility in this market also ebbed, as manifested in a decline in premiums on foreign-currency options. After the key lending rate was raised, the pace of price increases subsided and demand for foreign currency diminished. In December 1998 and January and February 1999, the Consumer Price Indices rose by 0.1 percent, -0.5 percent, and -0.8 percent, respectively, and inflation expectations fell to less than 5 percent. These developments reinforce the belief that a resolute monetary policy is of major importance in attaining the government's inflation targets.

The Bank of Israel did not intervene in foreign-currency trading and was able to mitigate inflation expectations by adjusting the key lending rate.

Since activity on the foreign-currency market was continuing as normal, the Bank of Israel did not intervene in trading and influenced inflation expectations by adjusting the key lending rate. The non-intervention policy allowed market forces to determine the exchange rate, helped make the pricing of risks intrinsic to activity in this market more accurate, and, by so doing, made the economy less vulnerable to financial shocks originating overseas. This approach also corresponds to the experience of many central banks, which have found uninterrupted long-term intervention to be ineffective. Although some maintained that the Bank of Israel should have intervened directly in the foreign-exchange market, the Bank determined that uninterrupted long-term intervention would have been too risky. Israel's experience and that of other countries shows that uninterrupted long-term intervention in the market, in the form of sale of reserves, may exacerbate uncertainty and strengthen forces that encourage capital outflow and speculative runs on the currency. Thus, such action would prejudice the credibility of the exchange-rate regime and prove costly. The results to date support the posture of non-intervention in the foreign-currency market.

In view of the way monetary authorities used the interest-rate tool to cope with the turbulence, the question of its timing arises. The upturn in inflation expectations occasioned by the depreciations, the increase in M1, the decline in real short-term interest, and the narrowing of the spread of yields with abroad (abetted by the upturn in

Figure 7.5
Monetary Announcements, Inflation Expectations, the Exchange Rate, and the Bank of Israel Rate of Interest, during Developments Abroad, 1998



Israel's risk premium) ostensibly—in accordance with the experience of the past few years—suggest that the interest rate should have been raised sooner (Figures 7.2, 7.3, and 7.5). The decision to wait until late October to make this move was prompted mainly by the uncertainty prevailing at the time and by the possibility that the sluggishness of domestic demand would allow depreciation, a deviation from a lengthy trend of appreciation, to result in a nonrecurrent increase in prices, without harming the ability to attain the 1999 inflation target. The belief that the increase in inflation expectations reflected, in the main, an upturn in the risk premium that investors in unindexed securities were demanding for the danger of inflation also influenced the decision to leave the interest rate unchanged. Since the risk premium apparently rose because of events exogenous to Israel, the expectations net of the premium may not have risen to the same extent.[10] Only when it became absolutely clear that there was a substantive risk of an inflationary spiral that might evolve into a high inflation environment, did the Bank of Israel raise its key rate in November.

[10] This hypothesis is consistent with the fact that professional forecasters' inflation predictions did not indicate an increase. However, the upturn in the risk premium also alluded to an expectation of increases in inflation volatility and exchange-rate risks (as manifested in the prices of options; see Figure 7.2), developments that heightened the probability of a future acceleration of inflation.

Monetary aggregates, credit, and factors influencing the government deficit

One of the transmission mechanisms by which the key lending rate affects inflation is the trajectory of the money supply (the M1 aggregate). An increase in interest slows the expansion of M1, and this, after a lag of several quarters, has a downward effect on the rate of price increases. Consequently, M1 is the main monetary aggregate affecting Bank of Israel policy. In 1998, M1 increased by 12 percent (year-on-year and on average), a growth rate consistent with the growth of nominal GDP. Since some of this reflects an increase in demand for M1, the expansion does not necessarily generate inflationary pressure. The trend during the year was uneven and began with sluggish growth in the first half. In the third quarter, after the nominal interest rate declined, M1 expanded at a monthly pace of 3 percent. However, some of this increase was offset by the monetary absorption that followed the November increase in the key lending rate (Tables 7.A.1 and 7.A.6).

Expansion of M1 does not necessarily generate inflationary pressure.

Total unindexed local-currency assets—the M2 aggregate, composed of M1 and, in the main, unindexed local-currency deposits—expanded in 1998 by 18 percent year on year (and by 22 percent on average), a lower rate than in previous years but higher than the increase in nominal GDP. This points to steady growth in demand for such assets, in response to the ongoing decline in the inflation environment. M2 grew unevenly during the year and stopped growing in the fourth quarter, as overseas financial disorder affected domestic markets. The M3 aggregate—M2 plus deposits in or indexed to foreign currency—increased in 1998 by 21 percent (in local-currency terms). Deposits in or indexed to foreign currency rose by 20 percent in dollar terms and by 40 percent in NIS terms. Most of the dollar increase occurred in the second period of the year. The steepest rise took place in September, before the large depreciation, when local-currency deposits indexed to exchange rates grew with special vigor. Since they may be purchased without exchange commissions and earn low interest, they are worth keeping for short periods of time as hedges against currency depreciation. Hence, their increase evidently alluded to an upturn in the probability of depreciation.

The increase in total unindexed local-currency assets indicates an upturn in demand for them.

Bank credit expanded by 14 percent in 1998, similar to the rate of increase in 1997. The growth rate of credit denominated in foreign currency or indexed to exchange rates decreased in 1998, and in dollar terms such credit expanded by only 6 percent (Table 7.A.2). The increase in local-currency terms was much greater—26 percent—because of the currency depreciation, and the share of foreign-currency credit in total credit continued to rise and came to 32 percent. In the last two months of the year, after the October depreciation, foreign-currency credit decreased (in dollar terms) because of an upturn in the relative exchange-rate risk.

After the October depreciation, foreign-currency credit contracted because it became riskier.

The domestic deficit of the government (and the Jewish Agency) was 3.7 percent of GDP (see Chapter 5). The deficit was financed in the following way: 43 percent from the sale of state-owned enterprises and drawing down net credit, 33 percent from new government bond issues (net of redemption of old bonds), and the remainder from government injection, derived partly from the current-account balance and from the government's capital flows (Tables 7.A.4 and 7.A.5).

Treating the government injection and the private sector's foreign-currency conversions as exogenous, the Bank of Israel sets the level of its absorption (or injection) so that the change in monetary base that the public desires be provided at the stipulated level of interest. The tools that the Bank uses to influence the monetary base are banks' deposits with the Bank, monetary loans, Treasury bills, and swap transactions. The monetary base expanded very slightly (by 0.1 percent of GDP) in 1998,[11] after increasing rapidly in 1997 and 1996. The moderate increase this year stems from absorption in the fourth quarter after the interest rate was raised in November.

Some of the absorption in 1998 was effected by means of Treasury bills, of which the outstanding balance rose by 14 percent. Another part was carried out by Bank of Israel auctions for banks' deposits. This share, however, was much smaller than in 1997, when deposit auctions also played an important role in absorbing large foreign-currency conversions. Conversions were much smaller in 1998, because the Bank of Israel did not need to intervene in defense of the exchange-rate band. Sums on deposit climbed from NIS 33 billion in 1997 to NIS 40 billion in 1998 and their term continued to decline, more than half being one-week or one-day. Changes in monetary lending and swaps, both of which were at much lower levels than in the past few years, also made a contribution to absorption.

3. THE PUBLIC'S FINANCIAL PORTFOLIO AND WEALTH

The financial portfolio

The financial portfolio, estimated at NIS 797 billion at the end of 1998, is composed of two groups of almost equal size—short-term assets, including monetary aggregates, bonds, and shares held by the public directly or in mutual funds; and long-term assets (Table 7.A.13). Long-term assets are restitution deposits, savings plans, indexed deposits, and investments in pension funds, insurance plans, and provident and advanced-training funds. Most financial assets are tax-exempt (Box 7.2).

The financial portfolio, deflated by the Consumer Price Index, expanded by 5 percent in 1998 because the supply of assets grew while the decrease in prices of bonds and shares caused the real value of assets to contract. Changes in the inflation environment, interest rates, and the exchange rate during the year, along with developments on the

[11] Although the end-of-year balance sheets showed almost no expansion in the monetary base, the change in the average level between December 1997 and December 1998 (net of the technical increase derived from the application of compulsory liquidity to foreign-currency deposits in January 1998) was 19 percent.

Box 7.2: Taxation of Financial Assets in Israel

Over the years, there have been various proposals to eliminate tax distortions in the capital market. In 1998, for example, there was a demand to tax financial investments abroad in order to prevent a distortion: financial investments in Israel are taxable by law while current income from investments abroad, which became legal for households in May 1998, is tax-exempt (insofar as it is not 'received' in Israel). In 1994, taxation of capital gains on the stock exchange was proposed, it being argued that other capital gains are taxable. In practice, the taxation disparities among different kinds of financial assets are quite small, since although the statutory tax rates on interest, dividends, and capital gains range from 25 percent to 50 percent, various exemptions reduce the effective tax paid directly by households to nearly zero.*

Financial asset	Estimated share of asset in householders' portfolio (percent)	Estimated average rate of tax
SROs, time deposits and Treasury bills	16	0
Foreign currency deposits	4	11[a]
Negotiable bonds	3	18[a]
Shares	6	6[a]
Restitutions and savings schemes	19	0
Pension, provident, and insurance funds	53	0
Weighted tax rate		1.4

[a] Tax on foreign-currency deposits is a weighted average of rates of tax paid by those with tax exemptions, and others (based on end-1997 balances). Tax on bonds is an estimate of weighted taxes on unindexed bonds (with a zero tax rate) and indexed bonds which are taxed (according to balances at the end of 1997). Tax on shares is calculated on the assumption that a quarter of net profit is distributed as dividend.

Since taxation disparities among domestic assets are small and pertain to a rather small group of taxable assets, such disparities cannot justify the imposition of new taxes. Furthermore, some taxation recommendations proposed in the past few years would actually widen the gaps by raising taxes on short-term savings without abolishing exemptions for savings in provident funds, life-insurance plans, and pension funds, even though the government already subsidizes these types of savings by recognizing contributions for tax purposes and exempting withdrawals. Additionally, the government issues earmarked bonds for life-insurance plans and pension funds, and the pension funds are subsidized further due to an actuarial undertaking by the government to cover promised pension benefits. The cumulative result of these benefits is a far-reaching preference of long-term saving over short-term saving, to a greater extent than in virtually all developed economies. Thus, measures that would expand this preference are of dubious advisability.

However, there is tax discrimination between short-term investments in domestic assets, some of which are tax-exempt, and investment in assets abroad, which are liable to capital-gains tax. A similar disparity exists among the investments of institutional bodies, in that current gains abroad are taxable and domestic investments are exempt. For this reason, financial institutions do not invest abroad even to the modest limits allowed by the government. Consequently, the currency liberalization has been less than fully effective.

* It should be borne in mind that private capital in Israel is taxed in ways other than direct tax remissions by owners of financial assets. Corporate tax, capital-gains tax (in nontraded companies), land-betterment tax, land-betterment duty, and other taxes obviously make total taxation of capital much higher.

stock exchange, led to adjustments in the portfolio. The share of CPI-indexed assets and shares decreased (to 44 percent and 19 percent of the portfolio respectively)[12] even though the proportion of CPI-indexed assets rose in the third quarter and that of shares climbed in the second quarter. The currency depreciation, abetted by new bond issues indexed to exchange rates, increased the proportion of foreign-currency assets (to 10 percent of the portfolio). The share of local-currency assets in the portfolio also increased (to 26 percent) but more slowly than in previous years, unevenly, and at a zero rate in the fourth quarter.

The share of foreign-currency assets increased because of currency depreciation and the issue of new foreign-currency-indexed bonds.

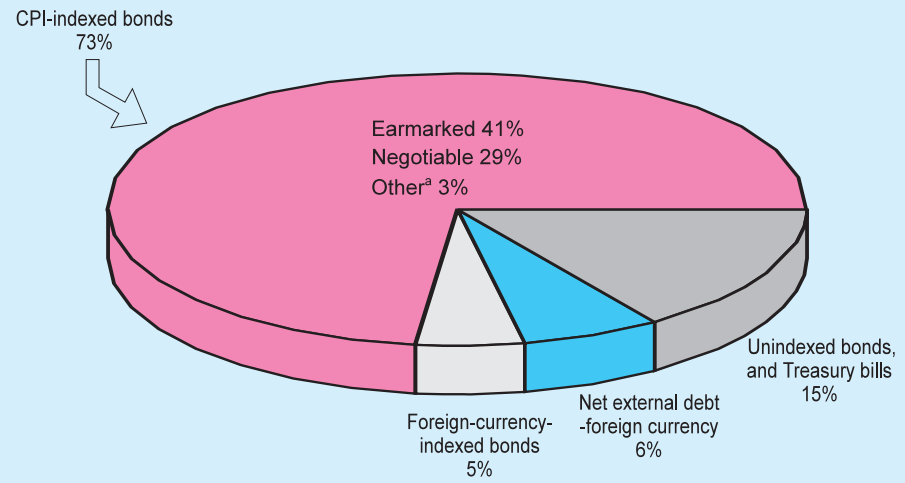
Monetary policy influenced the proportional increase in short-term unindexed assets in the past few years, as the decline in inflation expectations made local-currency securities less risky and increased demand for them. The rise in expected real interest rates on these assets also helped enhance demand. Another factor of influence was a change in debt-recycling policy that led to a large increase in the unindexed share of government issues.[13] Although the fraction of short-term assets in GDP is lower in Israel than in other industrialized countries, the protracted upturn and the abbreviation of the saving term has generated concern about the possibility that the economy has become more vulnerable to shocks. In contrast, the structure of government debt points to a relatively risk-free position, since the average term is still relatively long and the proportion of debt indexed to exchange rates, notwithstanding the increase this year, remains low by international standards (Figure 7.6).

The structure of government debt points to a relatively risk-free position.

[12] The definition of shares in the portfolio excludes shares owned by nonresidents and "double-counted" shares (see notes to Table 7.2). Therefore, their share in the portfolio as shown in Table 7.A.13 overstates their actual importance.

[13] Concurrently, the residual maturity in unindexed government bonds expanded to up to five years.

Figure 7.6
Composition of Government Debt,[a] December 1998



[a] Compulsory loans, money deposited, and the difference between the adjusted value of bonds and market value. Percentages do not add up to 100, due to rounding of figures.

Wealth

Wealth of the nonfinancial business sector was estimated at NIS 1.11 trillion at the end of 1998 (Table 7.A.14). The public's wealth is part physical (78 percent)—housing, durable goods, and stocks of fixed and current assets for use of the business sector—and part financial.[14] The public holds its financial wealth as claims on the banks, the government (internal debt), and foreign entities, net of liabilities to these players.

The growth rate of physical wealth slowed.

The public's wealth increased by 6 percent in real terms in 1998, somewhat slower than in 1997. Net of the effect of changes in relative prices, the growth rate was 4.5 percent as against 6.5 percent in 1997.[15] Decreases (deflated by relative prices) were observed in the growth rates of both physical wealth, all of which in investments in buildings and inventory, and in net financial wealth. The slowdown in growth of financial wealth was manifest in both assets and liabilities.

[14] Stocks of wealth this year included all sectors of the economy, not just industry.

[15] The sources for the growth of property are net saving, investments abroad, and net capital grants from the state. Since these items showed no perceptible decrease in cumulative terms, the decline in the growth rate of property is attributable to errors and omissions in the National Accounts and errors in estimating the relative prices of assets and liabilities.

The deceleration of growth in liabilities stemmed partly from the slump in construction activity[16] and the decrease in new mortgages. In contrast, credit expanded at approximately the 1997 rate,[17] although the components of the increase changed, and unindexed local-currency credit expanded more rapidly than in 1997. CPI-indexed credit increased at the 1997 pace, whereas the growth rate of credit in foreign currency decreased (in dollar terms; see Table 7.A.7). However, the share of foreign-currency credit continued to rise—because of the currency depreciation—and came to 32 percent on average (Table 7.3), thus returning to the early 1987 level.

The weighted real ex post cost of credit was estimated at 9.8 percent in 1998.

The weighted ex post cost of credit—CPI-indexed, exchange-rate-indexed (or in foreign currency), and in local currency—affects the incomes of households and firms and has an indirect effect on consumption and investment. This cost was estimated at 9.8 percent in real annual terms in 1998, as against 5.6 percent and 8.4 percent in 1996 and 1997, respectively. Adjusted to the price of business-sector product, the estimated annual cost in 1998 was 8.0 percent. Notwithstanding the currency depreciation during the year, the cumulative cost was higher for borrowers who took local-currency credit from 1995 than for those who took credit in foreign-currency (Table 7.3). The relatively high cost of local-currency credit (and its proportional decrease in total credit) reflects, to some extent, the fact that the spread between borrowing and lending interest rates are wider in local-currency credit than in indexed credit (CPI and exchange-rate).

In the past five years, the share of local-currency has declined and that of local-currency assets has risen.

In the past five years, the fraction of local-currency credit has declined from 47 percent to 33 percent, while that of local-currency assets in total financial assets held by the public (excluding shares) has risen from 14 percent to 33 percent. Since credit/financial assets of the public are assets/claims on the state or the banking system, and since the banking system is not allowed to open large positions, these developments are reflected in the composition of national debt. The unindexed portion of negotiable government debt climbed during this time from NIS 1.7 billion to NIS 30 billion (Table 7.A.8) and local-currency liabilities on the Bank of Israel balance sheet—banks' deposits and Treasury bills (which are part of the national debt) rose from NIS 6 billion to NIS 64 billion. Concurrently, the outstanding monetary loan—an asset on the balance sheet—fell to nearly zero and foreign reserves expanded by $16 billion.[18]

[16] Instructions from the Supervisor of Banks prescribe fines for banks that allow the real-estate industry to account for an excessive proportion of their liabilities. By reducing this industry's sources of finance, this action has worsened the real-estate slump in the short term, even though it is meant to keep the financial system strong and encourage long-term growth.

[17] Excluding mortgages and several other liabilities of the public.

[18] The increase in foreign reserves is associated with the exchange-rate regime: wide interest spreads forced the central bank to defend the lower limit of the diagonal band in the past few years, until 1998, by acquiring foreign-currency and selling local-currency deposits.

4. BONDS

Bonds, held directly by the public and, in the main, by financial institutions, fall into two categories: negotiable bonds, issued mainly by the government but also by firms, and earmarked bonds, including non-negotiable securities that the government formerly issued for provident funds, and securities that it still issues for pension funds and life-insurance plans begun before 1992 (Tables 7.2 and 7.A.8).[19] The earmarked bonds, whose value rose by 3 percent in 1998, are all CPI-indexed and subsidized in that they pay interest in excess of the market level.[20] In contrast, 70 percent of negotiable bonds are indexed to the CPI, 12 percent are indexed to exchange rates, and the rest are unindexed. The fraction of unindexed bonds in negotiable securities has been rising and came to nearly 19 percent in 1998 as against only 3 percent at the end of 1994. However, the rate of increase slowed greatly in the past two years. The proportion of bonds indexed to exchange rates is the highest since 1986; the increase originates in new issues—especially in the fourth quarter of 1998—and in an increase in the price of outstanding bonds. The total return on bonds indexed to exchange rates was 12 percent in real terms. In contrast, the CPI-indexed bonds delivered a negative return because capital losses exceeded interest receipts. The return on unindexed bonds was 3 percent. In most cases, real returns in the bond market (excluding bonds indexed to exchange rates) fell short of yields in industrialized countries.

CPI-indexed bonds delivered a negative yield.

Yields to maturity on CPI-indexed bonds surpassed the 1997 level this year, except for the July-October period.[21] Yields to maturity were 6.5 percent on the shortest-term bonds and more than 5 percent on long-term securities. Concurrently, real interest on other indexed liabilities rose, including mortgage interest and yields to maturity of corporate bonds (Figure 7.7). Previous findings show that an increase in real interest rates has a contractionary effect on investments in the short term. This year, the main decrease in investments occurred in residential construction and inventory; most of the decrease in the former was unrelated to monetary policy (Chapter 2).

An increase in real interest rates has a contractionary effect on investments in the short term.

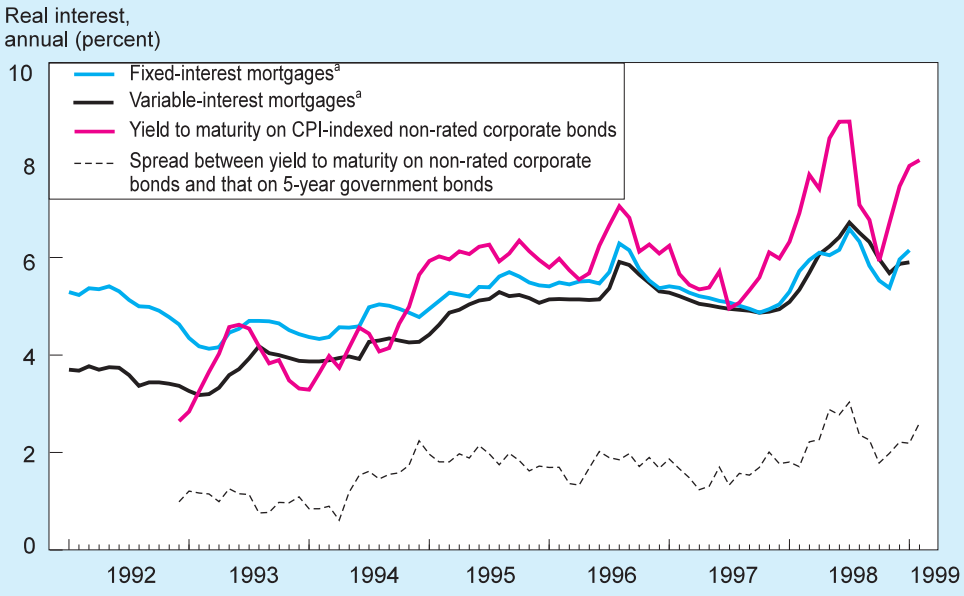
Four factors caused real long-term interest rates to rise this year: (a) an increase in real short-term interest rates pursuant to the effects of monetary policy, coupled with an expectation, as reflected in the interest-rate curve, of similar policy in the future; (b) widening of the domestic deficit and the debt/GDP ratio, an increase in public expenditure that outpaced GDP, and uncertainty about the future trajectory of fiscal variables; (c) widening of the spread between domestic and foreign interest rates in the

[19] About 70 percent of total assets of insurance plans are locked up in old plans.

[20] However, the level of the subsidy has decreased in the past few years, in the wake of rising real interest rates.

[21] Real short-term and long-term interest rates declined after August 6, as manifested on the very first day of trading after the reduction in the key lending rate was announced. That day, prices of indexed bonds climbed by 2.5 percent, the largest single-day change since 1990. Real interest rates on bonds continued to decline later that month.

Figure 7.7
Interest on CPI-Indexed Mortgages, Yield to Maturity on Corporate Bonds, and Interest-Rate Spreads, 1992-February 1999



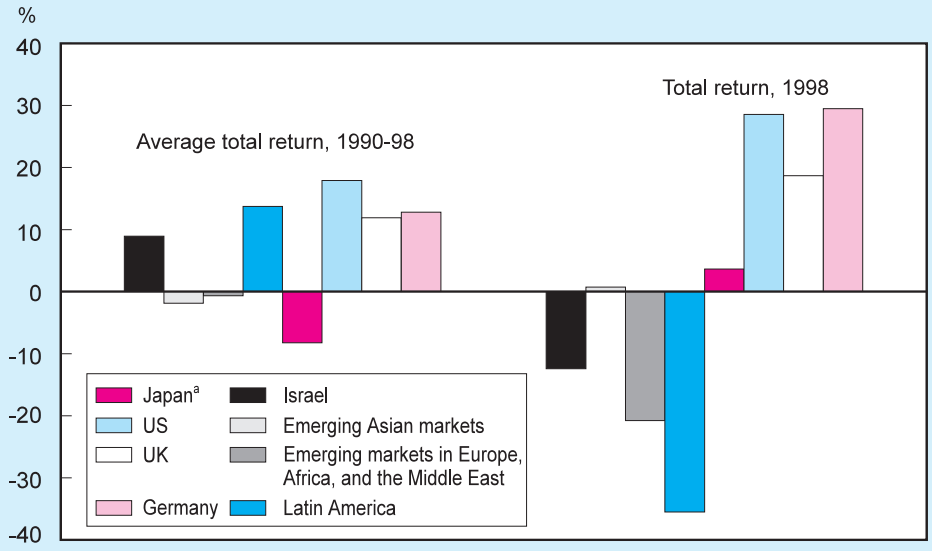
[a] CPI-indexed nondirected loans.
SOURCE: Based on data from the Supervisor of Banks and the Tel Aviv Stock Exchange.

wake of financial disorder abroad; and (d) the decrease in capital inflow; since the decline in nonresident financial investments outweighed the increase in nonresident real investments, domestic investment projects had fewer sources of finance on which to draw. In contrast, the slackening of demand for credit to finance investments had a downward effect on real interest rates.

For the most part, the interest curves for indexed bonds sloped downward in 1998 (Table 7.A.8), (excluding the August-October period, when the curve sloped upward, and September and November, when the trend of the slope was uneven). This evidently reflected expectations of a decline in real interest rates. The interest curves of unindexed bonds and Treasury bills also sloped downward (except in September and October), apparently expressing an expectation of a decline in nominal interest as well.

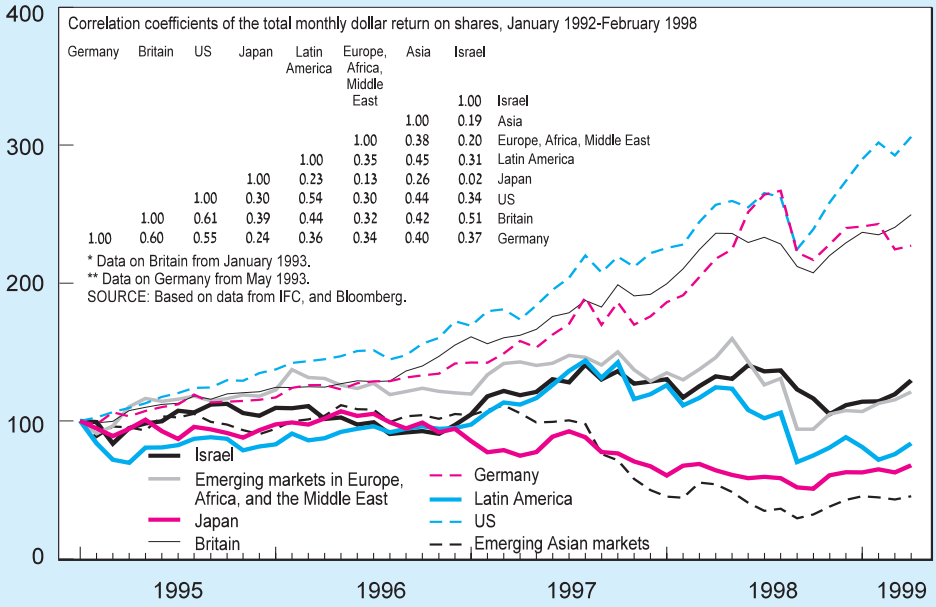
Unindexed and dollar-indexed bonds are shorter than CPI-indexed bonds. Since the share of CPI-indexed bonds in new issues was low in 1998, the average term to maturity of the government's negotiable domestic liabilities contracted from forty-nine months to forty-six.

Figure 7.8A
Total Returns for Selected Stock Exchanges, 1990-98 (in $ terms)



[a] The index for Japan prior to 1993 does not include dividends.
SOURCE: Based on data from Tel Aviv Stock Exchange, IFC, and Bloomberg.

Figure 7.8B
Total Returns in Selected Stock Exchanges, in US Dollars, 1995-12.3.1998
(31/12/1994 = 100)



5. THE STOCK MARKET

The general share–price index declined by 5 percent in real terms.

The general share-price index declined by 5 percent in real terms in 1998 after rising by 26 percent in 1997 and decreasing by 5 percent in cumulative terms in 1995 and 1996 (Table 7.A.9). Share prices, trading volumes, and magnitude of issues did not return to their 1992–93 levels (Tables 7.A.15 and 7.A.16). Developments during the year were uneven: after falling in January, share prices turned around and climbed by 20 percent between February and May. Developments in foreign markets depressed share prices by 17 percent between June and the middle of October. A recovery occurred from then until year's end and gathered momentum in the first two and a half months of 1999. In 1998 all told, the return on shares fell short of performance in most developed economies (Figure 7.8, and footnote 4 above).

Returns on the stock market were also affected by various domestic factors. Continued poor business profitability (Tables 7.A.10a, 7.A.10f) and downward corrections of growth estimates tended to reduce them; changes in nominal interest rates had the opposite impact, as shown in the weekly analysis of yields.

Volatility in the stock market was unexceptional.

Even though the August-October period witnessed the highest level of volatility in the foreign-currency and bond markets in many years, volatility in the stock market was unexceptional. The standard deviation of daily yields on shares, ex post as well as ex ante, was higher than in the other months of 1998 but fell short of levels observed in the past few years (Figure 7.9). Trading volume was also quite sluggish. These facts raise doubts as to the role of nonresidents' repatriations—$300 million in the third quarter—in explaining the impact of global financial turbulence on the steep depreciation of the NIS. Domestic factors apparently played a more substantial role in explaining this development. Nonresidents exerted a limited influence on the Tel Aviv Stock Exchange because the share of equity held by nonresidents who are not parties at interest is quite small; their holdings, before the third-quarter realizations, came to only $2 billion. Furthermore, nonresidents' holdings of domestic bonds and Treasury bills are negligible in Israel, unlike in many other countries.

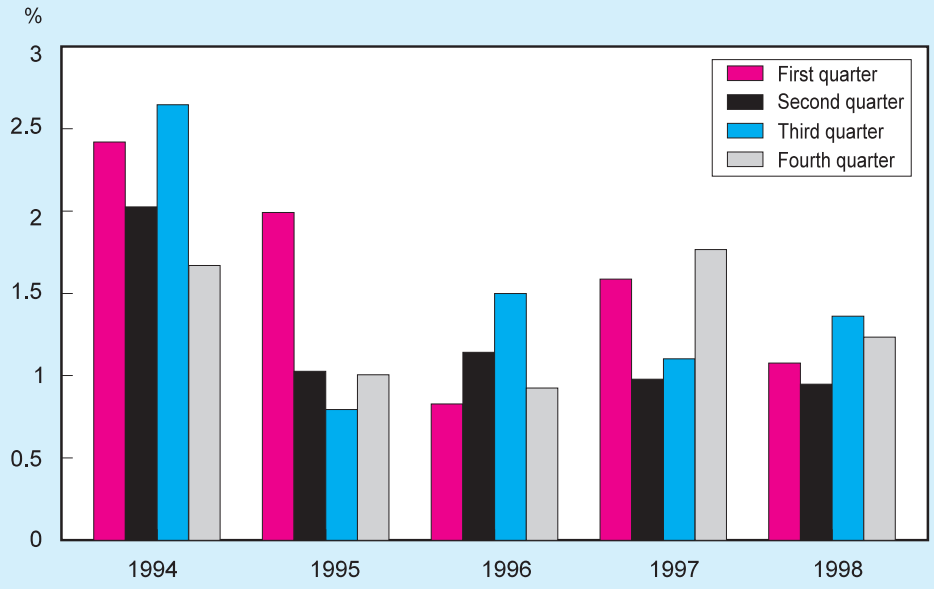
The share of equity held by nonresidents who are not parties at interest is quite small.

There was no perceptible difference between total yield on the shares of export-oriented companies and of other firms.

In view of the steep currency depreciation in 1998, one might expect the shares of traded companies that derive most of their revenue from exports to have outperformed those of firms that serve the domestic market. This year, however, there was no perceptible difference between total return on the shares of export-oriented companies and of companies that sell mainly on the domestic market. Moreover, analysis of yields around the time of the October depreciation points to no differences between the groups. The real and financial turmoil abroad, which led to the depreciation, may also have moderated expectations of continued growth in overseas demand for Israeli exports. Alternatively, since export-oriented companies rely on sources of finance that are denominated in foreign currency, these firms had a relatively small exchange-rate position. A third possibility is the depreciation was not perceived as being permanent.

NIS 8 billion in shares and negotiable securities were issued in 1998. More than half of the sum flowed to the government on account of the sale of state-owned enterprises.

Figure 7.9
Standard Deviation of Daily Total Return on the TASE, 1994-98



SOURCE: Based on Tel Aviv Stock Exchange data.

The upturn in privatization that began in 1997 traces to accelerated sales of equity in banks (not matched, however, by the desired structural changes; see the 1997 Bank of Israel Annual Report, Chapter 7) and in Israel Chemicals Ltd., and Bezeq Ltd.—of which some shares had been sold previously, so that the requisite measures for their continued privatization were relatively modest. According to plans, the remaining shares in these companies will be sold in the next two years. Israeli companies traded in the United States and Europe raised $700 million, down 34 percent from 1997, corresponding to the slump in the American primary market. However, a recovery was observed in early 1999.

The private sector issued NIS 2.0 billion in corporate bonds; of the total, NIS 1.8 billion was issued by banking corporations. In the derivatives market, activity in dollar and Ma'of options continued to expand (Table 7.A.9).

Although the recovery in issues on the Tel Aviv Stock Exchange, which began 1997, continued in 1998, the level attained remains much lower than that in 1992-1994, as stated. High-tech industries continued to rely on foreign stock exchanges, although less intensively than in the recent past. Most capital raised domestically this year did not flow to the business sector to serve its financing needs, since the government claimed a large share of the revenue on account of its sales of equity in state-owned enterprises. Hardly any measures to enhance competitiveness were taken this year in industries where infrastructure industries and not-yet-privatized government authorities are active. Thus, over the next two years it will be necessary to improve competitiveness in these fields and to privatize the relevant companies and authorities.

The level of issues on the Tel Aviv Stock Exchange remains much lower than in 1992-1994, and high-tech industries continued to rely on foreign stock exchanges.

6. INSTITUTIONAL INVESTORS

About two-thirds of assets in the capital market are held by four types of financial institution: advanced-training and provident funds, pension funds, life-insurance plans, and mutual funds. These institutions hold most of the government debt; three of them—excluding the mutual funds—invest most of their assets in government bonds (Table 7.2) and have a rather small fraction of holdings in the stock market. Savings in institutions other than mutual funds are given far-reaching tax benefits. Furthermore, pension funds and life-insurance plans (started before 1992) are issued with earmarked bonds—non-negotiable government bonds that pay above-market interest. Although the subsidy level of these bonds has declined over the past few years, in view of rising interest rates, the special characteristics of these bonds give them a de facto subsidy even when their yields are identical to those of negotiable bonds.

Withdrawals from provident funds continued, but not at the peak levels observed in 1996.

Provident funds, which hold 28 percent of capital-market assets, continued to experience net withdrawal in 1998, although the extent of withdrawal this year (NIS 3 billion) fell far short of the 1996 peak (NIS 1 billion on monthly average). The funds' yields were close to zero. The distribution of their assets hardly changed this year: the fraction of earmarked bonds, which the state stopped issuing to the funds in the 1980s, continued to decline and came to 7 percent of total assets; the last of these bonds will be redeemed over the next three years. The funds invest most of their assets in indexed government bonds and indexed deposits; the proportion of shares in their portfolio remains lower (at 12 percent) than in corresponding institutions abroad (Table 7.A.11).

The funds invest a very small fraction of their assets abroad, because *inter alia* gains abroad are taxable whereas those in Israel are exempt.

Foreign assets make up a negligible share of the funds' portfolio—less than 1 percent—for reasons including tax discrimination, as gains abroad are taxable while those in Israel are exempt. Notwithstanding the substantial body of research into the subject, no reform has occurred that would tackle the provident funds' main problems, which have been documented in many studies: distribution of investments; tax discrimination; centralization; potential conflicts of interest between the banks, which manage the funds, and the fund members; lack of transparency; and relatively high commissions.

The established ('old') pension funds continued to grow.

The established ('old') pension funds (which hold 21 percent of capital-market assets, not including the government's actuarial liability) continued to grow at 5 percent in annual terms. Since deposits approximated withdrawals, the increase in assets stemmed from accrual of interest on earmarked bonds, which account for 95 percent of the funds' investments. In contrast, the assets of "new" pension funds grew by 55 percent, to NIS 3.2 billion, but the market share of these funds remains small. The new funds invest 70 percent of their assets in earmarked bonds and the rest in negotiable government bonds and deposits. Contributions to life-insurance plans (12 percent of the capital market) exceeded withdrawals. The growth rate of these plans is estimated at 10 percent, and the quantity of earmarked bonds issued on their account is continuing to rise.

The government's undertaking to provide pension funds with earmarked bonds may in the long term return the state to the capital market as a financial intermediator.

The government's undertaking to provide pension funds (and old life-insurance plans) with earmarked bonds irrespective of its financing needs, at the very time that the Deficit Reduction Law has mitigated these needs, may in the long term entail the

State again in acting as a financial intermediator in the capital market, a role it has eschewed since the 1980s.

In mutual funds (5 percent of the capital market), deposits outweighed withdrawals for the second successive year, after three years in which the funds suffered a 70 percent cumulative decline because of the steep decrease in share prices in 1994 (Table 7.A.12). During the year, the public adjusted the distribution of its investments in mutual funds in accordance with developments in the market. In April, when foreign-currency liberalization was announced, NIS 600 million was deposited with foreign-currency and overseas funds. In May and June, as local-currency interest was perceived as rather high, NIS 3 billion was deposited with local-currency funds, which reported a 40 percent increase in total assets. In August and September, the public, evidently expecting a depreciation, sold local-currency funds and bought into foreign-currency funds.

In August and September, the public, evidently expecting a depreciation, bought into foreign-currency funds.

The tumult in world capital markets hardly affected institutional investors other than mutual funds, because these investors place most of their assets in CPI-indexed government bonds (negotiable and earmarked) and CPI-indexed deposits, not in domestic and foreign shares and foreign bonds. However, this situation comes at a price, because in almost all advanced economies, including Israel, shares have outperformed deposits and bonds in long-term yields. Furthermore, the investor community cannot enjoy the intrinsic benefits of wide international diversification of its financial portfolio. Consequently, the future income flow of long-term savers is susceptible to fluctuations in GDP. Moreover, in the absence of institutional investors who have obvious incentives to keep traded companies under review, the capital market is unable to develop corporate governance mechanisms to maximize efficiency in the business sector, where productivity has been at a standstill.

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