# *Chapter 7*
# *Money and Capital Markets*

*In the course of 1994, nominal (unindexed) interest rates on local-currency deposits and credit rose continuously, as a result of the 7.5 percentage point increase in interest on the monetary loan (discount window). The object of the monetary policy adopted at the end of 1993 and pursued during 1994 was to slow the inflation rate to meet the targets—8 percent for 1994 and 8–11 percent for 1995—while reducing the monetary expansion which took place in the second half of 1993, and returning to a more moderate path of development of the monetary aggregates and credit. The rise in domestic interest was reflected by a significant inflow of capital, particularly at the end of the year, raising the public's foreign liabilities. The share of unindexed local-currency assets in the public's portfolio also increased, alongside a marked slowdown in the rate of expansion of the money supply. The private sector's conversions of foreign currency in 1994 accounted for more than half the 17 percent rise in the monetary base.*

*The fall in the value of shares, with prices plummeting by about a half after rising steeply in 1991–93, was one of the outstanding features of the market in 1994. The value of tradable bonds and foreign-currency assets also fell, albeit more moderately. The rate of increase of the public's wealth eased in 1994, with physical assets accounting for a larger share.*

## 1. MAIN DEVELOPMENTS

The downward trend of nominal interest on local-currency assets (unindexed) and credit evident in recent years reversed in 1994, and this interest rose throughout the year. This followed the 7.5 percentage points rise in interest on the monetary (discount window) loan offered to the banks by the Bank of Israel during 1994, until it stood at 17 percent at the end of the year.[1] The central bank's policy of raising interest was adopted in the context of monetary expansion in the second half of 1993, divergence from the 8 percent inflation target set for 1994,[2] and the desire to attain the 1995 inflation target of 8–11 percent. The rise in interest was reflected by very slow (only 5 percent) expansion of the narrow money supply (M1) in 1994. Unindexed local-currency assets (M2)[3] continued

[1] As interest on the monetary auction is paid daily, the effective cost of the loan derived from this interest rate is about 18.5 percent.

[2] The inflation rate in 1994 (based on the CPI) was 14.5 percent, compared with 11.2 percent in 1993.

[3] For definitions of the aggregates see Table 7.1.

their rapid expansion in 1994, while nondirected credit grew more slowly than in 1993, similar to its rate in 1992 (Table 7.1)

The process of raising domestic interest rates—moderately at the end of 1993 and more rapidly in the last few months of 1994—raised the expected yield of domestic relative to foreign assets, resulted in considerable capital inflow, and increased the share of unindexed local-currency assets in the public's portfolio. In contrast to previous years, in 1994 the private sector converted foreign currency to the amount of $350 million—mainly in January–March and December—thereby accounting for more than half the increase in the monetary base.[4] The latter expanded by 17 percent in 1994, equivalent to 0.9 percent of GDP.

The NIS/currency basket exchange rate rose by 5.4 percent in 1994, and so did not differ significantly from the slope of the crawling band, set in July 1993 at an annual 6 percent. During the year, the exchange rate followed a path which generally matched demand and supply conditions, and reflected expectations that changes in the exchange rate would not diverge from those derived from the slope of the band. The exchange rate against the dollar rose by only 2 percent in 1994.[5]

Foreign-currency conversions by the private sector were also reflected by the way the government deficit was financed. The budget deficit (cash basis) in 1994 was 2.1 percent of GDP, down from 3.1 percent in 1993 and 4.1 percent in 1992 (Table 7.5).[6] The decline in the domestic deficit was due to the fact that government expenditure did not change, while its revenues increased (in terms of GDP) because tax receipts exceeded their forecast level. The deficit fell within the limit set by the Budget Deficit Reduction Law, and was even slightly lower than the 3 percent of GDP specified for 1994. In contrast to previous years, however, the foreign-currency market did not contribute to the financing of the domestic deficit in 1994, because the private sector converted foreign currency during the year; most of the deficit was covered by the change in the monetary base and net borrowing via the Bank of Israel (see Table 7.5, note e). Domestic financing through government net borrowing and privatization fell steeply from the level of previous years, as a result of net bond redemptions by the public and a marked slowdown in sales of government corporations, and amounted to only 0.5 percent of GDP. Although government net borrowing by means of bonds was significantly below its level in previous years, the yield on bonds rose moderately. The gross yield to

[4] The 1993 *Annual Report* contains a detailed account of changes in the balances of the private sector and the factors which affect them, distinguishing between changes arising from private-sector purchases of foreign currency and those caused by banks' foreign-currency conversions through the Bank of Israel. For further details, see Chapter 6 (capital movements) above.

[5] The gap between the development of the currency basket and that of the dollar derives from the latter's weakness against the other world currencies, and is totally unrelated to domestic demand for foreign currency. The NIS/D-mark exchange rate rose by more than 10 percent during the year.

[6] Financing the deficit refers here to the domestic deficit (cash basis) of the government including the Jewish Agency, which is not included in the budget. The domestic deficit in 1994 was about NIS 6 billion, or 2.7 percent of GDP.

**Table 7.1**
**The Principal Monetary Aggregates, and Credit, 1991–94[a]**

(percent change, annual rate)

| | Monetary base | M1 | M2** | M2* | M2 | M3 | Nondirected credit: Local-currency[b] | Nondirected credit: Foreign-currency | Nondirected credit: Total |
|---|---|---|---|---|---|---|---|---|---|
| End-period[c] | | | | | | | | | |
| 1991 | 12 | 15 | 21 | 20 | 27 | 35 | 31 | 29 | 31 |
| 1992 | 30 | 36 | 25 | 34 | 29 | 28 | 36 | 14 | 32 |
| 1993 | 33 | 28 | 47 | 37 | 31 | 20 | 39 | 6 | 34 |
| 1994 | 17 | 5 | 37 | 37 | 38 | 31 | 33 | 24 | 32 |
| 1993 | | | | | | | | | |
| I | 6 | 1 | 18 | –9 | –12 | –14 | 52 | 2 | 44 |
| II | 18 | 14 | 31 | 29 | 27 | 8 | 28 | 8 | 25 |
| III | 154 | 80 | 63 | 183 | 151 | 101 | 56 | 9 | 50 |
| IV | –2 | 29 | 84 | 6 | 6 | 12 | 23 | 4 | 21 |
| 1994 | | | | | | | | | |
| I | 27 | 36 | 75 | 75 | 72 | 45 | 42 | 10 | 38 |
| II | 5 | –20 | 19 | 19 | 21 | 20 | 32 | 39 | 33 |
| III | 32 | 44 | 49 | 49 | 49 | 41 | 29 | 14 | 27 |
| IV | 5 | –22 | 12 | 12 | 18 | 20 | 28 | 36 | 29 |
| Average[d] | | | | | | | | | |
| 1991 | 20 | 28 | 33 | 33 | 35 | 30 | 31 | 64 | 36 |
| 1992 | 13 | 22 | 20 | 22 | 25 | 33 | 30 | 13 | 27 |
| 1993 | 31 | 24 | 31 | 44 | 38 | 25 | 52 | 9 | 45 |
| 1994 | 25 | 21 | 53 | 34 | 33 | 26 | 30 | 13 | 28 |
| 1993 | | | | | | | | | |
| I | 19 | 19 | 18 | –0 | –6 | –12 | 61 | 13 | 53 |
| II | 26 | 5 | 24 | 38 | 34 | 17 | 46 | 2 | 40 |
| III | 65 | 45 | 52 | 111 | 95 | 62 | 42 | 13 | 38 |
| IV | 67 | 48 | 75 | 168 | 146 | 101 | 76 | 4 | 66 |
| 1994 | | | | | | | | | |
| I | –6 | 28 | 78 | –33 | –30 | –20 | –3 | 4 | –2 |
| II | 19 | –10 | 38 | 38 | 37 | 27 | 32 | 29 | 32 |
| III | 29 | 36 | 42 | 42 | 43 | 39 | 30 | 18 | 28 |
| IV | 8 | –18 | 13 | 13 | 17 | 18 | 29 | 35 | 30 |

[a] M1= currency in circulation and demand deposits; M2** = M1 + interest-bearing local-currency deposits; M2* = M2** + other deposits; M2 = M2* + Treasury bills; M3 = M2 + foreign-currency-denominated or indexed deposits.

[b] Since the end of 1992, credit from earmarked deposits has been included in nondirected credit. The 1993 rates of change do not include the increase in credit arising from this change

[c] End-period balance is the change from last month of period over last month of preceding period.

[d] Average balance shows the change over preceding period average.

maturity on 10-year bonds averaged 3.2 percent in 1994, compared with 2.9 percent in 1993 and 2.6 percent in 1992. The fact that the yield on bonds hardly changed is consistent with a smaller supply of government bonds and the decline in private saving in 1994, which reduced demand for the former.

The real value[7] of other financial assets—shares, bonds, and foreign-currency assets—fell in 1994, in contrast to most other monetary aggregates, which rose. This was because the decline in their prices exceeded their quantitative increase. This was particularly marked in the case of shares, whose prices fell by about half, after rising steeply in 1991–93. Prices of foreign-currency-denominated assets fell, mainly because of the relatively slow change in the exchange rate. Bond prices also declined, but by less, in line with the rise in interest rates.

The public's total wealth[8]—its physical and financial assets *less* its liabilities to the banks, the government, and abroad—increased by a real 3.3 percent in 1994, compared with a rise of 7 percent in 1993. The rate of increase of wealth, adjusted for the price indices of its various physical and financial components, was 4 percent—below that in 1993—mainly because private saving fell as a result of the decline in companies' profits. The share of physical assets rose in 1994, continuing its long-term trend, because of the relative fall in the government's domestic debt, which is recorded as part of the public's financial assets.

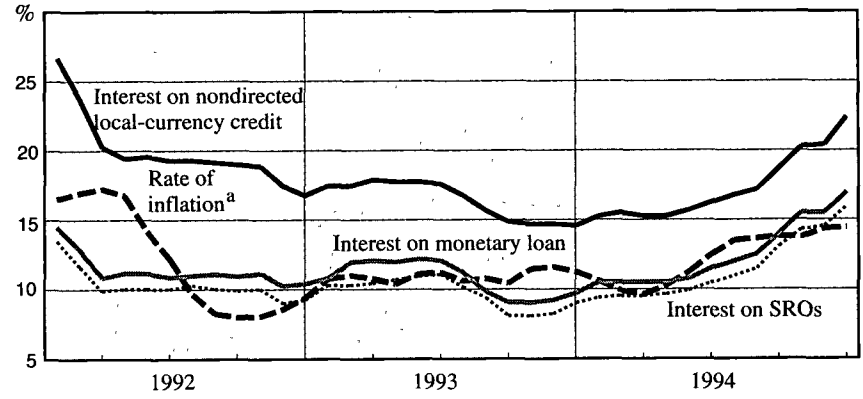
The reduction of local-currency interest rates in the second half of 1993, in the wake of the slowdown in economic activity in the first half of the year and the moderation of inflation, was intended to adjust nominal interest downwards and stimulate economic activity, in the context of expectations of future growth, which were bolstered by progress in the peace process. Monetary expansion caused a considerable rise in the monetary aggregates and credit, accompanied by a stock-market boom and an increase in aggregate demand at the end of 1993 and the beginning of 1994.[9] At the end of 1993, against the background of the rise in the aggregates, and as inflation accelerated, the Bank of Israel raised the interest rate slightly. In view of the steep rise in the CPI in the spring and summer of 1994—indicating divergence from the inflation target for 1994—and the exceptional wage agreements in the public services, as well as other indicators of continued demand growth, and with the aim of achieving the 8–11 percent inflation target set for 1995, the Bank of Israel began implementing more rigorous measures, raising interest in the last quarter by a cumulative 5 percentage points (Figure 7.1).

[7] In the rest of this chapter, 'real' means adjusted by the CPI, unless otherwise specified.

[8] Financial wealth excludes shares held by the public (except for bank shares), and includes the liabilities to the public of the banking sector, the government, and abroad, whereas shares represent companies' liabilities to households. Hence, the fall in share prices is not reflected by the public's wealth. For details of financial assets and wealth, see below.

[9] See Chapter 2.

**Figure 7.1**
**Inflation and Selected Interest Rates, 1992-94**




[a] Rate of change over preceding twelve months.

The object of monetary policy at the end of 1993 and throughout 1994 was to slow the rate of inflation in accordance with the target, while correcting the considerable monetary expansion of July–December 1993, returning to a path of more moderate development of the aggregates and credit. The hikes in interest in January–September did not raise real interest *ex post*, however. The monetary base and M1 continued expanding during this period, as did M2 and nondirected credit, albeit more slowly than at the end of 1993. It seems that at the beginning of 1994, following the marked increase in the aggregates in the second half of 1993, the rise in interest served as a damper compared to its low level in September–October 1993. Inflation expectations were adjusted upward alongside the moderate 0.5 percent increases in interest in the subsequent months, so that in retrospect the latter mainly reflected adjustment to inflation. The effect of monetary policy in October–December 1994 was more clear-cut than in the previous nine months, and was seen mainly in the contraction of the narrow money supply, the reduction of unindexed credit with a shift to foreign-currency-indexed credit, and private-sector conversions of foreign currency. Prices and the level of economic activity do not react instantly to changes in interest and the quantity of money, and it is therefore too early to assess the success of the policy measures. Nonetheless, there are some indications that inflationary expectations moderated at the end of 1994, and that the inflation rate declined in January–February 1995.

The interest rate can only be used, in the context of the current exchange-rate regime, in a situation in which no serious imbalance in capital movements is created. When the expected yield on domestic assets is higher than that on foreign assets (interest abroad

*plus* expectations of a change in the exchange rate), there will be excess supply of foreign assets. Hence, at the end of 1994, in the wake of the 1.5 percentage point rise in interest in December, the yield gap resulted in sizable private-sector capital imports, which may *per se* have increased the quantity of money, since the supply of foreign currency was purchased by the Bank of Israel with only a minor change in the exchange rate. In order to prevent monetary expansion and maintain the level of domestic interest, the central bank offset this increase by reducing the loan at the discount window. The longer this process continues, the more limited is the central bank's ability to act in this manner. Substitution of foreign for domestic credit sources, furthermore, reduces the share of domestic interest in the average cost of credit facing the economy, and hence also the ability of interest policy—under a given exchange-rate regime—to slow the inflation rate. The slight fluctuation of the actual exchange rate within the crawling band may have limited the expected risk associated with the import of capital, and served to raise it at the end of 1994.

In the early 1990s, against the background of mass immigration, employment and economic activity were Israel's top priorities. Monetary policy operated in a framework in which the movement of the exchange rate within the crawling band played a central role in determining the development of prices in accordance with the inflation target, and interest was set as low as possible without destabilizing the exchange-rate regime. Recent economic growth, together with the marked decline in unemployment,[10] caused price-increases to accelerate, resulting in deviation from the 8 percent inflation target for 1994. In consequence, interest-rate policy placed greater emphasis on slowing the inflation rate. The exchange-rate regime determines a path for medium-term price movements, but when there is upward pressure on prices, monetary policy must react in order to speed up the return to the long-run trend, and prevent price increases from becoming a permanently higher inflation rate. The monetary policy implemented in 1994 was even more necessary in view of the fiscal policy of 1993, which—while keeping the budget deficit low—raised demand because of its composition and the exceptional wage agreements signed during the year.

## 2. MONETARY POLICY AND DEVELOPMENTS

The main goals of monetary policy are to attain price stability and sustainable growth, while monitoring developments in the balance of payments, and the level of the foreign reserves, in particular. The current policy emphasizes each of the objectives according to the economic situation and expected real and nominal developments. Policy instruments—interest rates, the quantity of money, and the exchange rate—are associated with effective monetary policy, and depend on the economy's openness to capital movements and on the exchange-rate regime.

[10] See Chapter 4.

**Table 7.2**
**Financial Assets of the Public[a] in the Commercial Banks and the Bank of Israel, 1990–94**

| | Unindexed local currency | Foreign-currency deposits[b] | Residents' restitutions deposits | Savings[c] | Total assets[d] | Tradable government bonds | Earmarked bonds[e] | Tradable private bonds | Nonbank shares[f] | Total A[g] | Total B[h] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Balance at end of period (NIS million) | | | | | | | | | | | |
| 1990 | 23,368 | 10,186 | 8,572 | 43,814 | 85,940 | 33,253 | 52,180 | 7,099 | 16,974 | 195,446 | 171,373 |
| 1991 | 29,409 | 12,463 | 10,052 | 49,483 | 101,407 | 45,834 | 61,374 | 8,212 | 29,778 | 246,605 | 208,615 |
| 1992 | 35,523 | 17,115 | 12,103 | 50,802 | 115,543 | 58,822 | 66,939 | 10,504 | 71,405 | 323,214 | 241,304 |
| 1992[i] | 35,796 | 17,537 | 12,269 | 51,316 | 116,918 | 58,176 | 66,545 | 9,604 | 71,405 | 322,648 | 241,639 |
| 1993 | 50,582 | 19,581 | 12,986 | 56,760 | 139,908 | 61,693 | 75,817 | 10,034 | 133,041 | 420,493 | 277,418 |
| 1994 | 68,069 | 22,765 | 14,495 | 68,636 | 173,964 | 64,828 | 88,695 | 9,251 | 82,616 | 419,354 | 327,487 |
| Nominal change during period[j] | | | | | | | | | | | |
| 1991 | 25.8 | 22.4 | 17.3 | 12.9 | 18.0 | 37.8 | 17.6 | 15.7 | 75.4 | 26.2 | 21.7 |
| 1992 | 20.8 | 37.3 | 20.4 | 2.7 | 13.9 | 28.3 | 9.1 | 27.9 | 139.8 | 31.1 | 15.7 |
| 1993 | 41.3 | 11.7 | 5.9 | 10.6 | 19.7 | 6.0 | 13.9 | 4.5 | 86.3 | 30.3 | 14.8 |
| 1994 | 34.6 | 16.3 | 11.6 | 20.9 | 24.3 | 5.1 | 17.0 | –7.8 | –37.9 | –0.3 | 18.0 |
| Real change during period[j] | | | | | | | | | | | |
| 1991 | 6.6 | 3.7 | –0.7 | –4.3 | –0.0 | 16.8 | –0.4 | –2.0 | 48.6 | 6.9 | 3.1 |
| 1992 | 10.4 | 25.6 | 10.1 | –6.1 | 4.2 | 17.3 | –0.3 | 17.0 | 119.2 | 19.8 | 5.8 |
| 1993 | 27.0 | 0.4 | –4.9 | –0.6 | 7.6 | –4.7 | 2.4 | –6.1 | 67.5 | 17.1 | 3.2 |
| 1994 | 17.6 | 1.6 | –2.5 | 5.7 | 8.6 | –8.2 | 2.2 | –19.4 | –45.7 | –12.9 | 3.1 |
| Real change in average balance[j] | | | | | | | | | | | |
| 1991 | 12.6 | –1.7 | –0.7 | –5.8 | –0.4 | 5.7 | 0.4 | –0.5 | 41.7 | 4.6 | 1.1 |
| 1992 | 10.2 | 11.4 | 5.3 | –4.5 | 2.4 | 16.6 | 0.5 | 6.2 | 66.9 | 12.3 | 4.8 |
| 1993 | 16.2 | 12.6 | 2.1 | –4.8 | 4.4 | 1.0 | 1.7 | 4.5 | 69.8 | 14.9 | 2.8 |
| 1994 | 27.7 | –0.6 | –1.6 | 1.8 | 9.4 | –3.0 | 1.3 | –9.9 | –6.1 | 1.2 | 4.3 |

[a] Excluding the government, the Bank of Israel, and commercial banks.
[b] Including short-term, foreign-currency-indexed deposits.

[c] Savings, CPI-indexed deposits and private earmarked deposits *less* credit to government from earmarked deposits (reflecting the assumption that most of this credit is covered by earmarked bonds).
[d] In banks and the Bank of Israel.
[e] Estimate of earmarked bonds held by sick funds, study funds, pension and life insurance funds (mostly governmental).
[f] Excluding shares held by the government, including those held by the banks.
[g] Total of previous 5 columns (i.e., total assets and bonds and nonbank shares).
[h] Total excluding nonbank shares and tradable private bonds.
[i] As of 31.12.1992, interest is included in the deposit balance.
[j] See notes b and c. Table 7.1. Rates based on monthly averages calculated from end-of-month figures.

Monetary policy in recent years has been based on the view that exchange-rate developments have a considerable effect on price movements,[11] and hence play a crucial role in determining inflation. The current system (introduced in December 1991)[12] allows the exchange rate against the currency basket to fluctuate within a crawling band, thus determining its path. To the extent that this regime is credible, it helps to stabilize expectations regarding the movement of the exchange rate, reducing uncertainty while permitting the exchange rate to respond to changes in the supply of and demand for foreign currency.

In a regime that is completely open to capital movements, has a fixed exchange rate, and in which domestic and foreign assets are perfect substitutes, the money supply is determined by the demand for money at the level where the equilibrium domestic interest rate is identical with the international rate, and cannot be set by policy makers. Any gap between international and domestic interest rates will be immediately reflected by capital movements, causing the money supply to vary until interest changes. However, in an open economy with a floating exchange rate, when there are yield gaps between domestic and foreign assets, a change in the demand for foreign assets will be reflected by an immediate change in the exchange rate without affecting the money supply. This kind of regime gives the monetary authority better control over the money supply.

Israel's current regime, which represents an intermediate stage between a fixed and a floating exchange rate regime, gives monetary policy some freedom to determine the interest rate within a range which is consistent with the crawling exchange-rate band, preventing large capital flows which could threaten the regime. It is possible to affect the domestic interest rate in Israel because domestic and foreign assets are not perfect substitutes, as in addition to the risk premium, there are certain restrictions on capital movements. However, as the liberalization of the capital and foreign-currency markets proceeds, making the domestic financial market more open to world markets, the opportunities to switch from one type of asset to another increase, thereby reducing the ability of monetary policy to operate by independently setting the interest rate without causing immediate capital flows. In the short run, the position of the interest rate within the range depends on the relative importance of the two objectives—price stability and economic activity. Greater emphasis on the former is consistent with interest at the high end of the range, while if economic activity is stressed, lower interest is more appropriate. Clearly, in the medium run inflation has an adverse effect on both investment and growth.

In the summer of 1993, against the backcloth of sluggish economic activity in the first half of the year and the rate of price increases towards the middle of the year, the Ministry of Finance and the Bank of Israel set the inflation target for 1994 at 8 percent, and reduced the slope of the exchange-rate band to 6 percent. (The midpoint rate was raised by 2 percent, and the exchange-rate insurance premium was canceled.) The Bank of Israel took appropriate steps to reduce interest.

[11] See Chapter 3.

[12] From 1989 to 1991 the band was horizontal.

In August–November 1993, the monetary aggregates, credit, and stock-exchange activity all increased considerably, while share prices soared. At the same time there was progress in the peace process, creating optimism. Nominal interest on local-currency assets and credit reached its lowest level for several years in October 1993, and real interest was lower than it had been for two years. Despite the relatively low interest rates, there were no notable purchases of foreign currency, apparently because there was a domestic alternative—tradable securities—whose expected yield made it a favored option. At that time it was difficult to determine whether this expansion reflected only a supply adjustment to greater demand for liquidity, because of increased activity and expectations of faster growth in the wake of policy changes, or also excess supply of liquidity likely to cause the acceleration of inflation and put pressure on the foreign-currency reserves. The acceleration of inflation in 1994 supports the hypothesis that the reduction in local-currency interest in the second half of 1993, together with the expansion of credit and the aggregates, reflected excess liquidity, helping to create demand pressure in both the goods and assets markets. Together with other factors, the reduction in interest, which encouraged demand for assets with higher expected yields—in particular shares, housing, and durables—and the expansion in the quantity of money, stimulated economic activity, and spurred inflation.

At the end of 1993 it became clear that policy-makers' assessments that inflation had eased in the second half of the year, causing them to reduce nominal interest rates, had not been realized, due *inter alia* to the exceptional wage agreements in the public services, and hence real interest was too low. In the context of the 8 percent inflation target announced for 1994, the Bank of Israel decided to raise the nominal interest rate at the end of 1993. Interest on the discount-window loan was raised by 0.5 and 0.8 percentage points in December 1993 and January 1994 respectively, to reach 10.5 percent, where it remained for several months thereafter. It was raised again by half a percentage point in the middle of May 1994, and by the same amount in each of the following three months, so that in August 1994 it stood at 12.5 percent, similar to its nominal level in the first half of 1993.

Throughout this period the nonfinancial private sector purchased small amounts of foreign currency which, given the current-account deficit, represented a capital inflow. It seems that some of the derived capital import reflects—in addition to yield gap considerations—an increase in demand for investment in Israel, resulting from its greater attractiveness (expressed by several international credit rating indices).[13] It is harder to analyze real interest in that period, as it depends on assumptions regarding inflationary expectations at that time. As prices did not rise evenly during the year, but accelerated slightly, it is difficult to assess individuals' expectations at any specific point in time. The special composition of price changes, and especially the movement of housing prices, also makes the estimate of individuals' inflationary expectations problematic.

[13] For further details see Chapter 6 above, and Bank of Israel, *Annual Report of the Controller of Foreign Exchange, 1994*.

**Table 7.3**
**Selected Interest Rates, 1991–94**

(percent p.a.)

| | Short-term local-currency credit to the public | | | | | Financial assets of the public | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Real yield to maturity of government bonds[c] | | |
| | Overdraft facilities | Term credit | Average[a] | 3-month Eurodollar[b] | Marginal cost of monetary loan | SROs (CDs) | 1-month Treasury bills | 5 years | 10 years | Interest-rate spread[d] |
| Nominal rate | | | | | | | | | | |
| 1991 | 29.9 | 22.3 | 26.4 | 5.7 | 15.3 | 12.9 | 14.9 | | | 17.0 |
| 1992 | 22.0 | 17.6 | 19.9 | 3.7 | 11.9 | 10.3 | 12.2 | | | 11.7 |
| 1993 | 18.1 | 15.0 | 16.4 | 3.1 | 11.3 | 9.7 | 11.4 | | | 8.4 |
| 1994 | 19.8 | 15.6 | 17.4 | 4.7 | 13.4 | 11.6 | 13.3 | | | 8.2 |
| 1993 | | | | | | | | | | |
| I | 19.2 | 16.1 | 17.6 | 3.1 | 12.2 | 10.4 | 12.4 | | | 8.9 |
| II | 19.5 | 16.0 | 17.7 | 3.1 | 12.8 | 10.9 | 12.5 | | | 8.6 |
| III | 17.3 | 14.3 | 15.7 | 3.1 | 10.5 | 9.2 | 10.4 | | | 8.1 |
| IV | 16.5 | 13.4 | 14.7 | 3.3 | 9.8 | 8.4 | 10.3 | | | 8.0 |
| 1994 | | | | | | | | | | |
| I | 17.5 | 13.8 | 15.4 | 3.5 | 11.0 | 9.5 | 10.2 | | | 8.0 |
| II | 17.9 | 14.1 | 15.7 | 4.4 | 11.5 | 10.0 | 11.2 | | | 7.9 |
| III | 20.0 | 15.8 | 17.5 | 4.9 | 13.7 | 11.8 | 13.4 | | | 8.2 |
| IV | 23.8 | 19.0 | 21.0 | 5.9 | 17.3 | 15.0 | 18.4 | | | 8.9 |
| Real *ex post* interest rate[e] | | | | | | | | | | |
| 1991 | 10.0 | 3.7 | 7.1 | 1.8 | –2.3 | –4.3 | –2.6 | 2.1 | 3.0 | 14.4 |
| 1992 | 11.5 | 7.5 | 9.6 | 10.9 | 2.3 | 0.9 | 2.6 | 2.3 | 2.6 | 10.7 |
| 1993 | 6.2 | 3.3 | 4.6 | 2.1 | 0.1 | –1.4 | 0.1 | 2.8 | 2.9 | 7.5 |
| 1994 | 4.7 | 1.0 | 2.5 | –6.9 | –1.0 | –2.5 | –1.0 | 2.9 | 3.2 | 7.2 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1993 | | | | | | | | | | |
| I | 2.6 | –0.1 | 1.2 | 1.1 | –3.4 | –5.0 | –3.2 | 2.1 | 2.2 | 7.6 |
| II | 10.6 | 7.4 | 8.9 | –7.6 | 4.4 | 2.7 | 4.1 | 3.2 | 3.3 | 7.9 |
| III | 8.0 | 5.3 | 6.6 | 7.9 | 1.8 | 0.6 | 1.7 | 3.3 | 3.4 | 7.4 |
| IV | 3.6 | 0.9 | 2.0 | 7.7 | –2.4 | –3.5 | –1.9 | 2.5 | 2.8 | 7.1 |
| 1994 | | | | | | | | | | |
| I | 7.2 | 3.8 | 5.3 | –5.6 | 1.4 | –0.0 | 0.6 | 2.8 | 2.9 | 7.3 |
| II | –1.4 | –4.6 | –3.3 | –3.5 | –6.8 | –8.0 | –7.0 | 3.0 | 3.3 | 6.6 |
| III | 5.4 | 1.6 | 3.2 | –10.8 | –0.2 | –1.8 | –0.4 | 2.6 | 3.2 | 7.2 |
| IV | 7.7 | 3.5 | 5.3 | –7.4 | 2.1 | –0.0 | 3.0 | 3.2 | 3.5 | 7.7 |

[a] Weighted by the volume of credit of the two components.
[b] In dollar terms.
[c] Gross yield to maturity in secondary market.
[d] The difference between interest rates on overdraft credit and SROs.
[e] Nominal rate deflated by change in the CPI over the same period.

If expectations were that the rate of inflation would stay the same,[14] real interest on the monetary loan appears to have risen at the beginning of the process, i.e., at the end of 1993 and in the first few months of 1994, then declined until August. If the inflation rate was expected to rise, the fall in real interest was even greater. Inflationary expectations derived from the capital market, and the path taken by the real yield to maturity on one-year bonds, also suggest that real interest fell in the first half of 1994. In the context of the rate of inflation in this period, which remained at a relatively high 14 percent, and fears of further acceleration in the future, together with the continued expansion of the monetary aggregates and other indications of increased demand, the Bank of Israel increased interest on the discount-window loan by 1.5 percentage points at the beginning of September, and by the same amount again in October, reaching 15.5 percent in annual terms. It was raised by another 1.5 percentage points in December, to 17 percent. Real interest rose because of the faster rate of increase of nominal interest, and the stabilization of the inflation rate. Interest to the public rose at a similar rate, causing the contraction of the money supply in October and November, and an exceptional increase in short-term, local-currency, interest-bearing deposits. Credit did not fall in these months, but there was a marked change in its composition, with a decline in unindexed credit, and an increase in that indexed to the CPI and to foreign currency.

The moderate increases in nominal interest rates in the first half of 1994, while the monetary base and aggregates continued to expand, makes it difficult to assess *ex post* how contractionary monetary policy was. The change in nominal interest appears to have been in part an adjustment to a change in the rate of price increases rather than a rise in real interest. The steeper interest-rate hikes in the last months of the year convey a clearer message of contractionary monetary policy.

The recent changes in interest and the money supply appear to have affected the inflation rate and economic activity through several channels: the money supply enables transactions to be implemented, hence there is a link between economic activity and the demand for money. An expansionary (or contractionary) policy can directly affect price increases, by determining the rate of expansion of the nominal money supply, because a surplus (or shortage) in the supply of money will lead to price adjustments, so that the purchasing power of the money supply will remain unchanged. The rapid adjustment of expectations that the rate of inflation will alter in the wake of a change in the rate at which the money supply expands will hasten the process; rigidities which make it difficult for prices to react—for example long-term contracts—will slow it down. Thus, the main role of monetary policy is its direct effect on nominal features—the quantity of money and the level of prices—and not via real activity. An examination of the link between the narrow money supply (M1) and economic activity, as measured by nominal product, shows the connection to be unstable, so that it is difficult to use this approach to draw conclusions about expected price developments from changes in the rate at which the money supply expands.

[14] This is calculated using the rate of price increases over the previous 12 months.

Interest also affects inflation (actual and expected) through its effect on the supply of and demand for goods. Hence, a policy intended to dampen inflation by reducing demand may impair economic activity in the short run. A rise in short-term interest, that is perceived as a rise in real interest, could reduce the demand for real investment to the extent that this interest affects investment demand.[15] Reduced liquidity *per se* may also cause private consumption to fall. The real interest level also affects some demand via the preferred composition—both financial and physical—of the portfolio: a low return on local-currency, interest-bearing financial assets will tend to raise demand for alternatives, such as securities, real estate, and durables. Increased demand for these raises their relative price, and also affects price increases as measured by the CPI and other indices. On the other hand, higher interest makes credit—also in a sense a factor of production—more costly, and is thus likely to spur producers to raise prices. The extent to which domestic interest affects production costs depends on the share of credit in total production costs, and on the share of domestic interest in the total cost of credit.

It is generally agreed that in Israel interest has a greater effect on demand than on supply. Moreover, the greater the substitutability between domestic and foreign credit, and the smaller the share of the former, the less is the effective weight of domestic interest.

Changes in nominal interest send signals to the public about policy makers' intentions and expected inflation. A rise in interest rates indicates determination to stabilize inflation, but may be interpreted as a means of adjusting nominal instruments to a higher inflation rate, in response to the actual change in the rate of price increases, thereby supporting an upward revision of expectations. The firmness with which policy makers adhere to their goals affects the credibility of the measures taken. The process of molding inflationary expectations also depends on other factors relating to the environment in which monetary policy operates, e.g., fiscal policy and the balance of payments. Clearly, monetary policy alone cannot attain all the economy's objectives regardless of fiscal policy. Curbing inflation must be accompanied by a budgetary policy that correctly combines expenditure and receipts, and continues to reduce the deficit.

The extent to which interest affects the inflation rate, given the existing exchange-rate regime, depends on how quickly demand and prices respond to interest-rate changes. High nominal interest, which causes capital inflow, increases the supply of foreign currency. The effect of the latter on the exchange rate and the money supply depends on the extent of the central bank's involvement in the foreign-currency market. Appreciation together with an increase in supply enables the exchange rate to adjust upwards (within the crawling band) to a greater extent, hence creating expectations that it will rise, and reducing the expected yield gap. It is also likely to slow inflation. The central bank's willingness to take up the excess supply of foreign currency at the end of 1994 in order to slow appreciation also prevented the reduction of the expected yield gap, and led to

[15] The transmission mechanism between short- and long-term interest rates will also determine the extent to which monetary policy affects demand in general, and investment in particular.

**Table 7.4A**
**Sources of Change in Unindexed Local-Currency Assets,[a] 1991–94**

(NIS million)

| | 1991 | 1992 | 1993 | 1994 | 1993 I | 1993 II | 1993 III | 1993 IV | 1994 I | 1994 II | 1994 III | 1994 IV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General government | 4,562 | 5,156 | 2,628 | 4,940 | -2,186 | 2,069 | 967 | 1,779 | 706 | -582 | -48 | 4,865 |
| Bank of Israel | 304 | 2,884 | 3,800 | -4,188 | 6,127 | -1,824 | 1,877 | -2,381 | -801 | 652 | 1,042 | -5,080 |
| Monetary loan | 2,575 | 5,370 | 5,994 | -1,490 | 6,728 | -1,347 | 2,714 | -2,102 | -965 | 1,197 | 2,405 | -4,126 |
| Open-market operations | -918 | -108 | 996 | 1,386 | 177 | 272 | 41 | 507 | 925 | 441 | -313 | 332 |
| Other[b] | -1,352 | -2,378 | -3,190 | -4,084 | -777 | -750 | -878 | -785 | -761 | -987 | -1,051 | -1,285 |
| Private foreign-currency conversions | -4,122 | -7,180 | -4,591 | 1,151 | -2,499 | -373 | -574 | -1,146 | 791 | -167 | -370 | 897 |
| **Total change in monetary base** | 744 | 860 | 1,837 | 1,903 | 1,442 | -128 | 2,270 | -1,748 | 696 | -97 | 623 | 681 |
| **Domestic banking operations[c]** | 3,469 | 5,749 | 13,435 | 13,875 | -2,354 | 3,496 | 1,616 | 10,677 | 3,830 | 2,198 | 2,920 | 4,927 |
| **Change in unindexed local-currency assets** | 4,214 | 6,609 | 15,271 | 15,778 | -912 | 3,367 | 3,886 | 8,929 | 4,526 | 2,101 | 3,543 | 5,608 |
| Money supply | 957 | 2,482 | 3,004 | 1,053 | -355 | 540 | 1,501 | 1,319 | 297 | -420 | 23 | 1,153 |
| Time deposits, SROs (CDs), and other deposits | 3,256 | 4,127 | 12,267 | 14,724 | -556 | 2,828 | 2,386 | 7,610 | 4,229 | 2,521 | 3,520 | 4,455 |

[a] Excluding Treasury bills.
[b] This includes budgetary expenditure of the Bank of Israel, directed local-currency credit, transactions in government securities, interest on banks' local-currency deposits with the Bank of Israel, and the interest paid by the banks on the monetary loan.
[c] This is the residual item (i.e., change in the unindexed local-currency assets *less* change in money base), and represents the effect of the deposit multiplier.

**Table 7.4B**
**Sources of Change in Unindexed Local-Currency Assets, 1991–94[a]**

(percent of GDP)[b]

| | | | | | 1993 | | | | 1994 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1991 | 1992 | 1993 | 1994 | I | II | III | IV | I | II | III | IV |
| General government | 3.4 | 3.2 | 1.4 | 2.2 | –5.1 | 4.8 | 2.0 | 3.5 | 1.4 | –1.1 | –0.1 | 8.0 |
| Bank of Israel | 0.2 | 1.8 | 2.1 | –1.9 | 14.3 | –4.2 | 4.0 | –4.7 | –1.6 | 1.2 | 1.8 | –8.3 |
| Monetary loan | 1.9 | 3.4 | 3.3 | –0.7 | 15.7 | –3.1 | 5.7 | –4.2 | –1.9 | 2.2 | 4.2 | –6.8 |
| Open-market operations | –0.7 | –0.1 | 0.5 | 0.6 | 0.4 | 0.6 | 0.1 | 1.0 | 1.8 | 0.8 | –0.5 | 0.5 |
| Other[b] | –1.0 | –1.5 | –1.7 | –1.8 | –1.8 | –1.7 | –1.8 | –1.6 | –1.5 | –1.8 | –1.8 | –2.1 |
| Private foreign-currency conversions | –3.1 | –4.5 | –2.5 | 0.5 | –5.8 | –0.9 | –1.2 | –2.3 | 1.5 | -0.3 | –0.6 | 1.5 |
| **Total change in monetary base** | 0.6 | 0.5 | 1.0 | 0.9 | 3.4 | –0.3 | 4.8 | –3.5 | 1.4 | –0.2 | 1.1 | 1.1 |
| **Domestic banking operations[c]** | 2.6 | 3.6 | 7.3 | 6.2 | –5.5 | 8.0 | 3.4 | 21.2 | 7.5 | 4.1 | 5.1 | 7.9 |
| **Change in unindexed local-currency assets** | 3.1 | 4.1 | 8.3 | 7.0 | –2.1 | 7.8 | 8.2 | 17.8 | 8.9 | 3.9 | 6.2 | 9.0 |
| Money supply | 0.7 | 1.6 | 1.6 | 0.4 | –0.8 | 1.2 | 3.2 | 2.6 | 0.6 | –0.8 | 0.0 | 1.8 |
| Time deposits SROs (CDs), and other deposits | 2.4 | 2.6 | 6.7 | 6.6 | –1.3 | 6.5 | 5.0 | 15.1 | 8.3 | 4.7 | 6.1 | 7.2 |

[a] See notes to Table 7.4A.
[b] Flow divided by GDP in the same period (quarterly or annual).

**Table 7.5**
**Domestic Budget Deficit (Consolidated Balance Sheet of the Government and the Bank of Israel), 1991–94[a]**

(percent of GDP)[b]

| | 1991 | 1992 | 1993 | 1994 | 1994 I | 1994 II | 1994 III | 1994 IV |
|---|---|---|---|---|---|---|---|---|
| **Deficit** | | | | | | | | |
| Government expenditure | 41.4 | 41.8 | 40.1 | 40.3 | 44.0 | 36.3 | 40.0 | 40.9 |
| *of which* Interest on internal debt[c] | 4.9 | 4.4 | 4.4 | 3.9 | 3.4 | 4.6 | 3.4 | 4.4 |
| Government income[d] | 35.7 | 37.7 | 37.0 | 38.2 | 43.3 | 36.9 | 39.4 | 33.7 |
| Budget deficit | 5.7 | 4.1 | 3.1 | 2.1 | 0.7 | –0.6 | 0.6 | 7.2 |
| Non-budgetary injection | 0.1 | 0.3 | 0.3 | 0.3 | 0.4 | –0.0 | –0.3 | 0.9 |
| Jewish Agency injection | 0.8 | 0.6 | 0.5 | 0.4 | 0.3 | 0.4 | 0.3 | 0.4 |
| **Total domestic deficit** | 6.5 | 4.9 | 3.8 | 2.7 | 1.4 | –0.2 | 0.6 | 8.5 |
| **Financing** | | | | | | | | |
| Change in monetary base | 0.6 | 0.5 | 1.0 | 0.9 | 1.4 | –0.2 | 1.1 | 1.1 |
| Net borrowing via Bank of Israel[e] | –0.3 | –1.9 | –2.1 | 1.9 | 1.6 | –1.2 | –1.8 | 8.3 |
| *of which* Treasury bills | 0.7 | 0.4 | –0.1 | –0.3 | –1.4 | –0.5 | 0.8 | –0.2 |
| Monetary loan | –1.9 | –3.4 | –3.3 | 0.7 | 1.9 | –2.2 | –4.2 | 6.8 |
| Net domestic borrowing | 3.2 | 1.8 | 2.4 | 0.5 | –0.0 | 0.9 | 0.7 | 0.5 |
| Bonds and deposits[f] | 4.8 | 3.2 | 1.8 | –0.1 | –0.3 | –0.1 | 0.2 | –0.2 |
| Sales of assets and capital income | 0.4 | 0.8 | 1.7 | 0.3 | 0.1 | 0.8 | 0.0 | 0.4 |
| *less* Net credit to private sector | 2.0 | 2.2 | 1.1 | –0.3 | –0.2 | –0.2 | –0.4 | –0.3 |
| Foreign-currency conversions | 3.1 | 4.5 | 2.5 | –0.5 | –1.5 | 0.3 | 0.6 | –1.5 |

[a] The deficit shown here differs from that of Chapter 5 in two respects: (i) cash basis (this table) versus accrual basis; (ii) coverage: this table is confined to central government (general government in Chapter 5); however, the deficit of the Jewish Agency is included both here and in Chapter 5.
[b] See note d to Table 7.4.
[c] Mostly real interest (since most of the internal debt is indexed); it also includes a nominal element (since some of the debt is not fully indexed or is indexed to the exchange rate).
[d] Including net compulsory loans.
[e] Change in the monetary loan, open-market activity, and other factors.
[f] Tradable bonds and nontradable deposits and bonds (excluding Treasury bills and resident deposits).
SOURCE: Bank of Israel and Ministry of Finance (Accountant-General).

continued capital inflow, reflected by a temporary increase in the reserves. Together with its intervention in the foreign-currency market, the Bank of Israel also sterilized the effect on the monetary base by reducing the domestic injection. Its power to act in this way is limited, and depends on the tools available. This process reduces the share of domestic sources in the quantity of money, and increases that of foreign ones (Table 7.4). As long as capital inflow continues, the share of liquid sources affected by domestic interest falls, and thus its ability to influence economic activity and prices is weakened. Higher domestic interest has a greater effect on economic units (individuals and firms) whose access to foreign sources is limited than on those that are free to lend and borrow abroad. When excess supply of foreign currency causes continued nominal appreciation—also reflected in the short term by real appreciation provided domestic inflation persists—it is more difficult to adhere to the exchange-rate regime because there is pressure for a discrete realignment of the exchange rate. This pressure may create devaluation expectations, thus reducing the expected yield gap (despite the high interest level), leading to the rapid depletion of the reserves, and impairing the chances of attaining the objectives.

## 3. THE MONETARY AGGREGATES, CREDIT, AND INTEREST

### The aggregates

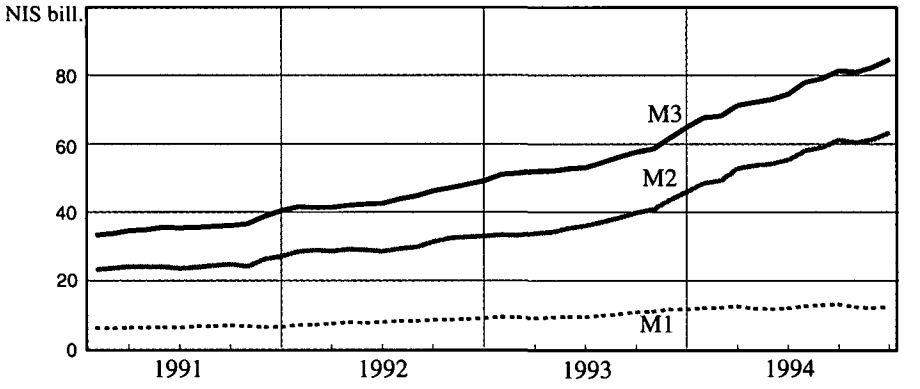
In 1994 there were significant changes in the broad money supply (M3), as each of its components grew at a different rate (Figures 7.2, 7.3, Table 7.1). The narrow money supply (M1) increased by only 5 percent, in nominal terms, compared with a 38 percent rise of M2, as a result of the exceptional expansion of unindexed resident time deposits, which more than doubled during the year. Deposits for three months or more soared by more than 160 percent, mainly in October–December, apparently due to the accelerated rise of nominal interest in those months, and the increase in interest on these deposits relative to that paid on similar, but shorter term, deposits. In contrast, self-renewing overnight, local-currency, interest-bearing deposits (SROs) fell by some 18 percent in 1994, reaching the same nominal level as in September 1993. Interest on these two types of deposits rose in line with interest on the monetary (discount window) loan; that on SROs went up from 9 percent at the end of 1993 to about 16 percent at the end of 1994.

The stock of Treasury bills held by the public (excluding those held by the banks), which also constitutes part of M2, surged by about 66 percent in 1994, together with the rise in their yield, especially in the last few months of the year,[16] after two years in which these holdings contracted. The changes in nominal interest were also reflected by the yield on Treasury bills during 1994; the nominal yield on all horizons (from a month to a

[16] Some Treasury bills were issued for swap purposes against bonds with less than a year to maturity. Bonds to the value of about NIS 15 million a week were swapped during 1994. Treasury bills held by the banks declined in 1994, especially in September–December.

year) rose from about 10 to 16 percent. The rise in the yield on Treasury bills was accompanied by a moderation of the slope of the yield curve, which eventually became completely horizontal. This is consistent with the higher inflationary expectations evident at the beginning of 1994, as well as with the actual rates at which inflation and interest rose during the year. 'Other deposits,' used mainly for placing orders for new issues on the stock exchange, which reached enormous proportions at the end of 1993, completely disappeared in 1994, due to the cancellation of the requirement to deposit for one day the amount of an order placed for a such issues (and the abolition of a maximum price for new issues, which greatly reduced the extent of oversubscriptions). The rate of increase of the average level of M1, about 21 percent (as distinct from the lower rate of increase during the year), is consistent with the nominal rate of GDP growth, and was below the 24 percent increase in 1993. The rise in the average level of M2 (excluding Treasury bills and the deposit for ordering securities)—more than 50 percent in 1994, following 30 percent in 1993—again outstripped that of the money supply.

**Figure 7.2**
**The Monetary Aggregates, 1991-94**[a]

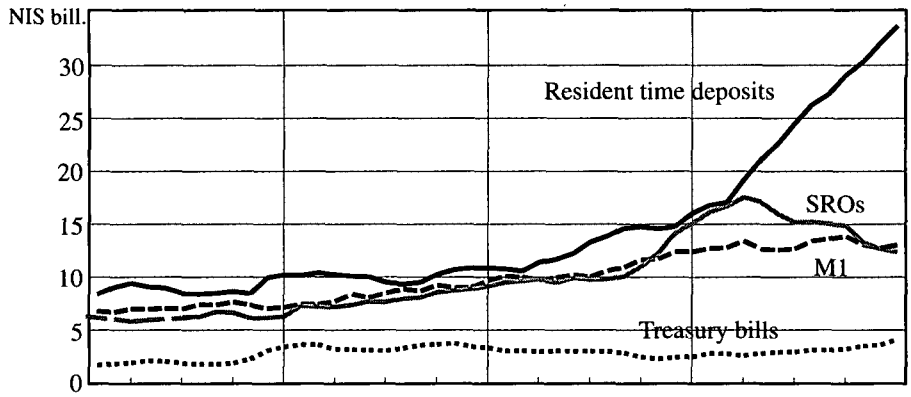



[a] Excluding other deposits.

The expansion of deposits in or indexed to foreign currency was significantly below that of M2, amounting to only 14 percent (in local-currency terms). M3 (M2 *plus* these deposits) increased by some 31 percent in 1994. CPI-indexed long-term deposits and savings schemes grew in real terms in 1994, after declining steadily since 1991 (Table 7.2), their rate of increase accelerating slightly after the middle of the year. In October–December there was a marked real rise in CPI-indexed long-term deposits.[17]

[17] Indexation differentials and interest on CPI-indexed long-term deposits are taxable, unlike savings schemes.

**Figure 7.3**
**Components of M2[a], 1991-94**




[a] Excluding other deposits.

The public holds financial assets for two main purposes—to accumulate wealth, and to perform transactions. Hence, the quantity and composition of these assets depend on the considerations which determine the portfolio: relative yields and relative risks of the various assets (both financial and others) and the extent of real and financial economic activity. The more liquid an asset, the more it is likely to respond to the level of activity, while less liquid assets serve rather as a means of accumulating wealth, and are therefore more sensitive to changes in relative yields and risk.

Changes in the shares of the various components of M3 during 1994 may be analyzed in this context. The share of cash in the narrow money supply (M1), which consists of cash and demand deposits, fell significantly in the second half of 1993. This was due to the expansion of financial activity, which increased resort to demand deposits for the purpose of carrying out transactions on the stock exchange, without a rise in the demand for cash, which cannot be used for this purpose. Starting in early 1994, the share of demand deposits in M1 plummeted, reverting to its level at the beginning of 1993; this offset the previous upward trend, apparently reflecting the notable slowdown in stock-exchange activity. The money supply expanded more slowly in 1994 because demand deposits did not change in nominal terms (meaning a contraction in real terms), and the balance of cash held by the public increased by about 12 percent. The velocity of circulation (nominal GDP *divided by* the money supply), which had declined since the beginning of 1992 and reached a trough at the beginning of 1994, changed direction and rose during the year, because the money supply expanded more slowly than nominal

GDP, and apparently represents a correction of the too rapid growth of M1 in the second half of 1993. The share of M1 in M2, which also includes unindexed local-currency deposits, shrank in 1994, due to the slow growth of the money supply and the exceptional surge in unindexed resident time deposits, especially for three months and longer. The smaller share of cash in M2, and the greater share of deposits with lower reserve requirements, made it easier to translate a change in the monetary base into a change in the M2 money supply by means of credit.[18] With the reduction of the reserve requirements on local-currency deposits in January 1995, the banking system's part in the creation of money is expected to rise.[19]

Although SROs and unindexed resident time deposits are both in local currency and bear interest, they followed very different paths during the year, the latter rising significantly and the former falling. This contrasts with developments in the second half of 1993. SROs, which are as liquid as demand deposits and may be used for stock-exchange transactions, developed in much the same way as the (daily average) volume of stock-exchange trading—a marked increase in the second half of 1993 and contraction during 1994. Unindexed time deposits, on the other hand, continued expanding in 1994, after rising moderately in 1993. This asset seems to be more affected by a change in relative yields. The continued rise of nominal interest, expectations of moderate exchange-rate changes, and low yields on traded securities, together with greater uncertainty regarding the latter, made the yield on other local-currency assets more attractive, and hence increased their share in the public's portfolio.

In order to examine whether it is worthwhile holding SROs and unindexed resident time deposits rather than other financial assets which are CPI-indexed, one must look at the real yield (in terms of the CPI) expected on the former. Although a rise in real (*ex post*) interest on unindexed local-currency deposits was evident only from September, they grew throughout the year, even when derived real interest was low and negative. Several explanations may be proposed: first, inflation expected by the public at that time may have been lower than the computed one. Second, for part of the period, when there was great uncertainty regarding the yield on other assets, the public may have opted to hold this asset, which is relatively liquid, to allow easy transfer to alternative assets in the future.

To assess the relative yields on unindexed local-currency and on foreign-currency assets, nominal local-currency interest should be compared with foreign-currency interest, with the addition of expected changes in the exchange rate. The rise in nominal interest during the year widened the yield gap between interest-bearing assets in M2 and

[18] The ratio of M2 (excluding Treasury bills) to the monetary base rose from about 5 in 1992–93 to more than 6 at the end of 1994.

[19] From the beginning of the month the reserve requirement on demand deposits and SROs went down from 8 percent to 6 percent; that on unindexed resident time deposits for periods of from one week to a year was reduced to 3 percent—from 6 percent on deposits up to three months, and from 4 percent on those between three months and a year. The reserve requirement on deposits for more than a year was reduced to zero.

**Table 7.6**
**Commercial Bank Nondirected Credit to the Public, 1992–94[a]**

| | End-year, NIS million | | | Nominal change, percent | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | During period | | | Between periods | | |
| | 1992 | 1993 | 1994 | 1992 | 1993 | 1994 | 1992 | 1993 | 1994 |
| Total local-currency credit | 69,960 | 97,415 | 129,700 | 36.4 | 39.2 | 33.1 | 30.2 | 51.6 | 30.1 |
| *of which* Unindexed | 39,806 | 54,902 | 66,624 | 37.8 | 37.9 | 21.4 | 27.5 | 50.5 | 25.0 |
| CPI-indexed[b] | 24,572 | 34,947 | 52,508 | 28.6 | 42.2 | 50.3 | 27.4 | 52.5 | 38.1 |
| Foreign-currency indexed | 5,582 | 7,565 | 10,568 | 71.3 | 35.5 | 39.7 | 77.2 | 56.5 | 31.7 |
| Foreign currency credit (NIS) | 11,771 | 12,420 | 15,417 | 13.7 | 5.5 | 24.1 | 13.3 | 9.3 | 13.1 |
| Total credit | 81,731 | 109,835 | 145,117 | 32.3 | 34.4 | 32.1 | 26.5 | 44.9 | 28.0 |
| Consumer Price Index (CPI) | | | | 9.4 | 11.2 | 14.5 | 11.9 | 10.9 | 12.3 |

[a] Based on monthly averages of daily data.

[b] Since the end of 1992, credit from earmarked deposits has been included in nondirected CPI-indexed credit. The 1993 rates of change do not include the increase in credit arising from this change.

foreign-currency assets, despite the fact that interest on foreign assets rose (assuming no change in expectations regarding exchange-rate developments). This was reflected by the slow growth of foreign-currency deposits (exchange-rate indexed, resident foreign-currency denominated, and unrestricted), and their lower share of the M3 aggregate.

### Credit[20]

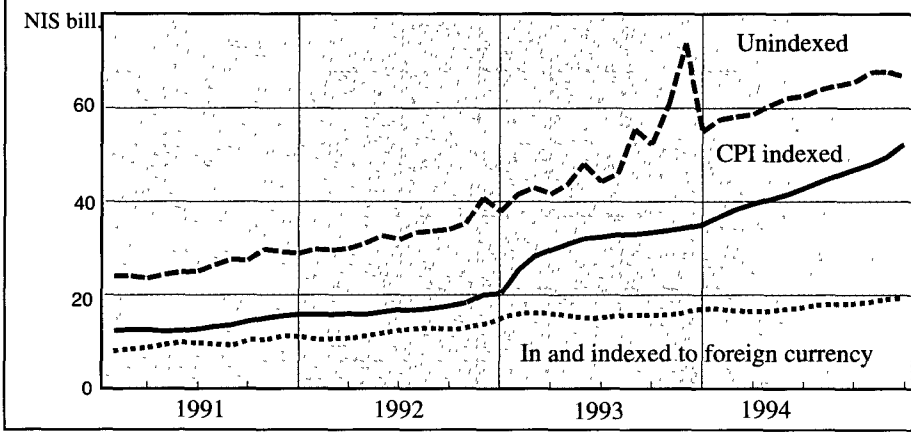
Total nondirected nominal credit increased by some 32 percent in 1994. Total—including directed—credit rose by only 26 percent, because of the contraction of credit from earmarked deposits. Unindexed local-currency credit grew by 21 percent during the year, while CPI-indexed credit continued the trend of accelerated growth evident since 1993, and rose by 50 percent (Table 7.6 and Figure 7.4). Credit in and indexed to foreign currency rose by 24 percent and 40 percent respectively, most of these increases occurring in the last quarter of 1994, in response to the rapid rise in interest on local-currency credit in that period, alongside the greater capital inflow. As the dollar exchange rate hardly rose during the year, the increase in foreign-currency credit in dollar terms changed at a similar rate. The picture which emerges of the shift in the composition of credit is consistent with that obtained from the asset side. As the share of local-currency assets rose, that of unindexed local-currency credit in total nondirected credit fell. The average level of nondirected credit in 1994 was about 30 percent higher than in 1993. This increase was below that of 1993 (especially in the second half of the year), and was very similar to the rate of increase in 1992. The average level of unindexed credit rose by some 25 percent in 1994, compared with 50 percent in 1993, when a large part of the expansion derived from one-day credit granted for purposes of ordering new issues of securities. If this credit is deducted, the rates of increase of the average level of unindexed credit in 1993 and 1994 are similar—slightly under 40 percent.

Foreign-currency credit continued to expand slowly, accelerating at the end of the year, so that its average level rose by 13 percent—the same as in 1992 and 1993—despite the rapid increase in foreign-currency-related activity (imports and financial transactions). If foreign-currency credit is used for foreign-currency activity, the difference between the rise in the NIS/dollar exchange rate and the faster rise of the CPI in recent years will tend to moderate the expansion of this credit in local-currency terms.

The average amount of nondirected credit in recent years has grown faster than nominal GDP, reflected by the constant increase in the credit/GDP ratio. This trend is partly explained by the switch from directed to nondirected credit which accompanied the liberalization of the money markets. Total credit expanded more slowly in recent years (mainly up to 1992), in line with GDP growth. Another possible explanation is that since GDP reflects nonfinancial activity, it may not accurately indicate the extent of financial and nonfinancial transactions, and may be biased downward as an indicator of credit uses.

[20] The credit aggregates mentioned here and in Table 7.6 are based on monthly averages of daily data, as opposed to the end-of-month data used hitherto. The distribution by type of credit differs slightly from that in the past in accordance with the availability of data.

**Figure 7.4**
**Nondirected Credit, 1991-94**




Although there were changes in real interest, unindexed credit expanded steadily during most of 1994. In the last few months of the year, when nominal interest rose faster, there was clear move from unindexed credit to credit indexed to the CPI and to foreign currency. Nominal interest on nondirected local-currency credit rose from 14.7 percent at the end of 1993 to 22.4 percent in December 1994.[21] An examination of real (*ex post*) interest shows that in the first few months of 1994 it rose significantly above its low level at the end of 1993, but from then until August there was a marked fall. It was only towards the end of the year that a rapid rise of nominal interest combined with more moderate inflation led to a considerable increase in computed real interest, and thus to a higher cost of unindexed credit relative to that of indexed credit. These fluctuations in derived real interest on unindexed local-currency credit did not occur in CPI-indexed credit, which remained stable around the 4 percent level throughout 1994, with very little difference between credit for up to one year and for longer periods. Interest rates on credit denominated in and indexed to foreign currency rose in line with world rates; interest on dollar credit varied between 4 percent (in dollar terms) at the beginning of the year to 7 percent at the end.[22] The faster expansion of foreign-currency-indexed credit in the last months of 1994 supports the hypothesis that the cost of unindexed local-currency credit was considered high also relative to the expected cost of foreign-currency credit—nominal interest plus expected change in the exchange rate.

[21] This interest relates to total credit, and as the rate rises, its average is lower than the interest on new credit. The longer the period of credit, the longer the time taken for average interest to adjust. This also applies to interest on deposits.

[22] Interest on credit in other currencies which strengthened during 1994 remained stable at about 5–6 percent, and even fell slightly.

**Table 7.7**
**Mortgage Banks, Credit Flows and Balances, 1991–94**

| | 1991 | 1992 | 1993 | 1994 |
|---|---|---|---|---|
| *NIS million*[a] | | | | |
| Credit flows | | | | |
| Directed mortgages | 3,517 | 5,109 | 6,449 | 5,268 |
| Other mortgages | 2,357 | 2,102 | 4,546 | 8,448 |
| Total mortgages | 5,875 | 7,210 | 10,996 | 13,717 |
| Total *less* repayments | 2,849 | 3,291 | 5,699 | 6,369 |
| Other loans | 414 | 641 | 1,189 | 2,714 |
| Total mortgage-bank loans | 6,289 | 7,851 | 12,185 | 16,431 |
| Credit balance | | | | |
| At end of period | 25,369 | 30,523 | 39,898 | 54,899 |
| Average | 21,839 | 28,496 | 35,663 | 47,324 |
| *Real annual change, percent* | | | | |
| Credit flows | | | | |
| Directed mortgages | | 28.8 | 14.7 | –27.0 |
| Other mortgages | | –20.3 | 95.3 | 65.4 |
| Total mortgages | | 9.2 | 38.2 | 11.0 |
| Total *less* repayments | | 2.0 | 57.9 | –0.3 |
| Other loans | | 48.1 | 65.8 | 101.4 |
| Total mortgage-bank loans | | 11.5 | 40.5 | 19.8 |
| Credit balance | | | | |
| At end of period | | 10.0 | 17.5 | 20.2 |
| Average | | 16.8 | 12.8 | 18.0 |

[a] At current prices.

The balance of credit from mortgage banks[23] rose by 20 percent in real terms in 1994 (Table 7.7), as a result of a 65 percent increase in the flow of nondirected loans[24] and a contraction of directed loans by about a quarter. Allowing for repayments (net new loans), the volume of loans declined slightly in 1994. The continued expansion of non-residential loans is notable, although their share in total loans advanced by mortgage banks is still small. An examination of loans from mortgage banks in terms of prices of owner-occupied apartments, as measured in the CPI, shows a rise of only 5.5 percent. The average rate of interest on nondirected mortgage loans, which was declining from its high level—nearly 6 percent—from the beginning of 1990 until the beginning of 1993, continued rising in 1994, mainly in the second half of the year, and reached 5 percent.

[23] In January 1995 changes in the reserve requirements came into effect which give mortgage banks ('special banking corporations') the same status as ordinary banking corporations. Hence, deposits in and credit from the mortgage banks will be included in current reports on the banking system.

[24] See also the section on construction in Chapter 2.

### The interest-rate spread

The interest-rate spread contracted significantly in recent years, from about 33 percentage points in 1988 to 5 percentage points in 1993 and 1994, mainly because the cost of credit fell faster than interest on deposits. This was partly the result of greater competition between the banks due to the continued liberalization program which eases restrictions on activity in foreign currency and in the indexed sector, thereby enabling individuals to switch more easily between different types of credit and preventing lenders from quoting prices higher than those of alternatives available to borrowers. The reduction of the interest rate, the contraction of the banks' share of total financial intermediation, and pressure exerted by the central bank on the banking system also served to narrow the interest-rate spread. In December 1994—following two years of relative stability in the spread despite sharp fluctuations in interest—it widened significantly. The difference between the interest on overdrafts and SROs, which had been stable since the second half of 1993, also started widening in the last few months of 1994. This may reflect a considerable rise in the risk inherent in credit resulting from the steep increase in interest rates at the end of the year.

The narrowing of the interest-rate spread in the unindexed local-currency sector as well as in other sectors was partly responsible for the fall in banks' profits from the first half of 1993 to the first half of 1994.[25] In contrast to previous years, the reduction of the spread was not offset by a rise in fees, which increased throughout 1994 at a similar rate to that of the CPI. The fall in total operating income, mainly due to the lower level of activity on the capital market (stock-exchange turnover and the extent of new issues) and the rise in wage and related costs also played a part in lowering banks' profits.

## 4. THE PUBLIC'S PORTFOLIO OF FINANCIAL ASSETS

### Main developments

The public's portfolio of financial assets totaled NIS 435 billion at the end of 1994, almost double GDP, and consists of liquid short-term assets that amounted to NIS 180 billion, and long-term assets of NIS 255 billion (Table 7.8). Short-term assets include cash, unindexed deposits, Treasury bills, short-term foreign-currency-indexed deposits, and bonds and shares held either directly or via mutual funds. Long-term assets include restitutions deposits, savings schemes, indexed deposits, life insurance, provident funds, and pension funds.[26] The financial portfolio, deflated by the CPI, fell by 13

[25] Based on the half-yearly report of the Supervisor of Banks, and on data for January–September. See also the section on services in Chapter 2.

[26] The definition does not cover assets abroad, and treats shares and bonds as short-term investments, although their repayment periods are relatively long term. Provident funds, which for the purpose of the analysis include total holdings of provident, advanced study, and severance pay funds, are considered long term, although a large proportion of these investments is liquid.

percent in 1994, after rising by 21 percent a year, in 1992–93. The fall in 1994 primarily reflects the 50 percent drop in real share prices.

We also divided the portfolio into four categories of indexation and risk: shares, foreign-currency-indexed assets, CPI-indexed assets, and unindexed assets (Table 7.8). The real changes in the value of these assets derive from changes in their real price and in quantity. In 1994 real asset prices fell by 19 percent, in real terms; besides the sharp decline in share prices, the prices of the other groups of assets fell by between 2 and 11 percent (Table 7.9). The supply of financial assets, by contrast, rose by 7 percent, with all categories showing an increase. The supply of listed shares rose by about NIS 10 billion, stemming from share offerings and listings of new companies, but the fall in share prices wiped out NIS 60 billion of their value.[27]

Foreign-currency-indexed assets—indexed deposits, savings schemes, and foreign-currency-indexed bonds—declined as a result of the real appreciation of the NIS. In addition, prices of foreign-currency-indexed bonds fell, with the rise in interest rates.

The rise in real interest rates also contributed to the decline in the price of CPI-indexed assets, particularly long-term bonds. Nevertheless, the value of CPI-indexed assets did not change, as the price effects were offset by the substantial increase in the quantity of indexed deposits.

In 1994, unindexed assets yielded negative real returns. The public nonetheless increased its holdings of these assets by 20 percent, the rise being most notable in the first and last quarters, despite the rise in inflation, which in the past caused an outflow from unindexed assets.

### Financial assets

*Shares*: Share prices fell by about 50 percent in 1994, the biggest drop since the 1983 bank shares crisis, after three years in which they had almost trebled in real terms (Table 7.10), and in which public offerings also increased dramatically. During those years 90 percent of net deposits into provident funds were allocated to share purchases, after the government raised the limit of their permitted investment in this channel in 1989. Commercial banks also contributed to the increased demand for shares in 1993, by easing credit and margin requirements for the purchase of bank-sponsored mutual funds specializing in stock.

The annual reports of listed companies for 1992 and 1993 indicate that the rise in stock prices in those years was not supported by increased profits, and earnings disappointments may have contributed to the fall in 1994. Other factors contributing to the decline in 1994 included the collapse of other international capital markets, higher interest rates, and the announcement of a capital gains tax.[28]

[27] As explained below in the section on shares, the proportion of shares is an overestimate, due to double counting because some quoted companies own other quoted companies. Furthermore, shares include holdings of foreign companies and nonresidents.

[28] The decision was reversed at the beginning of 1995; the government decided not to tax stock-market profits when it became clear that collecting the tax would be problematic.

**Table 7.8A**
**Financial Assets of the Public, 1992–94[a]**

(end of period)

| | Balances, NIS million | | | | | Percent of total | | |
|---|---|---|---|---|---|---|---|---|
| | | 1994 | | | | | | |
| | 1993 | I | II | III | IV | 1992 | 1993 | 1994 |
| **Short-term assets[b]** | | | | | | | | |
| Unindexed | **46,150** | **51,180** | **53,382** | **56,558** | **62,903** | **10.1** | **10.6** | **14.4** |
| Money supply (M1) | 13,044 | 13,218 | 12,856 | 13,052 | 13,916 | 3.1 | 3.0 | 3.2 |
| Time deposits and SROs[c] | 31,009 | 35,841 | 37,969 | 40,659 | 45,298 | 6.2 | 7.1 | 10.4 |
| Treasury bills | 2,097 | 2,121 | 2,558 | 2,847 | 3,690 | 0.8 | 0.5 | 0.8 |
| Resident deposits and tradable bonds | **45,127** | **43,082** | **44,760** | **45,356** | **47,218** | **12.4** | **10.4** | **10.8** |
| Deposits[d] | 19,581 | 19,031 | 20,309 | 20,974 | 22,764 | 5.4 | 4.5 | 5.2 |
| *of which* Nonresident deposits of Israelis | *12,964* | *13,071* | *13,900* | *14,675* | *15,170* | *3.2* | *3.0* | *3.5* |
| Bonds | 25,547 | 24,051 | 24,451 | 24,382 | 24,454 | 6.9 | 5.9 | 5.6 |
| **Total short-term assets** | **91,277** | **94,262** | **98,142** | **101,914** | **110,121** | **22.4** | **21.0** | **25.3** |
| **Total shares** | **119,133** | **98,054** | **67,747** | **80,002** | **70,716** | **19.6** | **27.4** | **16.2** |
| **Total short-term assets and shares** | **210,410** | **192,315** | **165,890** | **181,916** | **180,837** | **42.0** | **48.4** | **41.5** |
| **Long-term assets** | | | | | | | | |
| Restitutions deposits | 12,986 | 13,320 | 14,076 | 14,389 | 14,495 | 3.8 | 3.0 | 3.3 |
| Savings schemes and indexed deposits | 45,195 | 44,886 | 47,913 | 50,344 | 54,464 | 10.6 | 10.4 | 12.5 |
| Provident and pension funds and life insurance | 166,206 | 167,096 | 170,707 | 180,758 | 185,638 | 43.6 | 38.2 | 42.6 |
| **Total long-term assets** | **224,387** | **225,302** | **232,696** | **245,490** | **254,597** | **58.0** | **51.6** | **58.5** |
| **Total financial assets** | **434,798** | **417,618** | **398,585** | **427,406** | **435,433** | **100.0** | **100.0** | **100.0** |
| *of which* Shares[e] | 133,041 | 110,534 | 78,194 | 92,440 | 82,583 | 22.2 | 30.6 | 19.0 |
| Foreign-currency unindexed assets[f] | 50,223 | 49,202 | 52,176 | 52,662 | 54,936 | 14.3 | 11.6 | 12.6 |
| CPI-indexed assets | 199,791 | 201,476 | 208,971 | 219,208 | 227,472 | 52.4 | 46.0 | 52.2 |
| Unindexed assets[g] | 51,743 | 56,405 | 59,245 | 63,096 | 70,443 | 11.2 | 11.9 | 16.2 |

[a] In this table 'public' excludes the government, the central bank, commercial banks. Owing to lack of data, no adjustment was made for the rest of the world, i.e. financial assets of nonresidents were not subtracted, and foreign financial assets of Israeli residents were not added. There is some double-counting in this table since financial assets include liabilities issued by private institutions and financial assets held by them.
[b] Excluding short-term assets held by provident funds, pension funds and life insurance schemes. Hence these data differ from those in Table 7.2.
[c] On-call deposits.
[d] Resident deposits, exchange-rate-indexed deposits and unrestricted (foreign-currency) deposits.
[e] Including nonbank shares held by provident funds.
[f] Savings schemes with CPI/exchange-rate indexation options are regarded as foreign-currency-indexed assets.
[g] Including unindexed assets held by provident funds.
SOURCE: Bank of Israel.

**Table 7.8B**
**Real Change in Financial Assets of the Public, 1992–94[a]**

(percent)

| | Average | | | During period | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 1994 | | | | |
| | 1992 | 1993 | 1994 | 1992 | 1993 | Total | I | II | III | IV |
| **Short-term assets[b]** | | | | | | | | | | |
| Unindexed short-term assets | **10.1** | **17.8** | **26.4** | **10.4** | **27.6** | **19.1** | **8.4** | **–0.3** | **2.6** | **7.4** |
| Money supply (M1) | 8.3 | 13.2 | 5.3 | 21.4 | 16.4 | –6.8 | –1.0 | –7.0 | –1.7 | 3.0 |
| Time deposits and SROs[c] | 7.8 | 28.6 | 37.3 | 13.6 | 39.6 | 27.6 | 13.0 | 1.3 | 3.7 | 7.6 |
| Treasury bills | 33.6 | –32.1 | 9.5 | –30.3 | –23.7 | 53.8 | –1.1 | 15.3 | 7.7 | 25.2 |
| Resident deposits and tradable bonds | **23.3** | **13.1** | **–6.6** | **28.3** | **1.8** | **–8.6** | **–6.7** | **–0.7** | **–1.9** | **0.5** |
| Deposits[d] | 11.4 | 12.9 | –0.6 | 25.6 | 0.4 | 1.6 | –5.0 | 2.0 | –0.0 | 4.8 |
| *of which* Nonresident deposits of Israelis | 17.0 | 20.9 | 6.4 | 29.6 | 11.3 | 2.2 | –1.4 | 1.7 | 2.2 | –0.2 |
| Bonds | 31.9 | 15.6 | –11.4 | 30.6 | 3.0 | –16.4 | –8.0 | –2.8 | –3.5 | –3.1 |
| **Total short-term assets** | **17.4** | **14.6** | **10.6** | **19.6** | **13.4** | **5.4** | **0.9** | **–0.4** | **0.5** | **4.4** |
| **Total shares** | **66.5** | **81.1** | **–22.0** | **116.1** | **69.7** | **–48.1** | **–19.6** | **–33.9** | **14.3** | **–14.6** |
| **Total short-term assets and shares** | **35.9** | **38.4** | **–6.6** | **51.2** | **39.6** | **–24.9** | **–10.7** | **–17.5** | **6.2** | **–4.0** |
| **Long-term assets** | | | | | | | | | | |
| Restitutions deposits | 5.3 | 2.3 | –1.6 | 10.1 | –4.9 | –2.5 | 0.3 | 1.1 | –1.0 | –2.7 |
| Savings schemes and indexed deposits | –6.3 | 11.9 | 1.3 | –7.5 | 18.8 | 5.3 | –2.9 | 2.1 | 1.7 | 4.5 |
| Provident and pension funds and life insurance | 8.8 | 7.2 | 2.1 | 10.9 | 6.4 | –2.4 | –1.7 | –2.3 | 2.5 | –0.8 |
| **Total long-term assets** | **5.2** | **7.8** | **1.7** | **7.0** | **8.0** | **–0.9** | **–1.9** | **–1.2** | **2.1** | **0.2** |
| **Total financial assets** | **15.3** | **19.7** | **–2.2** | **21.9** | **21.3** | **–12.5** | **–6.1** | **–8.7** | **3.8** | **–1.6** |
| *of which* Shares[e] | 70.9 | 69.8 | –6.1 | 119.0 | 67.5 | –45.8 | –18.8 | –32.4 | 14.4 | –13.7 |
| Foreign-currency unindexed assets[f] | 7.0 | 8.1 | –4.1 | 16.5 | –2.0 | –4.4 | –4.2 | 1.4 | –2.3 | 0.7 |
| CPI-indexed assets | 5.3 | 7.0 | 0.4 | 5.6 | 6.4 | –0.5 | –1.4 | –0.8 | 1.5 | 0.2 |
| Unindexed assets[g] | 10.5 | 18.1 | 28.8 | 11.2 | 29.0 | 18.9 | 6.6 | 0.4 | 3.1 | 7.8 |

[a] For notes see Table 7.8A.

**Table 7.9**
**Changes in Financial Assets of the Public, 1994**

(percent)

| | Real price change[a] | Contribution to real increase in total financial assets | | | Increase in supply[e] |
|---|---|---|---|---|---|
| | | Total[b] | Price effect[c] | Quantity effect[d] | |
| Total | | -12.5 | -19.1 | 6.6 | |
| Shares[f] | -53 | -14.0 | -16.2 | 2.2 | 7 |
| Foreign-currency indexed[g] | -11 | -0.5 | -1.3 | 0.8 | 7 |
| CPI-indexed[h] | -3 | -0.2 | -1.4 | 1.2 | 3 |
| Unindexed[i] | -2 | +2.2 | -0.2 | 2.4 | 20 |

[a] Real price change is total real yield *less* interest and dividends.
[b] The contribution is the real increase in the type of asset *divided by* the public's total financial assets at the beginning of the year.
[c] Price effect is the real price change *multiplied by* the share of the type of asset in the public's total financial assets at the beginning of the year.
[d] Quantity effect is the difference between the previous two columns.
[e] Percentage, calculated by dividing the quantity effect by the share of the type of asset in the public's total financial assets at the beginning of the year.
[f] Price change of shares is of those not held by the government or banks.
[g] Weighted rate of change of tradable foreign-currency bonds and foreign-currency-indexed deposits.
[h] Weighted average of tradable, earmarked, and other nontradable bonds.
[i] Price change of unindexed assets is the weighted average of their total real yields.

Public share offerings plunged by 47 percent in 1994, mainly in the second half of the year (Table 7.10); they nonetheless exceeded their annual level for each of the years from 1983 to 1991. A large part of the funds raised, along with those internally generated, was used to increase working capital, e.g., inventory and accounts payable, rather than for capital investment.

The privatization process slowed down significantly in 1994, and proceeds from the sale of government corporations were only NIS 0.6 billion, compared with NIS 4.6 billion as specified in the National Budget. The goals were not met, in part because entrenched management, employees, and others were often successful in slowing the process. Some corporations were not sold because, in the wake of the slump in the stock market, investors were unwilling to pay the price demanded by the government. Other delays occurred when it became necessary to amend existing laws and agreements governing the operating conditions in certain industries. Legislation which preceded the partial privatization of commercial banks in 1993 did not for the most part include the recommendations of the Bejski Commission, which specified that commercial banks should be barred from security and other capital market activity. The privatization of the banks proceeded at an unsatisfactory pace, even after the above-mentioned legislation, due to the authorities' demand that the shares be sold as controlling interests to 'strategic' investors, rather than to the public at large.

**Table 7.10**
**Principal Share-Market Indicators, 1992–94**

(NIS million)

| | 1992 | 1993 | 1994 Year | 1994 Jan–Jun | 1994 Jul–Dec |
|---|---|---|---|---|---|
| Offerings | 5,511 | 10,003 | 5,289 | 4,016 | 1,273 |
| *of which* Government corporations | 918 | 2,692 | 634 | 621 | 13 |
| Private sector | 4,593 | 7,310 | 4,655 | 3,395 | 1,260 |
| Market value[b] | 104,289 | 173,518 | 98,767 | 97,817 | 98,767 |
| Shares (percent) | | | | | |
| Bank shares | 4 | 11 | 13 | 11 | 13 |
| Others | 96 | 89 | 87 | 89 | 87 |
| Trade on and off stock exchange floor[c] | 46,901 | 102,598 | 82,208 | 57,556 | 24,651 |
| Annual turnover[d] | 0.65 | 0.79 | 0.61 | 0.76 | 0.46 |
| Total real yield[e] | 74.4 | 27.0 | –46.1 | –45.8 | –0.6 |
| Standard deviation of monthly real yield | 4.3 | 5.5 | 11.3 | 11.8 | 9.4 |

[a] At December 1994 prices. Adjusted on a monthly basis. Includes shares, convertible securities, and realization of warrants.
[b] At end of period.
[c] At December 1994 prices. New issues and trade adjusted on a monthly basis.
[d] The ratio of monthly trade on and off the stock-exchange floor and the average value of the market in that month.
[e] According to the CPI at the end of the month.
SOURCE: Based on Central Bureau of Statistics, and Bank of Israel Monetary Department data.

In addition to government holdings in the stock market, a large share of the value of listed companies is held by nonresident shareholders and other listed companies. The item 'Total financial assets' (Tables 7.8A and 7.8B) includes these holdings although it ought not to, since nonresidents are not part of 'the public,' and the market value of shares owned by other listed companies is double-counted, as it is included in the value of both the parent and the subsidiary company. Table 7.12 shows the estimate of the composition of share ownership. Shares have been divided into two groups, those not of the public—including government holdings, double-counted holdings, and nonresident holdings—and the net shares of the public, which include provident funds, mutual funds, local controlling interests, and households' and nonlisted firms' direct holdings. After making the appropriate deductions of non-public shares, the revealed weight of shares in the public's financial portfolio is only 10 percent, and not 19 percent as indicated in Table 7.8A.

The number and value of Israeli companies the shares of which are traded abroad is relatively high: the market value of companies traded in the US is about a quarter of that of companies traded on the Tel Aviv Stock Exchange (TASE), or 10 percent of GDP. There is apparently no other country in the world with such a high percentage of tradable

shares of its companies traded on foreign stock exchanges.[29] The composition of Israeli shares traded in the US differs from that in Israel: most of the former are industrial firms—mainly in the electronics field—compared with only 40 percent in Israel. Prices of Israeli shares in the US followed the same downward path in 1994 as those in Israel, as did new issues by those companies.

*Bonds*: Bonds in Israel fit into one of two categories: tradable (and liquid), and nontradable, 'earmarked' by the government for provident funds, pension funds, insurance companies, and savings schemes. Some 87 percent of tradable bonds are CPI-indexed, 3 per-cent are unindexed, paying variable rates of interest derived from those paid on Treasury bills, and the rest are indexed to foreign currency. Earmarked bonds, on the other hand, are all CPI-indexed and subsidized, generally bearing coupons above market rates. In 1994 the share of earmarked bonds held by provident funds, pension funds, and life insurance schemes in total (tradable and earmarked) bonds rose from 54 percent to 57 per-cent, after several years of decline resulting from the decision in the mid-1980s to cease issuing earmarked bonds to provident funds. The market value of tradable bonds fell by a real 8 percent in 1994, to NIS 100 billion, after rising by 1 percent in 1993, and by more in previous years. The decline was the result of a fall in bond prices (with a parallel rise in their yield to maturity), and—for the first time since 1984—net government redemptions. The continued fall in the domestic public-sector deficit, to 2 percent of GDP, did not cause interest rates to decline since the fall in the deficit was anticipated. Factors that tended to reduce bond prices in 1994 include the fall in the value of the public's port-folio of financial assets resulting from the collapse of the stock market; the rise in yield to maturity of alternative financial assets such as unindexed deposits and foreign bonds may also have lowered demand for indexed bonds; the deposit requirement—the percentage of savings schemes proceeds that commercial banks must invest in government bonds—was cut, thereby reducing bank demand for bonds; the drop in the private-sector saving rate may also have helped reduce demand for bonds.

Yields to maturity on long- and short-term tradable bonds increased in 1994, the latter mainly towards the end of the year, and the yield curve declined by the end of the year. The downward yield curve may indicate an expected fall in interest rates in the next few years. In contrast, the slope of forward interest rates on unindexed short-term bills was flat at the end of the year.

Prices of corporate bonds (generally all tradable and liquid) declined by even more than did government bonds, indicating that the risk premium increased. Private-sector bond offerings were only NIS 21 million in 1994, a minuscule amount even in comparison with the modest figures of 1991–93.

[29] Shares of companies traded both in the US and in Israel account for about a quarter of the market value of Israeli shares traded in the US. About a third consists of shares of US companies controlled by Israeli firms, and 40 percent those of Israeli companies traded only in the US. These shares are not included in the financial assets of the public; including them and excluding nonresident shareholders and double-counting would increase those assets by some NIS 4 billion.

**Table 7.11**
**Composition of the Public's Financial Assets, 1994[a]**

| | Non-bank shares | Foreign currency assets | Un-indexed | CPI-indexed: Total indexed | CPI-indexed: Non-tradable | CPI-indexed: Ear-marked bonds | CPI-indexed: Tradable bonds | Total |
|---|---|---|---|---|---|---|---|---|
| **Unindexed assets** | | | | | | | | |
| Total | | | 62,903 | | | | | 62,903 |
| Change from 1993 | | | 19.1 | | | | | 19.1 |
| Share of portfolio | | | 14.4 | | | | | 14.4 |
| **Deposits[b]** | | | | | | | | |
| Total | | 22,764 | | | | | | 22,764 |
| Change from 1993 | | 1.6 | | | | | | 1.6 |
| Share of portfolio | | 5.2 | | | | | | 5.2 |
| **Bonds** | | | | | | | | |
| Total | | 3,576 | 2,366 | 18,511 | | | 18,511 | 24,454 |
| Change from 1993 | | –32.0 | 78.1 | –18.3 | | | –18.3 | –16.4 |
| Share of portfolio | | 0.8 | 0.5 | 4.3 | | | 4.3 | 5.6 |
| **Shares** | | | | | | | | |
| Total | 70,716 | | | | | | | 70,716 |
| Change from 1993 | –48.1 | | | | | | | –48.1 |
| Share of portfolio | 16.2 | | | | | | | 16.2 |
| **Restitutions deposits** | | | | | | | | |
| Total | | 14,495 | | | | | | 14,495 |
| Change from 1993 | | –2.5 | | | | | | –2.5 |
| Share of portfolio | | 3.3 | | | | | | 3.3 |
| **Savings schemes and indexed deposits** | | | | | | | | |
| Total | | 11,566 | | 42,897 | 42,897 | | | 54,464 |
| Change from 1993 | | –5.0 | | 8.5 | 8.5 | | | 5.3 |
| Share of portfolio | | 2.7 | | 9.9 | 9.9 | | | 12.5 |
| **Provident and advanced study funds** | | | | | | | | |
| Total | 11,606 | 2,535 | 4,631 | 84,881 | 19,232 | 17,489 | 48,160 | 103,652 |
| Change from 1993 | –25.3 | –7.8 | 9.2 | –4.6 | 13.6 | –11.8 | –7.8 | –7.1 |
| Share of portfolio | 2.7 | 0.6 | 1.1 | 19.5 | 4.4 | 4.0 | 11.1 | 23.8 |
| **Pension funds** | | | | | | | | |
| Total | | | 544 | 57,286 | 2,174 | 55,112 | | 57,830 |
| Change from 1993 | | | –34.6 | 4.6 | –5.7 | 6.0 | | 3.9 |
| Share of portfolio | | | 0.1 | 13.2 | 0.5 | 12.7 | | 13.3 |
| **Life insurance** | | | | | | | | |
| Total | 261 | | | 23,897 | 4,148 | 18,087 | 1,663 | 24,158 |
| Change from 1993 | –21.7 | | | 5.2 | 7.5 | 2.4 | 38.2 | 4.8 |
| Share of portfolio | 0.1 | | | 5.5 | 1.0 | 4.2 | 0.4 | 5.5 |
| **Total** | **82,583** | **54,936** | **70,443** | **227,472** | **68,450** | **90,688** | **68,334** | **435,433** |
| Change from 1993 | –45.8 | –4.4 | 18.9 | –0.5 | 9.3 | 1.4 | –10.8 | –12.5 |
| Share of portfolio | 19.0 | 12.6 | 16.2 | 52.2 | 15.7 | 20.8 | 15.7 | |

[a] Totals are in NIS million. Changes and shares are percentages.
[b] Resident deposits, exchange-rate-indexed deposits, and unrestricted foreign-currency deposits.

**Table 7.12**
**Profile of Shareholders, June 1994**

| | Percent |
|---|---|
| **All shares** | **100** |
| Not of the public | **56** |
| *of which* Government and government corporations | 16 |
| Double counting[a] | 30 |
| Nonresidents[a,b] | 10 |
| Of the public (net) | **44** |
| *of which* Provident funds | 11 |
| Mutual funds | 11 |
| Other domestic parties with an interest | 14 |
| Individuals and companies who are not parties with an interest | 8 |

[a] Included in financial assets of the public in Table 7.8.
[b] Nonresidents include: nonresident parties with an interest, nonresidents with shares in bank deposits in Israel, nonresidents registered in the lists of companies whose shares are traded both in Israel and in the USA, and the proportion of shares in provident funds held by nonresidents.
SOURCE: Based on stock exchange data.

## Institutional investors

The public holds shares and bonds mainly through mutual funds, provident funds, pension funds, and life insurance schemes. Investments in mutual funds are included in the public's short-term financial assets, while provident funds, pension funds, and life insurance count as long-term financial assets. Mutual funds accounted for only 5 percent of the value of the public's financial portfolio at the end of 1994, but these funds hold more than half of the shares held by the public (excluding controlling interests) not held as long-term investments in provident funds. Investments in provident funds, pension funds, and life insurance schemes represent 24, 13, and 6 percent respectively of the public's total portfolio.

*Mutual funds*: In 1994 assets of mutual funds fell by 54 percent in real terms, to NIS 19 billion. Negative returns, especially on shares, and increased redemptions, totaling NIS 10 billion, were both responsible for the decline.

Management of mutual funds remains highly concentrated: more than 75 percent of the funds' assets are managed by the three largest banks, with a further 12 percent by four other banks. The remaining funds are relatively small, and the average value of the assets of nonbank funds is just NIS 22 million, compared with NIS 120 million in the large banks. Annual management fees are very high. In 1994 additional legislation regulating provident funds was introduced,[30] and it appears that some new restrictions could act as barriers to entry, thereby consolidating the market power of the incumbents.

[30] The Joint Investment Trust Law, 5754–1994 revoked all but two of the clauses of the previous law on this subject.

*Provident funds, pension funds, and life insurance schemes*: The public's provident funds assets fell by a real 7 percent in 1994, to NIS 104 billion. The reduction resulted from their negative 8 percent total return, mainly in the earlier part of the year, after returns had averaged 3.5 percent a year in 1990–93. Withdrawals equaled deposits, unlike in previous years, when the latter exceeded the former. In contrast to the decline of provident fund assets, those of pension funds grew by 4 percent, to NIS 58 billion. This moderate increase reflects modest net withdrawals, together with a positive return of 5 percent, derived from accumulated interest on earmarked bonds which constitute 95 percent of the funds' assets. The public's holdings in life insurance plans, 75 percent of whose assets are earmarked bonds, rose by 5 percent.

The provident funds continued to be net buyers of stock in 1994, and their proportion of the total share market rose from 9 to 11.8 percent, although that of shares in the total assets of the funds declined because of the fall in prices. Share and bank deposit purchases were funded by proceeds received from the redemption of earmarked and tradable bonds reaching maturity. The composition of the investments of the various funds is fairly similar, as are their fees, and most of the funds showed negative yields in 1994, with little variation between them. The provident funds are highly concentrated, with the three largest banks managing 76 percent of all funds' assets.

Despite the reduction of earmarked bonds in the provident funds, total earmarked bonds increased by 1 percent, similar to the rise in 1993, as the value of those held by pension funds and life insurance plans offset the redemptions of earmarked bonds held by the provident funds. Moreover, whereas in the next few years the rest of the provident funds' earmarked bonds will be redeemed, the quantity of subsidized earmarked bonds in pension funds—most of which belong to the Histadrut (Federation of Labour)—and in life insurance schemes is not expected to fall (these amount to NIS 73 billion, or 90 percent of the assets of these funds and schemes). The subsidy notwithstanding, the pension funds suffer from an actuarial deficit which will in all likelihood also be funded by taxpayers.

## 5. WEALTH

The wealth of the public (households and firms), consisting of net financial and physical wealth, is estimated at NIS 666 billion, almost three times GDP. Net financial wealth[31]

[31] The calculation of wealth differs from that of financial assets held by the public (described above) because, first, the latter include all types of shares except those owned by the government, whereas net financial wealth excludes shares (except those of financial companies), as the public's wealth includes only liabilities of the banking system, the government, and abroad to it, while shares represent the liability of one sector of the public (firms) to another (households). It is assumed that the value of shares is partly expressed by the physical wealth of the business sector included in public wealth. Second, financial wealth is deflated by tradable liabilities to the government and the banks, company bonds, and government shares in quoted companies. Third, the public's wealth also includes physical wealth—apartments, equipment, buildings, inventory, and consumer durables—while the financial assets held by the public do not. Fourth, certain financial assets are included in net financial wealth, but not in the financial assets held by the public; the composition of liquid assets is also different.

is the difference between the value of financial assets held by the nonfinancial private sector and its liabilities to the financial intermediation system, the public sector, and abroad, and it accounts for 24 percent of the public's wealth. Physical wealth—apartments, consumer durables, and production assets and inventory in the business sector—makes up the other 76 percent. Total wealth deflated by the CPI rose by 3.3 percent in 1994, compared with a 7 percent increase in 1993 (Table 7.14).

In order to separate the increase in wealth due to saving from that resulting from relative changes in prices of assets and liabilities, we calculated the real change in public wealth by deflating the nominal changes by price indices for the different wealth components (Table 7.13). The calculations show that real wealth (deflated appropriately) increased by 4 percent in 1994, compared with 5.1 percent in 1993. Physical wealth grew by 6.2 percent, the same rate as in 1993, reflecting mainly the 10 percent expansion of private-sector capital stock and consumer durables, together with continued modest growth in housing stock. On the other hand, net financial wealth (deflated by the index of prices of the financial components) fell by 2 percent, after rising by 2 percent in 1993.

**Table 7.13**
**The Contribution of Price and Quantity to the Increase in Wealth, 1994**

(rate of change, percent)

| | Quantity | | In relative prices[a] | | In terms of CPI | |
|---|---|---|---|---|---|---|
| | 1993 | 1994 | 1993 | 1994 | 1993 | 1994 |
| The public's total wealth | **5.1** | **4.0** | **1.9** | **-0.7** | **7.0** | **3.3** |
| Net financial wealth | 1.9 | -2.2 | -1.0 | -3.5 | 0.9 | -5.7 |
| *of which* Financial assets | 9.4 | 6.0 | -1.5 | -3.5 | 7.9 | 2.5 |
| *less* Financial liabilities | 17.1 | 13.4 | -2.1 | -3.5 | 15.0 | 9.9 |
| Physical wealth | 6.3 | 6.2 | 3.0 | 0.3 | 9.3 | 6.5 |

[a] Component prices relative to CPI.
SOURCE: Bank of Israel Research Department.

The sources of the increase in wealth include private savings, investment from abroad, and net government capital grants.[32] The largest source, private savings, which consists of households' savings and retained corporate earnings, fell, due to the decline in corporate profits in 1994 (Table 7.15). The government's contribution also dropped, as capital transfers from the public to the government grew by more than the governments' grants to the public, mainly because of the sharp rise in the former resulting from real-estate transactions.[33] Investments from abroad also increased, to some extent offsetting the reduction in savings.

[32] Private savings include net private saving, savings in the form of consumer durables, and adjustment of depreciation because physical wealth is deflated by discards while net saving is deflated by depreciation, which is greater. Net government capital grants are equal to net capital transfers from the government to the public *less* capital transfers from the public to the government.

[33] These include Land Betterment Tax, Purchase Tax, lease payments to the Israel Lands Administration, payments to the Jewish National Fund, and Land Improvement Tax paid to local authorities.

**Table 7.14**

**Estimated Wealth of Nonfinancial Private Sector, 1992–94[a]**

(NIS million, end of year, at current prices)

| | | | | Real change according to index of components | | Real change | |
|---|---|---|---|---|---|---|---|
| | 1992 | 1993 | 1994 | 1993 | 1994 | 1993 | 1994 |
| **Short-term assets[b]** | 57,194 | 79,839 | 97,700 | 24.3 | 13.4 | 25.5 | 6.9 |
| Money supply | 10,005 | 12,938 | 13,813 | 16.2 | –6.7 | 16.2 | –6.7 |
| SROs and time deposits | 19,954 | 30,828 | 45,031 | 38.9 | 27.6 | 38.9 | 27.6 |
| Treasury bills | 2,469 | 2,097 | 3,687 | –23.7 | 53.6 | –23.7 | 53.6 |
| Foreign-currency deposits[c] | 17,537 | 19,581 | 22,834 | 3.4 | 15.5 | 0.4 | 1.9 |
| Tradable bonds | 22,304 | 25,547 | 24,454 | 8.5 | –9.8 | 3.0 | –16.4 |
| Shares of financial dealers | 3,599 | 7,376 | 4,268 | 41.3 | 1.5 | 84.2 | –49.4 |
| *less* Nonfinancial government shares | –7,882 | –7,024 | –5,566 | –15.9 | –0.7 | –19.9 | –30.8 |
| *less* Company bonds | –10,791 | –11,502 | –10,820 | 0.9 | –10.5 | –4.2 | –17.8 |
| **Medium-term assets[d]** | 67,996 | 77,037 | 91,859 | 4.0 | 5.8 | 1.8 | 4.2 |
| Earmarked deposits of the public[e] | 1,078 | 964 | 906 | –19.6 | –17.9 | –19.6 | –17.9 |
| Savings plans and long-term indexed deposits | 46,603 | 53,760 | 66,938 | 3.7 | 8.8 | 3.7 | 8.8 |
| Resident restitutions deposits | 12,269 | 12,986 | 14,494 | 5.3 | –1.4 | –4.9 | –2.5 |
| Exporters' credit to abroad | 8,046 | 9,327 | 9,521 | 7.3 | 1.1 | 4.2 | –10.8 |
| **Long-term assets** | 133,202 | 153,201 | 174,181 | 5.7 | 2.2 | 3.4 | –0.7 |
| Provident funds *less* shares | 117,438 | 132,427 | 149,843 | 3.9 | 1.9 | 1.4 | –1.1 |
| Life-insurance deposits | 14,617 | 20,145 | 24,158 | 24.2 | 6.1 | 23.9 | 4.8 |
| Compulsory loans[f] | 1,146 | 630 | 179 | –50.6 | –75.1 | –50.6 | –75.1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Physical wealth** | 341,857 | 415,763 | 506,965 | 6.3 | 6.2 | 9.3 | 6.5 |
| Consumer durables | 46,225 | 54,827 | 67,097 | 10.1 | 10.8 | 6.6 | 6.9 |
| Housing | 157,874 | 200,559 | 251,759 | 3.2 | 3.0 | 14.2 | 9.7 |
| Buildings and equipment | 125,790 | 146,313 | 173,767 | 8.5 | 10.2 | 4.6 | 3.8 |
| Goods inventory | 11,969 | 14,063 | 14,342 | 9.6 | –7.1 | 5.6 | –10.9 |
| **Total assets** | 600,249 | 725,840 | 870,706 | 7.6 | 6.1 | 8.7 | 4.8 |
| **Short-term liabilities** | 51,856 | 68,817 | 83,678 | 20.8 | 10.0 | 19.3 | 6.2 |
| Nondirected local-currency credit | 36,322 | 53,466 | 65,011 | 32.3 | 6.2 | 32.3 | 6.2 |
| Nondirected foreign-currency credit | 12,458 | 12,624 | 15,909 | –6.2 | 24.8 | –8.9 | 10.1 |
| Directed foreign-currency credit | 441 | 403 | 491 | –17.7 | 6.4 | –17.7 | 6.4 |
| Credit from abroad (suppliers and direct) | 3,076 | 2,728 | 2,759 | –17.9 | 0.1 | –20.3 | –11.6 |
| **Medium-and long-term liabilities** | 75,552 | 94,116 | 121,343 | 14.5 | 15.9 | 12.0 | 12.6 |
| Local-currency | 65,453 | 82,977 | 107,046 | 14.0 | 12.7 | 14.0 | 12.7 |
| Foreign-currency | 10,099 | 11,139 | 14,297 | 2.1 | 27.1 | –0.9 | 12.1 |
| **Total liabilities** | 127,408 | 162,933 | 205,022 | 17.1 | 13.4 | 15.0 | 9.9 |
| Net wealth[g] | 472,841 | 562,907 | 665,684 | 5.1 | 4.0 | 7.0 | 3.3 |
| Increase in population | | | | 2.6 | 2.4 | 2.6 | 2.4 |
| Increase in per capita wealth | | | | 2.5 | 1.6 | 4.3 | 0.9 |

[a] From the end of 1992, estimates of wealth are derived from the new system of banks reports to the Bank of Israel.

[b] The differences between the data in this category and those in Table 7.8 arise from differences in definitions of the public and the private nonfinancial sector.

[c] Including time deposits.

[d] The difference between the data in this category and the parallel items in Table 7.8 arises form the inclusion of the public's earmarked deposits, and the inclusion of savings schemes and indexed deposits in mortgage banks (in additon to savings schemes and indexed deposits in the commercial banks).

[e] Less loans to the government, which are included in assets of provident funds and life assurance.

[f] Calculated using the capitalization of the adjusted flow of repayments, at 8 percent interest.

[g] The difference between total assets and total liabilities of the nonfinancial private sector, including the estimated subsidy inherent in long-term local- and foreign-currency credit.

SOURCE: Bank of Israel Research Department.

The share of net financial wealth in the public's total wealth declined in 1994, continuing a trend evident since the mid-1980s, due the relative decline in government debt. In 1994, the fall in the relative price of financial assets further reduced their share in total wealth.

The changes in the different components of net financial assets were not uniform: unindexed assets rose steeply, in the wake of higher nominal interest rates, while other financial assets, such as bonds, shares of financial intermediaries and provident funds, rose more moderately (and in terms of the CPI actually fell). Financial liabilities, on the other hand, rose steeply.[34] The rapid expansion of credit to the construction industry over and above the increase in activity in the industry is notable. In contrast to previous years, the rise in the share of foreign-currency-indexed liabilities was also relatively large, and contractionary monetary policy seems to have reduced the relative cost of foreign-currency credit.

**Table 7.15**
**Sources of the Increase in the Public's Wealth, 1993–94**

(percent of wealth at beginning of year)

| | 1993 | 1994 |
|---|---|---|
| Resources, as share of wealth | **5.1** | **4.0** |
| Private savings | 4.9 | 3.9 |
| Investments abroad | 0.0 | 0.4 |
| Capital grants | 0.2 | –0.2 |
| Use of resources, as share of wealth | **5.1** | **4.0** |
| *of which* Contribution of increase in financial wealth | 0.5 | –0.6 |
| Contribution of increase in physical wealth | 4.7 | 4.6 |

SOURCE: Bank of Israel Research Department.

The continued growth in the share of physical wealth resulted from the increase in the value of housing stock—most of which came from the real rise in its price—and from the higher value of other physical assets arising from accelerated investment. The increased share of housing in the public's wealth in 1993–94 is consistent with the hypothesis that the expected returns on housing have increased. Similarly, the rise in expected yields on other assets should contribute to a rise in expected yield on housing. In 1993–94, however, the current rate of return on apartments fell steeply, as the index of rents rose moderately, while prices of owner-occupied housing rose by more than 20 percent a year. We do not have a complete explanation for this phenomenon; the residential housing market may be characterized by features that allow prices to remain

[34] Some long-term assets are evaluated at market prices, unlike long-term financial liabilities. Hence, the rise in interest rates in 1994 reduced the value of financial assets but not that of liabilities, such as mortgages which rose by 13 percent at non-evaluated prices. A correct revaluation of liabilities for 1994 would reduce their rate of increase and raise that of wealth in CPI terms.

high relative to current returns (see the section on construction in Chapter 2 for a detailed discussion). Alternatively, rents may rise in future. Another possibility is that apartment prices may drop in the next year or two in the wake of the collapse of share prices—as has occurred in the past.

The continued rise in corporate equipment and building stock reflects the expansion of gross investment in recent years, maintained by the cumulative effect of growth, rising profitability (compared with the 1980s), and intensified government investment in the infrastructure. The lower cost of financing in 1991–93, reflected in both lower interest rates and easier access to capital markets, may also have played a part. Similarly, the stock-exchange boom in the same period, reflecting optimistic expectations related to the peace process and Israel's improved international contacts, helped create an atmosphere which may have encouraged investment. It is too soon to say whether developments in 1994—the rise in interest, the fall in share prices, reduced profitability, and the snags encountered in the peace process—will dampen investment. Although wealth does not include the value of stock-market shares (except for shares in the financial sector), the fall in share prices indicates that corporate valuations, which equal the physical wealth of the nonfinancial private sector adjusted by a premium or discount—reflecting future profitability—fell in 1994. It could therefore be argued that the public's wealth, adjusted for future profits, also fell, and hence the fall in share prices may affect other real variables such as private consumption and investment.[35]

[35] A study of the link between share prices and private consumption concluded that a fall in the former is likely to lead to a certain contraction of the latter. It was found that this income has a stronger effect than the substitution effect which raises consumption when the expected return on savings falls. See Y. Lavie, Bank of Israel Discussion Paper Series (forthcoming, Hebrew).