Chapter 1
Main Developments

1. THE ECONOMY, INFLATION AND MONETARY POLICY

The year 2001 was notable for an economic slowdown and security-related crises worldwide, and a deterioration of the security situation in Israel. These developments severely impaired nonfinancial activity in Israel, as well as activity in the capital market. Among other areas, the adverse impact was apparent from the large decrease in foreign investments in the economy and from the heavy drop in share prices. But despite these shocks, the relative stability that typified the development of prices and exchange rate in previous years was maintained.

The conditions in the economy during 2001 enabled the Bank of Israel to continue reducing the monetary interest rate[1] during the year, with the aim of achieving the inflation target for that year and the coming years. In the course of the year, the interest rate was cut by 2.4 percentage points, from 8.2 percent in December 2000 to 5.8 percent in December 2001. The anticipated real interest rate fell from 7.2 percent in the last quarter of 2000 to 4.6 percent in the last quarter of 2001.

At the end of December 2001, the Bank of Israel decided to cut the monetary interest rate by 2 percentage points (from 5.8 percent to 3.8 percent). This measure derived from the government's decision to reapply fiscal discipline, and the joint decision of the Minister of Finance and the Governor of the Bank of Israel concerning structural changes in the financial markets (which will be detailed below). As a result, the anticipated real monetary interest rate fell to 1.2 percent in January 2002.

The consumer price index rose by 1.4 percent in 2001, following increases of 0 percent in 2000 and 1.3 percent in 1999. In 2001 as in previous years, the rate of increase in consumer prices fell below the lower limit of the inflation target although in 2001 as in 1999, it was within the range of the long-term target (1 to 3 percent). The development of prices in 2001 was not uniform: During the months January and February, prices fell by an annualized rate of 4.1 percent, during the months March to September they rose by 4.7 percent in annual terms, while during the months October to December they fell again, by an annualized rate of 2.3 percent.

[1] The monetary interest rate is the interest rate that the Bank of Israel pays to the banks in deposit tenders.

The exchange rate of the NIS against the dollar rose by 4.3 percent[2] during the year (by 3.3 percent against the currency basket), after falling by 2.7 percent in 2000. This development was affected by the fall in foreign investment and by an increase in the current account deficit. The development of the exchange rate during recent years has been notably stable, both historically and relative to the fluctuations in exchange rates worldwide. The exchange rate has been devoid of either a rising or falling trend, a development matching the situation where local inflation is similar to the worldwide level of inflation. The decrease in the dollar prices of imports, which resulted from the worldwide slowdown in economic activity, moderated the effect on prices of the rise in the exchange rate during 2001.

Nonfinancial activity in 2001 was heavily affected by the worldwide slowdown, the slump in worldwide capital markets, and by the deterioration in the local security situation. These factors led to a large drop in Israeli exports, including exports of tourism services, and were reflected by a 1.9 percent decrease in business sector GDP. However, the fall in business sector GDP during 2001 followed an exceptionally large increase of 8.5 percent in 2000, and during the years 2000 and 2001 overall it rose by an average annual rate of 3.3 percent, which was slightly more than its average growth during the previous three years (3.0 percent a year). The 12.8 percent drop in exports of goods and services was accompanied by a 5.8 percent decrease in imports, and the current account deficit reached $1.9 billion compared with $1.4 billion in 2000.

The economic slowdown and slump in capital markets worldwide and especially in the US were reflected by a large drop in the prices of shares in Israel. The overall rate of return on shares fell by 17 percent during the year (see footnote 2) . The continued slump in the housing market intensified during the year, and apartment prices fell by one percent following a decrease of 8 percent in 2001. In contrast to the fall in apartment prices, prices of new apartment rentals rose by 6 percent in 2001, and contributed one percentage point to the rise in consumer prices.

A notable phenomenon was the relative stability in the development of prices and exchange rates during 2001 despite the worldwide crises, which reduced the supply of foreign currency to the economy. In 2000, the deterioration in the security situation mainly affected the traditional industries, while the high-tech industries greatly increased their product and exports, thereby expanding the supply of foreign currency to the economy. In 2001 however, the high-tech industries were seriously affected as well, reducing the supply of foreign currency. Nevertheless, as stated above, the relative stability in the exchange rate and prices was retained. The monetary policy adopted during recent years (as will be detailed below) played an important role in maintaining the stability.

The budget deficit totaled 4.6 percent of GDP[3] in 2001, far above the deficit's target level of 1.75 percent of GDP. This development was necessitated by a larger than expected growth in government borrowing. The recession in local activity, the fall in

[2] December 2001 average compared with December 2000 average.

[3] Half a percentage point of GDP is attributed to the postponement of part of the American aid for the year to 2002.

interest rates worldwide and monetary policy generated forces that would have prompted a decline in long-term real interest rates. However, the considerable increase in government borrowing partially offset these effects, and thereby moderated the decline in real interest rates during the first half of the year, and these rates actually rose to some extent during the second half. As an example, the real yield to maturity on 10-year CPI-indexed bonds fell from 5.8 percent in December 2000 to 4.3 percent in June 2001, but rose to 4.6 percent from June 2001 to mid-December 2001. This was despite the continued slowdown in economic activity, the decline in the (anticipated) real monetary interest rate and the fall in interest rates worldwide.

Monetary policy in 2001 was maintained in line with the inflation targets that the government set in August 2000 (2.5 to 3.5 percent for 2001, 2 to 3 percent for 2002 and 1 to 3 percent from 2003 onwards). In 2001, prices rose by 1.4 percent as stated, which was below the lower limit of the inflation target for 2001, but within the range of the long-term target. We will now attempt to explain the considerations that guided policymakers in the current management of monetary policy.

Since monetary policy affects the economy with an element of delay, the development of inflation during 2001 was to a large extent the result of the policy that was adopted during 2000 (as well as other developments that occurred during that year). Naturally, monetary policy operates in a world of uncertainty, and the ability of each central bank to control inflation at any point in time is limited. For this reason, and due to the lag between the timing of changes in interest rate and their reflection in prices, the Bank of Israel tries to adjust the interest rate to anticipated developments rather than to developments that occurred in the past (see Box 1A below for more details). Accordingly, the interest rate policy that was adopted in 2001 was intended to secure the achievement of the inflation target not only for that year, but also for 2002 and the following years.

It should be noted that despite the decline in inflation during recent years, the development of inflation from month to month has been notable for considerable fluctuations and unexpected changes, which make it difficult to compile a forecast even for the coming months. In 2001, indeed, inflation rose retroactively by 1.4 percent, as compared to the inflation target of 2.5 to 3.5 percent that was set for that year. But in September and October 2001, when the data for most of 2001 were already known, both the market[4] and forecasters expected inflation in 2001 to amount to 3 percent. Only after the lower than expected indexes for those months were published did the expectations gradually fall.

During 2001, until the decision of December 23, the Bank of Israel reduced the monetary interest rate by 2.4 percent as stated, and the anticipated real monetary interest rate fell to a similar extent. The reduction in the interest rate during 2001 was gradual, as in the previous two years: 0.2 to 0.3 percentage points at each reduction—in order to maintain financial stability, especially against the background of the shocks at home and abroad. Moderation and gradualism in interest rate cuts facilitates financial and

[4] The reference here is to the public's inflation expectations as derived from capital market data.

nonfinancial stability from several aspects:

1. Large fluctuations in the interest rate could lead to large fluctuations in the exchange rate, in inflation expectations and in nonfinancial activity. A policy of large changes in the interest rate increases the probability of large changes in the future as well. Such a policy could thereby create circumstances in which there will be expectations of a large change in the interest rate, which will lead to large changes in the exchange rate and in inflation expectations, developments that would prompt the central bank to respond with large remedial changes in the interest rate, even in situations where a change in the interest rate has not been planned in advance.

2. Since there is no certainty regarding the future development of the economy and, for the most part, regarding the current situation of the economy, and the ability to assess the intensity of the impact of changes in the interest rate on inflation is limited, a large change in the interest rate could produce a situation that would require a large change in the opposite direction. Large and frequent changes in the direction of the interest rate could harm the credibility of monetary policy. It should be emphasized in this respect that the factor affecting anticipated inflation, and via it actual inflation, is not a current change in the interest rate but the expected future course of the interest rate, that is, the manner in which the public assesses future monetary policy.

3. A gradual reduction in the interest rate makes it possible to conduct a constant examination of the response of the public and the financial markets to changes in the interest rate and in economic conditions.

The development of inflation, of the inflation expectations derived from the capital market for various terms, and of other indications that guide monetary policy in the assessment of inflationary pressures (as detailed in Chapter 2) support the assessment that the decline in inflation during the years 1999 to 2001 was not a transitory phenomenon, and that the chances have increased that inflation will consolidate at a low level matching the target for the coming years. All this is conditional on fiscal policy adhering to budget deficit targets and achieving a persistent reduction in the government debt, and on the persistent monetary policy aspiration of preserving price stability.

Despite the reduction in the interest rate during 2001 and due to the fall in prices in the last quarter of the year, the inflation expectations derived from the capital market for a year and for two years fell during that quarter below the lower limit of the inflation target for the relevant periods. It also transpired that the recession in activity deepened during the third quarter of the year (and also apparently in the fourth quarter). These factors were indicative that the conditions were ripe for a further reduction in the interest rate.

But also in the fourth quarter the extent to which the budget deficit for 2001 would exceed its targeted level became apparent,[5] and it became clear that a drastic rise in the budget deficit for 2002 was to be expected, over and above the assessment contained

[5] As early as March 2001 in fact, when the budget for 2001 was passed by the Knesset, it was clear that the budget deficit would exceed the target level for the year. This was because the slump in worldwide activity and in Israel began in the last quarter of 2000, and the budget had not been adjusted accordingly.

in the draft budget that was submitted in August 2001; the targeted level of the budget deficit for 2002 was originally 1.5 percent of GDP. In the draft budget, the Ministry of Finance estimated that the deficit in 2002 would amount to 2 percent of GDP. But in the third quarter of 2001, it became apparent that the deficit for 2002 would exceed 3.0 percent of GDP.[6] The development of the deficit in 2001 and the drastic increase expected in the deficit for 2002 pointed to the onset of a problematic situation, which would eventually lead to loss of control over the budget. A significant cut in the interest rate in these conditions could have led to a financial crisis and to an upsurge in inflation.

The government and the Bank of Israel therefore decided to implement a package of measures that were intended to help extricate the economy from the recession, and to increase the resilience of the capital markets and financial institutions to external and internal shocks. These measures included the following elements:

1. A government decision to change course, and revert to a framework of fiscal discipline, the main element of which was a resumption of a decline in the government debt relative to GDP. A deficit target of 3.0 percent of GDP was defined for 2002 and subsequently, a gradual decrease to 1.0 percent of GDP in 2005.

2. The Bank of Israel made a one-time exception to the principle of a gradual adjustment of the interest rate, and in the last week of December 2001 cut the rate by 2 percentage points to 3.8 percent.

3. The Minister of Finance and the Governor of the Bank of Israel decided to adopt the following structural changes:

- Reductions of the slope of the lower limit of the exchange rate from 2 percent to zero and of its level by one percent—an action that reduces the potential emergence of conditions that will force the central bank to intervene in trading in the foreign currency market, intervention that hinders the effectiveness of monetary policy and in the final account, increases the real interest rate that is required in order to achieve price stability.[7]
- The removal of the ceiling on the amount of Treasury bills that the Bank of Israel is allowed to issue. This measure enhances the efficiency of the central bank's liquidity management, while increasing the efficiency and competitiveness of the money market.
- An increase in the ratio of investments that institutional investors are permitted to hold abroad from 5 percent to 20 percent of their total assets, with total abolition of this restriction by the end of 2002. This measure has the effect of increasing competition in the investment and long-term saving sector.

It should be realized that the government's commitment to adhering to the budget

[6] The budget for 2002 was prepared on the assumption that the rate of increase in GDP would be 4 percent, while forecasts at the time predicted a growth rate of less than 2 percent.

[7] If a shock that lowers the exchange rate occurs, this has the effect of reducing prices. In order to prevent a fall in prices and to adhere to the inflation target, the central bank has to cut the interest rate. But if the central bank has to refrain from lowering the exchange rate, due to the existence of a lower limit, the need to cut the interest rate is obviated.

deficit targets and to a decline in the internal debt, providing that this commitment is credible in the eyes of the public, is an important condition for financial stability and the creation of the basis for sustained growth. Moreover, the smaller the amount of government borrowing in the present and the amount of borrowing that is expected in the future, the lower will be real interest rates for all terms. Accordingly, when the decision for the combined package of measures was taken, it was believed that the resumption of fiscal discipline would support a decline in real interest rates on all terms to maturity, and thereby enable the central bank to achieve the goal of price stability at a lower real (and nominal) interest rate. On the basis of this decision, the Bank of Israel decided to deviate from its policy of a gradual reduction of the interest rate, and cut the rate by 2 percentage points. However, it should be emphasized that fiscal policy is only one of the factors that affect inflation. The central bank's objective is not a particular nominal or real interest rate, but the goal of price stability. The development of the nominal and real interest rate in the future is therefore dependent on the development of the entire range of factors that affect inflation.

The 2 percentage point reduction in the interest rate in the last week of December 2001 was unexpected, and led to a large rise in the exchange rate and in the prices of bonds and shares. As a result, during the period between the last week of December 2001 until the end of January 2002, the exchange rate of the NIS against the dollar rose by 7 percent and share prices went up by 11 percent. Although inflation expectations also rose, these remained within the range of the inflation target for 2002.

During the last decade, a gradual liberalization of the foreign currency market was implemented and was nearly completed in 2001, concurrent with the adoption of a policy of disinflation, which proved successful. A number of measures in the financial area (the removal of the ceiling on the issue of Treasury bills and a further increase in the flexibility of the diagonal and exchange rate) were adopted in order to increase the efficiency of the functioning of the money and capital market. The reform in the foreign currency market and the stabilization of prices are important achievements, but are not enough to create the conditions for growth in the economy. Even if a responsible fiscal policy is adopted that will help to maintain financial stability, numerous obstacles still impair the economy's ability to meet the challenges facing it. In the capital market, the pension funds' transition to the market needs to be implemented, and the basic conflict of interest existing in the ownership and management of the mutual funds and provident funds has to be regulated. In addition, the extent of concentration in the financial sector needs to be reduced. In the labor market, the flexibility of wage arrangements needs to be increased, and these arrangements must be adapted to the conditions of price stability. In the area of taxation, a fundamental reform is necessary that will include action to remedy the distortions in the taxation of financial assets. It is also important to resume the privatization process, which ceased in 2001.

Box 1.1: The inflation target and monetary policy in an open economy —the principles[1] of monetary policy in Israel during recent years and their application

We will discuss below a number of principles guiding the management of monetary policy with respect to the inflation target, and we will show how these principles were applied in Israel during recent years. We will thereby attempt to explain a number of issues relating to the matter.

The transmission mechanism of monetary policy in an open economy

Most countries that operate within the framework of an inflation target[2] are open economies that impose minimal restrictions on movements of goods and capital. Two common features are typical of monetary policy in an open economy:

- The existence of a transmission mechanism from the exchange rate to prices (apart from the normal mechanisms—see below).
- These economies are subject to the effect of external shocks, in addition to internal shocks.

In all these countries, the nominal interest rate that is determined by the central bank is the key policy tool that the central bank uses in order to achieve the inflation target. (In Israel, this is the monetary interest rate—the interest rate that the central bank pays to the banks for deposit tenders with it.) By means of the interest rate, monetary policy affects inflation via a number of channels:

1. Aggregate demand—a rise in the interest rate has the effect of increasing the cost of credit and as a result, leads to a drop in demand for consumption and investment, which exerts pressure that moderates price rises.
2. Inflation expectations—since the public is aware of the effect of a rise in the interest rate on inflation, the rise has the effect of reducing inflation expectations; a decline in these expectations moderates nominal wage increases, which in turn moderates the rise in prices. A situation in which inflation expectations are close to the inflation target over time despite changes in background conditions is indicative of credibility in monetary policy (this subject will be discussed below).

[1] The discussion of principles is partly based on Lars E.O. Svensson's article "Inflation Targeting in an Open Economy: Strict or Flexible Inflation Targeting?" *Victoria Economic Commentarie*s 1-15 (March 1998).

[2] The following countries have operated within the framework of an inflation target for several years (at least since 1995): Australia, Canada, Chile, Finland, Israel, New Zealand, Spain, Sweden, and the United Kingdom. (Finland and Spain abandoned this policy in 1999, when they entered the European Union.) This policy has also recently been adopted by Brazil, Colombia, Mexico, South Africa, and South Korea.

3. The exchange rate—a rise in the interest rate[3] could lead to a fall in the exchange rate, which affects prices in three ways:

- A decline in the import prices of consumer goods (which constitute part of the consumption basket) and as a result, a fall in consumer prices.
- A decrease in the prices of inputs for local production, which reduces production costs and therefore lowers prices from the supply side.
- An increase in the prices of local exports abroad, which leads to a drop in demand for local (Israeli) exports. This implies a fall in demand for local products, which has the effect of reducing inflation.

The importance of forward looking inflation targeting

The central bank's ability to control inflation at any point in time is limited, for the following reasons:

1. An interest rate adjustment is reflected in prices with a lag. The length of the lag differs from channel to channel, and also varies according to the circumstances.
2. Inflation is affected by other policies apart from monetary policy, for example, by fiscal policy, and by domestic and external shocks.
3. At any point in time, the information on the current situation of the economy is partial, and future developments are clouded in a great deal of uncertainty.

Since the ability to control inflation at any point in time is not complete, and the interest rate affects inflation with a lag, monetary policymakers operate with an eye to the future, that is, they attempt to adjust the interest rate to anticipated developments, as distinct from trying to react to developments that occurred in the past (although past developments are obviously an important element in the assessment of anticipated developments). This is the reason for the great importance that is attached to forecasting the inflation that will prevail during the next year or two. The best course of action for guaranteeing the efficiency of monetary policy is to plan the future course of the interest rate in such a way that the rate of inflation expected to derive from this course during the next year or two years will be within the range of the targeted level of inflation.

[3] A rise in the interest rate implies an increase in the local interest rate relative to the worldwide rate. This increase could lead to the import of short-term capital—which has the effect of lowering the exchange rate. However, it should be realized that the short-term interest rate is only one of the factors that affect the exchange rate. During the years 1999 and 2000, imports of long-term capital, which by its very nature is not sensitive to the short-term interest rate gap, exerted a major effect in moderating the rise in the exchange rate.

This is the *modus operandi* of most central banks that have adopted an inflation target regime, including the Bank of Israel. The Bank of Israel makes a regular assessment of future developments, by using all relevant information on the current situation and the expected situation of the economy. Derived from this is the estimated path of the future course of the interest rate that conforms to the attainment of the inflation target for the coming year-two years. According to this course, the interest rate is adjusted as necessary in the appropriate direction. Whenever additional information is obtained, a re-assessment is made of the course of the interest rate, and a further step is taken along the updated path of the interest rate on the basis of this re-assessment. It should be noted that retroactively, after a year for example, actual inflation could deviate from the targeted range that was set for that year. Since monetary policy operates in a world of uncertainty as stated, such deviations cannot be avoided. However, a forward looking policy minimizes these deviations over time.

Forecasting inflation is by no means a simple task and requires considerable expertise. All the central banks that operate within the framework of inflation targeting devote considerable resources to the effort. At the Bank of Israel too, models that assist in forecasting inflation have been developed, and the Bank relies on additional sources such as the expectations derived from capital market data, the Companies Survey and assessments by private forecasters.

In its inflation forecasting activity, the central bank takes into account all the relevant information available to it at any point in time, including assessments regarding the development of the channels via which the interest rate affects inflation. It should be emphasized in this respect that in an open economy, the lag with which the exchange rate affects prices is short relative to the other channels. It is easier to operate an inflation targeting regime in such an economy than in a closed economy.

The importance of credibility of monetary policy

The credibility of monetary policy means that the public believe that the central bank is capable of maintaining its commitment to price stability. In practice, this credibility manifests itself when the public expects inflation to be stable and close to the inflation target. An indication of the extent of credibility can thereby be obtained from the differential between expected inflation and the inflation target. [Inflation expectations can be estimated by means of surveys (such as the Bank of Israel's Companies Survey) or via data from the capital market.] Inflation expectations are as stated a major factor in determining inflation, explaining why credibility, which is reflected by the stabilization of inflation expectations, is also an important factor.

When credibility exists, the cost of maintaining stability is much lower than in the absence of credibility. Assuming that forecast inflation is equal to the inflation target, and a sudden shock raises the level of inflation (an unexpected depreciation, for example), if inflation expectations remain stable, the change required in the interest rate—and with it the changes in other variables, including nonfinancial activity—is less than in a situation where expectations are also rising. This is because a response that would return expectations as well to their normal course would then be required. An example of a shock that occurred in a situation of relatively low credibility was the depreciation of October 1998, which was accompanied by a large rise in inflation expectations. In order to return inflation to the required course, a drastic increase in the interest rate was required at the time. Since then, such large changes in the exchange rate have not occurred, and the fluctuations in it have not been accompanied by large fluctuations in expected inflation. Credibility in monetary policy therefore appears to have increased during recent years.

Apart from helping to stabilize inflation expectations and reducing the need to make frequent large changes in the interest rate, credibility in monetary policy helps to avoid large fluctuations in the exchange rate and in nonfinancial activity, as we will explain below.

Flexible inflation targeting

In economies with an inflation targeting regime, a flexible approach is usually adopted to interest rate management. If for any reason (forecast) inflation rises, a course of gradual but not immediate return to the desired inflation target is planned while taking into account additional aspects such as financial stability (by preventing serious fluctuations in the interest rate and the exchange rate, and by avoiding the creation of serious fluctuations in nonfinancial activity). The principle manifestation of this policy is the phenomenon known as interest-rate smoothing, which consists of a gradual adjustment of the interest rate. Alongside the advantage of this approach—a resumption of stability —it also has its down side: since the return of inflation to the targeted course of inflation is gradual, the actual inflation could remain above the targeted level for a long period of time, which could undermine credibility. A dilemma therefore exists between maintaining financial stability and the danger of a loss of credibility, which in the final account will acquire a drastic adjustment in the interest rate. Accordingly, the ability to manage a flexible policy is largely dependent on the credibility that is achieved with time.

A flexible approach was adopted for most of the time in Israel during recent years, concurrent with an emphasis on financial stability. Due to the desire to avoid large changes in the interest rate and the reliance on a forward looking policy, during certain periods when inflation expectations for the short term (for a year, for example) deviated from the target, the interest

rate adjustments were nevertheless usually moderate. Exceptions to this trend were the drastic rise in the interest rate in November 1998 (a cumulative increase of 4 percentage points), which resulted from the steep rise in inflation expectations that derived from the large depreciation at the time, and the 2 percentage point interest rate cut in the last week of December 2001.

The large rise in the interest rate in November 1998 halted the rise in inflation expectations and subsequently reduced them. But at the end of 1998 and during most of 1999, the inflation expectations for a year ahead derived from the capital market as well as forecasters' expectations remained above the upper limit of the inflation target. Despite this development, the interest rate was not raised again and in fact was gradually reduced, apparently due to the assessment that the level of the interest rate (in real terms) was sufficiently high to promote a subsequent decrease in inflation expectations back down to the targeted range of inflation (implying renewed credibility). This assessment was supported by the fact that although inflation expectations were still higher than the target, they were declining. Such a phenomenon can be interpreted as the adoption of a flexible policy.

Another example of flexible policy management is the period between the last quarter of 2000 and until the middle of 2001. During this period, inflation expectations for a year and two years ahead that were derived from the capital market were below the lower limit of the inflation target for the relevant periods. Nevertheless, the gradual and moderate reduction of the interest rate was continued. This was because forecasters' expectations for a year were close to the lower limit of the target, moving above and below it, and more important, the inflation expectations derived from the capital market for longer periods were within the limits of the inflation target for the relevant periods. In a case such as this, a large reduction in the interest rate aimed at adhering to the short-term target could have led to a subsequent large increase, in order to adhere to the target for the following years. Preference was given to achieving the long-term objective of price stability and the maintenance of financial stability, at the potential cost of a temporary deviation of inflation from the target for the calendar year.

This policy of attempting to avoid large fluctuations in the interest rate seems to have made a major contribution to the stabilization of inflation expectations during recent years and the reduction of exchange rate fluctuations, despite the serious shocks from home and abroad that hit the economy in recent years.

At the end of December 2001 the Bank of Israel decided as stated to make a one-time exception to the principle of gradual interest rate adjustment, and cut the rate by two percentage points. This was in combination with a number of measures that were taken by the government and the Bank of Israel in order to extricate the economy from the recession, and to increase financial resilience to external and internal shocks.

2. DEVELOPMENTS IN THE CAPITAL MARKET

Returns among all terms to maturity dropped and share prices fell in the capital market during 2001. The Bank of Israel's interest rate was cut by 2.4 percentage points in 2001, short-term yields (up to 3 years to maturity) in the unindexed and CPI-indexed bond markets fell by 3 and 2 percentage points respectively, and long-term yields (10 years to maturity and more) each dropped by a percentage point. Developments in the bond market during 2001 were affected by two main forces that had the effect of reducing yields—the cut in the Bank of Israel's interest rate and the slowdown in economic activity. However, the slack state of budgetary discipline halted the decline in yields, especially yields for the long term. As a result, short-term yields fell more than long-term yields, and the slope of the yield curve, which was negative at the beginning of the year, became positive in the course of the year. This suggests that expectations of a reduction in interest rates in the future existed at the beginning of the year, and that these expectations moderated towards the end of the year and were possibly even followed by expectations of a rise in interest rates. For most of the year inflation expectations derived from unindexed bond yields and CPI-indexed bond yields in the capital market were low. It should be noted in this respect that while the level of inflation expectations during 2001 was similar to that in 2000, this time they were derived from nominal and real yields that were lower than in the past and closer to those that prevailed in worldwide capital markets. The slowdown in economic activity in the economy, against the background of the worldwide recession and the uncertain security situation, and the fall in share prices in the US stock market and especially on the Nasdaq stock exchange, where a relatively large number of Israeli shares are traded, was reflected by a slump in the local equity market. As a result, share prices fell in all market sectors during 2001, and the Tel Aviv 100 index dropped by 9%. The largest decreases were recorded among investment companies, insurance companies and industrial companies. The volume of share issues were reduced greatly, and many planned issues were cancelled. The overall amount of capital raised in the equity market in 2001 was half the amount raised in 2000.

The year 2000 was also notable for increased turnover in the Treasury bill market and the bond markets, and reduced turnover in the equity market. Average daily turnover on and off the stock exchange in the Treasury bill and bond markets rose from NIS 500 million in 2000 to NIS 700 million in 2001. Most of the increase was recorded in the market for fixed-rate unindexed bonds, which in 2001 accounted for 40 percent of total bond turnover on the stock exchange compared with only 30 percent in 2000. The high levels of tradability and liquidity in the fixed-rate unindexed bond market is attributed to the low level of inflation, and to the fact that future coupons on these bonds are fixed and known in advance, with the result that they are relatively easy to price. Turnover on and off the stock exchange in the equity market plummeted from a daily average of NIS 470 million in 2000 to NIS 270 million in 2001, which was less than the turnover in the bond market.

As stated, in the second half of December 2001 the Bank of Israel made a one-time exceptionally large cut in the interest rate for January 2002 of two percentage points. Although it is still too early to analyze the impact of the rate cut on the capital market, the developments in the initial weeks following the cut should be described. From the time the Bank of Israel's interest rate cut was announced and until the end of January 2002, inflation expectations rose slightly, while turnover in Treasury bills and bonds increased sharply and their yields fell, principally among short terms. Yields on short-term Treasury bills dropped by two percentage points, and yields for the term of a year fell by one percentage point. In the market for fixed-rate unindexed bonds, yields for the short-term dropped by two percentage points while yields for the long-term remained practically unchanged. In the CPI-indexed bond market, yields for the short term fell by two percentage points, while yields for the long term fell by only half a percentage point. It therefore appears that developments in yields for the long term were affected, in this period as well, by serious doubts over the government's ability to adhere to budgetary discipline during the year and in the coming years. This is mainly due to the higher-than-planned budget deficit for 2001, the delay in approving the State budget for 2002, and financial institutions' assessments regarding a further deviation from the deficit target this year. Turnover in the bond markets rose again following the Bank of Israel's exceptionally large interest rate cut, and reached approximately NIS 1.5 billion a day. In the equity market, prices and daily turnover rose to a relatively large extent following the one-time interest rate cut. As a result, the Tel Aviv 100 index went up by 13 percent, and turnover reached NIS 0.5 billion a day. Due to the continuing depreciation of the NIS since the interest rate cut in question, the implied volatility of the Bank of Israel's NIS/dollar options increased, principally among options for three months, in which the implied volatility reached 7.5 percent compared with 5 percent before the rate cut.

The public's portfolio of financial assets expanded by 6 percent in 2001, compared with an increase of 7 percent in 2000. The growth in the asset portfolio mainly resulted from developments in the equity market towards the end of 2001. In view of the volatility that is typical of the share component of the asset portfolio, the composition of the portfolio should be examined without this component. In a continuation of a trend that began in recent years with the disinflation process, the proportion in the asset portfolio exclusive of shares of unindexed local-currency assets rose again in 2001, from 36 percent to 39 percent concurrent with a decrease in the proportion of CPI-indexed assets. The weightings of foreign-currency indexed and denominated assets also fell, because the local-currency interest rate dropped and came closer than in the past to the level of interest rates abroad. The composition of a public's financial asset portfolio is becoming more similar to that typical in countries with low inflation—a portfolio that is mainly comprised of local-currency denominated assets and shares.

Due to the manner in which the budget developed during 2001, the government had to resort to net domestic finance of NIS 16 billion compared with only NIS 6 billion in the budget plan for the year and compared with net negative borrowing of NIS 0.5

billion in 2000. The high level of finance in 2001 resulted not only from the higher-than-planned budget deficit, but also from the minimal extent of privatization revenue during the year. It should be noted in this respect that the extent of progress in the privatization process also has implications for the development of long-term yields in the economy: a rapid and successful privatization process can reduce the government's need to finance the budget deficit by issuing bonds to the public and speed up the reduction in long-term yields. The proportion to the government's total net domestic finance of CPI-indexed bonds rose from 11 percent in 2000 to 20 percent in 2001, while the proportion of floating-rate bonds fell from 37 percent to 33 percent in 2001. The government did not increase its issues of fixed-rate unindexed bonds even though these are the most highly traded bonds, meaning that their increased issue could help to reduce the cost of the government's long-term finance. Moreover, the proportion to total issues of floating-rate bonds fell only slightly, although turnover in these bonds was very sparse. This is mainly because the indexation component inherent in them makes it difficult for investors to price them. Such bonds are not common in worldwide capital markets, where fixed-rate unindexed bonds are highly prevalent. The government should therefore give consideration to discontinuing issues of these bonds due to the importance of developing the bond market as an essential element of infrastructure for a developed capital market. As stated, this will reduce the cost of the government's long-term borrowing. Progress was made during the year in this area, when the government decided to issue longer term bonds than in the past. As a result, fixed-rate unindexed bonds for a term of ten years and CPI-indexed bonds for a term of 20 years were issued for the first time in 2001. In 2001 as in recent years, no major structural reforms were promoted in the economy as a whole and in the capital market in particular. Such reforms are required in the money market in order to develop nonbanking financial intermediation and thereby competition with the banking system, as well as in the bond market and in the area of institutional saving. At the same time, it is necessary to speed up the privatization process, which will also affect the development of the capital market. The reforms required here are interrelated and progress in one of them affects progress in the others, and is affected by them. This is because all of them have the joint objective of the development of Israel's capital market as an essential condition for positioning the economy on a path of sustainable growth, concurrent with its integration into the world economy. It should be noted in this respect that important international financial institutions relate to the Israeli economy as an emerging economy and not as a developed economy principally due to the low level of development of its capital market.

Although bond market turnover increased in 2001, it was still low relative to developed economies and to other emerging economies. To date, important measures have been adopted in order to increase activity in the bond market: the increased proportion of fixed-rate unindexed government bonds to total government bond issues, concurrent with the gradual extension of their term-to-maturity; the issue of series of government bonds at relatively large quantities concurrent with the decrease in the

Table 1.1
Principal Indicators of Inflation, Monetary Policy and the Money and Capital Markets, 1997–2001

(percent)

	1997	1998	1999	2000	2001
Inflation[a]					
Inflation target	7-10	7-10	4.0	3-4	2.5-3.5
Actual inflation	7.0	8.6	1.3	0.0	1.4
Inflation expectations for a year	9.1	6.3	5.1	2.4	1.9
Yields					
Nominal interest rate on Bank of Israel tenders[b]	14.7	12.6	13.0	9.8	7.1
Nominal yield for 5 years[c]		11.2	11.2	8.6	7.1
Nominal yield for 10 years[c]					7.4
Real yield-to-maturity on 5-year bonds[c]	3.9	5.1	5.5	5.8	5.0
Real yield-to-maturity on 10-year bonds[c]	4.0	4.9	5.1	5.4	5.0
Real yield-to-maturity on 20-year bonds[c]					4.6
Depreciation					
Against the currency basket[d]	3.7	20.6	–2.5	–6.3	3.7
Against the dollar[d]	7.9	18.2	0.4	–2.7	4.8
Asset prices					
Overall rate of return on shares (nominal)	35.2	3.1	64.4	0.3	–6.6
Apartment prices[e]	7.0	7.6	0.7	–8.2	–0.6
Monetary aggregates (nominal rates of change)[d]					
Narrow monetary base (M1)	13.8	11.7	14.3	7.5	16.0
Total credit (C3)	19.2	18.8	12.7	10.3	8.0
The public's financial asset portfolio					
Nominal growth[f]	24.5	13.2	25.3	7.2	6.9
Weighting of unindexed assets[g]	24.0	25.0	24.8	28.6	31.3
Weighting of CPI-indexed assets[g]	48.1	46.5	38.8	35.9	35.8
Weighting of foreign currency indexed assets[g]	9.0	10.3	10.3	10.8	12.1
Weighting of shares[g]	19.0	18.2	26.2	24.7	20.8
Actual budget deficit (percentage of GDP)					
Domestic deficit, excluding credit	3.0	2.9	2.8	0.6	3.8
Total deficit, excluding credit	3.4	3.3	3.4	0.7	4.6
Additional data					
Bal. of payments, current account deficit ($b)[h]	4.0	1.4	3.0	1.4	1.9
Unemployment rate	7.5	8.6	8.9	8.8	9.3
GDP growth rate[i]	3.3	2.7	2.6	6.4	–0.6

[a] Consumer price index during the year.

[b] Effective rate.

[c] Gross (relative) annual average yield for the terms in question.

[d] December average compared with the same for previous year.

[e] According to Apartment Prices Survey.

[f] Year-end compared with end of previous year.

[g] Year-end data.

[h] New definition. The difference between the new and the old definition of the balance of payments is that under the old definition, capital transfers (principally immigrants' transfers) were deducted from the remainder of the deficit while under the new definition, these transfers are classified in the capital account and are not deducted from the current deficit.

[i] Year-on-year annual average.

SOURCE: Monetary Department, Bank of Israel.

number of these series; and the abolition of the Treasury bill ceiling at the beginning of 2002. Much still needs to be done, however, and attempts have yet to be made to solve the underlying problems that are preventing the development of the capital market. The measures required in this respect include: rapid progress in the process of rolling-over the government debt, mainly by totally ceasing the issue of designated bonds for new members of the pension funds; the abolition of the banks' ownership and control of the provident funds and the mutual funds; regularization of the taxation of income from financial assets, and an end to the discrimination between different investors, between different assets and between different markets; the establishment of market makers in bonds; the regularization of the status of Repo (repurchase) transactions and of short sales, principally with respect to taxation and the liquidity requirements; and an end to issues of floating-rate government bonds, which are notable for their relatively low tradability.

As regards the structure of institutional saving, again no progress at all was made in 2001 with respect to the reform that is necessary in the area of the pension funds in order to change the present situation in which the majority of the funds' money does not pass through the capital market. In this situation, firms therefore have difficulty in finding sources of finance for their investments in the local capital market, the banking system remains an important and principal source of finance, and competition is inadequate. The absence of the pension funds is an impediment to the bond market's smooth functioning, and is also one of the reasons for the poor development of the mortgage market. A change in the pension arrangements whereby new members' money will be invested in tradable government bonds and private assets, rather than in designated bonds, will turn them into a major channel of long-term saving. Such a development will contribute greatly to the development of the capital market as a whole and the bond market in particular, to the more effective management of the government bond market and the rolling-over of the market, and to the development of the corporate bond market. It is also important to implement a reform in the pension system that will promote competition with the pension system of the Histadrut (the General Federation of Labour in Israel) via the establishment of funds owned by other organizations, mainly by giving members the freedom to choose their preferred form of pension saving. For this purpose, an independent and inexpensive advisory and information network needs to be established for the members, who should be offered more mobility between the different forms of financial saving.