Chapter 3 Prices

The Consumer Price Index (CPI) rose by 10.6 percent in 1996, slightly in excess of the inflation target of 8-10 percent which the government had set for the year, and 2.5 percentage points higher than the rise in 1995. The surge in inflation was the result of the increase in the gap between demand and GDP due to slower economic growth, on the one hand, and of the rise in the government deficit and the low rate of unemployment, on the other. Inflation differed greatly between the two halves of the year. in January-June inflation as measured by the CPI was significantly above the target, at about 14 percent per year, while GDP prices rose by 16 percent. In July-December inflation fell below the target range, as a result of tight monetary policy and the slower increase in demand: the CPI rose at an annual rate of 7 percent, and the rise in GDP prices slowed to an annual rate of 4 percent. The indices of underlying inflation derived from the CPI, housing prices, and estimates of inflation expectations obtained from the capital market-which at the end of the year declined to the lower limit of the inflation target-all paint a similar picture. As an annual average, the CPI rose by 11.3 percent, reflecting an inflation environment of 9-12 percent for the fifth consecutive year.

1. MAIN DEVELOPMENTS

Since 1992 the average annual rise in most main price indices has been within a narrow range of between 9 and 12 percent, with relatively small yearly deviations from their 1992–96 averages (Table 3.1, Figure 3.1). This consistency is the most notable feature of prices in the last few years. This is especially striking in light of the structural changes in Israel's economy during this period—led by the addition to the work force of the immigrants who arrived in the influx from the former Soviet Union and the dramatic fall in unemployment—as well as the changes in fiscal and monetary policy which accompanied them. This inflation environment is significantly higher than that in advanced economies.

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The main price indices in Israel have risen by an average of between 9 and 12 percent annually since 1992.

					(annual rate of change, percent)		
						Average	Standard
Price indices	1992	1993	1994	1995	1996	1992-96	deviation
During the year	During the year						
CPI ^a	9.4	11.2	14.5	8.1	10.6	10.8	2.1
Annual average							
CPI	11.9	11.0	12.4	10.0	11.3	11.3	1.1
GDP deflator ^b	12.1	11.5	12.3	9.2	11.2	11.4	1.1
Domestic use of resources ^b	11.7	10.5	12.4	10.2	9.8	11.1	1.0
CPI excluding fruit, vegetables, housing	11.9	9.0	8.7	9.3	10.2	9.8	1.1
Wholesale prices	10.1	8.2	7.9	10.7	8.6	9.1	1.1
Business-sector product ^b	11.7	10.2	8.1	6.6	9.9	9.5	1.8

Table 3.1Indicators of the Inflation Environment, 1992–96

^a The index referred to in the anual inflation target set by the government.

^b Implicit price index.

SOURCE: Central Bureau of Statistics.

In contrast with the inflation environment, which is expressed in terms of the average rise of various price indices, the annual inflation targets set by the government are defined by one index only—the end-of-year CPI. According to this definition, too, average inflation since 1992 has been about 11 percent, but its annual rate of change has fluctuated more widely.

The CPI rose by 10.6 percent during 1996, slightly above the upper limit of the inflation target (8-10 percent), but within the inflation environment of the last few years. The increase was 2.5 percentage points more than in 1995, but in terms of the annual average the rise-11.3 percent-was the same as the average of the five years from 1992. Other customary indices of inflation also rose slightly faster than in 1995, though remaining on average on the same inflation plateau, so that their slight acceleration should be seen as a normal annual fluctuation around a stable average. Thus, although the relatively low inflation rate of 1995 was not maintained in 1996, nor was the inflation target fully achieved, the deviation from it was minimal, and inflation was kept within the range which has characterized Israel's economy in the last five years. The deviation is small in view of several factors which exerted upward pressure on prices in 1996, namely, steep price increases in the last quarter of 1995, expansionary fiscal policy, the exceptionally large budget deficit, and almost full employment for most of the year. Moreover, anti-inflationary policy succeeded in reducing the rate of price increases in the second half of the year to a level compatible with the 1997 inflation target. The inflation environment is still considerably higher than in advanced countries, however.

The CPI rose by 10.6 percent in1996, slightly exceeding the upper limit of the inflation target range.



The most notable aspect of prices in 1996 was the acceleration in the rate of price increases in January–May and the sudden trend change in the middle of the year (Table 3.2). In the first six months most of the main price indices rose faster than in the second half of 1995, considerably exceeding the 1996 inflation target: prices of GDP and of domestic use of resources rose by between 14 and 16 percent in January–June, and the CPI went up by 14 percent (annual rates). In July–December the trend reversed, as stated, and the rise in the indices was below the lower rate of the target

In the first half of the year inflation was above the upper limit of the target range, and in the second half was below its lower limit.

(annual terms, percent)

Table 3.2Rates of Price Changes, 1995–96

	Average				During period			
	1995		1996		1995		1996	
	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec	Jan-Jun	Jul-Dec
Price index								
CPI	8.1	8.8	13.3	9.7	5.0	11.0	14.0	6.6
Core CPI ^a	9.1	9.1	11.4	9.9	9.8	8.4	13.0	7.0
Housing	10.7	12.7	21.2	9.0	9.2	17.2	22.0	4.0
Tradables	6.8	8.7	9.8	7.9	6.8	8.6	10.2	6.4
Nontradables	9.1	8.9	15.5	10.7	4.3	12.8	17.3	6.9
GDP	6.9	9.0	14.3	8.0	8.8	8.4	16.0	4.2
Business-sector product	5.3	6.9	11.1	10.7	2.0	11.1	9.5	9.2
Domestic use of resources	7.7	9.4	11.7	6.7	10.0	6.2	13.8	4.4

^a CPI excluding housing, fruit and vegetables, clothing and footwear, and goods whose prices are controlled by the government.

SOURCE: Based on Central Bureau of Statistics data.

inflation range. This was most pronounced in housing, domestic resource use, and the nontradable goods component of the CPI.

Indicators of underlying inflation¹ followed a path similar to that of the CPI. The CPI excluding fruit and vegetables, housing, clothing and footwear, and items whose prices are government-controlled rose by more than one percentage point in five of the first six months of the year—and by an annual 13 percent in January–June. In contrast, each monthly increase in the second half of the year was less than one percent, so that for this period the index rose at an annual rate of only 7 percent. The rate of increase of other, implicit, indices (Table 3.A.1b) also moderated considerably in July–December, and for the year as a whole they rose at rates within half a percentage point of that of the CPI.

Many factors caused prices to accelerate at the beginning of the year. The steep price increases of the first six months of 1996 were a continuation of the accelerated inflation which had started in the last quarter of 1995. The main causes of this were fiscal expansion, reflected by an inflated budget deficit as early as the first months of the year; the reduction of real interest on the Bank of Israel's sources from

¹ These indicators are generally based on changes in the CPI excluding items with high inter-year variance, in particular housing, and fruit and vegetables. In the course of the year, clothing and footwear and items whose prices are government-controlled are also excluded due to their highly seasonal nature (see Box 3.1, p. 75 in last year's edition of this publication).

Underlying inflation followed a path similar to that of the CPI.

its high level at the beginning of 1995, due to the delay in interest hikes following the rise in inflation expectations; greater economic uncertainty as the elections approached; and exchange-rate movements in the first half of 1996—an average annual rate of depreciation of 9.2 percent against the dollar and 4.9 percent against the currency basket. The steep price rises may also have constituted a delayed reaction to the rapid expansion of the money supply in the second and third quarters of 1995.

In the absence of fiscal discipline (i.e., as the deficit target was not adhered to) despite the surge in inflation, the onus of taking the corrective steps required to achieve the inflation target devolved upon monetary policy. As in 1995, this policy continued to be based on a high interest rate relative to the norm of previous years, and close monitoring of both the growth rate of the money supply and inflation expectations. However, in 1996 the Bank of Israel refrained almost completely from intervening in foreign-currency trading as long as the exchange rate stayed within the crawling band. Monetary policy caused the money supply to increase more slowly, i.e., by only 12 percent in 1996, and was also reflected by slower average depreciation-at a rate below that derived from the crawling band, while the exchange rate was very volatile. The persistent tight monetary policy reversed the upward trend of inflation and inflation expectations evident in January-May, and towards the end of the year brought them both back into the target range. The slowdown in the rate of nominal depreciation and the decline in inflation expectations were the main channels through which monetary policy affected prices in the second half of the year. Price trends were also affected by the general economic slowdown in that period, particularly in the last quarter.

Twelve-month inflation expectations as derived from the capital market were also very volatile during the year, rising from a level of about 11 percent in October–December 1995 and January–February 1996 to an annual 14 percent in March, April, and May. In June, following an interest-rate hike in April and another in May, the upward trend in expectations halted, and in July, in the wake of another, exceptional, increase in interest, the trend reversed, and expectations started falling rapidly, almost monotonically, till the end of the year. In December expectations fell below 10 percent and, for the first time in the year, came within the target inflation range.

Prices of foreign trade, both imports and exports, declined in dollar terms, but this was not reflected in the prices of tradables, which continued rising at close to the average long-term rate prevailing since 1992. Domestic prices of private consumer tradables apparently only partly reflected the price derived from foreign-trade prices and the movement of the exchange rate. On the supply side, fuel prices rose considerably in 1996, while prices of imported intermediates declined markedly.

Monetary policy was implemented via raising the interest rate, and non-intervention in the foreign-exchange market as long as the exchange rate was within the crawling band.

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Inflation expectations rose from the third quarter of 1995, and fell from June 1996.

2. DETERMINANTS OF PRICES

Domestic demand

Excess demand remained high, providing the impetus for accelerated price rises, particularly of nontradables. Although the rate of increase of domestic use of resources—which serves as an indicator of the change in demand for GDP—slowed to 5.2 percent, 2.5 percentage points below the 1995 rate, the lower rate of GDP growth entirely offset the slowdown (the reasons for this are given in Chapter 2). Excess demand thus remained high, providing the impetus for accelerated general price increases, particularly of nontradables.

During the year excess demand moved in line with price developments: thus, in January–June domestic resource use expanded at an annual rate 2 percentage points higher than GDP, while in July–December the gap between them shrank to one percentage point (Table 3.3). Much of the slowdown in the rate of price increases in the last quarter may be attributed to the 9 percent decline in domestic use of resources in that period.

Prices of tradables

Prices of tradables rose by more than the rate derived from foreigntrade prices and the exchange rate. In 1996 the average dollar prices of imports for private consumption fell by 3.6 percent, and the average NIS/dollar exchange rate rose by 6 percent. Hence, the implicit localcurrency prices of these imports increased by an average of 1.9 percent. In contrast, prices of tradables in the CPI rose by an average 9 percent, i.e., 7 percentage points more than the rise derived from foreign-trade prices. As there is no evidence of exceptional increases in prices of the nontradable components of tradable goods, prices of private consumer tradables may have been costed not according to actual changes in the exchange rate, as in the previous two years, but on the basis of an exchange-rate path based on the ass<u>umption of higher depreciation which placed the</u> exchange rate close to the midpoint of the band. Be that as it may, the link between foreign-trade prices and the prices of tradables derived from the CPI seems to have weakened.

The gap between the annual rise of the price index of tradables in the CPI and that of import and export prices reached 4 percentage points in 1996, causing a significant change in the real rate of appreciation derived from these indices. A comparison of the indices of prices of tradable and nontradable goods in the CPI suggests real appreciation of about 3 percent, similar to that in 1995. On the other hand, a comparison of import/export prices with GDP prices indicates more significant real appreciation, 6–7 percent, in 1996 (see Chapter 2).

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Table 3.3					
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	(average annual rates of change, percent)				
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Import and export prices ^a	그는 것 같아요. 김 것 같아요. 김 씨 가는 것 것 같아요. 나는 것 같아요. 이 것 같아요.				
Imported intermediates ^b					
Exports ^c	4.4 * 5.5 · · · · · · · · · · · · · · · · · ·				
Civilian imports ^c	7.7 5.1 7.4 7.7 4 4.7 7.7 4.4 4.4 4.0 4.0 5.1 5.1 14.0				
Output and use of resources					
GDP	7.1 4.4 5.7 7.5 4.9 0.5 9.8 1.9 -1.8 3.7				
Domestic use of	이 가 가 가 가 봐 봐 봐야?. 한 것 것으로 환성한 것 같은 것 것 같아요. 것 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가 가				
resources	6.5 6.0 5.3 8.7 7.0 1.5 12.0 0.2 8.1 -9.3				
Labor cost					
Public-sector wage per	n en				
employee post	16.2 13.1 14.0 7.1 17.9 10.0 27.5 48.7 11.3 -20.0				
Private-sector wage per	the state of the second sec				
employee post	$\frac{10.7}{2} \frac{12.7}{12.5} = \frac{9.1}{10} \frac{11.0}{10} \frac{11.0}{10} \frac{11.4}{10} \frac{11.4}{10} \frac{11.4}{10} \frac{11.4}{10} \frac{112.5}{10} \frac{112.5}{1$				
Private-sector unit labor cost					
Fiscal changes					
Total deficit	-3.6 $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$ $+4.6$				
Domestic deficit					
Monetary changes	王王王 化氯化合金合金合金合金合金合金合金合金合金 医子子				
Narrow money supply					
(M1)	$8.4 < 14.9 + \frac{1}{2} + \frac$				
Expected inflation ^d	10.8 11.8 10.7 10.8 12.4 10.0 11.1 13.7 11.8 10.5				
Real rate of interest on	·····································				
10-year bonds	4.3 4.5 4.9 4.2 4.4 4.4 4.3 4.3 4.6 4.3 4.3 4.9 4.4 4.4				
Unemployment rate					
Exchange rate					
Currency basket	4.6 3.5 4.0 2.2 4.9 1.9 2.3 9.9 -5.4 9.9				
US dollar	0.0 5.9 -2.2 2.8 9.2 2.4 7.6 15.0 -7.3 11.1				
^a Foreign trade dollar p	^a Foreign trade dollar price multiplied by exchange rate; figures for 1996:IV are not final				
^b Excluding diamonds a	nd fuel.				
^c Excluding capital serv	rices and diamonds.				
^d Estimated 12-month i	vices and diamonds. inflation expectations assuming full tax-exemption for the investor. tral Bureau of Statistics data.				
SOURCE: Based on Cent	tral Bureau of Statistics data.				
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Policy factors

In the last few years, as part of the process of determining the objectives of economic policy, towards the end of the year the government has announced a target for the rate of increase of the CPI for the next calendar year. The target serves as a reference point for policy-makers, and its announcement is intended to stabilize inflation expectations close to it, thereby making it more attainable. Monetary and fiscal policy play a major role in success or failure in attaining the target.

On the fiscal side, the law obliges the government constantly to reduce the domestic budget deficit as a share of GDP, in order to moderate domestic demand and ease upward pressure on prices. The government also committed itself to continuing with a series of measures to moderate price rises in specific sectors—selling land for construction at a rate appropriate to housing needs, and proceeding with the policy of exposing Israel's economy to competing imports.

The government is obliged to reduce the budget deficit.

Monetary policy sets interest at a level intended to aid in attaining the inflation target. The Bank of Israel uses four main policy channels to attain the inflation target: controlling the rate of increase of the money supply; affecting the rate at which local-currency prices of tradables rise, via the nominal exchange rate; reducing inflation expectations to within the annual inflation target range; and lowering the growth rate of excess domestic demand. To attain these objectives the Bank bases its policy on two principles. The first is determining an interest-rate policy appropriate to the development of the inflation environment and inflation

Table 3.4Inflation Targets and the Exchange-Rate Band, 1991–97

				(rate of	change du	ring the y	ear, percent)
Inflation target			Exch	ange-rate ^b	Actual rise		
For	Date announced	Target ^a (percent)	Slope (percent)	Realign- ment	Width of band	CPI	Exchange rate ^b
1992	Dec. 1991	Up to 14-15	9	3	±5	9.4	14.9
1993	Nov. 1992	10	8	3	±5	11.2	8.0
1994	Jul. 1993	8	6	2	±5	14.5	5.4
1995	Sep. 1994	8-11	6		±7	8.1	5.8
1996	Oct. 1995	8-10	6	0.8	±7	10.6	3.0
1997	Dec. 1996	For 1997: 7–10 For 2001: the average OECD inflation rate	6		±7		

^a Rise in CPI.

^b Against currency basket.

SOURCE: Based on Central Bureau of Statistics data.

expectations, and the degree of their compatibility with the inflation target, in line with changes in the monetary aggregates and real economic activity. The second is keeping the exchange rate against the currency basket within a declared, clearly defined crawling band, the slope of which is determined in accordance with the inflation target (Table 3.4).

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Box 3.1: Government D	ecision No. 1127 of 27.12.1996 Regarding Inflation
Targets	
Inflation targets:	
It is decided that:	n in the share will be the the the terms in the second second second second second second second second second
a. The government no	otes the decision of the Minister of Finance reached
	with the Prime Minister and the Governor of the Bank
	inflation target for 1997 is 7–10 percent, and that the
	be the norm in OECD (the Organization for Economic
	Development) countries.
b. The target for 199	8 will be determined by the middle of 1997. In the
÷, ·	e target will be set in a similar manner, so that it will
	ment's working premise in determining the following
_	nework and target, as well as monetary policy.
	that all the main targets of economic policy on which
	7 budget focuses should be viewed:
	urrent-account deficit;
	nditions to enable continued stable economic growth;
· •	te of inflation; and the first of the second
	igrants. A strategie a state and a state of a
The explanatory notes	s submitted by the Minister of Finance attached to the
proposal state:	生产 新兴 机脱离 医噬喉腔腹膜炎 医噬体的
• •	many OECD countries, in the last few years the
, .	ecific target for the annual rate of inflation, thereby
•	and policy in this sphere. It is generally accepted that
-	sitive implications for all economic policy objectives.
- , -	ects the government's policy of constantly reducing
	ed long-term objective of bringing inflation down by
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Fiscal policy

Fiscal policy affects prices in the short term as well as the long-term rate of inflation. In the long run, the size of the public debt, the total budget deficit, and the way both are financed are the main factors determining the rate of inflation. In the short term, the rate of price increases is determined largely by the level of public-sector expenditure, which is a major component of aggregate demand, and by the deficit. In addition, the size of the budget and the extent of deviations from it play a major role in shaping inflation expectations, thus indirectly influencing actual price changes. Hence the vital need in Israel's case of maintaining the budget deficit on a downward path in order gradually to reduce the long-term inflation rate. Hence, too, the need to cut public-sector expenditure and adhere to the budget, in order to reduce the excess demand which has characterized Israel's economy in the last two years, and to lower inflation expectations.

Fiscal policy in 1996 contributed to increased upward pressure on prices.

target, actually contributing to the upward pressure on prices. The reduction of the share of direct taxes in GDP increased disposable income by 1.6 percentage points of GDP, contributing to the rise in investment and private consumption. Public-sector domestic consumption increased by 3.6 percent in real terms, the average wage per employee post in the public sector rose by about 13 percent, following large increases in 1994 and 1995, and the number of public-sector employees grew by about 3 percent.

In 1996 fiscal policy helped even less than in 1995 to achieve the inflation

The budget deficit was 4.7 percent of GDP.

Deviations from the target deficit harm the credibility of inflation targets. The domestic budget deficit (cash basis) surged from 3.2 percent of GDP in 1995 to 4.7 percent in 1996. This gives rise to serious concern, as it is the second successive year in which the government has not achieved the budget deficit set by law. This second deviation may indicate the government's low level of commitment to meeting its inflation target, and make it more difficult for these targets to affect inflation expectations. If the budget deficit (as a proportion of GDP) does not rapidly revert to its planned downward path, it will be very difficult to attain the inflation target for the year 2001.

In contrast to 1995, the policy regarding prices of goods controlled or supervised by the government did not help to achieve the inflation target in 1996, and these prices rose by 12 percent in 1996—compared with 8.5 percent in 1995 incorporating a rise of 11.5 percent in prices of controlled goods and 12.8 percent in those of supervised goods. Furthermore, in housing, the Israel Lands Administration did not increase the level of sales, and land for only 36,000 apartments was sold—similar to the quantity in 1995 and below the generally accepted estimate of the rate of increase of housing demand. .,

Monetary policy

Monetary policy in 1996 continued to aim at achieving the inflation target, as it had in 1995, by means of a relatively high nominal rate of interest on the monetary loan from the Bank of Israel to commercial banks. From February, however, in contrast to its past policy, the central bank refrained as far as possible from intervening in the foreign-exchange market. The extent of monetary restraint attained through this policy differed markedly in the two halves of the year. As a result of constantly rising inflation expectations from the fourth quarter of 1995 (see below), expected effective real interest on the monetary loan² declined steadily from 4.7 percent in November 1995 to about 2 percent in May 1996 (Figure 3.2). It was not until July, in the wake of three successive interest rate hikes---at the end of April, May, and June---and a fall in inflation expectations, that annual real interest rose to about 6 percent. Thus, average expected real interest in the first half of the year was a whole percentage point below that in the second half of 1995, and more than two percentage points lower than that prevailing in the second half of 1996. The change in real ex post interest from the first half of the year to the second, as perceived by economic agents, was far more pronounced, due to the change in the inflation rate between the periods. The average effective real interest on the Bank of Israel auctions in January-June (the average of the monthly nominal interest rates minus the actual rate of inflation in that period) was 8 percentage points lower than in July-December.

The money supply is the monetary aggregate which generally matches the annual rate of price rises most closely (with appropriate lags). For example, part of the acceleration of price increases in 1994 may be attributed to the expansion of the money supply in 1993, and the contraction of the aggregates in 1994 helped to reduce inflation in 1995. The money supply grew by an average 8 percent in 1995, a slow rate which does not help to explain the overall rise in inflation in 1996; changes in the money supply in the course of 1995, however, may have affected price movements during 1996.

Most research shows a statistically significant correlation—with a relatively short lag—between the exchange rate and price changes. The exchange rate mainly affects prices of tradable goods and housing, the latter being closely linked in Israel in the short term to the exchange rate against the dollar. In 1996 the exchange rate against the currency basket continued to move within the crawling band, but the cessation in February of the Bank of Israel's intervention in the market and the continued gap between interest rates in Israel and abroad brought the rate of depreciation of the NIS against the currency basket below the slope of the band, and kept it—with wide

² The effective nominal interest on Bank of Israel auctions, in annual terms, *minus* expected inflation over the next 12 months as estimated from the capital market.

In July, after three successive interest-rate hikes and a decline in inflation expectations, real interest rose to 6 percent a year.

For most of the year the exchange rate remained in the lower part of the band.



fluctuations—in the lower part of the band for most of the year. Over the year as a whole the NIS depreciated by an average 3.5 percent against the currency basket, and 5.9 percent against the dollar. Average depreciation during the year followed the same pattern as did overall price rises: in January–June there was 4.9 percent depreciation (annual rate) against the currency basket, 3 percentage points above the rates in the second half of both 1995 and 1996. The average exchange rate against the dollar was even more volatile: in the first half of 1996 it rose by 7 percentage points more than in July–December 1995 and 1996. Thus, changes in the exchange rate during the year were apparently closely correlated with the movement of prices in general, and of housing in particular.

Inflation expectations

In the middle of the year inflation expectations rose to more than 14 percent a year. Changes in estimated yearly inflation expectations derived from the capital market, expected real interest, and marginal interest on the monetary loan in 1994–96 are shown in Figure 3.2.³ Despite relatively low inflation in 1995, inflation expectations (assuming tax exemption) in August–December 1995 and January–March 1996

³ For a review and analysis of inflation expectations in 1991–95, see the 1995 Annual Report.

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persisted at an annual level of 10.5–11.5 percent; in April and May 1996 they soared, reaching more than 14 percent at the end of May, i.e., more than 4 percentage points above the upper limit of the inflation target. It is difficult to pinpoint one main cause for these strong surges in expectations: they may have been affected to some extent by increased expectations of depreciation—with the approaching elections—as part of an overall economic policy, and by the rise in actual inflation in the last quarter of 1995 and January–February 1996 (research has shown that inflation expectations are significantly affected by past inflation).

The rise in expectations and the failure to respond with the appropriate fiscal restraint compelled the Bank of Israel to intensify monetary restraint so as to reduce the deviation of expectations from the inflation target. Three times, at the end of April, May, and June, the interest rate was raised, by a total of 3 percentage points. Following these hikes, and in view of the lack of a comprehensive economic policy immediately after the election, the public revised its assessments regarding the paths it expected the exchange rate and inflation to follow. The exchange rate started sliding again towards the bottom of the band, and inflation expectations dived by about 4 percentage points.⁴ After stabilizing, and even a small upward movement in August and September, a new downward trend in expectations started in October, and in December, for the first time in 1996, they were within the target inflation range.

The success of monetary policy in reversing the trend of inflation expectations in 1996 is reminiscent of events in November 1994. Then, too, three successive sharp hikes in interest led to a reversal of the persistent upward trend in expectations. Both of these instances are exceptional: in the last few years there has been a positive correlation between interest and inflation expectations (although it is difficult to adjust for the possible effects of other factors), and expectations have been based mainly on past inflation. The timing of trend changes in the past does not unequivocally indicate an inverse correlation between changes in interest and in expectations. Thus, the success of monetary policy in reducing inflation expectations in 1996, too, may derive from the intensity and persistence with which it was applied—three successive steep increases in interest—signaling a determination to reduce inflation significantly.

⁴ The decline in inflation expectations from June was actually less than would be obtained from the usual comparison of yields on Treasury bills with those on indexed bonds. This would have been the case if the heavy selling of indexed bonds by the provident funds in this period (arising from large-scale withdrawals from them) and the resulting sharp decline in the prices of these bonds, reduced the inflation-risk premium normally required for Treasury bill yields. In this event, estimated inflation, calculated on the assumption of a constant risk premium, is biased upwards by the extent of the change in the risk premium. Following three successive increases in interest, inflation expectations started falling in July, and in December came within the target range.

Cost variables

Wages

The nominal wage rose by 12 percent in 1996.

Unit labor costs serve as an overall indicator of wage-cost pressures in the business sector; in 1996 they rose by 1.3 percent in real terms, the same as in 1995. The average wage per employee post rose by 12.7 percent in the business sector, and by 13.1 percent in the public sector, compared with 10.7 and 16.2 percent respectively in 1995. Adjusted for the rise in the CPI, the average real wage increased by 1.4 percent—1.3 percent in the business sector and 1.6 percent in the public sector.

Wages do not appear to have been a major factor in the rise in inflation in 1996, but no significant reduction in it can be expected without considerable wage restraint in the public sector, where large increases were awarded to employees in the civil service and education (16 percent and 14.5 percent respectively).

Other costs

Local-currency prices of imported raw materials went up by only 2.4 percent. Local-currency prices of imported raw materials (excluding fuel and diamonds) rose by an average of only 2.4 percent, compared with increases of between 8.5 and 11 percent in 1993–95 (Figure 3.3). Fuel prices, on the other hand, went up by about 19 percent, after rising by 10.8 percent in 1995 and by very small amounts in 1993 and 1994.



Figure 3.3 Changes in Production Costs, 1992-96^a

^bRate of change of moving average of four quarters.

^c Excluding fuel and diamonds.

SOURCE: Based on Central Bureau of Statistics data.

The average rate of interest on nondirected local-currency credit rose by half a percentage point to 20.7 percent, after a jump of almost 3 percentage points from 1994 to 1995. It appears, however, that in 1996, as in 1995, the actual cost of business financing was lower, due to the growth of short-term credit in or indexed to foreign currency.

3. THE DEVELOPMENT OF PRICES

The price indices of five of the ten groups of items in the CPI rose by more in 1996 than they had in 1995, most marked being health services, food, and transport and communications. The miscellaneous item, whose weight in the index is low, was the only one to show a significant slowdown. Fruit and vegetable prices did not seriously affect overall inflation in 1996, rising moderately due to favorable weather.

Housing

The index of housing prices went up by 13.2 percent in 1996, 0.4 percentage points less than in 1995. There was a more pronounced slowdown in prices of owner-occupied apartments, which increased by 13.6 percent in 1996, compared with 14.9 percent in 1995 (Figure 3.4), but this was almost completely offset by the relatively steep rise in rent—11.8 percent, compared with 7.4 percent in 1995. Relative to the CPI excluding housing, housing prices increased by only 3.1 percent in 1996, compared with a real rise of 6.7 percent in 1995, whereas prices of owner-occupied apartments rose in real terms by only 2.7 percent. The survey of prices of owner-occupied apartments, based on prices appearing in sales contracts used for land purchase tax purposes, shows that the slowdown in their rate of increase was even more notable—a rise of 9.8 percent in 1996, down from 17.1 percent in 1995.

There were signs that prices of owner-occupied apartments were rising more moderately at the beginning of the year, but due to various measurement problems the slowdown was not reflected in their price index during the first half of the year, and this rose at an annual 23 percent, almost twice as fast as in 1995. The index did not take into account the value of gifts and easy finance terms received by purchasers of new apartments in January–June 1996. Only in the second half of the year, when contractors began to lower the prices of new apartments, and prices of second-hand apartments started responding to the slower rate of depreciation of the NIS against the dollar, did the index of housing prices begin to reflect the actual slowdown. In the fourth quarter of the year a nominal drop of 1.6 percent in prices of owner-occupied apartments was recorded, so that the rise in this index in July–December amounted to only 1.6 percent. Prices accelerated in health services, food, and transport and communications.

Housing prices increased by 13.2 percent during the year, and by 3.1 percent in real terms.



There was no significant excess demand for housing. The relatively slow increase in prices of owner-occupied apartments over and beyond the rise in the CPI indicates that in 1996, for the first time in a very long period, there was no significant excess demand in the housing market. Data on building starts and completions also support this contention: total building starts— 53,000—were above the estimated growth in housing demand—50,000 annually—and completions, at 49,000, were close to this estimate. The level of land sales for housing continued at the previous year's low level (36,640 housing units in 1996, 36,500 in 1995).

The rise in building costs moderated in 1996: the real wage per employee post in construction fell by 0.4 percent, possibly due to the large increase in the number of foreign workers. Prices of total construction inputs (including wage costs) rose by only 8.1 percent, compared with 8.9 percent in 1995.