

3

PRICES

1. MAIN DEVELOPMENTS

Prices rose in 1988 at a slightly slower rate than in the previous year. Considering the stability of the exchange rate, the slower rise of demand and production costs, and the rise in unemployment, this deceleration was scanty and cannot be regarded as real progress towards reducing Israeli inflation to the level prevailing in Western countries.

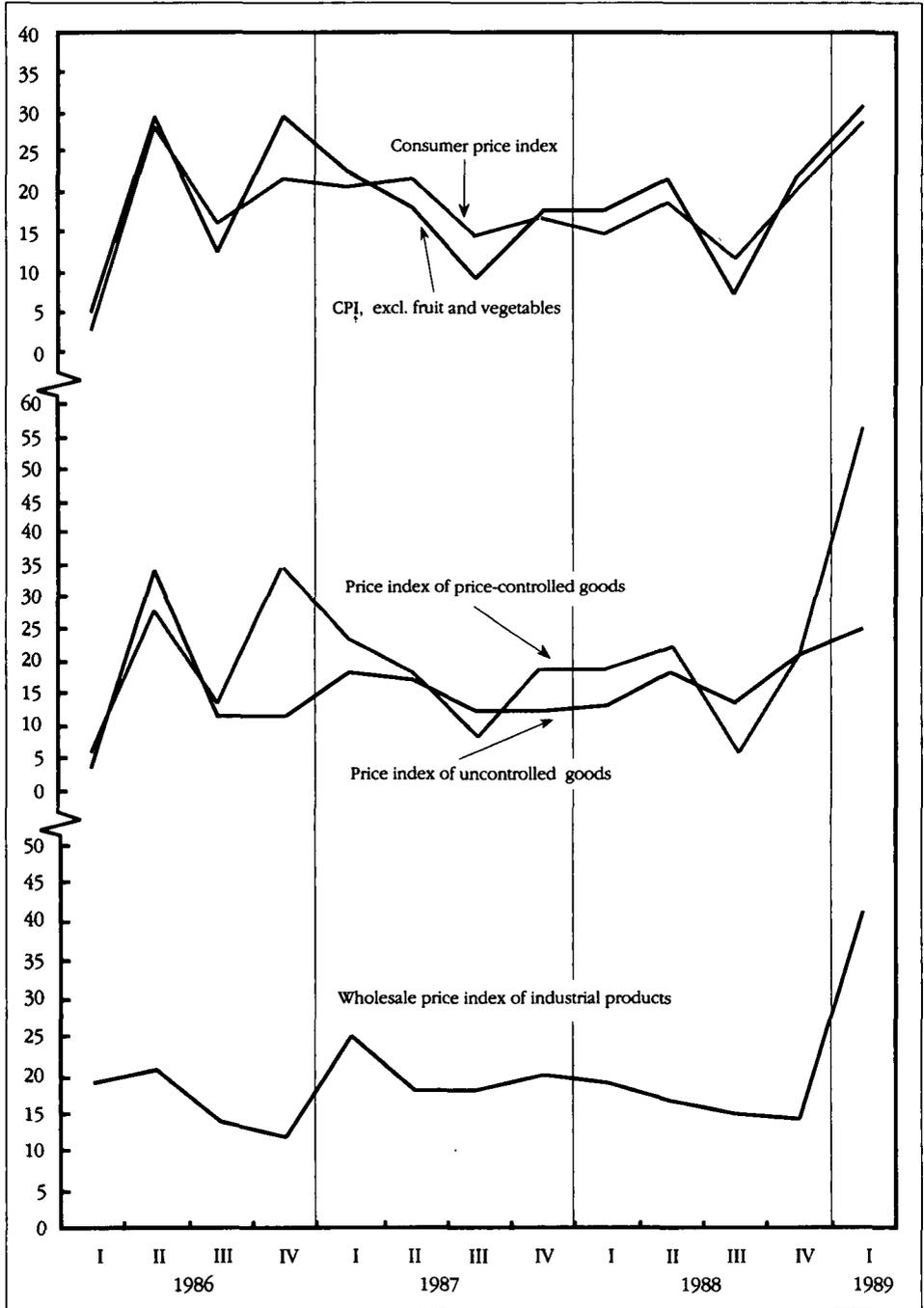
The consumer price index, excluding fruit and vegetables, rose during the year by 16 percent, following an 18 percent increase in the preceding year. The annual average of price increases exhibited a greater decline, from about 20 percent in 1987 to 16 percent in 1988. The price rise of domestic resource uses slowed from an annual average of 21 percent in 1987 to 16 percent in the year under review. The rise of the GDP price index slowed from 20 to 18 percent.

The exchange rate against the five-currency basket rose in 1988 by 1 percent, following the 14 percent devaluation in early 1987. This slowed the rise in prices of tradeable goods (import and export goods and their locally produced substitutes). However, virtually no slowdown was recorded in the price rises of other goods (excluding fruit and vegetables). Real appreciation therefore continued—prices of nontradeables rose faster than prices of imports, exports, and their substitutes. Prices of services not under price control showed a notably slower increase, but housing prices rose faster than in the previous year.

We cannot offer a full explanation for the persistent discrepancy between the general rate of price increases and that of tradeables. Between 1985 and 1987 this gap was largely due to the pressure of rapid domestic demand growth, which outstripped the expansion of production capacity. In addition, there

¹ Prices of fruit and vegetables fluctuate widely and irregularly. They may therefore bias the rate of inflation, particularly when comparing points in time rather than periodic averages. The CPI, including fruit and vegetables, rose in both years by about 16 percent.

Figure 3.1
Selected Price Indexes, 1986–1989 I
(Quarterly data, annual rates of change)



were pressures for a rapid rise of real wages. In 1988, however, these factors were much weaker. This raises the question why the slower price rise of tradeables was not paralleled by a greater reduction of the rate of inflation. Three factors seem to have been involved:

A. Despite the fact that the government held the exchange rate stable until the last days of the year, the public was not convinced that it would adhere to this policy, and even may have expected that a nominal devaluation would still come during the year (see below). These expectations apparently rested on the assumption that the government would not be prepared to pay a high price, in unemployment and damage to exports, for further progress in curbing inflation. These expectations affected the movements of prices and wages in the course of the year.

B. Since the rate and variance of inflation declined following the 1985 stabilization program, there has been a tendency to reduce the frequency with which wages were adjusted to price rises, and towards a wider use of unindexed contracts. It would seem that prices were also adjusted less frequently, and unindexed contracts were made for longer terms. These trends tend to slow, and moderate, the current response of wages and prices to short-run economic changes. These new behavior patterns in particular had a moderating effect on the response of wages and prices to the slowing of economic activity and demand growth in 1988. Also notable was the fact that the devaluations of early 1987 and the beginning of 1989 did not push the economy on to a higher inflation rate—in contrast to the usual course of events in the pre-stabilization period.

C. In 1988, demand for nontradeables increased faster than the demand for tradeables, pushing the price increases of the former above the average (see Chapter 2).

The government had committed itself in January 1987 not to raise the prices of subsidized food products until April 1988; after that date, it accelerated the price increases of subsidized products for the rest of 1988. These price rises led to an accelerated increase in the prices of price-controlled goods, which in turn had an impact on other prices.

In early 1989, the government announced a new economic policy (see Chapter 1). The policy included a devaluation of about 13 percent against the currency basket (part of the devaluation was carried out in the last days of 1988). Controlled prices were raised at the same rate during the first quarter of the year.

The devaluation fell short of the difference between the price increases of tradeables versus nontradeables and wages, which had accumulated since the previous January 1987 devaluation. The prices of nontradeables included in the CPI basket increased by 51 percent between the last quarters of 1986 and 1988. The GDP price index rose in the same period by 43 percent, and business sector wages—by 55 percent. This contrasts with a rise of 26 percent in the prices of tradeables covered by the CPI, 25 percent in the import price index, 27 percent in the export price index, and 22 percent for imported final consumer goods.²

The setting of the devaluation at a rate lower than the cumulative erosion of the real exchange rate signalled to the public that the government intended to continue using the exchange rate as an instrument for curbing inflation, with only a partial accommodation to the actual increases of prices and costs. (This signal was to some degree weakened by the interpretation given to the newly introduced range of variation of the exchange rate around its average, which was designed to curb capital movements.) In addition to the devaluation, the government decided to effect some cuts in its deficit, to reduce interest rates on local-currency credit, and to proceed with the reforms of the money and

TABLE 3.1
The Inflation Rate, 1970–88
(Annual percent change)

	Increase during period	Change in annual averages	
	CPI	CPI	GDP price index
1970–73 ^a	15.4	12.7	14.2
1974–78 ^a	41.2	38.8	39.7
1979–82 ^a	118.9	110.6	113.1
1983	190.7	145.6	149.7
1984	444.9	373.8	391.8
1985	185.2	304.6	256.8
1986	19.7	48.2	50.7
1987	16.1	19.9	20.5
1988	16.4	16.2	18.4

^a Average annual change during period.

SOURCE: Central Bureau of Statistics.

² The data are for the CPI, excluding fruit and vegetables and price-controlled goods. Import prices do not include direct defense imports, diamonds, fuel, and ships and aircraft.

capital markets, foreign trade and taxation. The implementation of these decisions is likely to prepare the ground for further disinflationary efforts.

In this context mention should be made of the new cost-of-living agreement between the Histadrut (General Federation of Labor), the employers and the government. This new agreement raised the linkage of wages to prices from a marginal 70 percent to 85 percent, but only on price rises in excess of half a percent per month. The agreement makes it possible to achieve changes in the structure of wages and their average real level at a lower rate of inflation, and reduces the pressures for wage increases designed to protect workers against future inflation.

Following the devaluation and rise in prices of goods under price control, the CPI (not including fruit and vegetables) rose by 4 percent in January 1989, and about 7 percent in the first quarter (annual rate of 29 percent). Prices of uncontrolled goods (not including fruit and vegetables), rose in this period at an annual rate of 23 percent. Compared to the period of high inflation, this increase was a more moderate response of prices to devaluation and adjustments of controlled prices. The difference is in part due to the fact that some prices were already raised in advance of the devaluation, and in part to the lesser flexibility of price and wage adjustments (see above).³

2. ECONOMIC POLICY AND THE INFLATIONARY PROCESS SINCE THE STABILIZATION PROGRAM

After a long period of mounting inflation, which had soared to over 400 percent a year, the inflation rate has in the last three years settled to an annual level of 15-20 percent. The decline in the inflation rate was the product of the July 1985 stabilization program, which rested on three main pillars: a substantial cut in the public sector deficit, the use of the exchange rate as an anchor for price movements, and a set of temporary supportive measures which included a wage and price freeze, price controls and high real interest rates (see the chapters on prices in the Bank's Annual Reports for 1985 and 1987). Despite the impressive success of the stabilization program, inflation is still 10 percent and more above the rate prevailing in the Western countries.

³ In the first quarter of 1989, prices of uncontrolled tradeables rose less than uncontrolled nontradeables (excl. fruit and vegetables). This is at least in part explained by the end-of-season price reductions of clothing and footwear, and a large increase in the price of hotel and restaurant services, following a rise in hotel rates, which are denominated in dollars.

TABLE 3.2

Selected Price Indexes, 1986-88*(Annual percent change)*

	Percent change during the year ^a			Change over previous year	
	1986	1987	1988	1987	1988
Consumer prices					
Consumer price index	19.6	16.1	16.4	19.8	16.3
CPI, excl. fruit and vegetables	16.6	18.3	16.2	19.8	16.2
Farm produce	59.2	-6.9	19.1	18.5	17.0
Manufactured products	12.4	14.8	12.4	20.0	16.2
Manufactured products excl. food, beverages and tobacco	9.3	16.5	7.6	14.7	11.6
Housing	4.5	16.2	23.2	18.4	17.5
Transport, communications, electricity and water	7.6	16.3	6.9	14.4	9.5
Services	44.1	267.3	20.9	33.8	22.8
Controlled prices	15.4	15.2	16.8	15.8	14.8
Uncontrolled prices	20.9	16.4	16.3	21.0	16.6
Tradeable goods	13.8	13.4	10.4	13.2	12.0
Uncontrolled tradeables	14.5	14.6	9.5	14.7	11.9
Nontradeable goods	23.7	17.7	21.3	24.1	19.5
Nontradeables, excl. fruit and vegetables	18.8	21.8	21.3	24.6	19.7
Nontradeables, excl. fruit and vegetables and price-controlled goods	17.2	23.1	22.4	25.9	21.0
Other prices					
Price index of GDP	27.3	18.5	20.6	20.5	18.4
Implicit price index of domestic uses ^b	24.2	19.8	16.9	21.4	16.1
Import prices ^c	11.0	16.8	7.2	18.1	9.4
Export prices ^d	6.9	15.9	9.7	16.6	10.5
Wholesale price index of industrial output	15.1	20.9	15.8	18.5	17.5
Input prices in residential construction	24.0	23.7	16.8	25.6	20.0
Exchange rates					
NIS/dollar	0.1	4.4	3.1	7.2 ^e	0.3 ^e
NIS/currency basket	6.5	14.2	1.3	14.3 ^e	2.4 ^e

^a Changes during year, according to prices of the national accounts for last quarter of the year.^b National accounts prices; excludes direct defense imports.^c National accounts prices; excludes direct defense imports, diamonds, fuel, ships and aircraft.^d National accounts prices; excludes diamonds.^e Rate of change between averages for December over December average of previous year.

SOURCE: Central Bureau of Statistics. For definitions, see the relevant tables in other chapters of this report.

Price movements between mid-1985 until the end of 1987 were mainly influenced by the following factors:

a) *Foreign trade prices*: Between the third quarter of 1985 and the last quarter of 1987, the sheqel was devalued by a cumulative 25 percent against the currency basket, an annual average of 11 percent. As a result of this devaluation and the changes in foreign currency prices, imports of final consumer goods became dearer by 18 percent per annum. Prices of imported intermediates and exports increased by 10 percent a year.

TABLE 3.3

Indicators of Prices of Tradeables and Nontradeables, 1986–88

(Index, 1986 = 100)

	National accounts prices				Consumer price index			
	Imports ^a	Exports ^b	Domestic uses ^c	GDP	Tradeables ^d		Nontradeables ^d	
					Total	Excl. controlled goods	Total	Excl. (6), fruit & veg.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Averages for period</i>								
1986	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1987	118.1	116.6	121.4	120.5	113.3	114.7	124.1	125.9
1988	129.3	128.8	140.9	142.8	126.8	128.3	148.4	152.4
1986	III	102.0	100.1	102.0	102.0	102.0	100.9	101.6
	IV	105.4	103.7	106.9	106.8	105.0	110.0	109.1
1987	I	116.3	112.6	112.8	111.3	108.0	117.3	116.1
	II	114.7	116.2	121.1	121.3	112.3	122.5	123.1
	III	118.2	117.0	123.4	122.7	114.3	125.6	129.3
	IV	123.2	120.2	128.0	126.6	118.2	131.2	135.1
1988	I	126.5	124.3	132.0	132.3	121.6	138.2	141.4
	II	127.5	127.7	140.8	143.1	126.3	146.4	148.2
	III	131.1	131.9	141.0	143.1	128.0	149.5	154.7
	IV	132.0	131.9	149.7	152.6	131.5	159.6	165.2
1989	I	–	–	–	–	138.0	137.9	172.9

^a Goods and services, excl. direct defense imports, diamonds, fuel, ships and aircraft.

^b Goods and services, excluding diamonds.

^c Excluding direct defense imports.

^d According to a preliminary classification, the nontradeables include all the services (except foreign travel), fruit and vegetables, fees and imposts, gas, electricity, butter and cheese, eggs, bread and bakery products. The other items of the CPI are classified as tradeables.

Source: Based on data of the Central Bureau of Statistics.

b) The *real appreciation*: Domestic demand increased in this period at a higher rate than the expansion of production capacity, and real wages rose rapidly and in excess of the rate warranted by the growth of demand in some sectors. The prices of nontradeables and the general price level were pushed up by these developments, in excess of the rise in foreign trade prices. These developments occurred against the general background of a trend of real appreciation during the 1980s, which went beyond the short-run effects of the movements of demand and wages.

c) An *additional factor* impeding the decline of inflation to Western rates was the need for many adjustments in relative prices and wages resulting from sharp changes brought about by the stabilization program. Due to wage (and price) rigidities, these necessary changes in some measure pushed the general price level upwards.

It might be noted that since the stabilization program, the money and credit aggregates have expanded more rapidly than prices and the current value of GDP. But it cannot be stated that the inflationary process in this period was propelled by monetary expansion. According to several indicators, the period's monetary expansion mainly reflected an adjustment of the financial aggregates to price movements and the increase in real demand for money which resulted from the substantial reduction of the inflation rate (see Chapter 8).

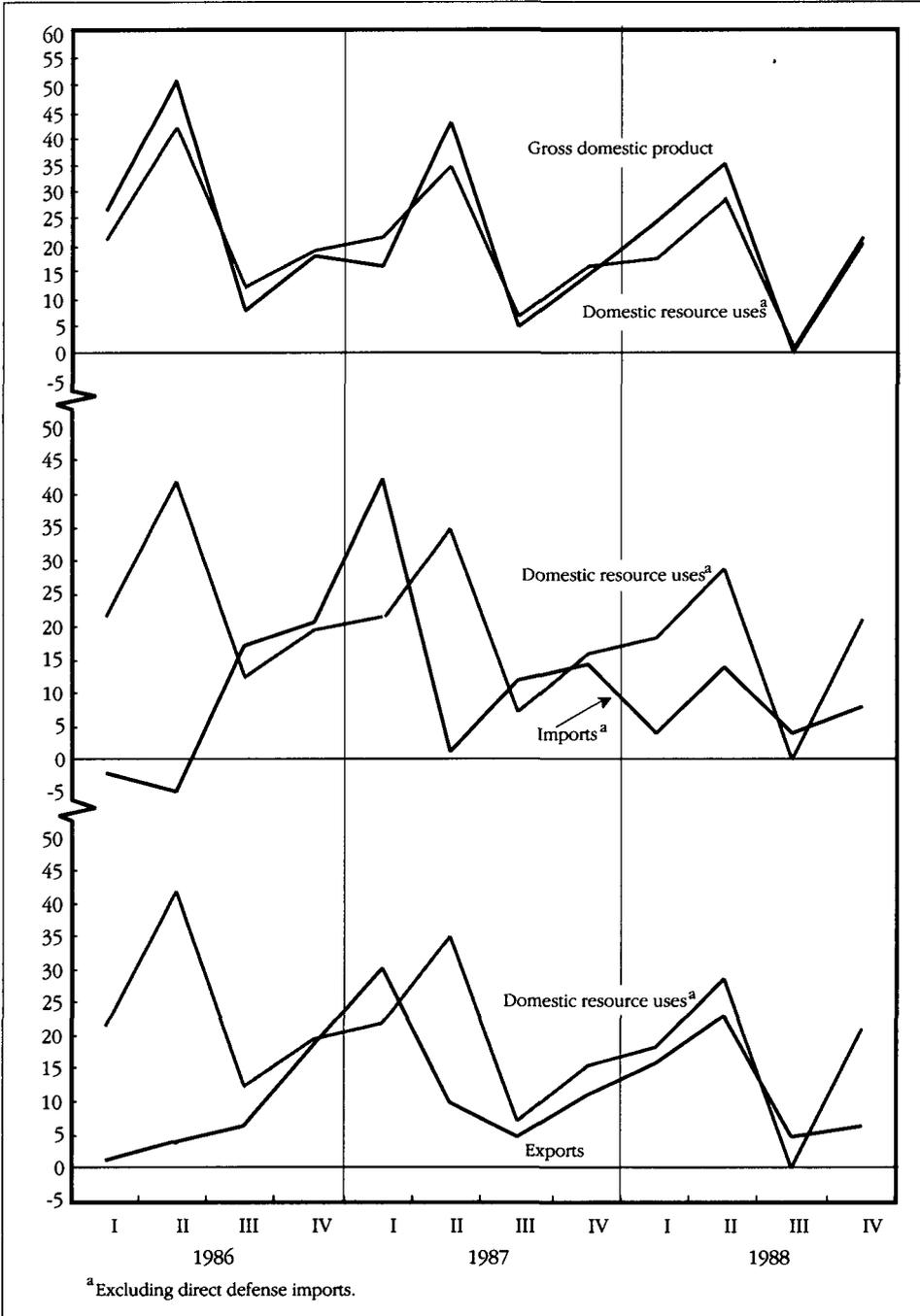
In 1988, the forces behind the price increases of the preceding two years weakened considerably. But—as stated before—the inflation rate did not fall significantly. Part of the explanation would seem to lie in behavior patterns forged by inflation in 1987–88 and the expectations it engendered.

The Pattern of Price Rises and their Fluctuations

The steep fall of the inflation rate following the stabilization program also reduced its variability, and apparently provided incentives for changes in the customary patterns of price adjustments. It may be assumed, in particular, that fewer benefits could be obtained from frequent price adjustments and the short-run linkage of specific prices to the exchange rate by sellers and buyers in the various markets.

Frequent price adjustments carry a cost. Price-setters in the private markets compare this cost to the loss involved in holding a given price for a period of time, in the face of changing market conditions and, particularly, the uncertainty regarding the erosion of the value of money. The higher these losses, the

Figure 3.2
National Accounts Prices, 1986-88
(Quarterly data, annual rates of change)



more frequently prices are adjusted. It has indeed been found that acceleration of inflation has led to more frequent price adjustments. Since the stabilization program, there has been a tendency to prolong the term of repayment of unlinked short-term financial assets, reduce the frequency with which credit cards were debited, and extend the periods of unlinked credit granted by the marketing chains and sellers of durable consumer goods. There is also evidence that suppliers are willing to offer future deliveries of goods at a pre-determined price. We have no direct empirical evidence on these changes in the patterns of conduct, but this background seems to confirm the assessment that producers have tended to reduce the frequency of price adjustments.

That trend was supported by the parallel decline in the frequency with which wages were adjusted to prices—from once a month to about twice a year. Although this was the result of an institutional arrangement—the cost-of-living allowance agreement—the readiness of the workers to sign an agreement which reduces the frequency of wage adjustments shows that the sense of risk has lessened.

The tendency of linking particular prices to the dollar apparently has also declined. Real appreciation, the non-continuity of the changes in the exchange rate, and the sharp changes in foreign cross rates have lessened the effectiveness of using the exchange rate as a price-cost indicator. It would seem that short-term linkage to general price indexes has also lost attractiveness, as may be seen from the changes in the terms of payment in the retail trade (see above).

Assuming that these processes have had a significant impact, they may have further narrowed the fluctuations of the inflation rate and led to a lesser variability of expectations, a moderation of the response of prices and wages to current developments, and greater preparedness for expected changes. Such tendencies would be consistent with recent reactions to devaluations and with the 1988 price movements (see below).

One factor which may have reinforced these trends is the relatively limited competition in the Israeli economy—itsself the product of a small domestic market, high administrative protection of local production, and extensive government involvement in the economy.⁴ Producers operating in an environment of limited competition apparently are less reluctant to raise prices and hold them for longer periods. This may be due to an absence of close

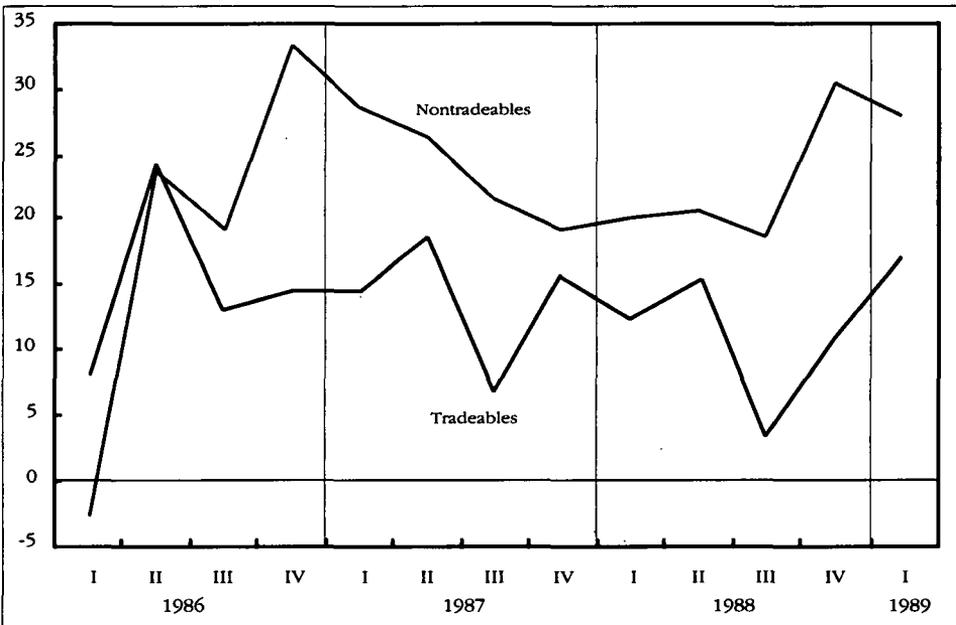
⁴According to the July 1988 report of the public committee for the supervision of monopolies and cartels, industrial concentration in Israel is twice as high as in Europe. Israel also has numerous exclusive importers.

substitutes, or because in an oligopolistic market producers tend to compete through advertising and ancillary services rather than prices. (Israel's banking system is an example.)

The above-described processes are in keeping with recent actual developments in the variance of prices. Table 3.5 indicates a decrease in the variance of monthly price rises in the consumer price index. The monthly fluctuations of relative prices in this index declined between 1985 and 1986, and further narrowed between 1986 and 1987. Table 3.6 and Figure 3.5 indicate that, between 1986 and 1988, the overall variance of annual price changes has tended to narrow in 79 product groups comprising the CPI, and especially in nontradeable goods. This downward trend, it appears, was also influenced by the partial adjustment of the price (and wage) structure to the economy's sharp post-stabilization changes.

Wage movements show a similar narrowing variance (see Chapter 4). Many of the remaining monthly wage and price variances relate to partly predictable seasonal factors, the strength of which is indicated in Fig. 3.4 and Table 3.A-1.

Figure 3.3
Prices of Tradeables and Nontradeables,^a 1986-89 I
(Quarterly data, annual rates of change)



^a Excluding price-controlled products and fruit and vegetables.

3. DETERMINANTS OF PRICE MOVEMENTS IN 1988

A. Exchange Rate Policy and the Public's Expectations

In July 1985, the government adopted the exchange rate as the principal instrument of price stabilization, but it did not commit itself unequivocally to refrain from adjusting the exchange rate. On the contrary: in the period immediately following the stabilization program the government announced that excessive price and wage increases might require such an adjustment. The stabilization program stopped the former automatic adaptation of the exchange rate to current economic developments. But the policy pursued until the end of 1987 was in accord with the judgement that the exchange rate would eventually be adjusted, to correct an undue erosion of the real exchange rate and excessive real wage increases. This assessment was consistent with the persistence of inflation at the rate to which it had settled during 1986–87.

In these circumstances, a divergence developed between the government's policy and the public's expectations during 1988. The government declared that it would adhere more firmly to exchange rate stability, and indeed maintained that until the very end of the year. At the same time, the government was less prepared to yield to demands for aid by sectors in increasing difficulties, maintaining the planned overall framework of the deficit. On the other hand, despite declarations to the contrary, the government increased its expenditure and employment, and did not proceed with adequate speed on reforms designed to reduce its involvement in the economy and promote efficiency. This signalled the public that the government was not prepared to pay a high price, in unemployment, loss of output and damage to exports, to further reduce the inflation rate. This perception was strengthened by other announcements, from which it could be deduced that the government gave short-term priority to the renewal of economic growth, and further progress in curbing inflation took second place, in view of the impressive stabilization of inflation at a level near the upper end of the range of its rate in the industrialized countries.⁵ The steep adjustments of prices of subsidized goods, which had been frozen since early 1987, may have further supported the public's assessment that the government would not for long be able to refrain from nominal devaluation.

⁵ Most industrialized countries approached this range only during a short period close to the oil crises, and then made great efforts to return to lower inflation rates. At present, the average inflation rate in these countries is 3–4 percent per annum.

At the same time, the above-mentioned changes of recent years in the patterns of price and wage adjustments moderated the response of prices to current changes in the exchange rate and economic activity.

Developments in the money and capital markets, and particularly the black-market dollar premium and the public's foreign currency purchases, provide indications of the expectations of devaluation in 1988 (see Chapters 7 and 8). Adjustments in the financial markets are very quick, and financial indicators reflect well short-term devaluation expectations. Influenced by the public's perception of the government considerations on the timing of a devaluation, these expectations peaked towards the end of the year. The great surge in demand for foreign currency is explainable only by the continued assessment that the government would in fact devalue.

Adjustment of prices, and particularly wages, is slower than adjustments in the money and capital markets. Because of that, the price-wage responses to expectations of devaluation were spread over the whole year, not concentrated in the period when devaluation was expected. Only the prices of housing, which has the characteristics of a capital good, showed a steep rise in the last quarter, paralleling the sharp response in the money and capital markets.

The public's expectations of a devaluation rested, as said before, on its firm anticipation that the inflation rate would remain stable. The persistence of this assessment expressed itself in the stability of the average price rises of non-tradeable goods (excluding fruit and vegetables and price-controlled goods), and a further narrowing of the variance of these price changes (see Table 3.6 and Figure 3.5).

The widening gap between price increases of nontradeables as compared to tradeables did not lead to an opening of a similar gap between nominal wages in these two sectors. This had a detrimental effect on output and employment in the industries producing tradeables. The inflexibility of wages in the tradeables sector is partly related to the formal and informal mechanisms which establish linkages between the wage scales of different occupations, including the minimum wage law and the cost-of-living allowance agreement.

The public's expectations seem also to have affected some prices of tradeables, which rose to a level higher than warranted by price changes abroad (see the items of industrial production in Table 3.A-2). Local production in Israel is under high administrative protection, and imports are often in the hand of sole importers. This reduces the efficacy of the exchange rate as an instrument of control over the general price level. Under these conditions, prices of tradeables in the domestic market are partly influenced by the prices

of nontradeables and wage movements. There is evidence that this year's rise in Israel's export prices was not only the result of price developments in Israel's export markets, but in part reflected decisions of Israeli producers, in reaction to the changes in local costs and the prices of nontradeables. This is consistent with the slowing of export growth, despite the expansion of world trade (see Chapter 7).

*B. Prices and the Level and Composition of
Resource Uses and Economic Activity*

The pressure of demand growth on prices weakened in 1988, as the expansion of domestic demand and GDP growth slowed (Table 3.4). Domestic resource use (excluding direct defense imports) continued to grow slightly more than GDP, but apparently this difference was not as significant as in the two preceding years. In 1986–87, the rapid increase of domestic resource uses relative to GDP growth reflected increasing pressure of demand on the economy's productive capacity. This led to a steep rise in the prices of nontradeables, the supply of which can, by definition, not be increased by more imports. The growth rate of domestic uses declined between 1986 and 1987, and the difference between it and GDP growth narrowed, but the pressure of demand on production capacity apparently continued in 1987. In contrast, the 1988 labor market data on employment and labor input, point to a weaker pressure of demand on capacity. Moreover, while the slowing of GDP growth in 1988 was largely affected by supply-side factors (see Chapter 2), some of these factors are connected with the expectations of a devaluation and with the price and wage rigidities discussed earlier. They do not, therefore, indicate a decline in the economy's overall production capacity.

An examination of the *composition* of demand, nevertheless, indicates that there was some pressure for a real appreciation, i.e., a rise in prices of nontradeables relative to prices of tradeables (see Chapter 2, and especially Table 2.A–11).

TABLE 3.4

Prices and Background Data, 1986–88*(Percent)*

	Annual average			Change during year ^a		
	1986	1987	1988	1986	1987	1988
1. Prices						
Domestic resource uses ^b	47.9	21.4	16.1	24.2	19.8	16.9
Consumer price index, excl. fruit and vegetables	46.0	19.8	16.2	16.8	18.3	16.5
2. Import and export prices						
Imports of civilian goods and services ^c	38.3	18.1	9.4	11.0	16.8	7.2
Exports of goods and services ^d	30.3	16.6	10.5	6.9	15.9	9.7
Imports of intermediates ^e	31.8	14.1	14.1	5.0	17.9	11.8
Imports of consumer goods, total	49.9	22.6	2.9	17.9	16.9	4.4
Import component of private consumption ^f	38	18	9	–	–	–
3. Real GDP and resource use						
Gross domestic product	3.6	5.2	1.6	6.6	2.6	2.4
Domestic resource uses ^b	8.7	6.1	2.1	12.2	4.2	1.9
Exports of goods and services ^d	2.5	8.9	–2.9	–0.3	9.6	–3.7
4. Nominal wages						
Business sector wages	66.4	30.7	21.9	46.8	28.1	21.0
Unit labor cost, business sector	61.6	32.8	22.5	–	–	–
5. Public sector deficit, percent of GNP						
Total deficit (–) ^g	1.9	–1.3	–4.6	–	–	–
Domestic deficit (–) ^h	2.1	–1.4	–5.2			
6. Monetary developments						
Increase in means of payment (M1)	169.4	60.2	32.3	116	59	16
Increase of M3	44.3	37.1	18.6	22	35	10
Real average interest rate on bank credit	8.2	18.8	12.8	–	–	–

^a Last quarter over last quarter of previous year.^b Excludes direct defense imports.^c National accounts estimates; excludes direct defense imports, diamonds, fuel, and ships and aircraft.^d National accounts data; excludes diamonds.^e Foreign trade statistics, at official exchange rate; excludes fuel and diamonds.^f Calculated from input-output tables; weighted by direct and indirect import components.^g National accounts estimates; see Table 5.1.^h Financial data, including interest payments; see Table 8.6.

SOURCE: Central Bureau of Statistics and Bank of Israel calculations.

TABLE 3.5

Indicators of the Variance in the Consumer Price Index, 1970–88

	Monthly price change	Standard deviation of	
		Monthly price changes	Change in relative prices ^a
1970–73	1.3	1.1	2.4
1974–78	2.9	2.3	2.9
1979–1982	6.7	2.2	4.4
1983	9.2	5.0	4.2
1984	15.2	5.6	3.4
1985	9.2	8.2	4.6
1986	1.6	1.2	2.7
1987	1.2	0.6	2.0
1988	1.2	0.8	2.6

^a Weighted average of the standard deviation of monthly relative price changes for ten principal product groups in the CPI. The relative price of each group is defined as the ratio of the price index of the group to the general CPI.

Source: Based on data of the Central Bureau of Statistics and Bank of Israel calculations.

TABLE 3.6

Average Price Rises During the Year and their Variance, Tradeables and Nontradeables, 1986–88^a

	1986		1987		1988	
	Average	Variance	Average	Variance	Average	Variance
Nontradeables	23.7	17.89	17.7	4.13	21.3	1.71
Excl. fruit and vegetables and price-controlled goods	17.2	19.76	23.1	3.92	22.4	0.83
Tradeables	13.8	1.79	13.4	1.16	10.4	1.74
Excl. price-controlled goods	14.5	1.68	14.6	1.27	9.5	0.87
Total	19.6	5.41	16.1	1.40	16.4	1.27
Excl. fruit and vegetables and price-controlled goods	17.0	4.31	19.3	1.35	16.1	1.25

^a Based on a 79 product-group classification of the CPI—41 tradeable and 39 nontradeable. See note *d* to Table 3.3.

SOURCE: Based on data of the Central Bureau of Statistics.

C. Production Costs

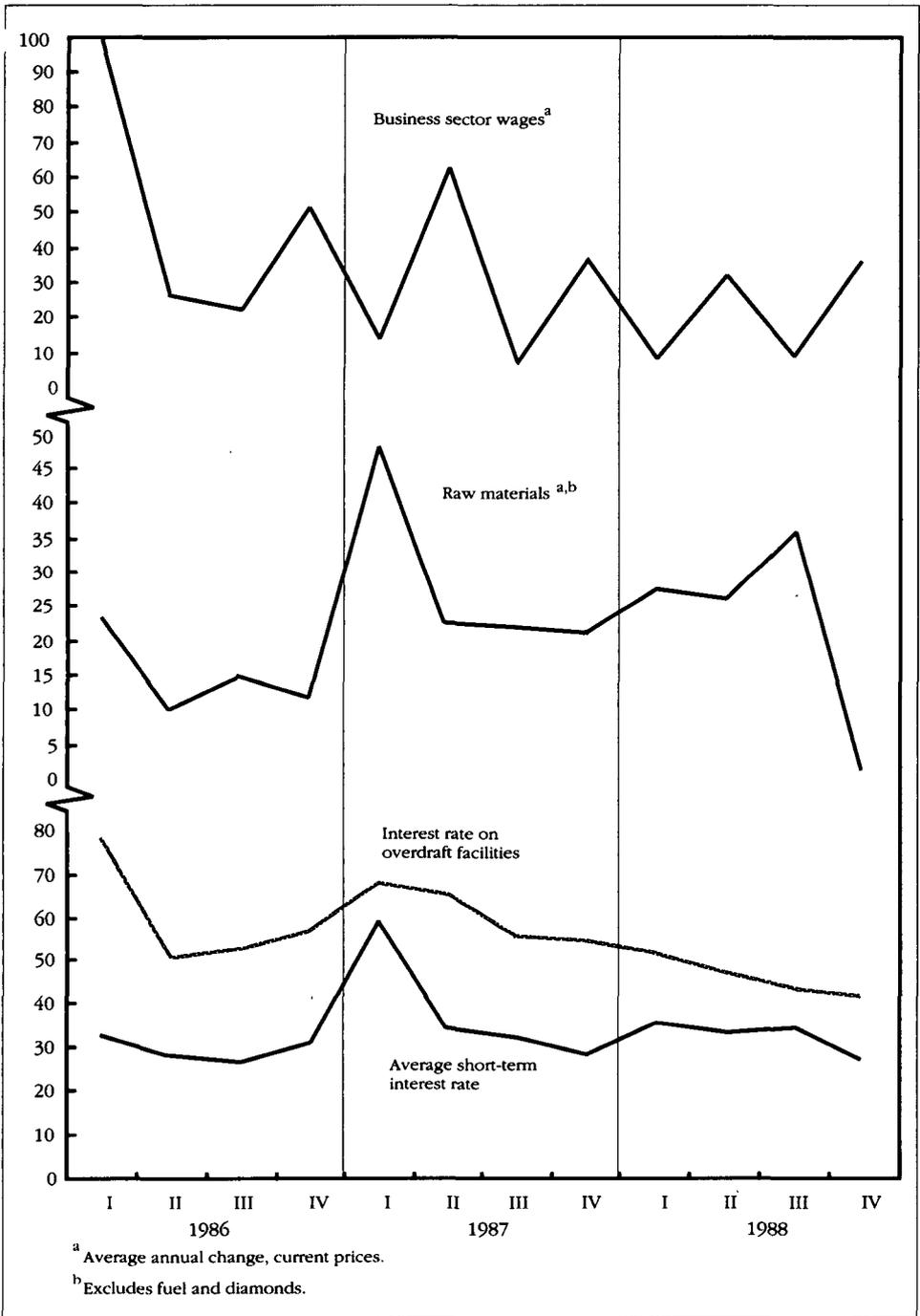
Possible supply-side influences on the development of prices can also be discerned by examining the movement of production costs (Table 3.4 and Figure 3.5). It should, however, be kept in mind that the movement of production costs is itself affected by both demand and economic activity, as well as by the development of prices and expectations about them.

Labor costs: The rise of business sector wages continued to slow in 1988, after the rapid increase in the preceding two years. Demand for labor slackened. The increase in unit labor costs in the business sector declined from 33 percent in the previous year to 22 percent in 1988—a rate closer to the rise in the general price level. Wage movements are influenced by inflationary expectations, and do not react promptly to current economic changes. This is in part due to the set of formal and informal arrangements in the labor market, among them—the cost-of-living allowance agreement which compensates for price rises only partially and with a lag, the structure of linkages between different wage scales, and the minimum wage law. It may be noted that the 1988 wage increases, like those of the previous two years, imposed a burden mainly on the tradeables sector. In the nontradeables industries, especially services, wage increases were closer to price rises in the last three years (see Chapter 4).

Imported inputs: The prices of imported intermediates, excluding fuel and diamonds, rose in the year under review by 14 percent—a rise similar to that of the preceding year. The price increase of the direct and indirect import components in domestic resource uses (excluding fuel, diamonds, ships and aircraft, and direct defense imports) declined from about 18 percent in 1987 to some 9 percent in 1988. The import components—direct and indirect—of private consumption (excluding fuel) declined similarly (Table 3.4). Fuel imports fell in price in 1988; changes in fuel prices are not fully transmitted to consumers, but the price of residual oil for industry declined in 1988 by 20 percent, while the price of diesel oil remained unchanged. Prices of electricity were raised by some 5 percent.

Financing costs: The average rate of interest on short-term bank credit remained similar to that of the last three quarters of 1987 (after a decline in the second quarter of that year). However, the rate of interest on local currency credit continued to decline. This interest rate is more important for producers

Figure 3.4
Production Costs, 1986–88
(Quarterly data, annual rates of change)



selling in the domestic market, especially producers of nontradeables. The average level of real interest nevertheless remained high. In view of the financing difficulties that had accumulated in earlier years, these high interest rates continued to weigh heavily on the producing sectors, particular those relying heavily on overdraft facilities. It would seem that some producers for the local market were able to transfer the fall in interest rates to consumers, in the form of slower price increases. On the other hand, disruptions of production in some of the firms that had run into difficulties may have affected other producers connected with them.

Taxation: of productive activity: In 1988, there were no significant changes in the rates of subsidization and taxation of business activity.

Prices of most inputs tended to rise more slowly in 1988. The slowdown in the rise of input prices was greater than that of the general price level. Particularly notable is the narrowing of the difference between wage increases and price rises, which implies that the share of profits in GDP stabilized during the year, after a two-year decline. (This is somewhat difficult to explain, in view of the boom in demand in the previous two years and its slower expansion in the year under review.) This general picture hides great differences between the developments in the tradeables sector compared to the nontradeables sector, as well as differences among the industries producing tradeables, depending on the weight of the dollar-denominated component of their activities (see Chapter 7).

In summary, in view of the exchange rate policy and overall development of demand and economic activity, it could have been expected that inflation would come down substantially in 1988. Examination of the changes in demand and economic activity indicates that there were forces at work which were to some extent able to hold back the decline of inflation. But it is doubtful whether these can explain the persistence of the rate of price inflation, nor does the development of production costs contribute to such an explanation.

It would therefore seem that in the explanation of price movements in 1988, much weight should be given to the public's assessment that the government would not be able to withstand pressures for an exchange rate adjustment, and that there would be no change of substance in the inflation rate. These expectations prevailed against the background of the changes in the adjustment patterns of wages and prices which followed the decline in inflation since 1985.

Figure 3.5
Price Rises of Tradeable and Nontradeable Product Groups in CPI, 1986-88
(Excluding price-controlled products and fruit and vegetables)

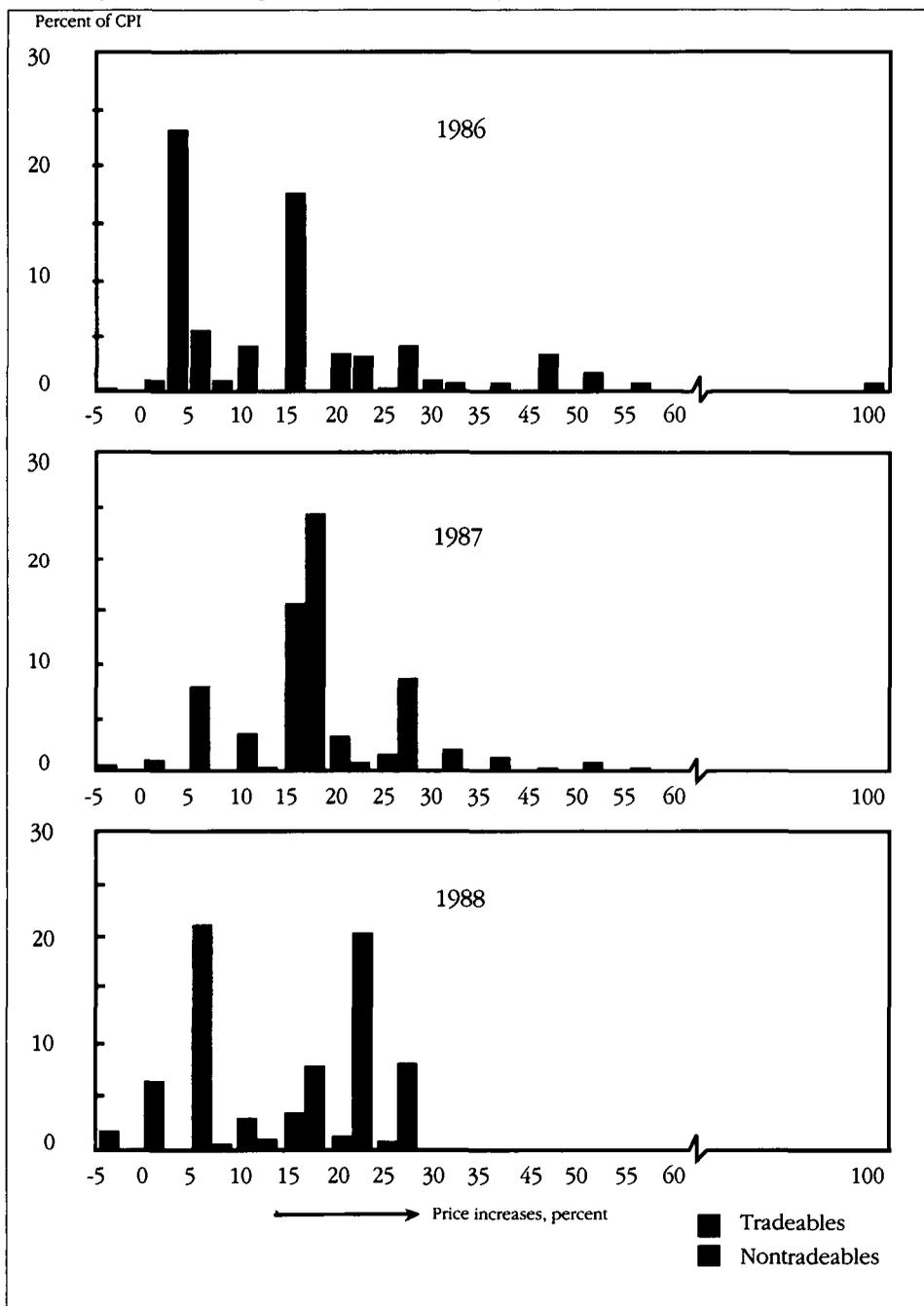


TABLE 3.A-1
Selected Price Indexes, 1986-89 I
(Annual percent change during period)

	Weight in CPI	1986	1987	1988	1987				1988				1989
					I	II	III	IV	I	II	III	IV	I
Consumer price index													
Total	1000	20	16	16	19	16	10	19	18	18	11	20	31
Excl. fruit and vegetables	939	17	18	16	22	21	13	18	14	21	9	21	29
Food, excl. fruit and veg.	186	17	14	23	23	12	8	12	21	40	12	21	62
Fruit and vegetables	61	65	-7	19	-12	-22	-22	36	91	-18	35	-5	49
Housing services	230	4	16	23	18	14	15	15	21	9	19	47	20
Price-controlled goods ^a	228	15	15	17	22	14	16	9	14	24	10	21	61
Uncontrolled goods	772	21	16	16	18	17	9	22	18	17	11	19	25
Wholesale price index of industrial output		15	21	16	32	14	18	20	17	18	13	15	44
Indexes of input prices													
Residential construction		24	24	17	35	22	25	14	28	21	9	11	26
Road construction		18	24	13	39	21	26	12	13	22	10	9	30
Agriculture		6	21	18	33	16	18	16	17	21	22	12	38
Official exchange rate^b													
U.S. dollar		0	4	3	39	-4	-1	-11	5	6	12	-9	62
5-currency basket ^c		7	14	1	60	-1	0	7	2	0	0	3	46
Wages in business sector		48	28	22	1	55	9	57	-2	32	-10	88	

^a The index of price-controlled products comprises the following items in the CPI: Flour, eggs, frozen meat, frozen poultry, edible oil and margarine, milk and dairy products, local rates, electricity, water, household gas, kindergarten, elementary and secondary school fees, cigarettes and tobacco, urban and interurban bus travel, post and telephone services, fuel, oil, driving license fees. The weight of the price-controlled goods and services in the total CPI is about 20 percent.

^b Monthly averages.

^c The basket is composed of the U.S. \$, DM, £, Ffr. and Yen, weighted in August 1986 by their share in Israel's foreign trade.

SOURCE: Central Bureau of Statistics and Bank of Israel.

TABLE 3.A-2

The Consumer Price Index by Main Industries of Origin, 1986-1989 I*(Annual percent change during period)*

	Weight in CPI	1986	1987	1988	1987				1988				1989	
					I	II	III	IV	I	II	III	IV	I	
Consumer price index														
Total	1000	20	16	16	19	16	10	19	18	18	11	20	31	
Agricultural products	67	59	-7	19	-11	-22	-15	27	84	-15	33	-4	52	
Manufactured products	430	12	15	12	17	17	4	23	6	25	3	18	27	
Food, beverages & tobacco	150	17	13	21	23	8	9	11	15	37	12	20	60	
Clothing and textile goods	67	14	14	5	-28	76	-28	88	-33	66	-27	48	-32	
Wood products & furniture	26	16	13	8	32	4	12	7	11	3	8	8	33	
Footwear, leather products, rubber and plastic products	20	11	15	7	-11	53	-12	48	-12	33	-6	20	-6	
Metal, machinery, vehicles and electrical goods	86	18	21	4	39	15	8	25	15	0	3	-1	20	
Chemical and petroleum product	42	-9	8	19	10	5	8	9	22	14	15	25	46	
Miscellaneous n.e.s.	39	19	26	8	39	14	25	25	6	7	10	9	30	
Construction and housing services	168	5	16	23	19	15	16	15	23	10	18	45	20	
Electricity and water	24	-7	16	6	21	13	18	13	15	2	4	3	55	
Transport and communication	63	13	16	7	24	32	23	-9	9	13	9	-2	57	
Services	248	44	27	21	35	28	21	25	21	26	16	21	32	
Taxes and insurance	55	58	17	18	15	18	14	20	28	14	14	19	29	
Public services	83	39	28	24	32	26	26	29	19	23	18	34	28	
Private services ^a	111	39	35	20	56	37	23	26	19	35	15	12	38	

^a Personal services, entertainment and business services.

SOURCE: Central Bureau of Statistics.