

## CHAPTER VIII

# MONEY AND CAPITAL MARKETS

This chapter deals with the growth of the public's financial asset holdings and the underlying factors. The key factor in the real expansion of these assets in 1984 was again the large government deficit and its financing mix. The government's domestic deficit<sup>1</sup> rose to 16 percent of GNP, after standing at 11 percent in 1983 and 15 percent in 1982. Together with the increase in the deficit, the problems connected with the composition of its financing<sup>2</sup> became more acute. In the past it was covered primarily through the sale of financial assets to the public (borrowing from the public), but the last two years witnessed an enormous growth in private sector purchases of foreign currency from the government (through the Bank of Israel), and this became the chief source of financing. The supplying of foreign currency to the public increased the government's net external debt, intensifying the balance of payments strain. Another source for the expansion of the public's financial portfolio was the larger amount of credit extended this year by the public sector, Bank of Israel, and financial intermediaries. These factors taken together were responsible for the acquisition of financial assets in an amount equivalent to 5 percent of GNP, which was more than in 1983 but less than in previous years. Monetary developments were also influenced by the escalation of inflation from a 7 percent average monthly rate before October 1983 to 15 percent or more thereafter. Since the bulk of the assets and liabilities in the economy are indexed, the more rapid rise in consumer prices resulted in a similar nominal acceleration of all monetary aggregates, namely the public's asset holdings and credit.

The public's financial portfolio swelled nominally at a 16 percent average monthly rate during the year, and in real terms by a total of 14 percent.<sup>3</sup> This

<sup>1</sup> The government's domestic deficit, including interest paid, as defined in Table VIII-6. In this chapter the deficit is calculated on a cash-flow basis, and so it differs somewhat from the deficit (demand surplus) in Chapter V, which is based on a national accounts measurement of the government's activities.

<sup>2</sup> As projected in the budget, the government deficit is financed through direct borrowing from the public and Bank of Israel loans, but in practice the public uses part of the loan proceeds for purchasing foreign currency and other assets (Patam—sheqel deposits denominated in foreign exchange) from the Bank. It follows that the deficit is actually financed through the government's total borrowing from the public and the Bank of Israel plus the sale of foreign currency to the public.

<sup>3</sup> Financial assets as defined in Table VIII-A11. The real increase in the public's holdings

**Table VIII-1**  
**MONETARY INDICATORS, 1979-84**

	Average balance relative to annual GNP (%)								Percent nominal average monthly increase during the period					
									1984					
	1979	1980	1981	1982	1983	Total	Jan.- Oct.	Nov.- Dec.	1981	1982	1983	Total	Jan.- Oct.	Nov.- Dec.
1. Narrow money base <sup>a</sup>	4.9	3.5	2.8	2.7	2.5	2.0	1.9	2.3	6.5	5.9	8.4	15.3	12.0	33.3
2. Unlinked liquid assets <sup>b</sup>	8.7	6.5	6.0	6.5	6.8	5.9	5.9	5.7	6.7	9.0	7.8	14.7	13.3	21.9
3. Liquid assets <sup>c</sup>	40.7	39.0	37.2	39.2	38.0	38.9	38.9	38.8	6.3	7.1	10.1	15.4	15.6	14.1
4. Liquid assets plus bank shares	55.5	51.0	55.9	63.0	63.8	51.5	51.2	52.2	7.4	8.3	7.3	15.6	16.0	13.7
5. Total financial assets <sup>e</sup>	147.8	152.7	162.4	199.7	194.7	201.8	201.9	182.7	7.4	9.4	7.2	16.4	16.2	17.4
6. Bank credit (excl. fuel) to private nonfinancial sector <sup>d</sup>	30.6	26.5	22.7	20.7	18.7	17.7	17.4	18.3	5.1	7.5	7.3	16.4	16.6	15.2
7. Medium- and long-term credit <sup>e</sup>	29.0	24.7	23.6	27.8	33.2	37.3	37.7	36.9	7.0	8.3	9.7	16.3	16.1	16.9
8. Net financial wealth of private nonfinancial sector <sup>f</sup>	93.9	100.1	108.1	122.8	118.5	104.7	104.9	103.5	8.1	8.0	7.8	16.2	14.6	21.1
9. Consumer price index									6.0	7.2	9.3	15.2	16.0	11.4
10. Exchange rate (IS/\$)									6.2	6.6	10.2	16.0	16.9	11.5

<sup>a</sup> Source: Table VIII-A8.

<sup>b</sup> Money (M1), time deposits, and CDs, as detailed in Table VIII-A11.

<sup>c</sup> As detailed in Table VIII-A11.

<sup>d</sup> As detailed in Table VIII-A19.

<sup>e</sup> As detailed in Table VIII-A17.

<sup>f</sup> As detailed in Table VIII-A15.

SOURCE: Bank of Israel calculations.

offset more than half the erosion caused by last year's stock market crisis. The liquid asset aggregate,<sup>4</sup> which includes short-term assets, also expanded in real terms, but much more mildly—2 percent in December levels, or at a 15.5 percent average nominal monthly rate. Nevertheless the total portfolio became less liquid in 1984 because of the discontinuation last October of the supporting of bank shares, which until then had been perceived as a liquid asset. Short-term bank credit rose nominally by an average of 16 percent a month, or by a total of over 10 percent in real terms, with most of the growth taking place toward the end of the year, despite a steep increase in the real cost of such finance. The average balance of this type of credit shrank 3 percent in 1984. Outstanding long-term credit did not grow in real terms, and in nominal terms it went up at a 16 percent average monthly rate. Nevertheless there was a steep drop (16 percent) in the incremental flow of new long-term credit.

A large government deficit has been a longstanding feature of the Israeli economy; its impact is felt in most macroeconomic areas, including the monetary sector. Throughout most of the past decade the deficit was equivalent to 15 percent or more of GNP; in 1981 it reached 17 percent following an increase in government spending and despite a larger tax collection. In the next two years it retreated somewhat, but in 1984 it again rose strongly, owing to a much smaller tax revenue and a heavier subsidy bill. The drop in tax revenue was partly due to the accelerated erosion of most taxes because of rising inflation.

Despite the high inflation that has persisted for the past several years, the deficit has been financed only fractionally by money creation; for the most part it has been financed by issuing indexed government bonds of varying degrees of liquidity and by selling foreign currency to the public. This financing mix could be sustained as long as the public was ready to continue expanding its portfolio of value-linked assets, which consist mostly of direct government liabilities, and as long as there was an adequate supply of foreign currency. In 1978–82 the government covered 75 percent of the deficit by increasing its domestic debt, and 16 percent by selling foreign currency to the public (see Table VIII–6). The last two years saw a substantive change: a decline in the issuance of debt and a larger volume of foreign currency purchases by the public. In 1984 the latter source financed close to 60 percent of the deficit, and domestic debt only 23 percent. The growing weight of foreign currency purchases has forced the govern-

cited here is not an exact estimate, since the asset balances are end-of-month data while the consumer price index is calculated for the middle of the month. This biases the data for 1984 in particular because of the slowing of inflation toward the end of the year. The real increase was actually 5 percentage points higher for liquid assets and short-term credit, and 3 points higher for the total financial portfolio, which also includes illiquid assets and assets not immediately convertible into cash.

<sup>4</sup> Liquid assets as defined in Table VIII–A11. Tradable bonds are included in this category, although they have become less liquid of late.

Table VIII-2

**SOURCES AND DISTRIBUTION OF NOMINAL INCREASE IN LIQUIDITY GENERATED BY EXTERNAL INJECTIONS, 1979-84**  
(IS billion, at current prices)

	Percent of GNP <sup>a</sup>												
	1983	1984			Average 1979-81	1984			1982	1983	Total	I-III	IV
		Total	I-III	IV		Total	I-III	IV					
1. Sources of incremental domestic liquidity													
a. Public sector external injection <sup>b</sup>	145.9	746.3	414.8	331.5	10.6	10.3	9.2	10.5	10.4	11.0			
b. Bank of Israel external injection <sup>b</sup>	53.8	95.4	76.1	19.3	2.5 <sup>c</sup>	-1.2 <sup>c</sup>	3.9	1.6	1.8	0.9			
c. Total external injection (a + b)	199.7	841.7	490.9	350.8	13.2	9.0	13.1	12.1	12.2	11.9			
d. Leakage through balance of payments	101.6	538.0	417.8	120.2	4.1	2.7	6.7	9.0	10.6	4.1			
e. Total injection (c-d)	98.2	303.7	73.1	230.6	9.0	6.4	6.4	3.1	1.6	7.8			
2. Distribution of incremental domestic liquidity													
f. Money creation (=change in money base)	31.7	230.9	104.9	126.0	1.7	1.8	2.4	3.1	2.8	4.1			
g. Addition to linked liquid asset base	70.4	56.2	-51.1	107.3	1.2	-0.4	4.4	0.6	-0.4	3.6			
(1) Foreign currency deposits <sup>d</sup>	85.3	40.8	-31.7	72.5	1.4	0.9	5.6	1.0	0.5	2.5			
(2) Tradable bonds	-14.9	15.4	-19.4	34.8	-0.2	-1.3	-1.2	-0.4	-0.8	1.1			
h. Addition to medium- and long-term asset base	-3.9	16.6	19.3	-2.7	6.2	5.0	-0.3	-0.6	-0.8	0.1			
(1) Patam restitution deposits	10.3	14.0	13.5	0.5	0.4	1.0	0.4	0.4	0.5	0.1			
(2) Savings schemes and social insurance funds <sup>e</sup>	-14.2	2.5	5.7	-3.2	5.8	4.0	-0.8	-1.0	-1.4	-0.0			

<sup>a</sup> Calculated as the standardized monthly average of the relevant flows.

<sup>b</sup> For a breakdown of the external injection see Table VIII-4.

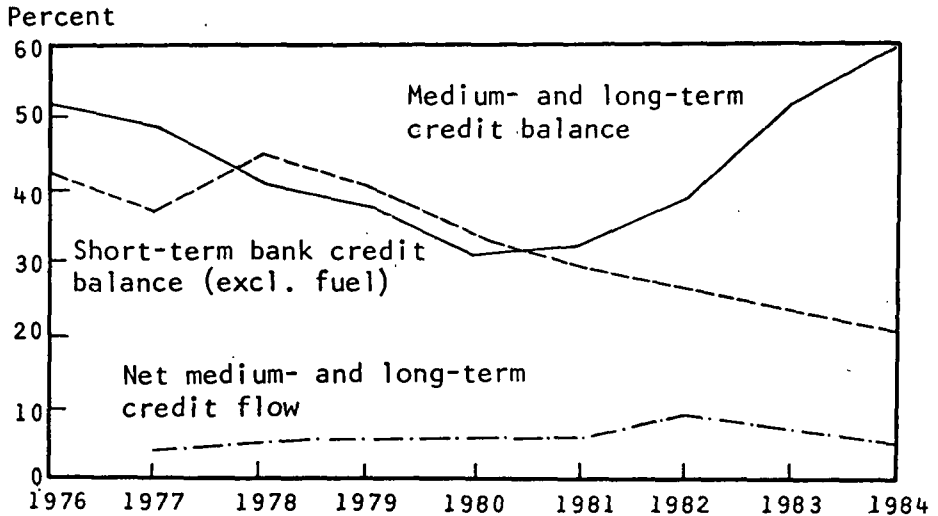
<sup>c</sup> The data are biased downward, since they are net of the transfer of the export funds from the Bank of Israel to the commercial banks. The transfer has to be added back in order to render the data for 1981 and 1982 comparable with the data for the other years (the correction appears in line 2b in Table VIII-4).

<sup>d</sup> Excludes Patach deposits of Israeli residents.

<sup>e</sup> Net long-term government borrowing from the private sector, including early redemption of State of Israel Bonds.

Figure VIII-1

AVERAGE CREDIT BALANCES AND FLOWS RELATIVE TO BUSINESS SECTOR PRODUCT, 1976-84



ment to borrow heavily from abroad, with a consequent aggravation of the balance of payments problem.

In this country the deficit financing mix is largely a function of the public's preferences. This is because Israel is an open economy, and a large percentage of the financial assets are not tradable and their yield is determined not by the market but by institutional arrangements. In the year reviewed tradable bond prices became more volatile, and the yield on bank shares was determined by the market rather than by the banks' intervention, as had previously been the case. But there were still numerous assets with a small yield range.<sup>6</sup> The variation in the financing mix in the last two years thus largely reflected the public's behavior, namely a diminishing desire to continue lending to the government and a growing tendency to acquire foreign currency in anticipation of a change in relative yields, i.e. a higher yield on foreign currency-linked assets, both financial and tangible.

The public's ebbing desire to keep on expanding its net lending to the government at the prevailing yields is explained primarily by the huge domestic debt, which

<sup>6</sup> Foreign currency-linked assets in particular have a narrow yield range, but to some extent this is also true of other assets. It is Israel's open economy, combined with its exchange rate regime, that limits the yield range of foreign currency. Accordingly, in certain conditions the existence of foreign currency-linked assets is not necessarily a drawback, and it even prevents speculation in foreign exchange reserves.

continued to pile up last year following the bank share arrangement worked out after the collapse of these equities in October 1983,<sup>6</sup> and by the fear of a possible impairment of the terms of part of the debt. These jitters were intensified by the inflation-related yield losses suffered by some of the assets, as well as by the decreased liquidity of other assets because of recently imposed restrictions.<sup>7</sup>

The expectation of a higher yield on foreign currency-linked assets induced a preference for such assets and stimulated advance purchases of imported consumer and capital goods in 1983, pulling down the rate of current private saving. The waning desire of the public to lend to the government and its preference for foreign currency-linked assets were reflected by a more buoyant demand for foreign currency for portfolio purposes—a trend that began in the summer of 1983 and continued throughout the year reviewed. This has heightened fears of a more severe balance of payments financing problem because of the running down of the central bank's foreign reserves, even though total foreign currency assets in the economy remain unchanged. Hence the growing difficulties encountered by the government in funding its deficit through an increased external debt.<sup>8</sup>

Besides the decisive influence of the government deficit on the accumulation of financial assets, the flow of credit to the private sector has also contributed to the expansion of the financial portfolio. This originates in two sources. One is the credit granted by the authorities (the government and the Bank of Israel), which necessitates additional financing. The second source is the system of financial intermediaries, which provide credit in accordance with domestic demand conditions and subject to monetary policy. This credit too permits the expansion of the public's asset holdings and the quantity of money in the economy.

The factors feeding the monetary growth operate jointly and simultaneously. We shall describe them one by one: first, the contribution of the authorities to the financial asset base, i.e. the contribution of the government deficit and the credit supplied by the public sector and the Bank of Israel (the external injection); second, the contribution of the financial intermediaries (the difference between the acquisition of financial assets and the addition to the financial asset base); and third, the inflationary effect of the appreciation of nominal asset balances, which quantitatively is the most important factor of all.

<sup>6</sup> This arrangement has transformed the bank shares involved into a possible government debt.

<sup>7</sup> The reference is to the worsening of the terms of Patam in the last year and a half.

<sup>8</sup> The way to counter this development in the short run is to increase the rate of return on the domestic debt, especially on the closest substitute for foreign currency, viz. Patam. But this was not done: the yield on Patam declined, and the payment of a higher interest on renewed savings was in effect compensation for the indexation loss incurred on the redemption of savings scheme accounts reaching maturity, rather than an increase in the interest rate on new savings.

**Table VIII-3**  
**GROWTH OF FINANCIAL ASSETS OF THE PUBLIC, 1979-84**  
 (IS billion)

	Percent of GNP <sup>a</sup>								
	1983	1984			Average 1979-82	1983	1984		
		Total	1st half	2nd half			Total	1st half	2nd half
<b>1. Contribution of injections and financial intermediation</b>									
<b>a. Total injection<sup>b</sup></b>	47.5	325.0	50.5	274.5	9.1	3.5	5.0	2.7	5.9
(1) Addition to liquid asset base <sup>c</sup>	105.5	305.3	84.0	221.4	3.2	7.8	4.7	4.5	4.8
(2) Purchase (-) of bank shares by the government	-54.1	3.1	1.0	2.1	0.0	-4.0	0.0	0.1	0.0
(3) Addition to medium- and long-term asset base	-3.9	16.6	-34.4	51.0	5.9	-0.3	0.3	-1.8	1.1
<b>b. Growth due to domestic financial intermediation</b>	-16.5	2.4	-34.1	36.5	1.6	-1.2	0.0	-1.8	0.8
<b>c. Purchase of assets by the public</b>	31.1	327.3	16.4	311.0	10.6	2.3	5.0	0.9	6.7
(1) Liquid assets	45.2	-54.6	-23.5	-31.1	2.4	3.3	-0.8	-1.3	-0.7
(2) Shares of financial concerns	-58.0	-1.4	-0.2	-1.2	1.0	-4.3	-0.0	-0.0	-0.0
(3) Medium- and long-term assets	43.9	383.4	40.0	343.4	7.2	3.2	5.9	2.1	7.4
<b>2. Contribution of asset revaluation</b>									
<b>d. Total revaluation</b>	2,186.2	17,834.9	4,322.9	13,512.0	115.8	160.8	275.0	231.5	292.5
(1) Liquid assets	560.7	3,978.0	1,061.6	2,916.4	25.9	41.2	61.3	56.9	63.1
Thereof: Interest on unlinked assets	34.7	410.6	111.1	299.5	1.1	4.1	8.9	5.9	10.8
(2) Shares of financial concerns	99.6	1,575.6	328.2	1,247.4	19.5	7.3	24.3	17.6	27.0
(3) Medium- and long-term assets	1,525.9	12,281.3	2,933.2	9,348.1	70.4	112.2	189.4	157.1	202.4
<b>3. Total contribution (1c + 2d)</b>									
						Percent nominal change relative to beginning-of-period balance, at monthly rates			
<b>e. Change in asset balances<sup>d</sup></b>	2,217.3	18,162.3	4,339.3	13,823.0		8.3	16.2	14.2	17.9
(1) Liquid assets	605.9	3,923.4	1,038.1	2,885.3		10.3	15.2	13.8	16.5
(2) Shares of financial concerns	41.5	1,574.2	328.0	1,246.2		0.4	16.2	12.8	19.8
(3) Medium- and long-term assets	1,569.8	12,664.7	2,973.2	9,691.5		9.4	16.6	14.5	18.2

<sup>a</sup> Calculated as the standardized monthly average of the relevant flows.

<sup>b</sup> Public sector and Bank of Israel injections, less leakage through the balance of payments. The discrepancies between the data here and those in Table VIII-2, line 1(e) stem from government purchases of bank shares and the acquisition of Patach deposits (nonresident deposits of Israeli residents) by the public.

(1) The sources of the public sector and Bank of Israel external injections<sup>9</sup> are presented in Tables VIII-2 and VIII-4. In 1984 the public sector injection was equivalent to 10.5 percent of GNP, about the same as in 1982 but higher than in 1983 (9 percent). This year's increase was the net outcome of a much larger government deficit and a decline in credit to the private sector. The Bank of Israel injection amounted to less than 2 percent of GNP this year, as against 4 percent in 1983. This reflected a slight drop in the outflow of directed credit and in discount-window lending (less than 1 percent of GNP, compared with more than 2 percent last year). The Bank's contribution actually decreased more than indicated here, for the discount-window loan this year replaced the previous system of liquidity deficiencies (see Table VIII-5).

The total external injection came to 12 percent of GNP in 1984, but most of it leaked out of the economy because of the large-scale purchase of foreign currency: this amounted to 9 percent of GNP, which exceeded last year's purchases (7 percent of GNP), most of which were made in the final part of the year.<sup>10</sup> This massive acquisition of foreign currency in the last two years mirrored the public's expectation of a change in its price and a diminished readiness to increase its lending to the government at the prevailing yields. The 1983 purchases were accompanied by a drop in the rate of private saving, and in part were intended to finance the import of consumer durables; this year the private saving rate rose, the balance of payments deficit was whittled down, but there was an increased propensity to save directly in foreign currency assets.

Because of the enormous purchase of foreign currency, only a quarter of the external injection (about 3 percent of GNP) was channeled to the acquisition of domestic assets. This was a very low rate compared with previous years—an average of 6.5 percent of GNP in 1983-84 and 9 percent in the three preceding years.

The net addition to the public's linked asset base<sup>11</sup> was negligible in 1984, in contrast to 4 percent or more of GNP in previous years. The external injections nevertheless contributed to the accumulation of foreign currency assets, whose magnitude cannot be ascertained for lack of data.<sup>12</sup> It should be noted that redemptions of government bonds and savings schemes were equivalent to 12 percent of GNP, but at the same time the public purchased new savings schemes in a similar amount; in other words, there was a sizable rollover of domestic debt.

<sup>9</sup> For lack of data, interest paid by the public sector and the Bank of Israel to the public is not included in the external injections or in the additions to the asset base in Table VIII-2 (apart from the interest on Patam).

<sup>10</sup> In the fourth quarter of 1983 foreign currency purchases amounted to 12.5 percent of GNP.

<sup>11</sup> The addition to the linked asset base less the interest paid on such assets.

<sup>12</sup> In this chapter the accumulation of such assets is treated as a leakage via the balance of payments (the purchase of foreign currency by the public).



**Table VIII-4**  
**PUBLIC SECTOR AND BANK OF ISRAEL EXTERNAL INJECTIONS AND LEAKAGE**  
**VIA THE BALANCE OF PAYMENTS, 1979-84**

	IS billion, at current prices				Percent of GNP <sup>a</sup>					
	1983	1984			Average 1979-81	1982	1983	1984		
		Total	I-III	IV				Total	I-III	IV
<b>1. Public sector</b>										
a. Estimated public sector expenditure (purchases, payroll, transfer payments, subsidies)	702.6	3,285.5	1,852.9	1,432.5	50.1	52.6	51.5	49.8	50.3	48.5
b. Tax receipts	649.6	2,622.2	1,502.7	1,119.5	43.3	46.1	48.1	40.8	41.7	38.0
c. Public sector deficit, <sup>b</sup> excl. interest on domestic debt (a-b)	52.9	663.2	350.2	313.0	6.8	6.5	3.4	9.1	8.6	10.4
d. Credit granted to private sector <sup>c</sup>	93.0	83.1	64.6	18.5	3.8	3.7	5.8	1.5	1.7	0.6
e. Total public sector external injection (c+d)	145.9	746.3	414.8	331.5	10.6	10.3	9.2	10.5	10.4	11.0
<b>2. Bank of Israel</b>										
a. Directed credit granted	24.7	64.2	57.3	6.9	1.4	-3.0	1.5	1.3	1.7	0.2
b. Transfer of export funds to commercial banks	0.0	0.0	0.0	0.0	1.0	2.9	0.0	0.0		0.0
c. Discount-window loan	30.1	63.2	51.2	11.9	0.2	0.8	1.9	0.7	0.6	0.7
d. Other factors	-1.0	-31.9	-32.4	0.4	1.0	1.0	0.5	-0.4	-0.5	-0.1
e. Total Bank of Israel external injection										
Excl. transfer of export funds to coml. banks	53.8	95.4	76.1	19.3	2.5	-1.2	3.9	1.6	1.8	0.9
Incl. transfer of export funds to coml. banks	53.8	95.4	76.1	19.3	3.6	1.7	3.9	1.6	1.8	0.9
<b>3. Balance of payments</b>										
a. Private sector current account deficit	136.0	475.5	381.8	93.7	4.5	7.9	9.9	7.8	9.4	3.2
b. Private sector capital import	34.4	-62.5	-36.0	-26.5	0.4	5.2	3.2	-1.1	-1.2	-0.9
c. Leakage through balance of payments (purchase of foreign currency by the public (a-b))	101.6	538.0	417.8	120.2	4.1	2.7	6.7	9.0	10.6	4.1

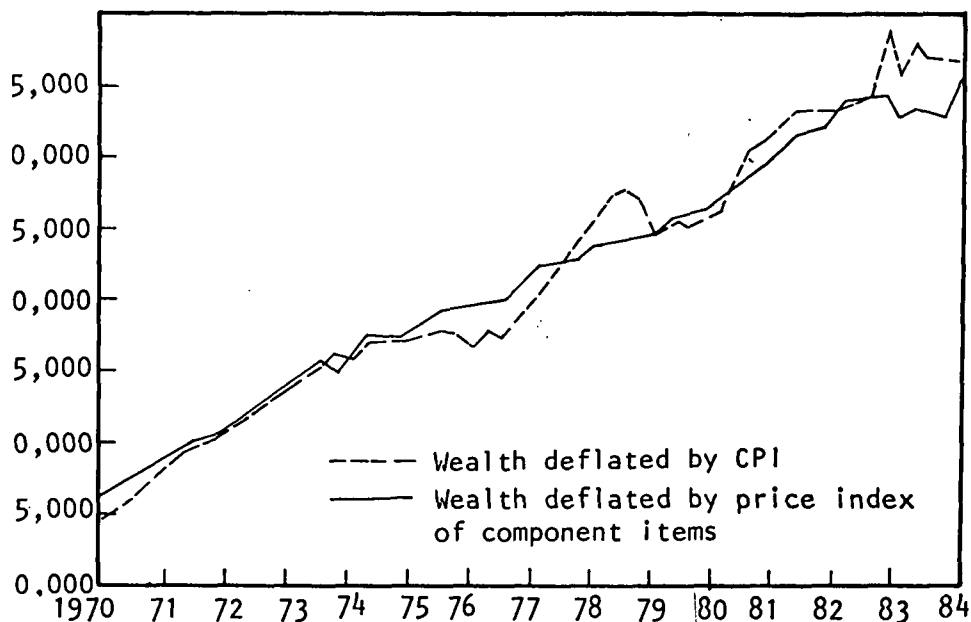
<sup>a</sup> For each period the relevant datum has been divided by GNP for that period.

<sup>b</sup> Domestic deficit of the public sector (government and Jewish Agency) plus net credit granted by the government to the private sector.

<sup>c</sup> Beginning in 1983 includes the purchase of "arrangement" bank shares by the government.

Figure VIII-2

THE PUBLIC'S WEALTH, 1970-84  
(IS billion, at Dec. 1975 prices)



Money creation (the change in the money base) rose from 2 percent of GNP in 1983 to 3 percent this year. The upswing began in the fourth quarter of 1983, following the acceleration of inflation, and is explained by two factors. One was the growing inflation-induced erosion of sheqel assets, especially money (M1), and this despite the public's efforts to reduce its holdings of such assets; that is, there was an increase in the velocity. The second factor was the Bank of Israel's policy of encouraging the sheqel segment, as reflected by low liquidity ratios on sheqel deposits and the payment of a high nominal interest on part of the money base.<sup>13</sup> This policy enabled the commercial banks to pay their customers a higher nominal interest on unlinked assets, and recently also on demand deposits. Thus monetary policy led to a more intensive use of money and the money base and averted a further increase in velocity, which would have hampered the functioning of the economy. However, the interest paid by the Bank of Israel reduces its net revenue from money creation; less interest outlay, revenue from this source expanded less than indicated above (see Table VIII-A2, col. 1 minus col. 2).<sup>14</sup>

<sup>13</sup> The part held in the Bank of Israel against demand and other sheqel deposits, in accordance with the liquidity requirements.

<sup>14</sup> See the section on "Monetary Developments and Their Effect on Inflation, the Balance of Payments, and Economic Activity".

(2) This year's smaller addition to the linked asset base also curtailed the financial intermediaries' domestic growth potential.<sup>15</sup> This applied in particular to their sources of long-term credit—savings schemes and social insurance funds, which had a modest net accumulation this year. But short-term credit was likewise affected,<sup>16</sup> owing to the limited accumulation of short-term assets, and in the first half of the year also to the public's preference for foreign currency-linked assets over sheqel assets because of an anticipated change in the price of foreign currency. Under the prevailing monetary policy these changes in the composition of the public's financial portfolio led to a monetary squeeze because of the disparate liquidity ratios in force: low ratios on sheqel assets and high ratios (100 percent) on assets linked to foreign currency.

The total contribution of the financial intermediaries to the public's asset acquisition (less interest paid) was quite modest in 1984, but still slightly larger than in 1983; this followed many years of sizable contribution (see Table VIII-3). Purchases of such assets amounted to only 5 percent of GNP this year, but account must also be taken of the intermediaries' current interest outlay, which for lack of data is not included in asset acquisition.<sup>17</sup>

(3) The influence of inflation on the nominal growth of the assets portfolio is connected with the value-linkage mechanism which evolved in the wake of the persistent high inflation. This mechanism has blunted some of its harmful effects by enabling the economy to function in such an environment. The linkage devices cover *inter alia* assets and credit, including some but not all domestic interest rates. Nevertheless there still exists an unlinked sheqel segment, which monetary policy has encouraged in the last two or three years.

The impact of inflation on the monetary aggregates (the public's assets and liabilities) is manifested in two ways. On the one hand, a substantial part of the public's assets portfolio and the credit it receives from the government and the commercial banking system is fully pegged to the consumer price index, and the aggravation of inflation has swollen these aggregates in nominal terms. At the same time, it has also resulted in a growing real erosion of assets and credit that are only partly indexed or not indexed at all.<sup>18</sup> This has increased the need for new increments, which for the most part have been supplied by external injections. The erosion has been particularly heavy in the case of the sheqel

<sup>15</sup> The system of financial intermediaries consists of the commercial banks, cooperative credit societies, investment and mortgage banks, financial institutions required to report to the Examiner of Banks, insurance companies, and social insurance funds.

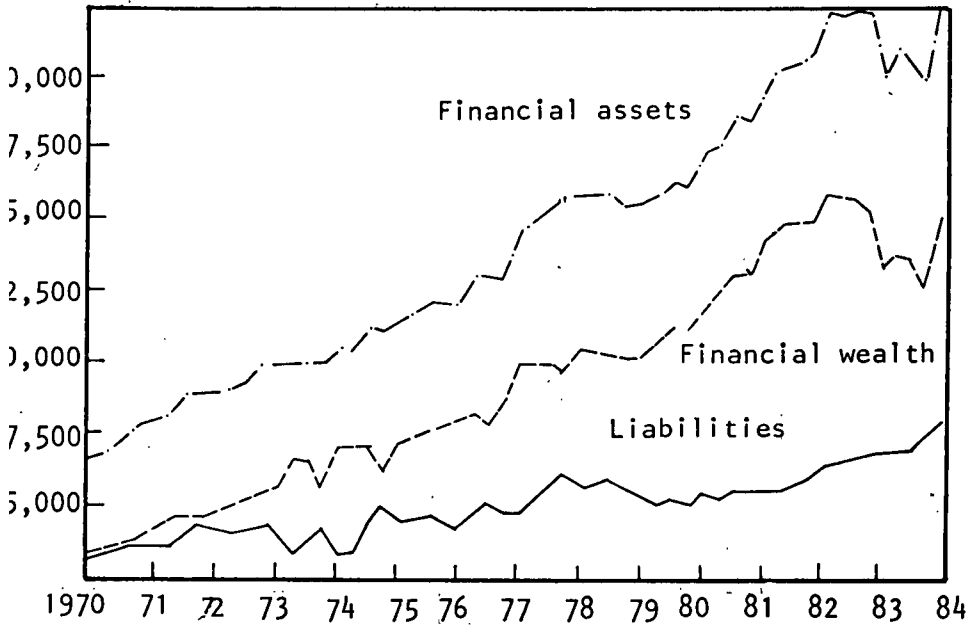
<sup>16</sup> A change in the method of revaluing the banks' assets enlarged the credit growth potential, but the provision of more credit from this source would have necessitated the sale of bonds in the secondary market. Since yields in this market were high this year, it did not pay the banks to dispose of such securities.

<sup>17</sup> The interest is included in asset revaluation (see item 2 in Table VIII-3).

<sup>18</sup> This applies in particular to authorized savings schemes, whose value has eroded because of the loss of the final month's indexation increment upon redemption.

Figure VIII-3

FINANCIAL ASSETS, LIABILITIES, AND WEALTH, 1970-84  
(IS billion, at Dec. 1975 prices)



aggregates, which, despite their relatively small size (4 percent of the total financial portfolio), amount to nearly 3 percent of GNP.

The conjunction of an external injection, balance of payments absorption, and domestic monetary expansion by the financial intermediaries on the one hand and the acceleration of inflation on the other was reflected in the development of the public's asset holdings: a 16.5 percent average monthly nominal growth of the financial portfolio, which represented a 14 percent real increase for the year; an 18 percent real growth of medium- and long-term assets; and a 2 percent real growth of short-term assets (liquid assets; see Table VIII-A11). These data, as already indicated, do not include foreign currency holdings, whose magnitude is not known;<sup>19</sup> but it can be safely stated that the real growth of the total portfolio and the liquid component was higher yet.

The liquidity of the short-term portfolio is mainly an outcome of the institutional structure of Israel's capital market, where the asset yield range of these assets is small. This is particularly true of foreign currency-linked deposits; previously it was also true of indexed bonds, but their yield range has widened of late,

<sup>19</sup> Both the total amount and the liquid component of these holdings are unknown. (It should be remembered that the use of foreign currency is illegal.)

**Table VIII-5**  
**MONETARY POLICY INDICATORS, 1980-84**  
 (Percent of GNP<sup>a</sup>)

	1980	1981	1982	1983	1984
<b>Factors increasing asset base<sup>b</sup></b>					
1. Discount-window loan	-0.1	-0.1	0.8	1.9	0.7
2. Open-market operations	-0.3	0.6	-0.9	0.1	0.3
3. Bank of Israel injection generated by other factors	0.6	1.4	1.0	0.5	-0.4
4. Injection generated by directed credit <sup>c</sup>	3.6	-0.4	0.1	1.6	1.3
Total addition to asset base	3.8	1.5	1.0	4.1	1.9
<b>Factors increasing assets</b>					
5. Change in foreign currency credit ceilings	-2.0	1.6	-2.2	-0.5	-0.2
6. Change in liquidity ratios on sheqel assets <sup>d</sup>	0.9	0.5	1.6	-1.7	0
7. Change in banks' liquidity deficiencies	-1.7	-0.3	0.1	1.4	-0.7
Total increase in assets due to monetary policy	-2.8	1.8	-0.5	-0.8	-0.9

<sup>a</sup> Standardized monthly average of the flows divided by GNP for the relevant period.

<sup>b</sup> The increase in the asset base produces a larger increase in assets because it is also the base for an additional increase generated by commercial banking operations.

<sup>c</sup> Includes an adjustment for the transfer of export funds from the Bank of Israel to the commercial banks in 1981-82.

<sup>d</sup> The changes in the sources of commercial bank sheqel credit stemming from changes in the liquidity ratios on sheqel assets during the period.

reducing the liquidity of these securities. In recent years (until October 1983) an asset that did not constitute a government liability was added to the liquid portfolio—bank shares, whose price was supported by companies affiliated with the country's leading banks, thus transforming them into a highly liquid, low-risk asset despite their high real rate of return, which exceeded that of other liquid assets. After the bank share crisis, the supporting of these equities was discontinued under the arrangement worked out, which has endowed them with properties analogous to those of a government bond, besides nullifying their characteristic as a liquid asset. Examination of the liquidity of the public's total asset holdings this year thus necessitates a comparison of the liquid portfolio with its level before the bank share crisis. This shows that, whereas prior to the crisis the liquid portfolio (including bank shares) was equivalent to 60 percent of GNP, in 1984 it amounted to 40 percent (excluding bank shares). This gap, as already noted, is overstated, since individuals' liquid foreign currency holdings are not taken

into account. Moreover, it should not be regarded as indicative of such a sharp drop in the public's liquidity; it was the liquid portfolio that permitted the relatively limited use of money (real balances) for domestic transactions purposes during a period of accelerating inflation. The money supply as a proportion of GNP fell from 20 percent during the period of single-digit inflation to a mere 2 percent in 1984; in other words, the larger the liquid portfolio, the relatively less money has to be used. Accordingly, the shrinkage of the liquid portfolio this year boosted demand for real balances, although this effect cannot be quantified.

The balance of short-term credit rose nominally at a 16.5 percent average monthly rate in 1984, and medium- and long-term credit by 16 percent. In real terms, short-term credit, which constitutes the Bank of Israel's monetary policy target, grew by more than 10 percent during the year. But the increase was concentrated in the final months; the average level actually declined 3 percent in real terms, continuing the downtrend begun in 1978. This year's credit expansion occurred despite a steep increase in the real interest on overdrafts, which constitutes the marginal interest rate in the sheqel segment. From July through September the real cost of sheqel credit reached new heights: 5 percent a month (80 percent annual rate); nevertheless the volume of credit, which fluctuated sharply over the year, expanded in the final months despite a further rise in its real cost. In this connection a distinction must be made between the actual real cost—which is measured here—and the expected real cost, on which economic decisions are based. In an economy with a high, variable rate of inflation the nominal interest rate contains a certain real interest and an element of expectations regarding inflation in the immediate future (matching the loan repayment period). When expectations do not materialize, the actual real cost of the loan will differ from the expected cost. Hence the real cost cited above should not be taken as the sole indicator of the price of credit. However, it should be noted that the real cost of foreign currency-linked credit was also high this year, reaching 37 percent (see Table VIII-A21). It should also be pointed out that the price of credit on the margin does not represent the price of the entire supply of domestic credit. There is a large degree of intervention by the authorities in the provision and allocation of credit, as well as in the determination of its price. Thus there is a supply of credit, in particular for exporters and those investing in the development areas, whose real cost is less than the marginal cost mentioned above.

Besides encouraging the holding of sheqel assets, monetary policy encourages the provision of sheqel credit by imposing quantitative restrictions on the sources of nonsheqel credit, namely ceilings on foreign currency-linked credit along with the lowering of the liquidity ratios on sheqel assets.

The policy of fostering the sheqel segment in the face of varying devaluation expectations led in the last three years to sharp fluctuations in the volume of

credit, which stemmed from the reshuffling of the public's assets portfolio. To help smooth these fluctuations the Bank of Israel resorted intensively to the revision of liquidity ratios in the past, and in the last two years to lending at the discount window.<sup>20</sup> The nominal interest on the discount-window loan largely determines the cost of expanding credit in the economy, and thus the marginal interest on sheqel credits and assets; this year's rise in interest rates to such a high real level was therefore due to the hiking of the interest on the discount-window loan. There were two reasons for this increase: (1) to curb the banking-related monetary expansion, thereby offsetting part of the government's large external injection; and (2) to restrain purchases of foreign currency by boosting real interest over and above the real devaluation expectations which prevailed in the middle of the year. But such a precipitous rise in interest affects the business sector's activity, as it is forced to use some of these funds for working capital purposes. This dilemma is typical of a monetary policy which raises domestic interest rates in order to shift the deficit financing mix away from foreign currency to domestic debt, but in the process harms productive activity and crowds out the private sector. However, since the impact of such a policy is largely confined to the sheqel segment, its quantitative repercussions are not very widespread.

The expansion of the financial portfolio in 1984 did not proceed at an even pace owing to variations in the public's expectations, which resulted from the shifts in government price policy, and toward the end of the year from the implementation of the package deal, which curbed the rise of prices. The expectational changes with respect to relative asset yields are explained by the Knesset elections held in the middle of the year reviewed (at the end of July). The public expected the formation of a new government to be followed by the adoption of new economic measures, mainly with respect to the exchange rate and financial assets. There was a switch away from sheqel assets to assets denominated in or linked to foreign currency, which went on until October, when a new policy was introduced. This development was reflected by the financing of an increasing portion of the government deficit through private sector purchases of foreign currency, with a consequent growth of the net external debt, and an increasing contraction of the sources of banking-related monetary expansion.

The new economic policy included, in the initial stage, a faster nominal depreciation of the currency and the imposition of additional taxes, and in the second stage a package deal, which was signed at the beginning of November by the government, Histadrut (Trade Union Federation), and the Coordination Bureau of the Economic Organizations (representing employers). It was for a three-month period, and provided for the freezing of most prices in the econ-

<sup>20</sup> Beginning this year, the discount-window loan replaced the liquidity deficiencies which the banks were permitted to incur under an arrangement with the Bank of Israel. This change helped to define the marginal cost of liquidity deficiencies.

omy, including those of controlled goods and services, and the tempering of wage increases. The package deal succeeded in checking the rise of prices and in calming the prevailing expectations. The latter produced a change in expected relative yields and a reversal of the public's preferences—a move away from foreign currency-linked assets to sheqel assets. This led to the funding of a larger share of the deficit (which remained at its level during the first ten months of the year) through money creation (the liquid asset base) and a smaller share through private sector purchases of foreign currency, as well as to the expansion of the sources of domestic credit.

The official exchange rate was excluded from the package deal. It should nevertheless be noted that the depreciation of the sheqel was slowed compared with the pre-November period, but ex post it was still much faster than the rise of domestic prices. The depreciation of the effective exchange rate, which had trailed behind the depreciation of the official exchange because of the freezing of import taxes, also exceeded the actual rise of prices. This can apparently be attributed to the assessment that inflation would in fact be sharply reduced, but it was uncertain by how much. The restraining of the price advance was transitory, and was not sustained after the expiration of the package deal because of the generation of suppressed pressure to adjust prices, in particular because of the gap that had developed in imported commodity prices between the cost to the importer and the price to the consumer (a cumulative gap of 12 percent). The adjustment of import taxes to the rates in force prior to the package deal engendered additional upward pressure on prices.

#### RISE OF PRICES DURING THE FIRST PACKAGE DEAL PERIOD

(3.11.84–31.1.85)<sup>a</sup>

(Percent monthly change)

---

Consumer price index	4
Imported commodities (price to importer)	8
Nominal IS/\$ exchange rate	10
Interest on liquid assets (money base)	10
Interest on discount-window loan	16

---

<sup>a</sup> The estimated rise of prices is an approximation based on information about the monthly increase in the consumer price index and on a special semimonthly Central Bureau of Statistics measurement.

Beside the nominal depreciation of the currency, the nominal interest on sheqel assets and credit was also excluded from the package deal. This was to prevent speculative demand for foreign currency and credit, which was liable to arise



if confidence in the package deal should be low. As a result, the actual real cost of credit during the package deal period reached a staggering 10 percent or more a month, with all that this implied regarding the cost of production. This curtailed, but did not stave off, the enormous expansion of credit beginning in December.

### **Monetary Developments and Their Effect on Inflation, the Balance of Payments, and Economic Activity**

The relation between the government deficit and the external injections on the one hand and the movement of prices on the other in an open economy like Israel is a complex one, and must be examined in the context of the overall financing mix. The deficit, which reflects the magnitude of the government's demand for resources that are not financed by taxes, stood at 15 percent or more of GNP throughout most of the 1970s. In the past the public's readiness to save over and above its tax expenditure is what financed most of the deficit: the private sector was willing to forgo present consumption and to save in the form of government liabilities, thereby making available the resources required for funding the government's activities. In exchange for the goods and services the public saved in this way, it received from the government various financial assets which increased the latter's domestic debt and averted the creation of excess demand in the market. But the larger domestic debt resulted, on the one hand, in a larger current interest liability, and hence in a larger government deficit: during the past year the current interest outlay amounted to 5 percent or more of GNP, and constituted about one third of the government's total domestic deficit. On the other hand, the domestic debt generates liquid assets, which enable the public to reduce its use of unlinked means of payment, thereby shrinking the base of the "tax" imposed by inflation.

In the last two years the public was less willing to continue stepping up its lending to the government, and consequently the weight of another source of covering the government deficit rose strongly, namely the import surplus, whose financing involves an increase in the government's external indebtedness.<sup>21</sup> Thus the government obtained resources other than at the expense of private sector domestic uses. The import surplus attributable to the government's activities by and large did not reflect a direct government import. It obtained part of its required goods and services from local production, while the rest was supplied by the private sector either by purchasing the goods abroad or by reducing its exports, which implied an import surplus. In the initial stage the government paid in local currency, but subsequently it supplied the public with the required foreign currency.<sup>21</sup> The Israeli economy did not face any supply constraints on

<sup>21</sup> This is sometimes recorded as a government injection, but ex post it constitutes, as stated, foreign currency financing.

**Table VIII-6**  
**DOMESTIC DEFICIT OF THE PUBLIC SECTOR (GOVERNMENT AND**  
**BANK OF ISRAEL) AND ITS FINANCING, 1978-84**  
(Percent of GNP<sup>a</sup>)

	1978- 1980	1981	1982	1983	1984
<b>1. Deficit</b>					
a. Public sector domestic deficit, excl. interest paid <sup>b</sup>	5.8	9.8	6.6	3.4	9.2
b. Subsidy element in concessionary credits <sup>c</sup>	6.1	4.4	4.0	2.5	1.5
c. Interest on domestic debt <sup>d</sup>	4.8	3.2	4.5	4.9	5.4
d. Public sector domestic deficit, incl. interest paid (a+b+c)	16.7	17.4	15.1	10.8	16.1
<b>2. Financing of deficit</b>					
e. Money creation	1.6	2.1	1.8	2.4	3.2
f. Net growth of domestic debt <sup>e</sup>	12.8	13.6	10.7	3.3	3.9
g. Purchase of foreign currency by the public	2.8	2.0	2.7	6.7	9.1
h. Net effect of monetary policy in the sheqel segment <sup>f</sup>	-0.5	-0.4	-0.1	-1.6	-0.1
i. Revenue from money creation <sup>g</sup> (e+h)	1.1	1.7	1.7	0.8	3.1

<sup>a</sup> Standardized monthly average of the flows divided by GNP for the relevant period.

<sup>b</sup> Source: Table VIII-4, line 1c. The discrepancy between the deficit here and in Chapter V is due to the fact that the data here are calculated on a cash-flow rather than accrual basis.

<sup>c</sup> Government development loans and directed credit granted through the Bank of Israel.

<sup>d</sup> Source: Central Bureau of Statistics (see also Chapter V).

<sup>e</sup> Addition to government debt base (including Patam and excluding net credit provided by the government).

<sup>f</sup> Interest on the money base, plus the fiscal burden of discount-window lending, less fines for liquidity deficiencies.

<sup>g</sup> Money creation less the deficit on account of monetary activities in the sheqel segment.

the import surplus, and so nearly all the financing which the government did not succeed in raising from the public by way of taxation or voluntary saving was obtained by directly and indirectly increasing the import surplus.<sup>22</sup> The growing resort to this mode of financing leads to an ongoing increase in the external debt; the large incremental indebtedness incurred in the last two years will make it harder yet to finance the deficit in the future.

<sup>22</sup> A reservation is called for here. When the incremental government demand finds expression in the market for products traded internationally and cannot be supplied by imports, it drives up the prices of nontradables. This results in a real appreciation of the currency, but it cannot lead to a protracted inflation.

The rest of the deficit—the part that is not financed by borrowing from the public or by selling it foreign exchange—is connected with the “tax” inflation imposed on the public. As long as the inflationary process persists, the government is able to fund part of its budget by printing money. The public needs this additional money in order to restore the inflation-eroded purchasing power of its nominal balances. During the past decade this source of financing covered a very small part of the deficit, being equivalent to only 2 percent of GNP on an annual average.

The development of domestic prices is connected with such central, institutionally determined nominal variables as the exchange rate, nominal wages, and the prices of controlled items, with the fiscal-monetary system quickly accommodating a change in the rate of inflation when the additional liquidity necessitated by the rise of prices is less than the amount of liquidity generated by the deficit and external injections.<sup>23</sup> Even the policy of fostering the growth of the sheqel base in the monetary system, which is consonant with the desire to avert an automatic accommodation to unexpected price increases, has not basically altered the general attitude which has permitted the monetary accommodation. Thus, for example, when prices spurted unexpectedly in October 1983, the authorities found it hard to let the effect of the erosion of assets and credit run its course since this involved an increase in unemployment, and so they generated another external injection.

The path taken by prices during the year reviewed is described in detail in Chapter III, but it should be reiterated here that the abrupt acceleration of inflation in October 1983 was stoked by a much faster depreciation of the sheqel, together with a faster rise of subsidized prices, which in turn drove up nominal wages. The monetary system accommodated itself to this change, as stated, through external injections, which exceeded the unexpected erosion of the money base, and through the value-linkage devices. The cooling of inflation during the package deal period was also based on a slower change in the effective depreciation of the exchange rate for imported consumer goods, in nominal wages, and in the prices of subsidized items. However, the curbing of inflation was arrested, mainly because of the divergence between the nominal depreciation of the effective exchange rate and the movement of domestic prices, and its implications regarding the rise of prices after the package deal.<sup>24</sup>

<sup>23</sup> Even if the amount of liquidity contributed by this source was smaller than the deficit, the public could obtain the additional required sheqel liquidity by selling part of its liquid government liabilities (Patam, etc.).

<sup>24</sup> During the package deal period a gap of 12 percentage points developed between the effective depreciation of the exchange rate for imports and the domestic price level. Upon the termination of the package deal and the thawing of the freeze on import taxes and their adjustment to the official exchange rate, the cumulative gap between the effective and official exchange rate was responsible for an additional 5 point differential between domestic prices and the prices of commodity imports.

The extraordinary monetary events in October 1983, which greatly shrank the public's wealth and reduced its liquid portfolio, dampened domestic demands; but toward the end of the year the public's financial asset holdings almost regained their level in the final part of 1982, before the collapse of nonbank share prices and the bank share crisis.

This year a policy was adopted which drastically increased the real marginal cost of domestic credit. A high real interest is supposed to restrain private demands and ease the pressure on domestic prices and the balance of payments, but there is a danger that it will have a contractionary effect on economic activity because of the use of short-term credit for working capital purposes. Nevertheless the interest rate effect on domestic demands and level of economic activity is probably quantitatively smaller in Israel than in other countries, for two reasons: (1) the saving-investment interest rate differential, attributable to government intervention in the capital market; and (2) the fact that the high interest on credit affects a comparatively narrow segment, this too because of government intervention in the market.