Chapter 2

Financial Activity of the Commercial Banks[1]

The activity of the commercial banking system grew markedly in 2001, unlike general economic activity. Total bank assets rose by 7 percent, in line with the growth rates of the last few years, while GDP fell by 0.6 percent—its lowest rate for a decade. The increase in bank assets was led by the accelerated expansion of credit to the public, which rose by 11 percent (although this trend was checked in 2002:I), whose share in total uses rose to about 60 percent. In spite of the rise in outstanding bank credit, new credit from all sources (banks and others) was down by 23 percent from 2000.

The expansion of bank credit expresses mainly a change in the composition of financial sources in the economy as a whole, with a transition from other sources to bank financing, because of the shocks in financial markets abroad, the slump in capital markets in Israel and elsewhere, and the crisis in the high-tech industry. All these factors caused firms to switch from seeking financial sources in capital markets in Israel and abroad or from venture capital funds, to borrowing from the domestic banking system. This development transferred a rising share of credit risk to the banking system, as is reflected by various indices of its quality.

Another reason for the rise in bank credit in 2001 was local-currency depreciation, which enlarged the extent of assets and liabilities in the foreign-currency segment by virtue of the revaluation component.

In the public's asset portfolio, there was a notable rise in the share of short-term assets at the expense of long-term ones, as low inflation became entrenched and economic uncertainty increased. Interest rates in the various segments were influenced by two major, conflicting developments: expansionary monetary policy, which served to reduce short-term nominal interest, thereby affecting CPI-indexed interest; and the deviation of the budget

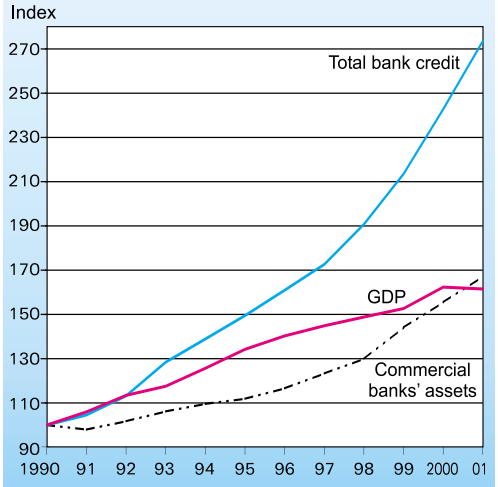
[1] Unless specified otherwise, this chapter refers to the activities in Israel of the commercial banks.

deficit from its target and the need for greater net borrowing by the government acted to increase long-term yields from 2001:III. All in all, interest rates declined, together with a slight reduction in interest-rate spreads and margins in all segments of domestic activity.

1. INTRODUCTION

The activity of the commercial banks in 2001 was characterized by rapid growth, relative to both 2000 and general economic activity. Total assets of the commercial banks rose by 7 percent (compared with 6 percent in 2000)—an increase of about NIS 45 billion—and their end-of-year balance was NIS 661 billion[2] (Figure 2.1, Table 2.1). The rise in banks' assets was led mainly by the accelerated expansion of credit to the public, which grew by 11 percent in 2001—similar to its rate in 2000—and the upward trend in its share of total assets also persisted, to reach 60 percent. The accelerated expansion of banks' activity requires an explanation in view of macroeconomic developments—primarily the recession, the contraction of GDP by 0.6 percent and of business-sector product by 1.9 percent, and the rise of the unemployment rate to over 10 percent at the end of the year. The recession, which began in 2000:IV and worsened during 2001, stemmed from a sharp drop in demand. This was the result of three main developments: 1. The intifada, which increased uncertainty in the political and security sphere as well as in the business environment, and primarily affected tourism, construction, exports to the Palestinian Authority, and investment from abroad; 2. The global economic slowdown, which caused demand for high-tech products to plummet, so that their exports fell; 3. The slump in the capital markets in Israel and abroad, which increased the cost of raising capital in the primary market, and thus reduced the extent of substitutes for bank credit.

Figure 2.1
The Activity of the Banking System and GDP, 1990–2001



[a] 1990 =100.
SOURCE: Based on returns to Supervisor of Banks.

Domestic and global economic variables affected the behavior of firms and households, and hence the activity of banks and other financial intermediaries. The security situation and the crisis in the high-tech industry vastly reduced foreign investors' interest in Israel

[2] Unless specified otherwise, data in this chapter are for end-year balances.

Table 2.1
Assets and Liabilities[a] of the Commercial Banks (Israel Offices),[b] by Segment, 1999–2001

	End-of-year balances (NIS million)[b]			Real change (%)		Annual average balance (NIS million)[b]		Real annual change (%)	Balance-sheet composition (%)	
	1999	2000	2001	2000	2001	2000	2001	2001	2000	2001
Total assets	**581,069**	**616,006**	**660,906**	**6**	**7**	**593,203**	**637,398**	**7**	**100**	**100**
Total liabilities	**581,069**	**616,006**	**660,906**	**6**	**7**	**593,203**	**637,398**	**7**	**100**	**100**
Local currency										
Unindexed										
Assets	195,210	226,659	251,984	16	11	204,651	234,918	15	34	37
Liabilities	218,073	255,878	289,362	17	13	230,877	272,861	18	39	43
Derivatives	17,281	24,427	29,892	41	22	22,330	30,499	37	4	5
Surplus (+)/Deficit(–)[c]	–5,582	–4,792	–7,486	.	.	–3,895	–7,443	.	.	.
CPI-indexed										
Assets	163,205	156,525	154,565	–4	–1	160,036	154,831	–3	27	24
Liabilities	149,212	137,772	131,222	–8	–5	144,011	131,323	–9	24	21
Derivatives	1,719	–1,969	–2,948	.	50	119	–3,450	.	0	–1
Surplus (+)/Deficit(–)[c]	15,711	16,784	20,395	.	.	16,144	20,058	.	.	.
Foreign-currency (indexed and denominated)										
Assets	191,302	199,698	218,810	4	10	196,074	213,423	9	33	33
Liabilities	176,052	182,322	198,324	4	9	178,771	191,962	7	30	30
Derivatives	–18,989	–22,459	–26,943	18	20	–22,443	–27,048	21	–4	–4
Surplus (+)/Deficit(–)[c]	–3,739	–5,083	–6,457	.	.	–5,140	–5,587	.	.	.
Buildings, etc.[d]	31,352	33,125	35,547	6	7	32,441	34,225	5	5	5
Equity, etc.[e]	37,732	40,034	41,999	6	5	39,544	41,251	4	7	6
Surplus (+)/Deficit(–)[f]	–6,380	–6,909	–6,451	.	.	–7,103	–7,026	.	.	.

[a] The tables in this survey are adjusted according to the classification of assets and liabilities in the published financial statements. They do not include activity contingent on collection.

[b] Does not include data on Bank of Jerusalem Ltd., which engages mainly in mortgage activity.

[c] A positive number denotes a surplus of assets over liabilities; a negative number denotes an excess of liabilities over assets.

[d] Buildings, equipment, and nonfinancial assets; including investment in subsidiaries and affiliates.

[e] Equity and nonfinancial liabilities (deferred capital notes).

[f] A deficit in the ownership segment denotes positive financial capital.

SOURCE: Returns to Supervisor of Banks.

Table 2.2
Changes in Bank Credit and its Substitutes, 1997–2001

(NIS million, Dec. 2001 prices)

		Changes in credit substitutes					
				Capital raised[c]			
	Changes in bank credit to public[a]	Total	Direct credit from abroad[b]	Shares	Corporate bonds	Capital raised abroad	Venture capital funds[d]
1997	34,729	23,554	8,124	6,182	1,236	6,356	1,656
1998	40,130	23,040	8,659	6,529	2,098	3,411	2,343
1999	44,036	32,221	6,757	5,373	1,540	14,281	4,270
2000	47,648	47,613	3,099	13,374	280	18,082	12,778
2001	44,934	28,057	3,898	7,042	2,714	6,069	8,334

SOURCES:

[a] Balance-sheet credit to public from commercial and mortgage banks—from returns to Supervisor of Banks. The change in outstanding credit is assumed to reflect new credit extended.

[b] Direct credit from abroad—reports to the Controller of Foreign Exchange; money and credit aggregates—from the *Annual Report* of the Monetary Department.

[c] Capital raised in Israel—from *This Month on the Stock Exchange* (Hebrew). Capital raised abroad, including shares, convertible paper, bonds, share exchanges, and private placements—from the Controller of Foreign Exchange.

[d] Venture capital funds data—from *IVC online*.

(nonresidents' investment was down by 63 percent), as well as the ability of Israeli firms to raise money in Israel and abroad or to obtain financing from venture capital funds. This led to a decline in the share of financial intermediation extended by nonbanks in providing financing, so that entities seeking credit returned to the financial intermediation (reintermediation) provided by the banking system. This shift in the composition of sources of finance explains most of the expansion of bank credit in 2001. Note that credit flows from all sources (from the domestic banking system and other sources) were down by 23 percent from 2000. The diversion of firms' financing to the banking system increased the banks' exposure to credit risk and caused the quality of credit to deteriorate. This was expressed in several indices (the share of problem loans, the proportion of loan-loss provision in total credit, the risk-weighted assets ratio, etc.). There are three main sources of credit from outside the banking system: the capital markets in Israel and abroad, whose extent of capital raised went down by some 50 percent in 2001; venture capital funds, the extent of whose financing contracted by 35 percent; and direct credit from abroad, which grew by about 26 percent (Table 2.2).

With regard to credit by indexation segment, it appears that half the growth of credit was in the foreign-currency segment, which expanded in the wake of real local-currency depreciation against the dollar[3]—by 9 percent in dollar terms and by 17 percent in local-

[3] A rough estimate indicates that the revaluation component explains about NIS 10 billion of the rise in credit in 2001, comprising 25 percent of the rise in the balance-sheet credit extended to the public by all the commercial banking corporations.

currency terms. The expansion of credit was channeled to residents, some of whose activity is conducted abroad, as well as to nonresidents, who have business ties with local firms. In the past these consumers of credit tended to resort to financing from banks abroad, but in 2001 this contracted, so that demand was diverted to the domestic banking system. Foreign-currency credit continued to grow until 2001:III—as long as real local-currency interest rates on this kind of credit were in line with those on other credit channels and expectations of exchange-rate shifts were low. Since September 2001 the extent of foreign-currency credit has been declining, however, because of local-currency depreciation and the rise in uncertainty regarding the future trend of the exchange rate, as the variance of the exchange rate of the NIS against the dollar in this period shows. Developments with regard to credit served to increase the share of foreign-currency credit and unindexed local-currency credit in total credit by 1 percentage point each, at the expense of CPI-indexed credit, whose share dipped (Table 2.3).

The credit aggregate, incorporating both on- and off-balance-sheet credit, rose by about NIS 52 billion in 2001.[4] Regarding the by-industry distribution of credit, some 80 percent of the rise in it was in four principal industries. Credit to the financial services industry rose by about NIS 12 billion (21 percent), most of it off-balance-sheet and credit for the purchase of a controlling interest.[5] Credit to manufacturing expanded by NIS 11 billion (10 percent), most of it directed to the high-tech industries of machinery, electronics and electrical equipment. Credit to construction and real estate grew by NIS 7 billion (6 percent). This industry was hard hit by the high-tech slump, which caused demand for rental of commercial property to fall, and by the transfer abroad of the activity of property developers, as reflected by the rise in credit for real estate activity abroad. All this occurred against the backdrop of the slump that has prevailed in this industry for several years. Credit to households rose by NIS 10 billion (10 percent); some of it appears to have served to finance private consumption, which continued to rise in 2001 (by 1.5 percent) despite the recession and the decline in per capita income.

There was a turnaround in the development of business-sector product, which declined by 1.9 percent in 2001 after rising by 8.5 percent in 2000. This development, which was unexpected in its intensity, helps to explain the expansion of credit, as the contraction of demand—and the consequent fall in sales—appears to have left many firms with large inventories. These firms had to borrow from banks in order to finance current expenditure, inventories, and working capital.

In addition to the rise in the assets of the commercial banks and accelerated expansion of their credit aggregate, there were several notable developments in the banking system in 2001.

- The public's financial assets grew by only 4 percent—after an annual average growth rate of 15 percent in the last five years—because of the decline in per capita income, which caused private saving to contract. Greater economic

[4] The balance is weighted by credit risk.

[5] This credit category grew by NIS 4.5 billion in 2001, and amounted to NIS 27.8 billion.

Table 2.3
Distribution of Credit to the Public,[a] 1999–2001

	End-of-year balances (NIS million)[a]			Real change (%)		Annual average balance (NIS million)[a]		Real annual change (%)	Balance-sheet composition (%)	
	1999	2000	2001	2000	2001	2000	2001	2001	2000	2001
Total credit to the public[b]	**318,896**	**358,631**	**398,932**	**12**	**11**	**338,945**	**381,867**	**13**	**100**	**100**
Total local-currency credit	**199,604**	**233,418**	**252,684**	**17**	**8**	**217,554**	**242,775**	**12**	**64**	**64**
Unindexed	113,142	148,508	161,287	31	9	131,863	154,809	17	39	41
Overdraft acccounts and facilities[b]	37,732	42,651	43,236	13	1	41,163	41,756	1	12	11
Other short-term credit[b]	39,622	54,513	67,377	38	24	45,288	61,975	37	13	16
On-call credit	35,788	51,334	50,674	43	–1	45,413	51,078	12	13	13
Indexed	86,462	84,910	91,397	–2	8	85,691	87,966	3	25	23
Total foreign-currency credit	**119,292**	**125,213**	**146,248**	**5**	**17**	**121,391**	**139,092**	**15**	**36**	**36**
To residents (total)	107,509	111,228	125,801	3	13	108,051	120,824	12	32	32
of which Foreign-currency-indexed	4,853	3,261	2,660	–33	–18	3,992	2,891	–28	1	1
To nonresidents (total)	11,782	13,985	20,446	19	46	13,340	18,268	37	4	5

[a] At December 2001 prices. See note a to Table 2.1. Credit includes credit from earmarked deposits.
[b] Includes only credit at the banks' responsibility; does not include credit to special banking corporations.
SOURCE: Returns to Supervisor of Banks.

uncertainty and the stabilization of inflation at a lower rate reduced the need for instruments to hedge against inflation, and hence served to increase the share of short-term assets at the expense of long-term ones. Another shift in the composition of the public's assets relates to their distribution inside and outside banks. In view of the slump and the low yields that characterized the stock market for most of the year, the value of the public's assets held in shares declined, while the relatively high yields on unindexed local-currency assets caused their weight in the public's asset portfolio to rise, so that the proportion of the public's assets in banks rose slightly, at the expense of those outside banks (Table 2.4).

- The Bank of Israel's monetary policy of reducing interest by a cumulative 2.4 percentage points during 2001, and by another 2 percentage points in the last week of the year, served to bring down short- and long-term nominal interest rates as well as those on local-currency activity (unindexed and CPI-indexed). Concurrently, the decline in the Libor rate brought interest down in the foreign-currency segment. The deviation of the budget deficit from its target and the increased need for net borrowing by the government served to increase long-term yields after 2001:III, on the other hand,. In spite of the immediate adjustment of the interest rate on unindexed deposits to the changes in the Bank of Israel's key interest rate, the decline in the real interest on these deposits was smaller than in nominal interest, because of the low level of inflation expectations. These developments affected the supply of deposits from the public, and the supply of unindexed deposits rose by some 13 percent, mainly in the second half of the year. This increase, and the preference for liquid channels, is characteristic of a period of uncertainty, when the public prefers assets that are more liquid, as they afford it greater flexibility in adapting its investments to economic developments. At the same time, CPI-indexed deposits fell due to the decline in inflation and its variance, while foreign-currency deposits rose in real local-currency terms, due to local-currency depreciation vis-à-vis the dollar.
- Alongside the reduction of interest in all channels of activity (unindexed, indexed, and foreign-currency), interest spreads and margins declined in the various indexed segments with regard to activity in Israel. The contraction of the interest margin was particularly prominent in the unindexed local-currency segment (where it dipped from 3.0 percent to 2.8 percent), largely due to a change in the composition of sources and uses—a rise in the share of expensive sources at the expense of others, and a decline in the share of profitable uses at the expense of others. Interest margins declined in the CPI-indexed and foreign-currency segments, too, due to the scarcity of sources in these segments which led to the more moderate reduction of interest on sources than on uses.
- The total interest margin remained at the same level in 2001 as in 2000—2 percent. Its stability stemmed from several developments which offset one another: the interest margins on domestic activity contracted, as stated, while those on foreign-currency activity abroad rose. The latter development is the result of lower interest

Table 2.4
The Public's Asset Portfolio in Banks and not in Banks,[a] 1995–2001

	End-of-year balances (NIS billion, December 2001 prices)							Composition (%)							Real change (%)
	1995	1996	1997	1998	1999	2000	2001	1995	1996	1997	1998	1999	2000	2001	2000–2001
Unindexed local-currency deposits	104.9	129.6	150.0	163.7	205.8	244.6	277.5	16.5	18.9	18.5	19.4	19.6	21.7	23.6	13.5
Deposits in and indexed to foreign currency[b]	59.7	61.7	61.3	73.4	77.1	79.2	84.5	9.4	9.0	7.6	8.7	7.3	7.0	7.2	6.7
Indexed and earmarked deposits[c]	42.9	37.0	73.2	72.2	70.6	69.6	63.5	6.8	5.4	9.0	8.6	6.7	6.2	5.4	–9.2
Savings schemes	83.5	94.1	98.3	105.2	108.3	99.4	94.8	13.1	13.7	12.1	12.5	10.3	8.8	8.1	–4.6
Total in banks[d]	**291.0**	**322.4**	**382.9**	**414.6**	**461.8**	**493.2**	**520.4**	**45.8**	**47.1**	**47.3**	**49.2**	**44.0**	**43.7**	**44.2**	**5.5**
Cash in hands of public	8.7	9.3	9.7	10.4	11.3	12.3	14.4	1.4	1.4	1.2	1.2	1.1	1.1	1.2	17.1
Traded bonds and Treasury bills[e]	115.5	116.6	130.6	132.7	141.0	159.0	182.7	18.2	17.0	16.1	15.8	13.4	14.1	15.5	14.9
Nontraded bonds[f]	99.7	111.5	121.6	122.3	137.5	153.4	160.9	15.7	16.3	15.0	14.5	13.1	13.6	13.7	4.9
Shares[g]	113.1	117.1	144.1	138.3	226.9	227.6	226.9	17.8	17.1	17.8	16.4	21.6	20.2	19.3	–0.3
Residents' investments abroad	7.3	7.6	20.7	24.6	71.5	83.7	71.1	1.1	1.1	2.6	2.9	6.8	7.4	6.0	–15.0
Total not in banks	**344.3**	**362.1**	**426.7**	**428.2**	**588.2**	**636.0**	**656.1**	**54.2**	**52.9**	**52.7**	**50.8**	**56.0**	**56.3**	**55.8**	**3.2**
Total assets of the public	**635.2**	**684.4**	**809.5**	**842.8**	**1,050.0**	**1,129.2**	**1,176.5**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**4.2**
In provident institutions[h]	262.3	265.3	297.0	304.3	332.8	350.3	367.5	41.3	38.8	36.7	36.1	31.7	31.0	31.2	4.9
In provident funds[i]	144.7	128.8	143.1	143.6	157.4	164.5	171.8	22.8	18.8	17.7	17.0	15.0	14.6	14.6	4.5
Total assets of mutual funds	20.8	15.7	22.2	23.5	36.4	46.5	63.0	3.3	2.3	2.7	2.8	3.5	4.1	5.4	35.6
Direct holdings of public[j]	157.5	157.2	209.2	205.5	335.4	359.1	364.0	24.8	23.0	25.8	24.4	31.9	31.8	30.9	1.4

[a] The public does not include the government, the Bank of Israel, the commercial banks, or mortgage banks.
[b] All types of residents' deposits.
[c] Including approved earmarked deposits for credit to related and other companies.
[d] Including commercial and mortgage banks.
[e] Including government bonds (indexed and unindexed) and corporate bonds.
[f] Earmarked government bonds and non-negotiable corporate bonds.
[g] Non-bank shares in the hands of the public and provident funds *less* holdings of nonresidents and the government, and shares of provident funds.
[h] Including provident and severance pay funds, advanced study funds, pension and life insurance funds in 'Yield-assurance' and 'Project-sharing' schemes.
[i] Including provident and severance pay funds and advanced study funds.
[j] Including cash in the hands of the public, Treasury bills, unindexed bonds, CPI- and dollar-indexed bonds, shares, and residents' investments abroad.
SOURCE: Returns to Supervisor of Banks, and Monetary Department, Bank of Israel.

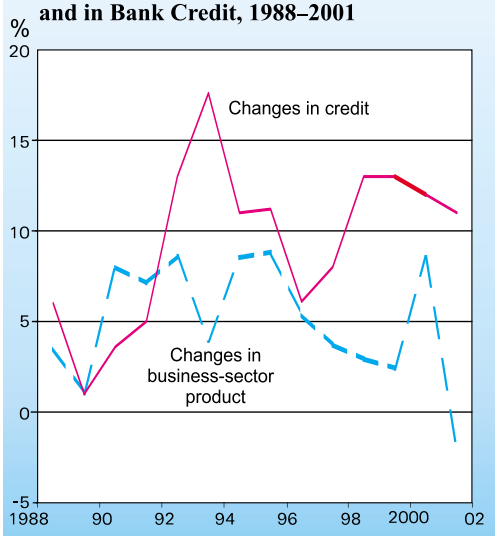
rates in the countries where overseas branches operate, which led to a similar decline in income from and expenditure on financial intermediation activity but did not affect income from activity in securities. Thus, the yield on investment in bonds, which accounts for 22 percent of the overseas branches' uses, remained unchanged, and explains part of the rise in the segment's margin. The increase in the share of the unindexed local-currency segment, which has the highest margin, at the expense of the share of the other, less profitable segments, was offset by the decline in the margin on domestic activity.

- A long-term review shows a trend of convergence of the interest rates in the various segments, as regards both deposits and credit, with the exception of temporary deviations at times of sharp exchange-rate shifts.

2. CREDIT TO THE PUBLIC

Total bank credit to the public[6] expanded by 11 percent in 2001 (continuing the 12 percent increase in 2000), and amounted to NIS 400 billion (Table 2.3). A long-term view of the shifts in bank credit vis-à-vis those in business-sector product shows that there has been a positive correlation between the two for most of the last decade (Figure 2.2.). when business-sector activity accelerated, so did the growth of bank credit,[7] and vice versa. In 2001, however, credit rose even though GDP declined by 0.6 percent (compared with a 6.4 percent increase in 2000). This situation led to a rise in the credit/GDP ratio, continuing the trend evident for the last ten years (Figure 2.1). The immediate implication of this is a rise in the credit risks to which the banks are exposed, as GDP constitutes the major source of credit repayment.

Figure 2.2
Changes in Business-Sector Product and in Bank Credit, 1988–2001



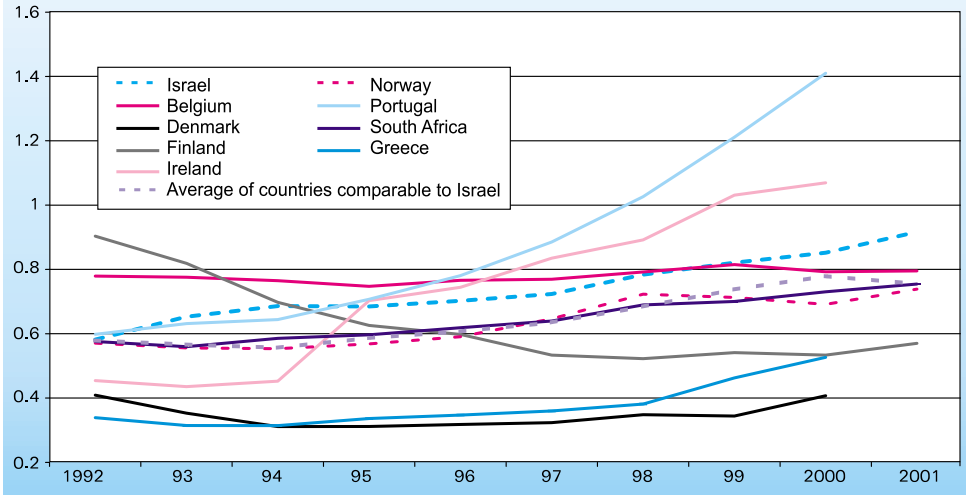
SOURCE: Based on returns to Supervisor of Banks.

An international comparison shows that the ratio between bank credit to the public and GDP is higher in Israel than in similar countries, although in those countries and in

[6] The credit to the public is of all the commercial banks and refers solely to balance-sheet credit at the bank's responsibility.

[7] The elasticity of demand for credit relative to economic activity appears to have been higher than unity in the last few years; every change in business-sector product led to a larger shift in the extent of credit, so that the credit/GDP ratio has risen.

Figure 2.3
Ratio of Credit[a] to GDP: International Comparison, 1992–2001



[a] Credit: bank credit to public.
SOURCE: International Financial Statistics, 2/2002.

Israel it has been rising in recent years (Figure 2.3). Note that the main factor affecting this ratio is the structure of the money market and the banks' share in financing firms' activities. There are various sources of finance for firms, chief among them the banking system, nonbanks, and the capital market. The more predominant is the banking system and the more central its role in financial intermediation activity, the higher is the bank credit/GDP ratio.

Bank credit to the public rose at a similar rate to that of previous years even though the GDP growth rate in 2001 was the lowest for ten years. Several factors (some of them overlapping) explain this.

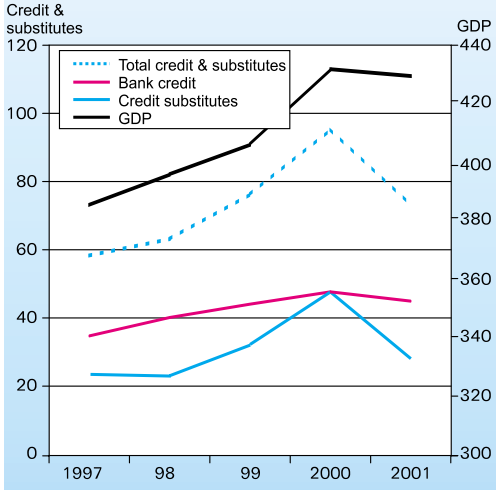
- In 2001 outstanding credit from the banking system rose at the expense of credit substitutes from other sources. Credit flows into Israel[8] from all sources (from the domestic banking system and from outside it) were down by 23 percent from 2000, and amounted to NIS 73 billion (Table 2.2, Figure 2.4); credit flows from the banking system amounted to NIS 45 billion (down by 6 percent from 2000), and credit substitutes amounted to NIS 28 billion (down by 41 percent from 2000). The year 2001 as a whole was characterized by limited activity on the Tel Aviv Stock Exchange (TASE) and on world stock markets (the US, Europe, and the Far East). The year began with a sharp fall in these markets, especially with regard to the high-tech

[8] Credit flows from the domestic banking system were estimated from the change in outstanding credit to the public in the commercial and mortgage banks between December 2000 and December 2001. Credit from outside the banking system was estimated from capital raised (through shares and bonds) by Israeli firms in capital markets in Israel and abroad, finance from venture capital funds, and direct credit from abroad.

industry, and persisted with the terror attacks on the US in September and apprehensions of unwelcome developments in the wake of the fighting in Afghanistan. All these factors served to significantly increase the cost of raising capital in these stock markets, so that firms resorted to the banking system in order to obtain sources.

- The decline in substitutes for bank credit was particularly notable in several spheres: capital raised abroad by Israeli firms traded in the US and Europe, which amounted to NIS 6 billion, compared with NIS 18 billion in 2000; the contraction of finance extended by venture capital funds (down from NIS 12.8 billion in 2000 to NIS 8.3 billion in 2001); and issues of shares and bonds in the TASE (down from NIS 13.7 billion in 2000 to NIS 9.8 billion in 2001).

Figure 2.4
Flows of Credit and its Substitutes,[a] and GDP, 1997–2001
(NIS billion, Dec. 2001 prices)



[a] The change in outstanding credit extended to the public by commercial and mortgage banks is an estimate of credit flows from the banking system. Credit substitutes include direct credit from abroad, capital raised in Israel and abroad via shares and corporate bonds, and financing from venture capital funds.
SOURCE: Based on returns to Supervisor of Banks.

- Direct credit extended by banks abroad did not decline in 2001, but its extent was smaller than in 1997–99. This indicates inter alia the difficulties encountered by Israeli firms in 2001 in borrowing abroad. Even though Israel's credit rating was not altered in 2001, banks abroad reduced the extent of the credit they extended to Israeli firms because of misgivings regarding country risk, in view of the recession, and the increased uncertainty associated with the deteriorating security situation. Thus, some of the credit taken in 2001, during the recession, reflects a switch from the capital market to the banks as a source of finance rather than an increase in the sources of finance obtained by firms, and these even contracted as the demand for high-tech products fell as a result of the crisis in that industry, (Figure 2.4). In March 2002 Moody's rating agency announced it would reduce its rating of Israel's banking system's financial strength from 'stable' to 'negative' because, it claimed, the deterioration in the security-political situation had caused both the risk in the banks' credit portfolio and loan-loss provision to rise. An announcement of this kind could further reduce the banking system's access to credit lines abroad, as well as the reliance by Israeli firms on finance from banks abroad, and is expected to enlarge the share of credit from the domestic banking system. Since in some banks the risk-weighted assets ratio is very near the minimum requirement, however, and it is difficult to raise capital in the domestic capital

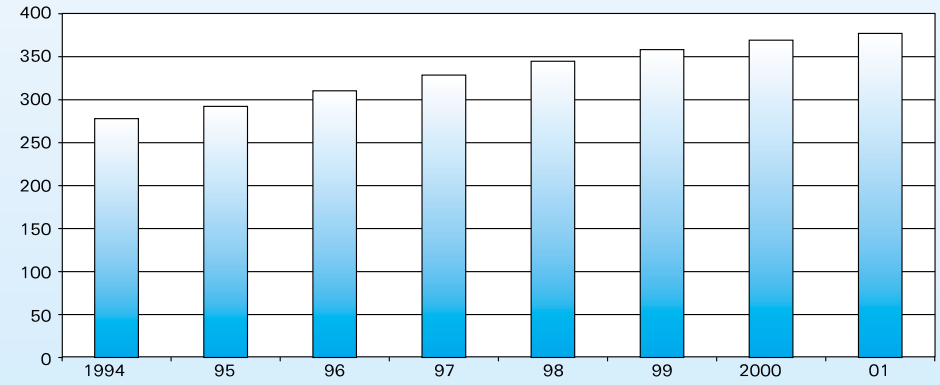
market—these banks will not be able to expand their activities significantly despite expectations of a rise in the demand for credit.

- Another reason for the expansion of bank credit in 2001 was the rise in foreign-currency credit to nonresidents, which went up by NIS 6.5 billion (46 percent, Table 2.3). The relevant economic variable for the demand for this kind of credit is activity vis-à-vis abroad, not GDP. This credit is extended primarily to foreign firms which have business connections with Israeli firms. In the past these firms used mainly finance obtained from the capital markets and venture capital funds alongside finance from the banking system, so that the contraction of credit substitutes from outside the banking system has sent them back to the sources of finance provided by the banking system.
- The rise in foreign-currency credit to nonresidents (i.e., mainly to firms which have business ties with Israel) accounts for about 16 percent of the total increase in bank credit. Since the resulting business-sector product is not necessarily recorded in full in GDP, its expansion provides a partial explanation for the rise in the credit/GDP ratio.
- With regard to credit by borrower size, most of the increase in outstanding credit is evident in very large firms, whereas among smaller borrowers the extent of credit has risen only slightly. Thus, in the five largest credit brackets (credit in excess of NIS 335 million, constituting 20 percent of the banking system's credit) outstanding credit rose by 26 percent. In the five lowest credit brackets (credit of up to NIS 135,000), however, it rose by only 6 percent (see Table 5.9).
- Concurrent with these factors, the sharp turnaround in business-sector product and the current recession, which was unexpected in its intensity, appear to explain the expansion of credit beyond the rate due to the rise in economic activity. Note that 2000 was a good year for Israel's economy, with an 8.5 percent rise in business-sector product, whereas in 2001 it fell by 1.9 percent. Firms planned their activities for 2001 on the basis of the trend in 2000 and their expectations of developments in 2001. It is reasonable to assume that many firms underestimated the extent of the contraction of revenues and sales, and hence had to take bank credit in order to finance the current expenditure that had formerly been financed by revenues and sales. The economic slowdown, reflected by the fall in demand for product and firms' financing difficulties, was expressed in the 5.1 percent rise in gross business-sector capital stock in 2001 (Figure 2.5).
- In addition to the recession in Israel, there was a global economic slowdown in 2001. This affected mainly export firms which, in view of the fall in demand for their product, were left with large inventories, and had to take bank credit to finance working capital and inventory.
- Local-currency depreciation in 2001, about half of it (4.3 percent) in the last week of the year, also helps to explain the expansion of credit. The revaluation of the banks' foreign-currency credit (denominated in or indexed to the dollar) in local-currency terms in December alone, when there was marked local-currency depreciation,

Figure 2.5
Stocks of Housing, Goods, Raw Material, and Gross Businesss-Sector Capital, 1994–2001

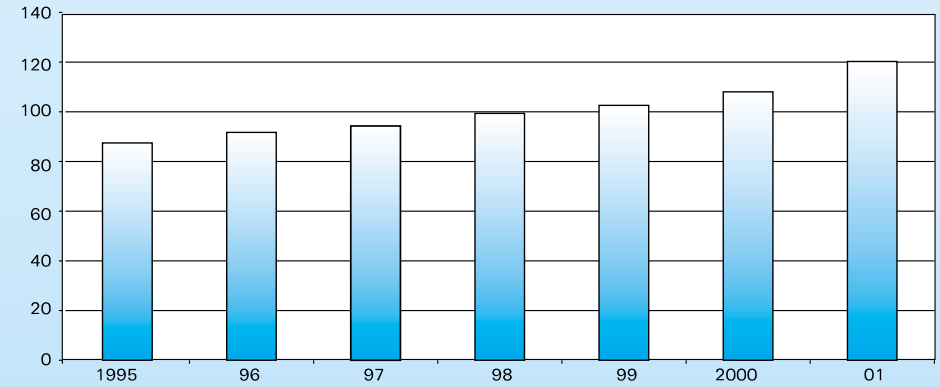
NIS bill.

A. Stock of Housing, 1994–2001 (December 2001 prices)



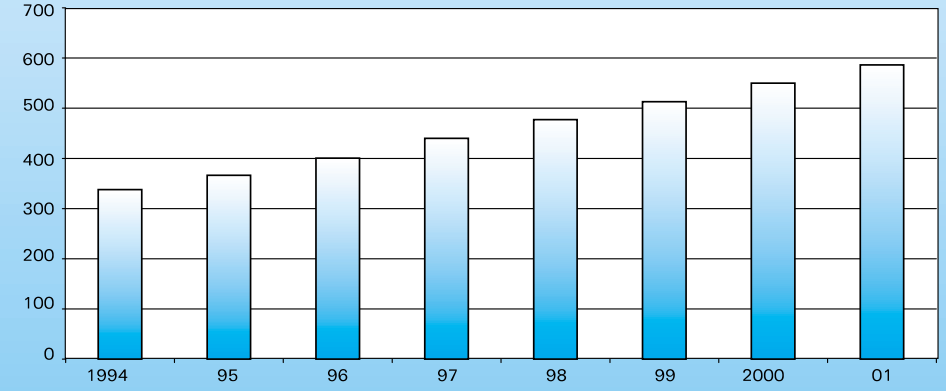
NIS bill.

b. Stock of Goods and Raw Material, 1995–2001



NIS bill.

c. Stock of Gross Business-Sector Capital, 1994–2001



SOURCE: Based on Central Bureau of Statistics data.

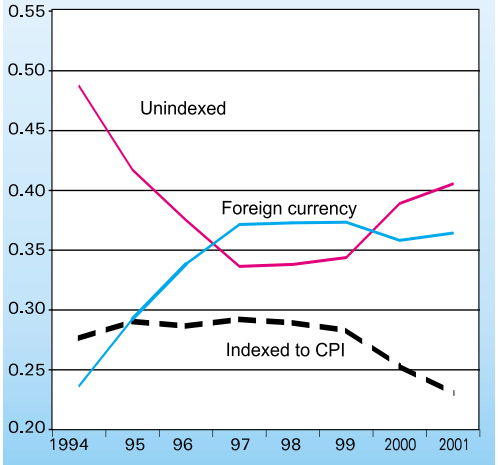
indicates a NIS 5 billion increase in this credit category, while in dollar terms it remained unchanged. Calculated on an annual basis, the difference is even more striking, the increase being 9 percent in dollar terms and 17 percent in local-currency terms. The effect of revaluation intensified in the first few months of 2002.

In order to gain a better understanding of the factors behind the expansion of credit, and to assess the characteristics of borrowers from the banking system, two aspects of the development of credit—by indexation segment and by principal industry—are examined below.

a. The distribution of credit by indexation segment

Two main factors affect the development of credit by indexation segment. The first stems from the lifetime of the project for which finance is sought and the nature of the firm's activity. Thus, for example, long-term investments are generally financed by long-term credit (largely CPI-indexed), while import-export firms tend to take foreign-currency credit. The second factor is the relative interest rates on the various kinds of credit, because at each point in time firms assess the expected real cost of each kind of credit in accordance with expectations of the way interest, inflation, and exchange rates will develop. This calculation also takes uncertainty and the volatility of credit prices—derived from the trends of the interest, inflation, and exchange rates—into account.

Figure 2.6
Share in total credit of Different Types of Credit,[a] 1994–2001



SOURCE: Returns to Supervisor of Banks.

Since 1999 there has been a continuous and gradual decline in the share of CPI-indexed credit, in view of the entrenchment of inflation at a lower rate (Figure 2.6). It would appear that unindexed and foreign-currency credit are becoming increasingly substitutable, and the difference between their weight in total credit is disappearing. This is because both are perceived as a short-term source and are extended by banks primarily to firms. In 2001 the share of unindexed local-currency credit rose to 41 percent of total credit (compared with 39 percent in 2000), while that of foreign-currency credit rose by 1 percentage point to 36 percent, and that of CPI-indexed credit continued to fall, and stood at 24 percent (Table 2.3).

Unindexed credit

After three years in which unindexed local-currency credit rose markedly (by an annual average of 24 percent), its acceleration was checked to some extent. During 2001 it grew by only 8.7 percent, and amounted to NIS 161 billion (Table 2.3). Most notable was the expansion of term credit (on-call and other), which continued rising by 11 percent in 2001, because the interest on it is lower than that on overdraft facilities. In addition, the decline in inflation and variance caused credit to be diverted from the indexed to the unindexed segment. Most of the increase was in term credit, because of relatively small term differences between it and CPI-indexed credit.

Overdraft facilities, usually extended to firms, and overdrawn deposits of households rose by about 1 percent, after a marked 13 percent increase in 2000. The share of exceptional credit in total overdraft facilities and credit has risen gradually since 1999, to some extent reflecting firms' financing difficulties.

The interest rate on overdraft facilities—despite its rapid adjustment to changes in the Bank of Israel's key interest rate and decline by 2.4 percentage points in nominal terms, in line with the development of the key interest rate—remained higher in real terms than the rate on all the other credit substitutes in the banking system, explaining its relatively low rate of expansion.

CPI-indexed credit

CPI-indexed credit expanded by NIS 6.5 billion (8 percent) in 2001, compared with a 2 percent decline in 2000. The increase in this kind of credit expressed a shift in the financing composition of firms' activities, in the context of the crisis in the capital markets, which made it more expensive to raise capital on stock markets, while the price of CPI-indexed credit dipped in the wake of the reduction of the Bank of Israel's key interest rate. The marked fall in funding via the capital markets in Israel and abroad appears to be due inter alia to the decline in credit extended to Israeli firms, because of misgivings as to their repayment ability. This development transfers a growing share of credit risk to the domestic banking system, as is reflected by the deterioration of credit quality (see Chapter 5). Partial support for this is provided by the interest rates on CPI-indexed credit, which are derived from the rates of return on long-term CPI-indexed bonds. These fell from 5.7 percent in 2000 to 4.6 percent in 2001, while the average cost of taking CPI-indexed credit declined less steeply, from 6.9 to 6.1 percent. The gentler decline in the price of CPI-indexed credit may reflect assessments regarding the risk inherent in this kind of credit, and hence a high risk premium (Figure 2.7).

An examination of the development of CPI-indexed credit over time shows that its share in total bank credit has been declining in the last few years (Figure 2.6). The 4.3 percent contraction in gross domestic investment operates to lower firms' demand for long-term credit, which is generally CPI-indexed. Despite the fall in gross domestic investment, some components of domestic investment continued to rise steeply in 2001.

Table 2.5
Assets and Liabilities Denominated in and Indexed to Foreign Currency, 1999–2001

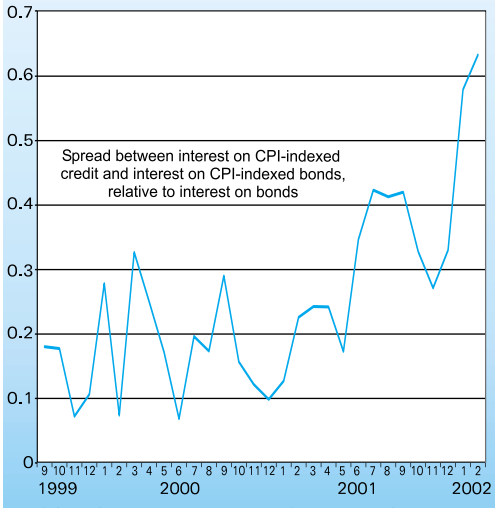
	End-of-year balances ($ million)[b]			Real change (%)		Annual average balance ($ million)[b]		Real annual change (%)	Balance-sheet composition (%)	
	1999	2000	2001	2000	2001	2000	2001	2001	2000	2001
Assets										
Notes and coins	359	249	348	–31	40	277	286	3	1	1
Deposits in banks abroad	7,145	7,640	5,615	7	–27	8,088	6,989	–14	17	14
Deposits in banks in Israel	870	824	1,214	–5	47	770	922	20	2	2
Deposits in Bank of Israel	2,578	2,233	2,415	–13	8	2,200	2,386	8	5	5
Nondirected credit to residents	23,989	25,544	26,894	6	5	24,596	26,893	9	52	53
Nondirected credit to nonresidents	2,798	3,413	4,630	22	36	3,228	4,306	33	7	9
Credit from earmarked deposits[a]	1,545	1,604	1,598	4	0	1,553	1,605	3	3	3
Credit to the government	506	545	629	8	15	561	634	13	1	1
Securities[b]	4,994	5,498	4,712	10	–14	5,311	5,011	–6	11	10
Other assets	639	1,183	1,495	85	26	856	1,305	52	2	3
Total assets	**45,423**	**48,731**	**49,549**	**7**	**2**	**47,439**	**50,336**	**6**	**100**	**100**
of which Denominated in foreign currency	41,961	45,747	47,319	9	3	44,154	47,941	9	93	95

Table 2.5 (continued)

	End-of-year balances ($ million)[b]			Real change (%)		Annual average balance ($ million)[b]		Real annual change (%)	Balance-sheet composition (%)	
	1999	2000	2001	2000	2001	2000	2001	2001	2000	2001
Liabilities										
Deposits from banks abroad	1,446	1,195	1,194	–17	0	1,358	1,355	0	3	3
Deposits from banks in Israel	351	312	489	–11	57	267	359	34	1	1
Loans from Bank of Israel	7	1	1	–80	–25	4	2	–57	0	0
Deposits of the government	297	133	115	–55	–14	233	124	–47	1	0
Earmarked deposits[c]	1,545	1,604	1,598	4	0	1,553	1,605	3	4	4
Nonresidents' deposits	18,726	20,397	20,588	9	1	19,525	20,782	6	45	46
Residents' and restitutions deposits	4,046	3,831	3,847	–5	0	3,824	3,802	–1	9	8
Residents' other deposits	14,661	16,126	15,555	10	–4	15,637	15,922	2	36	35
Other liabilities[d]	723	892	1,522	23	71	853	1,322	55	2	3
Total liabilities	**41,802**	**44,491**	**44,910**	**6**	**1**	**43,254**	**45,273**	**5**	**100**	**100**
of which Denominated in foreign currency	38,345	41,093	41,605	7	1	39,699	41,957	6	92	93
Derivatives	–4,509	–5,480	–6,101	22	11	–5,430	–6,379	17	–13	–14
Surplus of assets over liabilities	–888	–1,240	–1,462	.	.	–1,245	–1,316	.	.	.

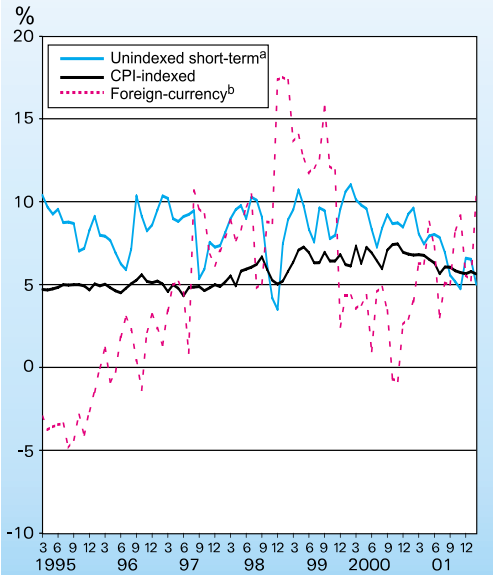
[a] Credit to the government and the public, and deposits from banks in Israel and abroad from earmarked deposits.
[b] Excluding investment in shares in subsidiaries and in affiliated companies.
[c] Including normal credit lines from banks abroad raised by the banking corporations and approved as earmarked deposits.
[d] Including intermediate sums, bonds, and promissory notes recognized as earmarked deposits.
SOURCE: Returns to Supervisor of Banks.

Figure 2.7
Interest-Rate Spread Between CPI-Indexed Credit and CPI-Indexed Bonds, September 1999–February 2002



SOURCE: Based on returns to Supervisor of Banks.

Figure 2.8
Real interest on Credit, 1995–2001



[a] Calculated using inflation expectations derived from capital market.
[b] Calculated using change in CPI and in the exchange rate in the previous 12 months.
SOURCE: Returns to Supervisor of Banks.

This was the case with long-term investment projects, mainly in the infrastructure, and in the roads infrastructure in particular (up by 17.1 percent).

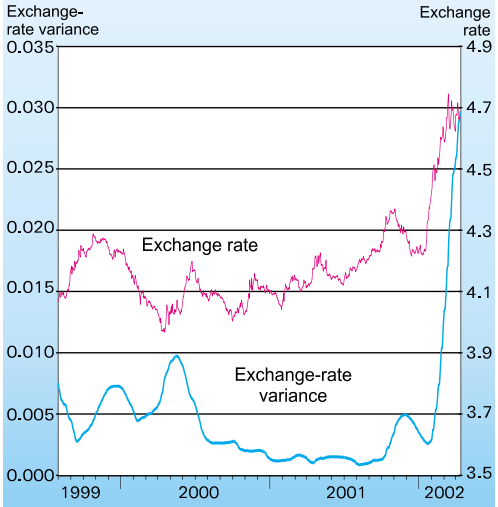
Credit denominated in and indexed to foreign currency

Foreign-currency credit expanded considerably in 2001, in both dollar and local-currency terms (by 9 and 17 percent respectively). Most of the increase was in foreign-currency credit to nonresidents, which grew by 46 percent in local-currency terms in 2001 (Table 2.3), so that it constituted 14 percent of total foreign-currency credit, after rising at a steady annual rate of about 10 percent in the last five years. Most of this increase was in large loans to borrowers with business ties to Israeli firms, and was extended in order to finance activities in Israel or abroad. In the past, the main source of finance of nonresident investors who were active in Israel was the capital market or venture capital funds, alongside the banking system. The contraction of credit substitutes from outside the banking system has sent these firms back to bank sources of finance.

Another reason for the rise in foreign-currency credit (to both residents and nonresidents) is the fact that in 2001 the average interest-rate differential between local-currency and dollar credit grew. The US Federal Reserve lowered its key interest rate ten times from the beginning of the year, compared with an average of three times a year in the past, reducing it by a cumulative 4.75 percentage points. This interest-rate cut was sharper than that implemented by the Bank of Israel, and affected all dollar interest rates. It also made it more worthwhile to take dollar credit, notwithstanding low

expectations of depreciation. As far as real costs are concerned, it transpires that for most of the year the ex post cost of this kind of credit was less than that of unindexed credit, which is the main substitute for foreign-currency credit from the banking system. Only in two exceptional instances—at the end of 2001:III and the end of 2001:IV, when there was relatively steep local-currency depreciation against the dollar—was the real price of foreign-currency credit higher than that of unindexed credit (Figure 2.8).

Figure 2.9
Variance of NIS/Dollar Exchange Rate, July1999–March 2002
(Calculated for last 6 months)



SOURCE: Based on returns to Supervisor of Banks.

The development of foreign-currency credit to residents was not uniform throughout the year. The balance of this category of credit grew (in dollar terms) until August, after which it declined. This appears to be because of expectations of local-currency depreciation, and especially of higher exchange-rate risk, as expressed in its volatility. The risk inherent in taking foreign-currency credit was perceived as being relatively low until August, apparently because of the low exchange-rate variance which expresses its risk, and this was even slightly lower than in 2000. After the local-currency depreciation of September and the terrorist attacks in the US, however, the exchange-rate variance soared, and from September to December the balance of foreign-currency credit fell (Figure 2.9).

In contrast with 1999 and 2000, when most of the rise in credit was financed by an increase in deposits of the public of both residents and nonresidents, the $ 2.6 billion, expansion of credit in 2001 was financed mainly by the reduction of the deposits abroad of Israeli banks and of their investments in securities, with a deleterious effect on the banks' prudent liquidity management.

b. Credit by principal industries[9]

Whereas economic activity contracted in 2001, the demand for credit continued to rise. These two trends varied between industries, however, so that the development of credit should be reviewed in the context of the changes in each industry, as the credit/GDP ratio is one of the indices of the quality of credit and reflects loan repayment ability.

[9] Credit by principal industries includes balance-sheet credit and off-balance-sheet risk regarding activity in Israel.

Table 2.6
Credit/Industry Product Ratio,[a] 2000–2001

	Credit/industry product	
	2000	2001
Agriculture	1.4	1.3
Manufacturing	1.4	1.6
Construction and real estate	5.1	5.9
Construction	4.7	5.3
Real estate	7.0	8.6
Electricity and water	1.6	1.9
Commerce and services	1.1	1.2
Commerce	1.3	1.4
Services	1.0	1.1
Catering and hotels	1.7	2.1
Financial services	1.7	1.8
Communications and computer services	0.9	1.1
Transport and storage	0.8	0.8
Total	**1.6**	**1.8**

[a] Credit includes off-balance-sheet credit. We have ascribed bank credit by the product of the various industries, so that there may be discrepancies between the data on the rate or growth of credit in this chapter and those in Chapter 5.

SOURCE: Based on data from returns to Supervisor of Banks, Central Bureau of Statistics, and Bank of Israel Research Department.

Credit to all industries rose in 2001, with the exception of agriculture, where the extent of credit continued to fall despite the rise in its product. This was due to the credit arrangements with the kibbutzim and moshavim (collective and agricultural settlements).

Total credit, which includes off-balance-sheet credit, expanded by NIS 52 billion, a growth rate of 9 percent. The credit extended by banks to manufacturing rose by 10 percent (NIS 10 billion), alongside a 6.9 percent reduction in the industry product. This industry is very heterogeneous, and the increase in its credit encompassed both traditional and high-tech industries. Credit to the high-tech industry expanded by 14 percent, most of it in machinery, and electric and electronic equipment, and accounted for 30 percent of credit to manufacturing. In the traditional industries there was a notable increase in credit to paper and printing (19 percent), and food and tobacco (22 percent). Credit to some manufacturing industries expanded only slightly, as was the case with diamonds, textiles, rubber, and plastics. The growth of credit to manufacturing, as in many other industries, is explained by the contraction of the various credit substitutes and the return of firms to bank sources of finance. The credit/product ratio in manufacturing was 1.6 percent (1.4 percent in 2000).

The highest credit/product ratio (5.9 percent) was in construction and real estate (Table 2.6), comprising credit for construction (15 percent of total credit) and credit for real estate (5 percent of total credit). Credit for construction remained at the same level as in 2000, although the industry product fell by 9 percent. The decline in product stemmed

from the marked contraction in both the demand for and supply of housing. The fact that it became less worthwhile to buy an apartment in the domestic market for investment purposes, the rise in the unemployment rate, the decline in the rate of immigration, and the ongoing erosion of the subsidization of housing for eligible persons all served to depress demand for housing. The contraction of supply, expressed primarily in the slowing of building starts, was due to increased uncertainty in the industry as a result of the economic slump and the shortage of workers from the territories. Despite the decline in industry product, credit remained at the same level as in 2000, and served largely to finance stocks and payments to suppliers (Figure 2.5). Credit to rental real estate expanded by 22 percent (NIS 6 billion) despite the 7 percent drop in product due to this industry's sensitivity to economic developments in other industries. The recession, especially the sharp fall in demand by the high-tech industry for commercial property, reduced income from renting out such property and created excess supply.

Credit to households was up by NIS 10 billion (10 percent) in 2001. Some of the increase appears to have derived from credit in order to finance private consumption, which continued to rise by 1.5 percent, despite the recession, fall in per capita income, and high unemployment rate.

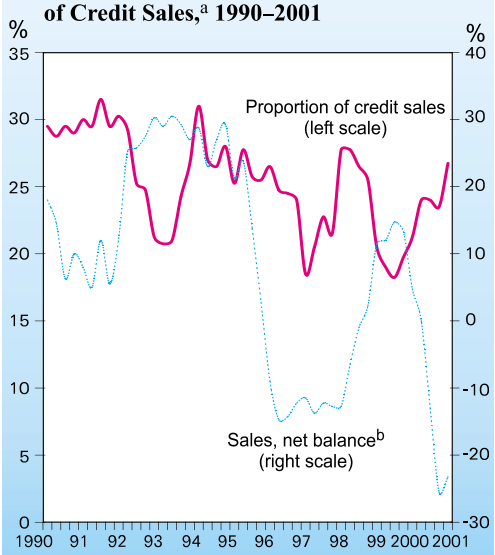
Credit to financial services (excluding banks) rose by NIS 12 billion (21 percent), and the credit/product ratio remained at the same level as in 2000 (1.8 percent). Part of the increase is due to off-balance-sheet activities and part to credit extended for the purchase of a controlling interest. Credit to this industry amounted to NIS 27.8 billion in 2001, compared with NIS 23.2 billion in 2000. The risk potential of this credit is high because these transactions are characterized by particularly high financing rates, and because some of it is non≠recourse. In addition, this kind of bank credit partly substitutes for equity, i.e., increases leverage, and is hence extremely risky as owners of these firms can direct their activity towards projects with a high risk and profit potential. If such projects succeed the owners make a handsome profit, but if they fail the banks absorb a large part of the losses. Since 1997 there has been a marked increase in borrowing for the purchase of a controlling interest in Israel, *inter alia* in order to finance privatization projects. Nonetheless, the privatization process came to a halt in 2001, so that these transactions largely financed business-sector purchases.

In *communications and computer services*, in which most high-tech companies are found, the credit/product ratio was 1.1 percent in 2001. This ratio has been rising in the last few years because of the rapid rate of expansion of credit to this industry.

Nevertheless, an additional and not inconsiderable source of finance of the industry comes from the capital markets in Israel and abroad and venture capital funds. The 9 percent decline in the industry's product in 2001, and the higher cost of capital-market sources served to divert most of the demand for finance to the banking system. As a result, credit to this industry rose (by 10 percent, NIS 3 billion), mainly in the first half of 2001. In the second half of the year credit to this industry fell because the banks' conditions for extending it were made more stringent.

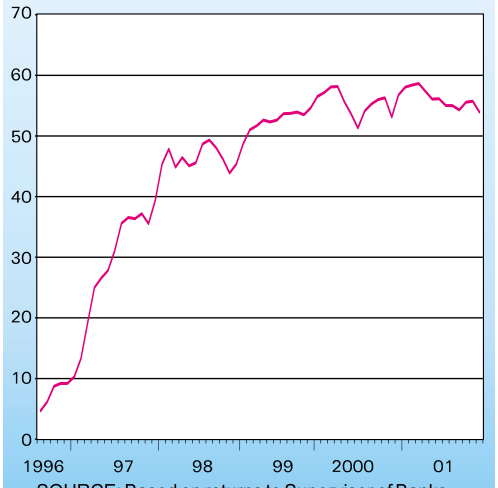
In *commerce and services* the credit/product ratio rose from 1.1 percent in 2000 to 1.2 percent. In order to relate credit data to industry product data, we have included

Figure 2.10
Sales in Commerce, and Proportion of Credit Sales,[a] 1990–2001



[a] Moving average, four quarters.
[b] Net balance: index of sales development.
SOURCE: *Companies Survey*, Bank of Israel.

Figure 2.11
Cash and Deposits with Bank of Israel, Average Balance, 1996–2001
(NIS billion, 2001 prices)



SOURCE: Based on returns to Supervisor of Banks.

financial services and catering and hotel services under this rubric. Credit to commerce expanded by 7.6 percent, apparently due to the credit taken by firms in order to improve the credit facilities they offer customers as one of the ways of contending with the decline in sales due to the recession. This behavior explains why the marked fall in sales by commercial firms in recent years has not been accompanied by a similar drop in credit sales. In 2001 there was even a marked increase in the share of this category (Figure 2.10).

In *catering and hotels* the credit/product ratio rose and came to 2.1 percent, compared with 1.7 percent in 2000. This was due to the 12.4 percent drop in industry product as a result of the *intifada* and the events of 11 September, which had a deleterious effect on tourism. All this was expressed in a 60 percent fall in incoming tourism and 33 percent contraction in bed-nights. As a result, the profitability of firms in the tourism and hotel industries declined, and some of them recorded substantial losses. The resort to bank credit increased alongside a decline in financing from own sources, and credit to the industry expanded by NIS 1 billion.

3. BANKS' DEPOSITS IN THE BANK OF ISRAEL

One of the uses made of sources by the banks in recent years has been to deposit money in the Bank of Israel in the framework of deposit auctions. In December 2000 the balance of these deposits was NIS 57.3 billion, and this dipped to NIS 52.8 billion at the end of 2001

Table 2.7
Unindexed Local-Currency Assets[a] and Liabilities,[bc] 1999–2001

	End-of-year balances (NIS million)[c]			Real end-of-year change (%)		Annual average balance (NIS million)[c]		Real annual change (%)	Balance-sheet composition (%)	
	1999	2000	2001	2000	2001	2000	2001	2001	2000	2001
Assets										
Notes and coins	3,501	2,345	2,278	–33	–3	2,467	2,460	0	1	1
Deposits in Bank of Israel	54,652	57,344	52,846	5	–8	51,976	53,343	3	25	23
Deposits in banks	6,103	5,927	9,104	–3	54	6,569	8,002	22	3	3
Credit to the public	113,142	148,508	161,289	31	9	131,863	154,809	17	64	66
Treasury bills and unindexed government bonds	14,169	8,748	21,610	–38	147	7,892	11,875	50	4	5
of which Treasury bills	8,011	4,504	8,841	–44	96	4,318	5,121	19	2	2
Other assets	3,644	3,787	4,857	4	28	3,884	4,429	14	2	2
Total assets	**195,210**	**226,659**	**251,984**	**16**	**11**	**204,651**	**234,918**	**15**	**100**	**100**
Liabilities										
Monetary loan from Bank of Israel	725	721	731	0	1	751	973	30	0	0
Deposits from banks	5,170	4,778	6,448	–8	35	5,086	6,688	32	2	2
Deposits of the government	311	680	686	119	1	412	650	58	0	0
Total deposits of the public	204,958	242,794	274,963	18	13	217,869	257,949	18	94	95
Demand deposits	18,186	18,798	23,050	3	23	16,430	18,639	13	7	7
SRO deposits	23,776	26,778	30,065	13	12	25,019	24,423	–2	11	9
Resident time and short-term deposits	160,933	194,038	217,085	21	12	173,876	210,582	21	75	77
Other deposits	2,063	3,181	4,762	54	50	2,544	4,305	69	1	2
Other liabilities	6,910	6,905	6,534	0	–5	6,760	6,602	–2	3	2
Total liabilities	**218,073**	**255,878**	**289,362**	**17**	**13**	**230,877**	**272,861**	**18**	**100**	**100**
Derivatives	17,281	24,427	29,892	41	22	22,330	30,499	37	10	11
Surplus of assets over liabilities	–5,582	–4,792	–7,486	-	-	–3,895	–7,443	-	-	-

[a] Assets at the banks' responsibility.
[b] See note a to Table 2.1.
[c] At December 2001 prices.
SOURCE: Returns to Supervisor of Banks.

(down by 8 percent, Table 2.7, Figure 2.11). The weight of these deposits in the total unindexed local-currency assets of the commercial banks fell to 21 percent at the end of the year, compared with about 30 percent in previous years. Deposits in the Bank of Israel constitute an alternative use for banks to extending credit or investing in Treasury bills, where the risk is similar. There were two reasons for the decline in the extent of banks' deposits with the Bank of Israel. First, in 2001 there was less need to use deposit auctions in order to absorb excess liquidity because of the decline in capital inflow. Second, the surplus of unindexed deposits over unindexed loans (amounting to NIS 113 billion) was channeled into increased investments in the capital market in 2001.

Thus, banks' assets in Treasury bills and unindexed bonds rose by 147 percent to stand at NIS 22 billion. Other assets of banks that rose in 2001 were indexed and unindexed local-currency deposits with Israeli banks.

4. THE SUPPLY OF DEPOSITS OF THE PUBLIC TO THE BANKING SYSTEM, AND THE PUBLIC'S ASSET PORTFOLIO

The public's asset portfolio and the supply of deposits to the banking system were considerably affected in 2001 by domestic economic developments. The predominant features in this were the recession and the concomitant fall in per capita income, expectations of a further decline in inflation, increased uncertainty in the financial markets in view of the ongoing slump in international markets, and the increase in the budget deficit/GDP ratio, which affected yields.

In the wake of macroeconomic developments, including the fall in private saving, the public's asset portfolio grew by a moderate 4 percent, and amounted to NIS 1,176 billion (compared with an average annual growth rate of 15 percent in the last five years, Table 2.4). The increase in the public's assets was accompanied by a shift in their composition, with the share of short-term and more liquid assets rising at the expense of long-term ones. The rapid expansion of the liquid aggregates appears to have derived from increased uncertainty regarding developments in the financial markets in Israel and abroad in view of the continued recession and the exacerbation of the security situation.

Another factor was the decline in the inflation environment and its entrenchment at low levels, which reduced the need for instruments to hedge against inflation. The proportion of short-term assets rose at the expense of long-term ones, which continued to fall, despite the reduction in interest in the course of 2001. This was because the real short-term interest rate—in the more liquid channel—remained similar to the long-term rate for most of the first three quarters of the year, but the picture changed in 2001:IV, when the short-term interest rate was lower than the long-term one—which could presage a trend shift in the rising share of short-term assets in the public's portfolio.

The public's assets can be classified according to those in banks and those not in banks—primarily in the capital market and markets abroad. In the last decade the share of the public's assets in the banking system and that of those not in banks has been

affected directly by capital-market developments. In years when the General Share-Price Index rose and stock-market activity accelerated, the share of the public's assets with banks fell, and vice versa.

There was a slight change in the composition of the public's asset portfolio in 2001, and the share of its assets in banks rose again at the expense of those outside banks, in contrast with the developments of the previous two years. The decline in the public's assets outside banks is explained by the slump that characterized the capital market throughout the year. This was expressed primarily in the stock market, which was characterized by sluggish activity and only slight increases in the various indices (most of them in the last week of the year). The fall in the extent of the public's assets in shares was partly offset by the rise in its assets in Treasury bills and unindexed bonds. This appears to have been the result of a change in the government's debt rolling-over policy, with a preference for net borrowing by means of unindexed bonds. The share of unindexed bonds in total net borrowing via government bonds thus reached 81 percent, compared with an annual average of 57 percent in 1997–2000.

An inspection of the public's asset portfolio also shows that the share of investments abroad by residents has fallen, after rising in the previous two years. Most of the 15 percent decline stemmed from the slump in the high-tech industry, because of the strong correlation between investment in Israel by nonresidents and investment abroad by residents. There are two main reasons for this correlation: first the proceeds on share issues by Israeli high-tech firms sometimes took the form of shares in the company that bought them, in the framework of a share-swap transaction; second, a large part of the proceeds from share issues made abroad by Israeli firms is placed in the firms' deposits abroad, so that the recession and the sharp fall in the IPO market have reduced the scale of mutual investment between the domestic and foreign markets.

The composition of the public's deposits is affected primarily by the expected relative interest rates on each kind of deposit, as well as by the volatility of the interest, exchange, and inflation rates.

Unindexed local-currency deposits continued to expand in 2001 (Table 2.7), because of the high relative interest on them in the first half of the year, the entrenchment of inflation at a low rate, and the sluggish capital market. Despite the reduction of the Bank of Israel's key interest rate and its immediate effect on unindexed local-currency deposits, these deposits bore the highest real return in the first half of the year. This was because inflation declined, so that the reduction of the real interest rate on these deposits was held back and their supply increased considerably. This was supplemented by the slowdown in the capital market, which began in 2000:IV and persisted throughout 2001, making that market less attractive and serving to divert the public's money from mutual funds and other investment substitutes in the market to the banking system, and to unindexed local-currency deposits in particular.

There was nonetheless some slowing of the growth rate of unindexed deposits (which rose by 13 percent)—after an annual average growth rate of 18 percent in the preceding five years—as a result of the recession, which affected households' income and narrowed

Table 2.8
Average Annual Yields on Selected Assets and Liabilities, 2000–2001

(percent)

	Nominal yields						Real yields[i]					
	Annual average		2001				Annual average		2001			
	2000	2001	I	II	III	IV	2000	2001	I	II	III	IV
Unindexed local-currency segment												
Demand deposits[a]	2.1	1.6	1.8	1.7	1.4	1.4	–0.3	–0.4	–0.1	0.3	–1.6	–0.3
SRO deposits[a]	8.0	5.6	6.5	5.9	5.2	4.7	5.4	3.5	4.5	4.4	2.1	2.9
Resident time deposits[a]	8.6	6.2	7.1	6.5	5.8	5.4	6.1	4.1	5.1	5.0	2.7	3.5
Monetary loan	9.3	6.6	7.7	7.0	6.2	5.8	6.7	4.5	5.7	5.5	3.1	3.9
Total unindexed sources	**8.1**	**5.8**	**6.7**	**6.1**	**5.4**	**5.0**	**5.5**	**3.7**	**4.7**	**4.6**	**2.4**	**3.2**
Term credit[a]	11.6	8.8	9.9	9.2	8.3	7.9	8.9	6.7	7.8	7.6	5.2	6.0
Overdraft accounts and facilities[a]	15.8	13.4	14.3	13.6	13.0	12.7	13.1	11.1	12.1	12.0	9.7	10.7
Total unindexed credit	**12.8**	**10.0**	**11.0**	**10.3**	**9.5**	**9.1**	**10.2**	**7.8**	**9.0**	**8.7**	**6.3**	**7.2**
Treasury bills[b]	10.0	8.2	8.2	8.0	6.2	10.5	7.4	6.1	6.2	6.5	3.1	8.6
Banks' deposits with Bank of Israel[c]	8.0	5.7	6.6	6.0	5.2	4.9	5.5	3.6	4.6	4.5	2.2	3.0
Total unindexed assets	**11.4**	**8.8**	**9.7**	**9.1**	**8.3**	**7.9**	**8.7**	**6.6**	**7.7**	**7.6**	**5.2**	**6.0**
CPI-indexed local-currency segment												
Savings schemes[d]	-	-	-	-	-	-	5.0	4.9	5.5	5.3	4.3	4.3
Indexed bonds[e]	-	-	-	-	-	-	5.7	4.6	5.5	4.7	4.1	4.1
Credit[f]	-	-	-	-	-	-	6.9	6.1	6.7	6.0	5.9	5.7
Mortgages[g]	-	-	-	-	-	-	6.8	6.4	7.0	6.5	6.0	5.9

Table 2.8 (continued)

(percent)

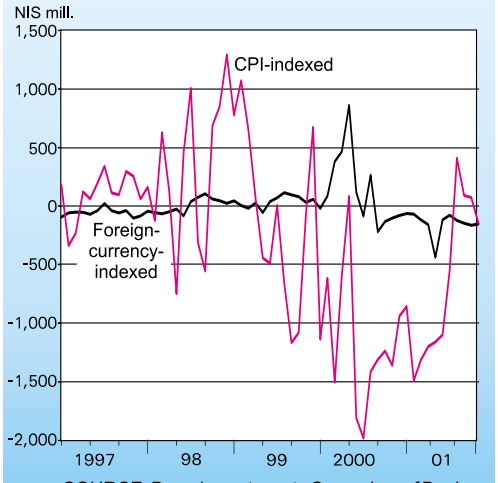
	Nominal yields (in dollar terms)[h]						Real yields[i]					
	Annual average		2001				Annual average		2001			
	2000	2001	I	II	III	IV	2000	2001	I	II	III	IV
Foreign-currency-denominated and indexed segment												
Time deposits	1.6	1.1	1.7	1.2	1.0	0.3	–2.8	2.8	2.3	1.1	3.8	3.9
Foreign-currency-denominated deposits[j]	5.7	3.3	4.8	3.7	2.9	1.7	1.1	5.0	5.4	3.5	5.8	5.3
Foreign-currency-indexed credit	8.0	5.5	7.0	5.9	5.2	3.9	3.3	7.3	7.7	5.7	8.1	7.6
Foreign-currency credit to residents	7.5	4.9	6.5	5.3	4.6	3.4	2.8	6.7	7.1	5.2	7.5	7.0
Deposits abroad[k]	6.4	3.7	5.2	4.1	3.3	2.0	1.8	5.4	5.8	3.9	6.3	5.6
Annual rates of change												
CPI	0.0	1.4	–1.9	6.6	3.6	–2.3	-	-	-	-	-	-
NIS/$ exchange rate	–2.7	9.3	15.8	–2.6	19.5	5.7	-	-	-	-	-	-

[a] Effective annual yield/cost, as reported by the seven major banking groups.
[b] Yield on Treasury bills (market rate).
[c] Interest on banks' deposits in the framework of the deposit auctions instituted by the Bank of Israel in the last quarter of 1996.
[d] Average interest on savings schemes.
[e] Average gross yield to maturity of all CPI-indexed bonds (market rate).
[f] Based on reports of cost of credit extended during the month.
[g] Weighted average interest on nondirected mortgage loans.
[h] The data refer to dollar-denominated credit and deposit items.
[i] Real interest calculated on the basis of the public's inflation expectations, derived from the capital market, and the expected exchange rate, calculated from the rate of actual depreciation over the previous twelve months.
[j] Including nonresidents' and residents' restitutions deposits.
[k] 3-month Libor interest rate.
SOURCE: Based on returns to Supervisor of Banks, and data from Monetary Department, Bank of Israel.

the interest-rate spread between the various indexation segments. Total unindexed local-currency deposits in the commercial banks, including current accounts, SRO deposits, and resident time deposits, grew by NIS 32 billion, further to their NIS 38 billion rise in 2000 (Table 2.7). In 2001, too, most of the increase was in the supply of interest-bearing resident time deposits, which serve as a liquid short-term savings channel for the public, and the real expected yield on which averaged 4.1 percent in 2001 (Table 2.8). The expectation that developed during the year of a continuous decline in short-term interest led the public to prefer long-term deposits (among unindexed deposits), thereby obtaining high interest rates on these channels, as the effect of the reduction of short-term interest on long-term interest is partial. This trend continued throughout 2001, with the exception of December, when the Bank of Israel reduced its key interest rate by 2 percentage points. The public's response was evident in part in December, when short-term SRO deposits soared (by 32 percent) while term deposits declined (by 2 percent). This behavior on the part of the public is characteristic of periods of great uncertainty, when it prefers the most liquid channels, enabling it to act in accordance with developments in the financial markets.

CPI-indexed deposits are used by the public for medium- and long-term savings. The main component of these deposits is approved savings schemes, which constitute a substitute for the public's deposits with provident funds and other long-term institutional saving. In the last few years there has been a continual decline in CPI-indexed deposits, except in those years when there were extensive withdrawals from the provident funds, the proceeds being transferred to these deposits from considerations of yield (Tables 2.4 and 2.9). CPI-indexed deposits declined because of the lower inflation rate and variance, which reduced the need to hold assets to hedge against inflation. This trend persisted in 2001, too, when the balance of CPI-indexed deposits fell by 4 percent (NIS 4.6 billion, Table 2.9). Net accrual in savings schemes was negative for most of the year, so that for 2001 as a whole the net negative accrual in these and foreign-currency-indexed savings schemes was NIS 8.8 billion, continuing the negative accrual of NIS 12.3 billion in 2000 (Figure 2.12). The decline in CPI-indexed deposits was also influenced by the fall in per capita income; this did not give rise to an equivalent reduction in per capita consumption because the propensity to smooth consumption was reflected in the decline in private saving, which consists in part of CPI-indexed deposits.

Figure 2.12
Net Accumulation in CPI-indexed and Foreign-Currency-Indexed Savings Schemes, 1997–2001 (monthly data)



SOURCE: Based on returns to Supervisor of Banks.

Table 2.9
CPI-Indexed Local-Currency Assets and Liabilities,[a] 1999–2001

	End-of-year balances (NIS million)[b]			Real change (%)		Annual average balance (NIS million)		Real annual change (%)	Balance-sheet composition (%)	
	1999	2000	2001	2000	2001	2000	2001	2001	2000	2001
Assets										
CPI-indexed segment, excl. credit from earmarked deposits:										
Credit to the public[b]	86,038	84,195	91,156	–2	8	85,286	87,629	3	53	57
Deposits in banks	36,562	41,979	44,720	15	7	39,717	43,745	10	25	28
Credit to the government	2,316	1,507	1,365	–35	–9	2,052	1,454	–29	1	1
Bonds	24,787	18,593	12,852	–25	–31	21,352	15,439	–28	13	10
Other assets	145	167	66	15	–61	173	119	–31	0	0
Total	**149,849**	**146,440**	**150,158**	**–2**	**3**	**148,579**	**148,387**	**0**	**93**	**96**
Credit from earmarked deposits	13,356	10,084	4,406	–24	–56	11,457	6,444	–44	7	4
of which Credit to the government	12,919	9,363	4,167	–28	–55	11,042	6,105	–45	7	4
Total assets	**163,205**	**156,525**	**154,565**	–4	–1	**160,036**	**154,831**	–3	**100**	**100**
Liabilities										
Deposits of the public:										
Approved savings schemes	92,670	82,615	79,287	–11	–4	87,543	78,821	–10	61	60
Other deposits	20,866	23,645	22,364	13	–5	22,487	22,282	–1	16	17
of which CPI-indexed deposits	20,769	23,546	22,311	13	–5	22,378	22,187	–1	16	17
Total deposits of the public	**113,537**	**106,260**	**101,651**	–6	–4	**110,029**	**101,103**	–8	**76**	**77**
Deposits from banks	3,451	2,874	4,216	–17	47	3,101	3,552	15	2	3
Deposits of the government	10,513	7,018	6,735	–33	–4	9,385	7,057	–25	7	5
Total	**127,500**	**116,152**	**112,601**	–9	–3	**122,515**	**111,712**	–9	**85**	**85**
Total earmarked deposits	13,720	10,408	4,455	–24	–57	11,838	6,539	–45	8	5
of which Of the public	12,367	9,221	4,128	–25	–55	10,767	6,021	–44	7	5
Other liabilities	7,992	11,211	14,165	40	26	9,658	13,073	35	7	10
Total liabilities	**149,212**	**137,772**	**131,222**	–8	–5	**144,011**	**131,323**	–9	**100**	**100**
Derivatives	1,719	–1,969	–2,948	-	50	119	–3,450	.	0	–3
Surplus of assets over liabilities	**15,711**	**16,784**	**20,395**	-	-	**16,144**	**20,058**	-	-	-

[a] See note a to Table 2.1.
[b] Outstanding credit given here excludes credit to the public from earmarked deposits.
SOURCE: Monthly returns to Supervisor of Banks.

The public's *foreign-currency deposits*, both indexed and denominated, whether of residents or nonresidents, remained at the same level as in 2000 and stood at $ 40 billion (Table 2.5). In real local-currency terms, however, they rose by 6.4 percent, due to local-currency depreciation against the dollar, which amounted to 9.3 percent in 2001. Even though in dollar terms the balance of these deposits remained the same as in 2000, during the year there were shifts in the balance of foreign-currency deposits that were in line with expectations regarding exchange-rate movements. Thus, in the first half of 2001 slow local-currency depreciation served to increase the supply of foreign-currency deposits (by 3.5 percent, in annual terms). Subsequently, the gradual local-currency appreciation (until the sharp depreciation in the last week of the year) made investment in this channel less worthwhile and led to the reduction of foreign-currency deposits to their level at the beginning of the year. The sharp 4.3 percent depreciation in the last week of 2001 did not yet affect the composition of the public's assets in December.

In recent years there has been a continuous rise in the extent of foreign-currency deposits, in the wake of the relaxation of controls, expansion of Israel's foreign trade, and marked increase in the extent of capital raised abroad by Israeli firms. The latter was deposited in domestic banks until needed. About half the foreign-currency deposits come from nonresidents' deposits, which have risen in the last few years due to the significant expansion of nonresidents' financial transactions in Israel. This has been the result of the improvement in Israel's financial standing—a trend which peaked in 2000. In 2001, because of the recession, the security events, and the crisis in the high-tech industry, the upward trend in nonresidents' deposits was checked, and they remained at the same level, $ 20 billion, throughout the year. Macroeconomic developments were expressed more fully in the data on total investment in Israel by nonresidents (direct and portfolio), which amounted to $ 4.2 billion in 2001—down by 63 percent from 2000.

5. OFF-BALANCE-SHEET ACTIVITY AND DERIVATIVES TRANSACTIONS

The banks' off-balance-sheet activity takes place in two main areas: guarantees and commitments to extend credit, and transactions in derivatives.

a. Guarantees and commitments to extend credit

This activity, which consists of extending credit or commitments to extend it, includes inter alia credit-assurance guarantees, guarantees for house-buyers under the Sale Law, and other commitments, unutilized credit frameworks (for both credit cards and overdraft facilities), and documentary credits. This activity embodies exposure to risks, especially credit risks.

As is the case with the development of credit, the growth rate of guarantees and commitments to extend credit amounted to 10 percent, to stand at NIS 201 billion (Table 2.10). Most of the increase was in guarantees for credit and unutilized frameworks for

Table 2.10
Guarantees and Credit Commitments, 2000–2001

(NIS million, December 2001 prices)

	2000	2001	Rate change (%)
Documentary credit	3,947	3,755	–4.9
Credit commitments	21,686	27,695	27.7
Home purchasers' guarantees	16,818	16,750	–0.4
Commitments for credit-card transactions	9,311	10,021	7.6
Other guarantees and commitments	34,711	40,663	17.1
Unutilized credit-card quotas	30,805	38,868	26.2
Unutilized overdraft quotas	9,133	9,000	–1.5
Irrevocable commitments for credit[a]	29,699	28,688	–3.4
Commitments to issue guarantees	12,023	10,422	–13.3
Guarantees to provident fund members	14,338	15,649	9.1
Total	**182,470**	**201,510**	**10.4**

[a] Approved but not yet extended.
SOURCE: Returns to Supervisor of Banks.

credit cards. This contrasted with the stability of guarantees to house-buyers, which amounted to NIS 17 billion, similar to their level in 2000, because of the slump in the construction industry.

b. Derivatives transactions

This activity is undertaken on behalf of the banks' customers and/or for the banks themselves, in the framework of managing and reducing market risks and as an investment policy. These transactions are implemented against interest-rate and exchange-rate risks, and shares by means of instruments such as forwards, futures, swaps, and options on exchange rates, interest rates, indices, and commodities. These activities embody exposure to credit, interest-rate, market, and liquidity risks, in accordance with the type of transaction.

Derivatives can be divided into four main groups:

(1) Pure intermediation, in which the bank is not a party to the transaction, and acts merely as an intermediary, for a fee.

(2) Intermediation at the bank's responsibility, in which the bank is not exposed to market risk because of a counter-transaction implemented on the same trading day, but is exposed—as an agent—to credit risk, if the counterparty fails to meet its obligations.

(3) Hedging transaction, intended to hedge a specific balance-sheet transaction or identified groups of similar transactions. A hedging transaction must meet certain conditions, including the existence of a high correlation between changes in the fair value of a defined item and the hedging instrument, a significant reduction of the financial risk implicit in the hedged item, and the lowering of the bank's exposure.

(4) Other transactions, not classified as intermediation or hedging transactions.

Table 2.11
Derivatives Transactions,[a] All Commercial Banks, 2000–2001

	By type of instrument				By type of transaction				By counterparty			
	2000	2001	Year-on-year rate of change (%)		2000	2001	Year-on-year rate of change (%)		2000	2001	Year-on-year rate of change (%)
Interest-rate contracts	103,807	163,629	58	Intermediation	95,407	213,731	124	Government & central bank	6,478	7,330	13
Currency contracts	255,296	474,980	86	Hedging	32,434	57,532	77	Banks	206,703	352,347	70
Share contracts	21,067	43,084	105	Other	253,954	412,245	62	TASE & brokers	38,477	90,556	135
Commodities and other contracts	1,626	1,815	12					Customers	130,138	233,275	79
Total	381,796	683,508	79	**Total**	381,796	683,508	79	**Total**	381,796	683,508	79

[a] Face value, NIS million, at December 2001 prices.
SOURCE: Returns to Supervisor of Banks.

The extent of the commercial banks' derivatives transactions rose at face value in 2001, continuing the long-term trend. Notwithstanding, the growth rate was particularly high this year (79 percent), and the balance of these transactions amounted to NIS 683 billion (Table 2.11). The increase in derivatives encompassed all the categories of transactions, although currency contracts (which rose from NIS 255 billion to NIS 475 billion) were particularly prominent, because of banks' and their customers' need to hedge against exchange-rate risk, as this became increasingly volatile towards the end of the year (Figure 2.9). These data are consistent with the rise in TA25 (Ma'of) options on the dollar exchange rate, the daily turnover of which was 23,700 compared with 12,800 in 2000. The high volatility in the euro market, which is an important component of Israel's foreign trade, alongside the growing desire on the part of investors to hedge against risks at a time of growing uncertainty, led the TASE to launch trading in euro derivatives (options and forwards) at the end of November.

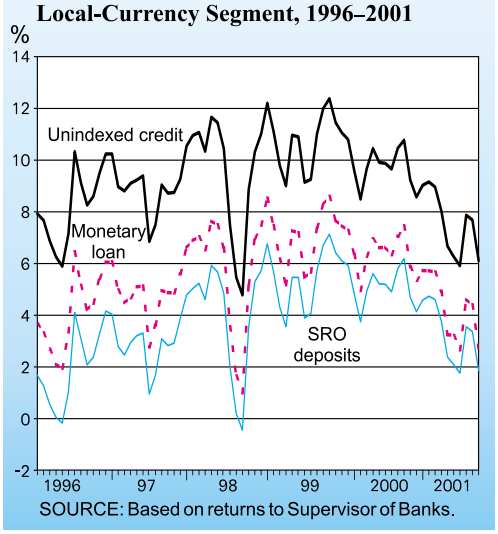
Derivatives transactions can be classified by their counterparty. The data indicate that in 50 percent of cases other banks are the counterparty to the transaction, and in about one third the customers are. The other players are the TASE and the brokers, the government, and the central bank. Note that the counterparty to a transaction reflects its credit risk, and hence determines the level of weighting of credit exposure for the purposes of the minimum capital ratio. Thus, transactions with brokers and customers are weighted at 100 percent, those with banks and the TASE are weighted at 20 percent, and transactions with the central bank are not included.

6. INTEREST RATES, SPREADS, AND MARGINS

a. Interest rates and margins on short-term activity

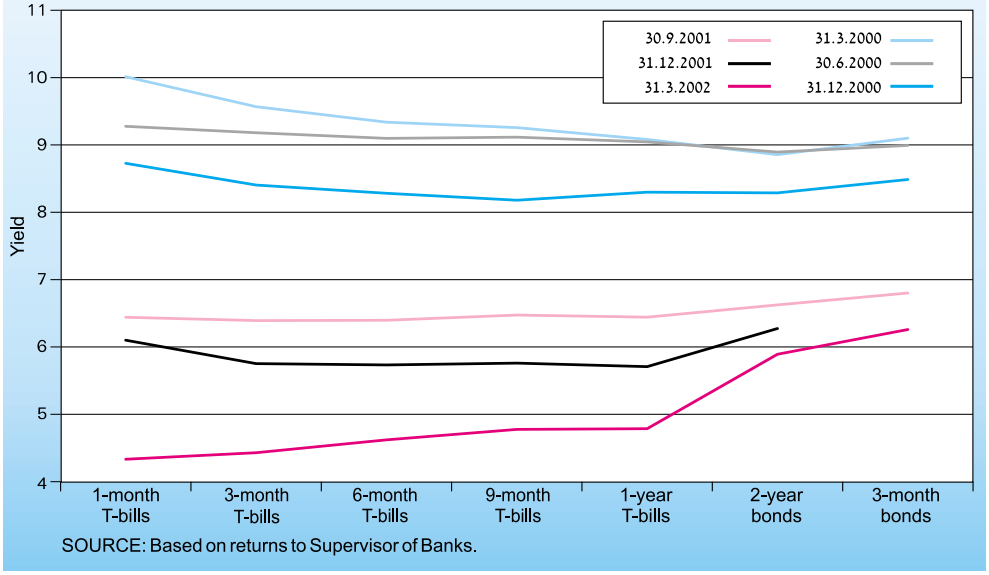
Interest rates in the unindexed local-currency segment are mainly short-term, and are dictated to a great extent by the Bank of Israel's key interest rate. The latter was reduced ten times in the course of 2001, by a cumulative 2.4 percentage points, and by another 2 percentage points in the last week of the year (Figure 2.13). The policy of gradually reducing the interest rate was adopted because inflation was expected to be below the target, and in the context of the exacerbation of the economic slowdown and increased uncertainty in the capital and money markets. The reduction

Figure 2.13
Real Interest Rates in the Unindexed Local-Currency Segment, 1996–2001



SOURCE: Based on returns to Supervisor of Banks.

Figure 2.14
Term Structure of Nominal Yields, 2000–2001



SOURCE: Based on returns to Supervisor of Banks.

of the interest rate by the Bank of Israel was reflected by the equivalent decline in the nominal interest rates on the principal components of activity in the unindexed local-currency segment.

After several years in which the term structure of the curve of nominal interest rates was negative, attesting to expectations of a decline in interest and inflation rates, there was a trend shift in 2001, when the curve became flatter in the course of the year. The interest-rate reductions continued and the slope of the curve became positive towards the end of 2001 and in 2002:I (Figure 2.14). A similar trend was evident in the term structure of real yields, as is explained below. The decline in nominal interest rates on the various sources and uses in the unindexed local-currency segment was also reflected by their reduction in real terms as well as by the contraction of the interest margin in the segment from 3.0 percent to 2.8 percent in 2001 (Table 2.12). The calculation of the interest margin incorporates the banks' income/expenditure from derivatives for managing assets and liabilities (ALM).[10] In the unindexed local-currency segment, the interest margin between the weighted interest on total assets and on total liabilities, as well as the interest-rate spread, contracted in 2001, continuing the long-term trend evident since 1985 (Figure

[10] When the derivative is intended to reduce surplus liabilities, the off-balance-sheet amount of the derivative's receivable is deducted from the segment's balance-sheet liabilities. When the derivative is intended to reduce surplus assets the off-balance-sheet amount of its liability to pay is deducted from the segment's balance-sheet assets. The other side of the off-balance-sheet transaction is added to the total assets or liabilities of the relevant segment, and the income or expenditure on the derivative is recorded in that segment.

Table 2.12
Estimate of Interest Margins[a] of Commercial Banks and Income From Them, by Uses, 2000–2001

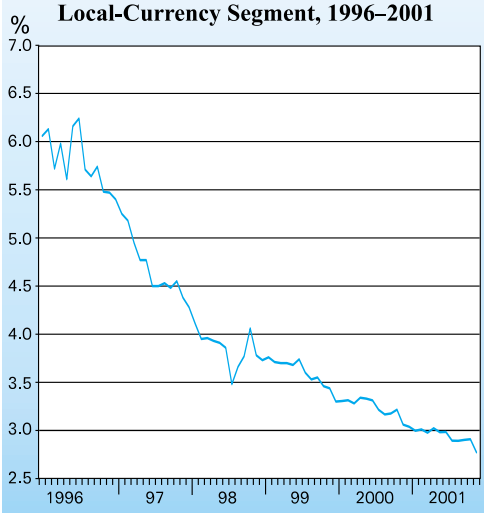
(NIS million, December 2001 prices)

	Average balance		Share in total uses (%)		Interest margin (%)		Net interest income		Contribution to net interest income(%)	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Unindexed activities	201,696	231,749	30.8	34.2	3.0	2.8	5,969	6,402	45.1	47.9
CPI-indexed activities	162,045	156,053	24.7	23.0	1.2	1.0	1,884	1,591	14.2	11.9
Foreign-currency activities, in Israel	190,018	205,139	29.0	30.3	1.7	1.5	3,174	3,096	24.0	23.2
Indexed to foreign currency	12,707	8,752	1.9	1.3	2.4	2.3	301	203	2.3	1.5
Denominated in foreign currency	177,311	196,387	27.1	29.0	1.6	1.5	2,873	2,893	21.7	21.6
Foreign-currency activities abroad	34,084	39,556	5.2	5.8	1.2	1.7	413	688	3.1	5.1
Total uses	**587,843**	**632,497**	**89.8**	**93.3**	**1.9**	**1.9**	**11,440**	**11,777**	**86.4**	**88.1**
Derivatives[b]							524	87	4.0	0.7
Commissions on financing transactions[c]	66,901	45,379	10.2	6.7	1.0	1.5	682	698	5.2	5.2
Total uses, incl. derivatives and commissions on financing transactions	**654,744**	**677,876**	**100.0**	**100.0**	**1.9**	**1.9**	**12,646**	**12,562**	**95.5**	**94.0**
Other net interest income[d]							593	806	4.5	6.0
Total net interest income/total interest margin	**654,774**	**677,876**	**100.0**	**100.0**	**2.0**	**2.0**	**12,239**	**13,368**	**100.0**	**100.0**

[a] The rate of income on credit to the public was calculated for credit *less* the outstanding loan-loss provision.
[b] Excluding hedging and ALM transactions, as the results of these activities are included in the relevant segments above.
[c] Including income from acceptances, documentary credits, and credit assurance guarantees.
[d] Including profits (losses) on bonds, reduction of loan-loss provision, and collection of debts and early repayment fees.
SOURCE: Based on returns to Supervisor of Banks.

2.15). This reduction is explained mainly by the change in the composition of sources and uses in the segment; thus, the share of profitable uses has declined at the expense of the other ones (especially current accounts and overdraft facilities), and the share of expensive sources (especially term and SRO deposits) has risen at the expense of the other ones. The unindexed local-currency segment accounts for about a third of total uses, and because of its interest margin—which is higher than that in other segments, despite its decline—its contribution to net interest income was about 48 percent (Table 2.12).

Figure 2.15
Interest-Rate Spread[a] in the Unindexed Local-Currency Segment, 1996–2001

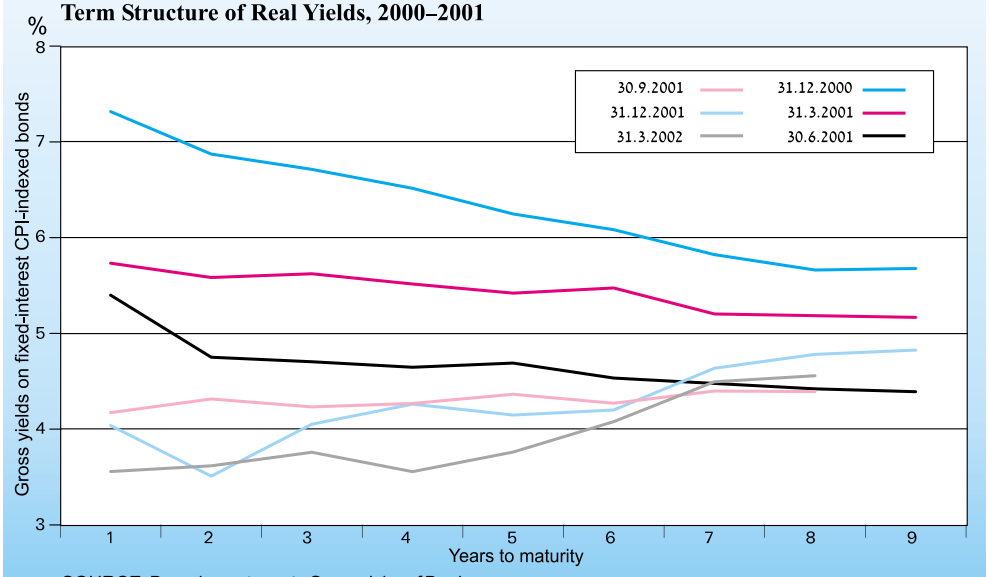


[a] The spread between the weighted interest on total assets and that on total liabilities.
SOURCE: Returns to Supervisor of Banks.

b. Interest rates and margins on CPI-indexed activity

CPI-indexed interest rates are affected in the short term by the nominal interest rate set by the Bank of Israel, so that the reduction of the latter during the course of the year also led to a decline in CPI-indexed interest rates (Figure 2.16). Interest rates in this segment

Figure 2.16
Term Structure of Real Yields, 2000–2001



SOURCE: Based on returns to Supervisior of Banks.

are also influenced in the medium and long term by developments regarding yields in the government bond market, as these derive from the government's net borrowing needs and the public's demand for CPI-indexed credit to finance investment. In the fiscal realm, the budget deficit deviated from its target in 2001, and it reached 4.6 percent of GDP, compared with a planned level of only 1.75 percent. Alongside the expansion of the deficit there was a marked increase in net borrowing in the domestic market, which led to a rise in long-term yields from 2001:III. The term structure of the real yield curve has had a negative slope for the last few years. In the first half of 2001 this curve moderated and eventually flattened, expressing expectations that real interest would remain unchanged. The slope of the yield curve turned positive at the end of the year, however, when yields on short-term bonds were lower than those on long-term ones (Figure 2.16). The higher interest rates on long-term bonds derived primarily from the increase in the supply of government bonds, in order to finance the budget deficit. Despite the greater net borrowing requirement, the yields on bonds declined during the year because of the strong effect of real short-term interest rates on long-term interest. The 1 percentage-point decline in yields on bonds during the year (from 5.7 to 4.6 percent), and the increase in the public's demand for CPI-indexed credit, led to a reduction in interest rates on this kind of credit (from 6.9 to 6.1 percent), albeit by less than the decline in yields.

The low level of supply of CPI-indexed sources, and interbank competition for them, prevented the reduction of the interest on savings schemes, which remained at the same level as in 2000 (dipping from 5.0 to 4.9 percent), so that the interest-rate spread in the segment fell and the interest margin contracted (from 1.2 to 1 percent, Table 2.12). There has been a shortage of CPI-indexed sources for several years, and this worsened in 2001, as is indicated by the surplus of uses over liabilities in this segment; this stood at NIS 22 billion in 2001—some 14 percent of assets. The banks' derivatives transactions (ALM) in order to close positions were marginal in the indexed segment—apparently because positions in this segment are closed against net worth, and hence do not expose the banks to inflation risk. In the other indexed segments, however, there was considerable activity in derivatives, leading to a significant reduction of exposure to basis risk. The decline in activity in this segment, alongside the contraction of the interest margin on it, gave rise to a fall in its net interest income, which was NIS 1.6 billion—12 percent of the banks' net interest income.

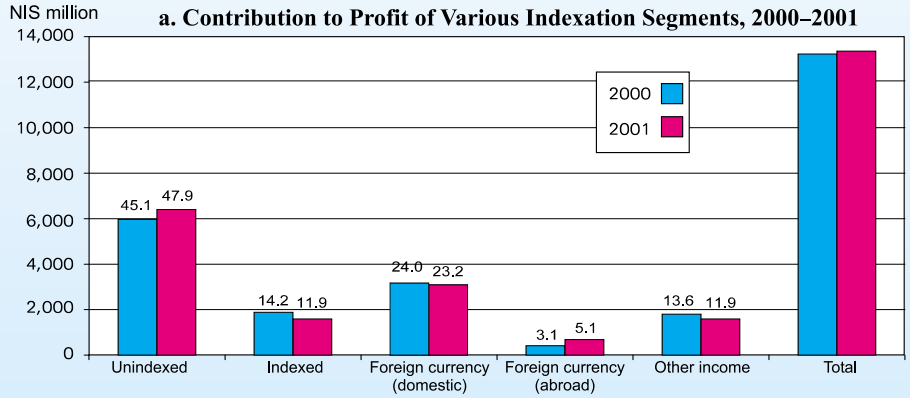
c. Interest rates and margins in the foreign-currency segment: domestic activity

The liberalization of foreign-currency control introduced by the Bank of Israel in recent years and the increased perfection of this market, expressed inter alia in firms' ability to borrow abroad, have made foreign interest rates, i.e., Libor, the dominant element affecting interest in the foreign-currency-indexed segment.

The Libor dollar rate fell by 2.7 percentage points in 2001, leading to a similar decline in the dollar interest rate on foreign-currency credit (from 7.5 to 4.9 percent), in spite of the increased demand for this kind of credit. In a closed economy an increase in demand

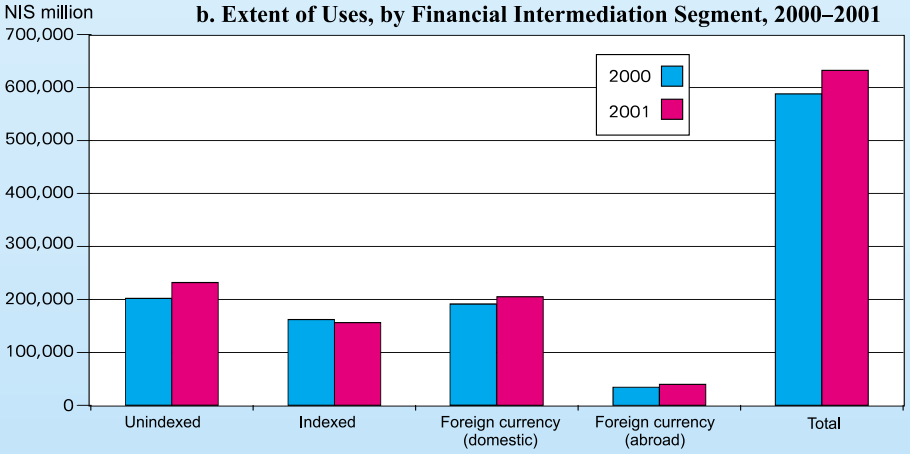
Figure 2.17
Indexation Segments, Financial Intermediation, and Interest Margin, 2000–2001

a. Contribution to Profit of Various Indexation Segments, 2000–2001

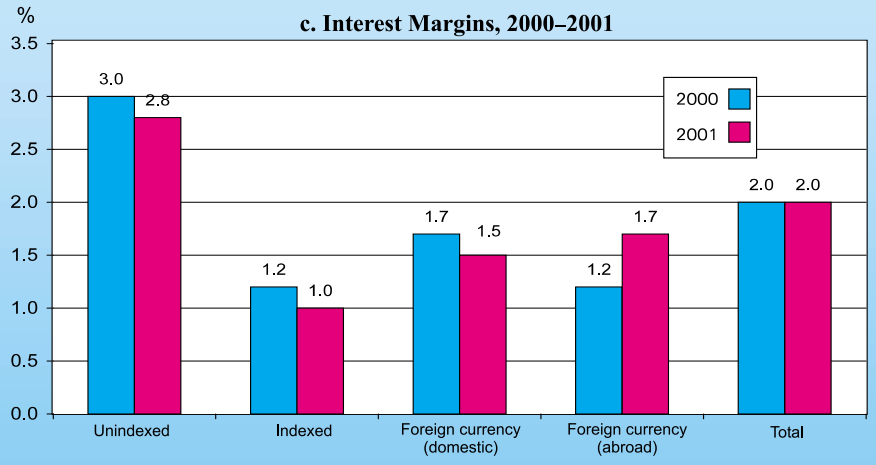


The numbers above the coloumns represent the segment's share in total net interest income.

b. Extent of Uses, by Financial Intermediation Segment, 2000–2001



c. Interest Margins, 2000–2001



SOURCE: Returns to Supervisor of Banks.

would have moderated the decline in interest on credit, but the liberalization and the possibility of borrowing abroad have led to a high correlation between domestic and foreign interest rates on the credit side in recent years. In the deposits market, however, individuals are not familiar with deposits abroad which are not accessible to all depositors and hence do not constitute a perfect substitute for domestic activity. Thus, the shortage of foreign-currency-denominated sources in Israel's banking system, and the desire to prevent the decline in their supply, served to moderate the reduction of interest on foreign-currency deposits (from 5.7 to 3.3 percent, in dollar terms) in 2001, and hence reduced the interest margin in the segment—from 1.7 percent in 2000 to 1.5 percent in 2001 (Table 2.12). In the past, the foreign-currency segment was characterized by a marked surplus of sources, which was financed from unindexed and/or capital sources; in the last two years, however, the entire surplus of foreign-currency sources has been closed against a counter-position in derivatives, and there was even a surplus of foreign-currency liabilities.

In the last few years the interest margin and net interest income in the segment have been characterized by wide fluctuations as they are affected by movements in the exchange rate of the NIS against the various currencies, as well as by its volatility throughout the year. Net interest income in the segment contracted by about NIS 80 million in 2001, as a result of the decline in the interest margin, which was almost entirely offset by the increased extent of activity in it (Figure 2.17).

The liberalization of the capital and money markets, where most of the restrictions were removed and the substitutability between the various segments increased, reduced the interest margins and led to a long-term process of convergence between interest rates and margins in the various indexation segments—a process that continued in 2001 (Figures 2.17 and 2.8). In spite of the reduction of interest margins in each of the various indexation segments (with the exception of the foreign-currency segment, because of activity abroad), the overall interest margin on total uses was 2 percent, similar to its level in 2000. This development stems from the increased share of the unindexed local-currency segment, which bears the highest margin, at the expense of the other, less profitable segments.