BANK OF ISRAEL

BALANCE SHEET AS OF DECEMBER 31, 2003 (TEVET 6, 5764)

(NIS million)

	Notes	31 December 2003	31 December 2002		Notes	31 December 2003	31 December 2002
Assets				**Liabilities and capital**			
Foreign exchange reserves	2	**112,925**	**112,123**	**Banknotes and coins in circulation**	8	**19,137**	**18,009**
International financial institutions*	3	**2,820**	**2,197**	**International financial institutions**	9	**760**	**761**
Credit to the government	4	**4,535**	**5,051**	**Deposits of the government**	10	**8,318**	**8,152**
				Treasury bills	11	**54,325**	**43,762**
Loans	5	**2,727**	**3,006**	**Deposits of banking corporations**	12		
				Local-currency time deposits		**30,274**	**34,533**
				Other		**13,730**	**15,733**
Local-currency securities	6	**5,513**	**6,005**				
Other assets	7	**373**	**304***	**Other liabilities**	13	**3,311**	**3,406**
				Revaluation accounts	14	**11,773**	**17,371***
				Bank of Israel capital			
				Capital and general reserve	15	**320**	**320**
				Losses	16	**(13,055)**	**(13,361)**
Total		**128,893**	**128,686**	**Total**		**128,893**	**128,686**

* Reclassified

The accompanying notes are an integral part of the financial statements.

Dr. David Klein
Governor

Zvi Auerbach
Comptroller

February 29, 2004

BANK OF ISRAEL
PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDING
DECEMBER 31, 2003
(NIS million)

	Notes	2003	2002
Interest income from			
Foreign exchange reserves	19	2,631	3,772
Loans	20	252	141 *
The government	21	2,128	1,776 *
Other	22	30	30
Total interest income		**5,041**	**5,719**
Interest paid			
To banks and the public	23	6,919	5,238
To the government	24	235	382
Other	25	76	79
Total interest paid		**7,230**	**5,699**
Net interest income (interest paid)		**(2,189)**	**20**
Other financial income from			
Securities and derivatives	26	559	1,807 *
Exchange-rate differentials		2,506	931
Miscellaneous	27	24	20 *
Total other financial income		**3,089**	**2,758**
Profit on financial transactions		**900**	**2,778**
Expenses on printing banknotes and minting coins		**13**	**52**
Administrative and general expenses	28	**581**	**687**
Other expenses	29	**–**	**323**
Net profit		**306**	**1,716**

* Reclassified.

The accompanying notes are an integral part of the financial statements.

NOTES TO THE FINANCIAL STATEMENTS FOR 2003

1. Accounting policies

a. General

The financial statements are presented in accordance with generally accepted accounting principles adapted for the special activity of a central bank, in line with the practice in other central banks.

The financial statements are presented in nominal NIS (New Israel Sheqalim). Income and expenses are entered on an accrual basis and are included in the balance-sheet items on which they accrued.

b. Foreign currency

Assets and liabilities denominated in or indexed to foreign currency are translated into NIS at the representative exchange rates published by the Bank of Israel for the balance-sheet date.

Income and expenses in foreign currency are recorded in the Profit and Loss Account at the representative exchange rates prevailing on the value dates of the transactions.

Unrealized exchange-rate differentials are transferred to separate revaluation accounts for each currency. Realized exchange-rate differentials are transferred to the Profit and Loss Account, and are calculated on the basis of the average cost of the balances of that currency. Realization is calculated monthly for all foreign-currency assets in each currency and for all foreign-currency liabilities in each currency. A balance of loss in the revaluation accounts at the end of the year is transferred to the Profit and Loss Account, and is not offset in the future against unrealized profits. Unrealized losses in one currency are not offset against unrealized profits in other currencies.

Details of the exchange rates are as follows:

	31 December			Change	
	2003	2002	2001	2003	2002
	(NIS)			(percent)	
US$	4.3790	4.7370	4.4160	–7.6	7.3
Euro	5.5331	4.9696	3.9075	11.3	27.2
Special drawing rights (SDR)[a]	6.4835	6.4167	5.5447	1.0	15.7
First currency basket[b]	5.1314	4.9657	4.1980	3.3	18.3
Currency basket[c]	4.9646	5.0467	4.4654	–1.6	13.0

[a] Based on a weighted 4-currency basket consisting of US$, €, ¥, and £.

[b] In effect until July 31, 1986, and consisting of: US$ 0.3500; £ 0.1295; and € 0.4667.

[c] In effect since May 2, 2000, and consisting of: US$ 0.6698; £ 0.0453; € 0.2493; and ¥ 7.2411. (The currency basket in effect from April 30, 1996, to May 1, 2000, consisted of: US$ 0.6741; £ 0.0589; € 0.2282; and ¥ 6.5437.)

c. Indexation

Assets and liabilities indexed to the Consumer Price Index (CPI) in Israel are calculated according to the latest known index on the balance-sheet date, i.e., the November index. Details of the CPI are as follows:

	31 December			Change	
	2003	2002	2001	2003	2002
		(CPI)[a]		(percent)	
November	178.9	182.5	171.1	–1.9	6.7
December	178.6	182.0	170.9	–1.9	6.5

[a] 1993 average = 100.

d. Securities

Foreign-currency securities

Tradable foreign-currency securities are shown at market value on the balance-sheet date.

Unrealized profits arising from the difference between the market value of securities and their adjusted cost are included in the Revaluation Accounts item in the balance sheet. The adjusted cost of securities is their par value *plus* accrued interest, accrued CPI-indexation differentials, and the balance of the premium or discount. The premium or discount is reduced from the time of the purchase of the security until its maturity. The balance of unrealized losses due to a fall in the market price of securities to below their adjusted cost are taken at the end of the year to the Profit and Loss Account and are shown under 'Other financial income from (expenses on) securities and derivatives.' (see Note 26).

Interest and indexation income on foreign-currency securities are shown under 'Interest income from foreign exchange reserves'

Income from the realization of securities is shown under 'Other financial income from securities and derivatives' (see Note 26).

Local-currency securities and the matched timing principle

Tradable local-currency securities are shown at market value on the balance-sheet date. The difference between the market value of securities and their original cost is included in the Revaluation Accounts item in the balance sheet. (Until 31 December 2002 the difference between the adjusted cost and the original cost was shown under a separate balance-sheet item, 'balance of matched timing account,' and the difference between the market value and adjusted cost was included in the Revaluation Accounts item in the balance sheet.)

Income from securities is recorded in the Profit and Loss Account on a cash basis in line with the matched timing principle according to which accrued income from government securities not yet received in cash from the government is deducted from the Profit and Loss Account. (Until 31 December 2002 the item of income from these securities was shown in the Profit and Loss Account on an accrual basis and the difference between income on an accrual basis and income on a cash basis was also shown in the Profit and Loss Account in a separate item.)

Interest and indexation income on local-currency securities are shown under 'Interest income from the government.' Income from the sale of securities (the difference between market

value and the adjusted cost of the securities sold) are shown in the item 'Other financial income from securities and derivatives.'

e. International financial institutions

The International Monetary Fund (IMF)

The Bank of Israel's participation in the IMF *minus* its liability for participation is shown under assets in the item 'International financial institutions.'

Special drawing rights (SDR) allocated by the IMF are shown under liabilities in the item 'International financial institutions.'

Other international financial institutions

The Bank of Israel's participation in other international financial institutions consists of an initial participation in the capital of the international institutions and additional participation payments for increases in those institutions' capital. The Bank of Israel's participation in other international financial institutions is included in 'International financial institutions' according to the cost in the currency in which the participation was paid, translated at the exchange rate on the date the transaction took place. Liabilities to international financial institutions are shown under liabilities in the item 'International financial institutions.'

f. Buildings and equipment

Buildings and equipment are stated at cost net of cumulative depreciation. Depreciation is calculated by the straight-line method for the estimated useful life:

Buildings	—	from fifty to seventy years;
Vehicles	—	six and a half years;
Computers	—	four years;
Other equipment	—	ten years.

Purchases of fixed property for non-significant amounts are transferred to the Profit and Loss Account

g. Treasury bills

The balance of Treasury bills in the balance sheet reflects the par value (the redemption price) of Treasury bills held by the public *less* the balance of the discount that has not yet been applied. Treasury bills sold by the government to the Bank of Israel but not yet sold to the public are not included in this balance.

The discount is the difference between the par value of the Treasury bills and the proceeds of their sale to the public. The discount is reduced by the straight-line method. (Until 2002 the discount was reduced by the compound interest method.)

Interest expenses on Treasury bills held by the public are included in the Profit and Loss Account in the item 'Interest paid to the banks and the public.'

h. Employee pensions, severance pay, and vacation pay

The liability for employee pensions and severance pay is actuarially computed on an accrual basis which reflects the liability for pensions and severance pay payments to employees accrued to the balance-sheet date. Changes in pensions due to take place from 2004 have not been taken into account in calculating the liability to the balance–sheet date.

Provision for vacation pay is computed on the basis of vacation due accrued to the balance-sheet date.

i. Revaluation accounts

There are separate revaluation accounts for each item (currency, security), which are transferred to the Profit and Loss Account when the item is realized in whole or in part.

The balance of the loss in the Revaluation Accounts item arising from price differentials in foreign-currency securities and from exchange-rate differentials on balances in foreign currency is transferred to the Profit and Loss Account at the end of the year.

j. Derivative financial instruments

The Bank of Israel uses derivative financial instruments in its monetary and foreign exchange activities.

1. Activity in derivative financial instruments in Israel:

a) NIS/US$ swaps

NIS/*US*$ swaps implemented by the Bank of Israel with domestic banks are shown net, i.e., the balance of dollars to be received from the banks (translated according to the exchange rate on the balance-sheet date) *minus* the balance of NIS to be transferred to the banks. A net debit balance is shown under the item 'Other assets' and a net credit balance under 'Other liabilities.'

Interest expenses on these transactions is shown in the Profit and Loss Account under the item 'Interest paid to the banking corporations and the public.'

b) Purchase and sale options on the US$/NIS exchange rate

The Bank of Israel sells NIS/US$ exchange-rate options to the banks. The balance of options to the date of the financial statement is shown in Note 18, 'Contingent liabilities and special commitments.'

Expenses arising from the exercise of options during the period of the statement, and expenses expected from their exercise in accordance with the representative exchange rate of the dollar on the balance-sheet date, *minus* income from the premium on the options, are given in the item 'Other financial income from (expenses on) securities and derivatives.' The income from the premium on options is spread evenly over the duration of the options using the straight-line method. Advance income on the premium *plus* expenses accrued due to the difference between the exercise rate and the representative dollar exchange rate on the balance-sheet date is included in the 'Other liabilities' item.

c) Future remittances of Treasury bills

The balance of the liability on Treasury bills for future remittance up to the date of the financial statement is given at par (redemption price) in Note 18, 'Contingent liabilities and special commitments.'

Receipts on account of future issues of Treasury bills is included in the balance sheet under 'Other liabilities.'

2. Derivative financial instruments in activities abroad:

a) Repurchase agreements (Repo), and Reverse repo
The balances of Repo and Reverse repo agreements are included in the balance sheet as 'Foreign exchange reserves.' In the Profit and Loss Account the results of the transactions are included in 'Interest income from foreign exchange reserves.'

b) Foreign-currency swaps
The transactions are shown at net value, i.e., the balance of future foreign-currency receipts (in one of the currencies) *less* future foreign-currency remittances (in the other currency). In the balance sheet the transactions are included in 'Foreign exchange reserves.' In the Profit and Loss Account the results of these transactions are included in 'Interest income from foreign exchange reserves.'

c) Futures
The balances of futures contracts at market prices on the date of the financial statement are given in Note 18, 'Contingent liabilities and special commitments.'

In the Profit and Loss Account the change in the price in the contracts is given under 'Other financial income from (expenses on) securities and derivatives.'

k. Transfer of profits
In accordance with the Bank of Israel Law, 5714–1954, the Bank must transfer its net profits to the government within sixty days of the end of each business year. Since the Bank has a balance of accrued losses, the profits are offset against them and are not transferred to the government.

2. Foreign exchange reserves

The currency composition of the Bank of Israel's reserves matches their possible uses. These uses, which also provide a basis for the determination of the desired level of the reserves, are: reserves can be sold to the government to service its debts and to finance imports in an emergency and can be used to implement the Bank of Israel's policy regarding the stability of the financial and foreign-currency markets and to implement monetary policy. (The yields on the foreign exchange reserves are shown in Table 4 in the Explanatory Remarks to the Financial Statements below.)

	31 December		31 December	
	2003	2002	2003	2002
	(NIS million)		($ million)	
Tradable securities	91,839	100,798	20,973	21,279
Short-term deposits	23,197	22,308	5,297	4,709
Demand deposits	1,195	962	273	203
Derivative financial instruments[a]	(3,306)	(11,945)	(755)	(2,522)
Total	**112,925**	**112,123**	**25,788**	**23,669**

[a] Derivative financial instruments are shown net, i.e., future foreign-currency assets *minus* future foreign-currency liabilities (see note 1.j.2).

3. International Financial Institutions (assets)*

	31 December	
	2003	2002
	(NIS million)	
The IMF	2,305	1,957
Investment in BIS shares	265	–
Other	250	240
Total	**2,820**	**2,197**

* Reclassified

a. The International Monetary Fund (IMF)

The balance with the IMF (the reserve tranche) constitutes part of the quota allocated to Israel which Israel paid to the Fund in foreign currency.

The quota in the IMF
Each member country is allocated a quota which determines the basis of that country's financial and organizational ties with the Fund. The quota is related to the country's economic situation (national income, exports, balance of payments, level of the reserves) and determines its voting rights. Part of the quota is deposited in the country's central bank in notes and deposits most of which are indexed to Special Drawing Rights, and part (called the reserve tranche) is transferred to the Fund in foreign currency, and can be withdrawn.

Up to 1998 Israel drew its entire foreign-currency payment, putting up against these withdrawals a non-interest-bearing deposit in favor of the Fund. In 1999 the Fund increased members' participation, and Israel's rose by SDR 262 million. The foreign-currency payment for this increase, SDR 66 million, was deposited in the Fund, and has not been withdrawn.

The IMF Financial Transactions Plan
In October 1999 Israel joined the group of countries which participate in financing the Fund's Financial Transactions Plan. This plan is one of the mechanisms through which the Fund makes foreign-currency loans available to member countries in need of such loans. Participation in the plan increases Israel's reserve tranche, against a reduction in the Fund's deposits in the Bank of Israel. In 2003 the balance of Israel's reserve tranche increased by SDR 50.8 million due to the Financial Transactions Plan (previously called the Operational Budget) (in 2002 it increased by SDR 146.7 million).

Loan repayments are divided between countries whose reserve tranche/quota ratio is higher than the average ratio of all the Fund's member countries which participate in the Financial Transactions Plan.

	31 December		31 December	
	2003	2002	2003	2002
	(NIS million)		(SDR million)	
International Monetary Fund (IMF) quota	6,023	5,962	928	928
minus liability for the quota[a]	3,718	4,005	573	624
Total[b]	**2,305**	**1,957**	**355**	**304**

[a] The balance of the liability to the IMF is in notes and deposits.

[b] The surplus of the reserve tranche over the 'basic sum' of SDR 33 million bears interest at a rate set by the IMF from time to time. The annual rate of interest on 31 December 2003, was 1.6 percent (on 31 December 2002, it was 1.9 percent).

b. Investment in the Bank for International Settlements (BIS) shares

In 2003 the Bank of Israel purchased 3000 shares in the BIS. The amount represents a cash payment of 25 percent of the nominal value of the shares.

c. Others

The Bank of Israel participates in the following institutions:

IBRD – The International Bank for Reconstruction and Development
IDA – The International Development Association
IFC – The International Finance Corporation
EBRD – The European Bank for Reconstruction and Development
MIGA – The Multilateral Investment Guarantee Agency
IDB – The Inter-American Development Bank
IIC – The Inter-American Investment Corporation

4. Credit to the government

Credit to the government consists mainly of long-term advances. These advances were made until 1988.

	31 December	
	2003	2002
	(NIS million)	
Long-term advances[a]		
Indexed[b]	3,643	4,065
Unindexed[c]	747	830
Credit for binational funds	145	156
Total	**4,535**	**5,051**

[a] The interest and indexation differentials for each year are due for payment on 31 December of that year. The principal is due to be paid in annual payments, the last of which will be in the year 2012.

[b] This credit is indexed to the first currency basket. NIS 3,643 million of it bears an interest rate of 8 percent, also indexed to that basket (the amount outstanding on 31.12.2002 was NIS 4,064 million).

[c] This credit bears interest at prime rate *plus* 2 percentage points. The average rate of interest during 2003 was 11.4 percent (10.8 percent in 2002).

5. Loans

	31 December	
	2003	2002
	(NIS million)	
Monetary loans[a]	634	871
Other loans[b]	2,093	2,135
Total	**2,727**	**3,006**

[a] The average rate of interest on the monetary loans in 2003 was 7.1 percent (in 2002, 6.6 percent). The average rate of interest on the monetary loans on 31 December 2003 was 4.8 percent (on 31 December 2002 it was 8.7 percent).

[b] Including NIS 2,062 million utilization of a special line of credit (of NIS 2,150 million) made available to the Industrial Development Bank to enable it to continue operating after it had encountered liquidity problems. In July 2003 the credit line to the Industrial Development Bank was extended for a further 36 months, to August 2006. The rate of interest on the credit was reduced by 3 percentage points, and is now the same as the Bank of Israel key rate. In accordance with a decision of the economic-social cabinet, if there is an outstanding credit balance at the end of the credit period, the government will assume responsibility for the balance. This credit is therefore not expected to result in a loss to the Bank of Israel.

6. Local-currency securities

This item consists of tradable government securities indexed to the last CPI known on the balance-sheet date. They are shown at market value.

The yield to maturity on the local-currency securities portfolio on 31 December 2003 was 3.5 percent, and the portfolio's average period to maturity was 4.7 years (on 31 December 2002 the yield to maturity was 4.9 percent, and the average period to maturity was 4 years).

	31 December	
	2003	2002
	(NIS million)	
Time to redemption from balance-sheet date		
Less than one year	850	838
Between one and two years	1,420	917
Between two and three years	232	1,396
Between three and four years	396	223
Between four and five years	482	376
Between five and seven years	1,495	1,057
Seven years or longer	638	1,198
Total	**5,513**	**6,005**

7. Other assets

This item consists mainly of:

a. Amounts receivable from the official receiver of the Trade Bank (In Liquidation) Ltd., constituting reimbursement of payments made by the Bank of Israel under the guarantee given to depositors in the Trade Bank (see Note 29);

b. In 2002, the net balance of NIS/US$ swaps. In 2003, when the balance was in credit, it is included in the 'Other Liabilities' item (see Notes 1.j.1.a and 18);
c. Loans to employees;
d. Buildings and equipment net of cumulative depreciation (see Note 1.f).

8. Banknotes and coins in circulation

	31 December, 2003		31 December, 2002	
	Quantity	NIS	Quantity	NIS
		(million)		(million)
Banknotes in circulation				
NIS 20	20	404	21	415
NIS 50	43	2,144	41	2,054
NIS 100	96	9,624	92	9,176
NIS 200	30	6,037	27	5,484
Coins in circulation	–	913	–	844
Other	–	10	–	31
Commemorative coins	–	5	–	5
Total		**19,137**		**18,009**

9. International financial institutions (liabilities)

	31 December	
	2003	2002
	(NIS million)	
Special Drawing Rights allocated[a]	692	685
Liabilities to international financial institutions[b]	68	76
Total	**760**	**761**

[a] Special drawing rights (SDR) are money which member countries of the International Monetary Fund (IMF) have undertaken to buy from it. The Fund allocates SDRs to member countries relative to the size of their quotas. To date Israel has been allocated SDR 106.4 million.
[b] Liabilities in bills or deposits to the following institutions: IDB, MIGA, EBRD, IDA, IBRD (see Note 3.c).

10. Deposits of the government

Government deposits comprise deposits for financing its budgetary activity and other deposits.

Government deposits for financing the budget
These are defined as deposits that the government may use to finance its budgetary and extra-budgetary activity and, accordingly, to which section 45(b) of the Bank of Israel Law, 5714-1954, applies. Financial movements arising from government budgetary and extra-budgetary activity in Israel and abroad and financial movements with the Bank of Israel are recorded in this item.

Other deposits

Other deposits include a bond-price stabilization local-currency deposit and various foreign-currency deposits. The bond-price stabilization deposit represents the proceeds from the purchase at source of government securities by the Bank of Israel in order to stabilize prices on the Tel Aviv Stock Exchange (TASE). In accordance with an agreement with the Ministry of Finance, the proceeds are placed in a special deposit on behalf of the government, but may not be used to finance government expenses. At the request of the Ministry of Finance the bond-price stabilization arrangement was ended in January 1993, and the deposit is being drawn down gradually against the redemption of such bonds purchased in the past. The redemption of these bonds will end in the year 2009.

	31 December		31 December	
	2003	2002	2003	2002
	(NIS million)		($ million)	
Deposits for budget financing				
Local currency[a]	**(12,626)**	**(12,400)**		
Foreign currency				
Borrowing under US government guarantee[b]	19,799	17,967	4,521	3,793
US government economic aid[b]	7	1,973	2	417
Current deposit	813	376	186	79
Total	**20,619**	**20,316**	**4,709**	**4,289**
Total deposits for budget financing	**7,993**	**7,916**		
Other deposits				
Bond-price stabilization local-currency deposit[a]	133	180		
Other foreign-currency deposits	178	38	41	8
Total other deposits	**311**	**218**		
Accrued interest on government deposits	**14**	**18**		
Total	**8,318**	**8,152**		

[a] Local-currency government deposits bear (when in debt) or pay (when in credit) interest at prime. The average prime rate in 2003 was 8.9 percent (in 2002 it was 8.4 percent).

[b] Government foreign-currency deposits derived from borrowing under US government guarantee or from US government economic aid earn interest at the rate paid on US Treasury bills with an average of 6 months to maturity. The rate of interest on 31 December 2003 was 1.0 percent (on 31 December 2002 it was 1.3 percent). On foreign-currency debit balances interest is charged at the borrowing rate abroad *plus* 5 percentage points.

11. Treasury bills

The Short-Term Loan Law, 5744–1984, authorizes the government to issue bonds to be sold only to the Bank of Israel; the Bank would sell them to and buy them from the public to regulate the money supply and to carry out its functions. The government must deposit the entire proceeds of sales of these bonds in the Bank of Israel and may not use the proceeds for anything apart from repaying the loan in accordance with this Law or paying the interest on it. The purchase of bonds from the government by the Bank of Israel and the deposit of the proceeds of the purchase in the Bank of Israel are not reflected in the Bank's balance sheet.

The balance of Treasury bills shown in the balance sheet shows the redemption value of bills held by the public *minus* the balance of the discount not yet applied.Until 31 December 2002 the discount was actually calculated according to the rate of discount on the sale of the Treasury bills by the government to the Bank of Israel. In 2003 the method of calculation was adjusted so that the balance of the discount to the beginning of the year reflects the rate of discount on the sale of the Treasury bills by the Bank of Israel to the public. This adjustment increased the balance of the discount to the beginning of 2003 by NIS 311 million (see Note 23).

	31 December	
	2003	2002
	(NIS million)	
Redemption value of Treasury bills sold to the public	56,084	45,786
Less Discount at time of sale to public	3,470	3,545*
Proceeds of sale of Treasury bills to the public	52,614	42,241
Plus Reduction in discount for period to balance-sheet date	1,711	1,521*
Total balance of Treasury bills	**54,325**	**43,762**

* See note 23.

12. Deposits of banking corporations

a. Local-currency time deposit

The Bank of Israel receives local-currency time deposits from the banking corporations. The deposits are allocated by auction for periods of a day, a week, or a month. In July 2002 the one-month auctions were discontinued. The deposits are not considered liquid assets for purposes of the banking corporations' reserve requirements.

	31 December	
	2003	2002
	(NIS million)	
Daily deposits	15,257	14,500
Weekly deposits	15,000	20,000
Total	**30,257**	**34,500**
Accrued interest on deposits	17	33
Total	**30,274**	**34,533**

The average rate of interest on time deposits in 2003 was 7.5 percent (in 2002 it was 7.0 percent).

The average rate of interest on the balance of deposits on 31 December 2003 was 5.3 percent (on 31 December 2002 it was 9.0 percent).

b. Other deposits

Banks' other local-currency deposits in the Bank of Israel serve as liquid assets against residents' local-currency and foreign-currency deposits. The reserve requirement ranges from 0 percent to 6 percent, according to the term of the deposit.

Foreign-currency demand deposits serve as liquid assets against nonresidents' foreign-currency deposits.

Secondary foreign-currency reserve-requirement deposits serve as liquid assets against residents' and nonresidents' foreign-currency deposits. In December 2001 the secondary reserve requirement against the public's foreign-currency deposits was 10 percent. At least half of this, i.e., 5 percent, had to be deposited in the Bank of Israel, and the rest could be deposited abroad. In August 2002 a process of reducing the secondary requirement by one percentage point a month was started, which continued until the elimination of the requirement in May 2003. During the process of reducing the requirement the limitation regarding the composition of the investment was adhered to.

The Bank of Israel pays interest on the secondary foreign-currency reserve-requirement deposits at a rate similar to the interbank interest rate abroad.

	31 December		31 December	
	2003	2002	2003	2002
	(NIS million)		($ million)	
Local-currency demand deposits	**11,106**	**8,667**		
Foreign-currency deposits				
Against foreign-currency reserve requirement				
Foreign-currency demand deposits	868	708	198	149
Secondary foreign-currency reserve requirement[a]	–	4,082	–	862
Total deposits against foreign-currency reserve requirements	**868**	**4,790**	**198**	**1,011**
Unrestricted deposits	**1,756**	**2,276**	**401**	**481**
Total foreign-currency deposits	**2,624**	**7,066**	**599**	**1,492**
Total	**13,730**	**15,733**		

[a] Deposits against the secondary foreign-currency reserve requirement in 2002 include accrued interest of NIS 8.8 million.

13. Other liabilities

This item consists mainly of:

a. Provision for employee pensions and severance and vacation pay;
b. Deposits of the U.S.–Israel Binational Industrial Research and Development Fund and a deposit of the U.S.–Israel Binational Science Fund;
c. Expected expenses against the exercise of options on the dollar/NIS exchange rate *plus* income received in advance;
d. In 2002, a liability for expenses related to the Trade Bank (see Note 29);
e. The net balance of NIS/US$ swaps. In 2002 the balance was included in the 'Other Assets' item (see Notes 1.j.1.a and 18);
e. Other creditors;

14. Revaluation accounts

Revaluation accounts include unrealized profits from the revaluation of the following items (see also Note 1.b, 1.d, and 1.i):

	31 December 2002	
	2003	2002
	(NIS million)	
Foreign-currency balances	10,161	14,938
Tradable local-currency securities	1,355	1,371 *
Tradable foreign-currency securities	257	1,062
Total	**11,773**	**17,371**

* Reclassified

15. Bank of Israel capital

	31 December	
	2003	2002
	(NIS million)	
Share capital	60	60
General reserve	260	260
Total	**320**	**320**

16. Losses

In accordance with the Bank of Israel Law, 5714–1954, the Bank must transfer its net profits to the government within sixty days of the end of each business year. Losses incurred by the Bank accrue in this item, and will be offset against future profits.

	31 December	
	2003	2002
	(NIS million)	
Loss brought forward from previous year	(13,361)	(15,077)
Profit in current year	306	1,716
Total loss	**(13,055)**	**(13,361)**

17. Assets and liabilities, by indexation bases

	31 December 2003				31 December 2002			
	In local currency	In foreign currency	Non-financial items	**Total**	In local currency	In foreign currency	Non-financial items	**Total**
	(NIS million)				(NIS million)			
Assets								
Foreign exchange reserves[a]		112,925		**112,925**		112,123		**112,123**
Balance in international financial institutions*		2,320	500	**2,820**		1,973	224	**2,197**
Credit to the government[b]	747	3,788		**4,535**	830	4,221		**5,051**
Loans	2,725	2		**2,727**	3,003	3		**3,006**
Local-currency securities[c]	5,513			**5,513**	6,005			**6,005**
Other assets*	344	–	29	**373**	(6,350)	6,632	22	**304**
Total assets	**9,329**	**119,035**	**529**	**128,893**	**3,488**	**124,952**	**246**	**128,686**
Liabilities								
Banknotes and coins in circulation	19,137			**19,137**	18,009			**18,009**
International financial institutions	–	760		**760**	–	761		**761**
Deposits of the government	(12,495)	20,813		**8,318**	(12,224)	20,376		**8,152**
Treasury bills	54,325			**54,325**	43,762			**43,762**
Deposits of banking corporations	41,380	2,624		**44,004**	43,200	7,066		**50,266**
Other liabilities*[d,e]	9,257	(5,946)		**3,311**	3,232	174		**3,406**
Revaluation accounts*	11,516	257		**11,773**	16,309	1,062		**17,371**
Bank of Israel capital			(12,735)	**(12,735)**			(13,041)	**(13,041)**
Total liabilities	**123,120**	**18,508**	**(12,735)**	**128,893**	**112,288**	**29,439**	**(13,041)**	**128,686**
Surplus assets (liabilities)	**(113,791)**	**100,527**	**13,264**	**–**	**(108,800)**	**95,513**	**13,287**	**–**

* Reclassified.

[a] In 2002 these included NIS 1,740 million indexed to the US Consumer Price Index.

[b] Foreign-currency credit to the government includes long-term advances totalling NIS 3,643 million denominated in NIS and indexed to the exchange rate against the first currency basket (NIS 4,065 million on 31 December 2002).

[c] Local-currency securities indexed to the Consumer Price Index.

[d] Other local-currency liabilities include NIS 28 million deriving from expenses expected on exercising US$/NIS exchange-rate options (NIS 9 million on 31 December 2002).

[e] NIS/$ swaps are shown in the balance sheet net, in accordance with the balance (see Note 1.j.1(a)). In 2003 this net balance was in credit, and is therefore shown in this ('Other liabilities') item (in 2002 it was included in "other assets"). This table shows dollars to be received in the foreign-currency column (NIS 6,131 million on 31 December 2003; NIS 6,632 million on 31 December 2002), and NIS to be paid in the local-currency column (NIS 6,176 million on 31 December 2003; NIS 6,565 million on 31 December 2002), so that the balances of these items are negative.

18. Contingent liabilities and special commitments

	31 December	
	2003	2002
	(NIS million)	
1. Contingent liabilities[a]		
Documentary credits and guarantees for government imports and exports		
Documentary credits	58	9
Guarantees	181	282
Other contingent liabilities		
Liabilities to pay international financial institutions on demand	3,637	3,826
2. Special commitments		
Derivative financial instruments in activity in Israel		
Currency swaps with domestic banks		
Future receipts of dollars[b]	6,131	6,632
Future payments of NIS	6,176	6,565
$/NIS purchase options	911	1,208
$/NIS sales options	911	592
Future remittances of Treasury bills (at par)	640	640
Derivative financial instruments in activity abroad		
Currency swaps and forward transactions		
Future receipts of foreign currency	658	883
Future payments of foreign currency	658	882
Repurchase agreements (Repo) and Reverse Repo (RRepo)		
Repo	19,753	15,645
Reverse Repo	16,448	3,703
Futures		
Sales commitments	12,064	2,365
Purchase commitments	32,442	1,575
Participation in international financial institutions not yet due for payment	34	44

[a] Several claims were made on the Bank of Israel. The Bank of Israel does not consider it necessary to make a special provision for these claims, as the chances that they will be upheld are slight.

[b] The balance of swaps on the balance-sheet date was $1,400 million ($1,400 million in 2002).

19. Interest income from the foreign exchange reserves

	Year to 31 December	
	2003	2002
	(NIS million)	
Tradable securities[a]	2,445	3,478
Short-term deposits	217	330
Demand deposits	13	15
Derivative financial instruments[b]	(44)	(51)
Total	**2,631**	**3,772**

[a] Income from interest includes indexation differentials and reductions of premium and discount.

[b] Expenses on interest on derivatives is shown net.

20. Interest income from loans

	Year to 31 December	
	2003	2002
	(NIS million)	
From monetary loans	57	56
From other loans[a]	195	85*
Total	**252**	**141**

* Reclassified.

[a] Mostly deriving from interest on credit advanced to the Industrial Development Bank (see Note 5).

21. Interest income from the government[a]

	Year to 31 December	
	2003	2002
	(NIS million)	
Long-term advances		
Indexed	472	718
Unindexed	95	98
From binational funds	65	65
From government deposits[b]	959	514
From local-currency securities	537	381*
Total	**2,128**	**1,776**

* Reclassified.

[a] Including indexation differentials, reductions of premium and discount.

[b] See Note 10.

22. Other interest income

This item consists of interest income from the IMF.

23. Interest paid to the banks and the public

	Year to 31 December	
	2003	2002
	(NIS million)	
Interest paid		
In local currency		
On local-currency time deposits	2,325	2,321
On swaps	419	343
On Treasury bills	4,151*	2,407
On banks' deposits	6	4
Total in local currency	**6,901**	**5,075**
In foreign currency		
On banks' deposits	18	163
Total	**6,919**	**5,238**

* Including NIS 311 million from an adjustment to the calculation of the balance of the discount for Treasury bills to the beginning of the year. The adjustment is made so that the balance of the discount reflects the discount rate on the sale of the Treasury bills by the Bank of Israel to the public, instead of the discount rate on the sale of the bills by the government to the Bank of Israel (see note 11).

24. Interest paid to the government

	Year to 31 December	
	2003	2002
	(NIS million)	
On local-currency deposits[a]	16	17
On foreign currency deposits	219	365
Total	**235**	**382**

[a] On the bond-price stabilization deposit (see Note 10).

25. Other interest paid

This item consists mainly of interest paid:
a. To international financial institutions;
b. On deposits of the US–Israel Binational Industrial Research and Development (BIRD) Fund and a deposit of the US–Israel Binational Science Foundation.

26. Other financial income from securities and derivatives

	Year to 31 December	
	2003	2002*
	(NIS million)	
Securities[a]		
In foreign currency	629	2,040
In local currency	–	(7)*
Total	**629**	**2,033**
Derivative financial instruments		
In foreign currency	(42)	(175)
In local currency	(28)	(51)
Total	**(70)**	**(226)**
Total	**559**	**1,807**

* Reclassified.

[a] Including income from (expenses on) the realization of securities and from decline in their value at the end of the year.

27. Other financial income—miscellaneous

	Year to 31 December	
	2003	2002
	(NIS million)	
In local currency	4	6*
In foreign currency	20	14
Total	**24**	**20**

* Reclassified.

28. Administrative and general expenses

	Year to 31 December	
	2003	2002
	(NIS million)	
Wages and general expenses[a]	511	496
Provision for employees' entitlements	70	191
Total	**581**	**687**

[a] Including pensions.

29. Other expenses

	Year to 31 December	
	2003	2002
	(NIS million)	
Expenses related to the Trade Bank[a]	–	350
Doubtful debts[b]	–	(27)
Total	**–**	**323**

[a] In April 2002 a case of embezzlement was discovered in the Trade Bank, as a result of which the bank is being liquidated, by court order. The Bank of Israel, with government approval, gave guarantees to depositors in the Trade Bank who were not parties at interest and who had no part in the embezzlement. The Bank gave a complete guarantee (at a rate of 100 percent) for every deposit up to NIS 4 million. For larger deposits the Bank guaranteed the first NIS 4 million in full, and 95 percent of any balance of the deposit in excess of NIS 4 million. At the time of signing these financial statements, it is estimated that the Bank of Israel's expenses due to the Trade Bank will total NIS 350 million. Payments made by the Bank of Israel in excess of the above expenses (about NIS 110 million) are shown in the 'Other assets' item (see note 7).

[b] Update of the loan-loss provision for the North American Bank.

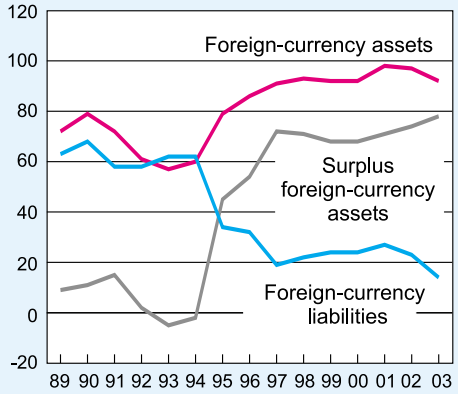
EXPLANATORY REMARKS TO THE FINANCIAL STATEMENTS FOR 2003

1. INTRODUCTION

The financial activity of a central bank is different from that of a commercial company because it is determined by the bank's various functions as defined by law and is not necessarily directed towards earning profits. The Bank of Israel's balance sheet and profit and loss account reflect this, and they must be viewed in this light.

In 2003, as in every one of the last few years, the most prominent features of the financial statements derive from the fact that the bulk (92 percent) of the Bank of Israel's assets are denominated in or indexed to foreign currency, while most of its liabilities (96 percent) are in local currency. This composition of the Bank's assets and liabilities can be traced mainly to the years 1995 to 1998, when the Bank set a high rate of monetary interest with the object of achieving the government's inflation target. The high interest rate prompted the private sector to import foreign currency, and the Bank, in order to protect the exchange rate, as it was obliged to do at that time by the sloping exchange-rate-band regime, bought some $ 16 billion, and absorbed the NIS that consequently flowed into the economy. The Bank's foreign exchange reserves, which during the previous decade had stood at between $ 4 billion and $ 7 billion, surged to reach levels of between $ 22 billion and $ 26 billion in the last few years (Figure 1), and the composition of aggregate of the main monetary instruments,[1] which until 1995 consisted mainly of loans, underwent a major change, and currently consists chiefly of Treasury bill deposits and resident time deposits together totaling NIS 84 billion.

Figure 1
Foreign-Currency Assets, Liabilities, and Surplus Foreign-Currency Assets of the Bank of Israel, 1989–2003
(percent of balance sheet, end-of-year, at current prices)



In the light of this imbalance in the composition of the Bank's assets and liabilities, it is clear why changes in exchange rates (NIS/$ and $ against other currencies) and differences between the downward or upward interest-rate paths in different countries can cause significant changes in the Bank's balance sheet and profit and loss account (which are in NIS).

The rise in local-currency interest has a direct effect in increasing the cost of interest incurred by the use of the monetary instruments (mainly Treasury bill and resident time deposits). The rise in foreign-currency interest (mainly dollar interest) has a more complex effect because the Bank's foreign-currency assets consist mainly of reserves invested in tradable assets. A rise in foreign-currency interest increases interest income, on the one hand, but a rise in the yield leads to a

[1] Treasury bills and resident time deposits *minus* monetary loans.

fall in the value of the securities, i.e., a revaluation loss, on the other. The overall result of these two conflicting effects depends on many factors such as the duration of the portfolio and the frequency with which is updated.

Due to the currency imbalance, depreciation (or appreciation) of the NIS also has a significant effect that is evident mainly in the value of the foreign exchange reserves and exchange-rate differentials.

2. MAIN DEVELOPMENTS

From January to March 2003 an atmosphere of uncertainty pervaded the economy. This was reflected by the interest-rate differential between Israel and the US, the NIS/$ exchange rate, and the premium required on Israel government bonds. The average exchange rate at that time was NIS 4.83 to the dollar (2 percent higher than the rate in the fourth quarter of 2002).

The interest-rate differential between Israel and the US in that period, 7.65 percentage points (8.9 percent in Israel vis-à-vis 1.25 percent in the US), reflected—among many other things—the high risk attributed to Israel's economy. Yields on government bonds rose steeply, and the government decided to defer its borrowing abroad. For this reason all foreign currency raised in the first quarter, about $ 0.5 billion, was implemented via the sale of State of Israel Bonds.

At the beginning of April, with the approval of the Ministry of Finance's economic program, the ending of the war in Iraq, and the agreement by the US government to provide Israel with $ 9 billion of loan guarantees, the markets changed direction. Israel's risk premium declined, and foreign investors began to buy Israeli bonds.

Table 1
Exchange-Rate Differentials[a] on Foreign-Currency Balances, 2002–2003

(NIS million, at current prices)

	2002	2003
Assets		
Foreign-exchange reserves	12,258	–3,471
Credit to the government—binational funds	11	–12
International financial institutions	190	31
Liabilities		
Government deposits	–1,489	1,553
Banks' foreign-currency deposits	–687	121
International financial institutions	–100	–3
Deposits of the binational fund	–11	13
Other liabilities—NIS/$ swaps	449	–501
Total	**10,622**	**–2,271**
Realized exchange-rate differentials	931	2,506
Unrealized exchange-rate differentials	9,691	–4,777

The rise in confidence in Israel's economy evident in the markets helped to lower the government's cost of raising funds in both local and foreign currency. The NIS appreciated markedly (to NIS 4.31 to the dollar at the end of June), and inflation expectations dropped sharply. This stability enabled the Bank of Israel to lower the monetary interest rate month by month to a significant degree, from 8.9 percent in March to 4.8 percent at the end of 2003 (i.e., by 4.1 percentage points) without causing a rise in the exchange rate (the interest rate in December 2002 was 9.1 percent).

Despite the reductions in the interest rate its average level in 2003 was higher than that in 2002 (see below), so that on the one hand income from the government's local-currency deposits (that are in debit) rose, and on the other hand expenses on the aggregate of monetary instruments also increased (by 30 percent, although the aggregate itself went up by only 8 percent).

During the year the government borrowed $ 3 billion, in addition to the funds it raised via State of Israel Bonds. In June it borrowed $ 0.75 billion outside the guarantees framework (although in this it did benefit from the positive atmosphere created by the guarantees), and in the second half of the year it raised another $ 2.3 billion covered by the guarantees. The increased borrowing pushed the foreign exchange reserves to an unprecedented $ 25.8 billion at the end of the year, an increase of $ 2.1 billion from the level at the end of 2002. Nevertheless, as a result of the considerable appreciation of the NIS (7.6 percent from the rate at the end of 2002) the rise in the reserves in local-currency terms was quite small (NIS 0.8 million).

The dollar continued to weaken against the major currencies in 2003, a trend that started in 2001. The depreciation of the dollar against the euro came to 17 percent in 2003, and against the pound sterling, 10 percent. The method of managing the reserves used till the end of 2003 kept their currency composition constant, so that if one currency strengthened against the others the Bank would sell some of its assets in that currency to return to the fixed currency composition. Thus the weakness of the dollar against the major currencies (mainly the euro) resulted in the sale of some of the assets in those currencies and in the purchase of dollar assets. Exchange-rate differentials on these sales contributed an income of NIS 2.5 billion to the Bank's income.

With the removal of the Treasury bills ceiling in December 2001 the Bank gradually started increasing its use of Treasury bills at the expense of time deposits, adjusting the balance of its aggregate of the two to the level that would offset the government's injection. The reason for the preference for Treasury bills was that they are a tradable, liquid instrument. Thus they contribute to strengthening the infrastructure of the short-term money markets, and also improve the efficiency of the monetary policy instruments. In 2003 the balance of Treasury bills increased by about NIS 1 billion per month, while the balance of time deposits fell by some $ 4 billion during the year as a whole. In total the average balance of the aggregate rose from NIS 71 billion in 2002 to NIS 79 billion in 2003 (from NIS 77 billion at the end of 2002 to NIS 84 billion at the end of 2003). At the end of 2003 Treasury bills constituted about 65 percent of the aggregate, up from 56 percent at the end of 2002 and 44 percent at the end of 2001.

Monetary loans in 2003 averaged about NIS 0.8 billion, the same as in the last few years.

The balance of swaps also stayed at the same level as in recent years, $ 1.4 billion, and its continued use serves mainly to preserve the range of monetary instruments available to the Bank of Israel.

As in all the last few years, in 2003 the government's local-currency deposits had a debit balance, with a larger credit balance in foreign-currency deposits. Although the total balance of all the deposits for budget financing was positive (an average balance of NIS 10 billion in 2003), the government incurred a net expense of NIS 0.7 billion on interest on its deposits. The 7.6 percent depreciation of the dollar against the NIS caused the government a loss of NIS 1.6 billion on exchange-rate differentials. The government could have reduced its expenses over time had it converted some of its deposits from foreign to local currency.

The monetary base—banknotes and coins in circulation and the banks' deposits in the Bank of Israel—increased by NIS 3.6 billion in 2003 (Tables 3 and 5). In the first quarter the government absorbed cash by borrowing on the domestic market due to forecasts of an exceptionally high budget deficit (of about 6 percent of GDP) and large premiums required on Israel government bonds in markets abroad that led to the deferment of borrowing abroad. As the year progressed the government injected large quantities of cash into the economy, mainly in June, September and December. In those months most money raised was in foreign currency.

The total amount of banknotes and coins in circulation increased in 2003 by NIS 1.1 billion, similar to the rise in 2002.

Table 2
Indicators of the Bank of Israel Profit, 1990–2003

	Profit (loss)	Realized exchange-rate differentials[a]	Net foreign-currency assets end-of-year	Change in currency-basket exchange rate during year	Treasury bills *plus* time deposits *minus* monetary loans 31 Dec	Average interest, annual rates	
						Time deposits	Monetary loans
	NIS billion (at current prices)		*$ billion*	*percent*	*NIS billion (at current prices)*	*percent*	
1990	1.5	0.5	1.5	10.6	–		14.4
1991	1.9	0.8	2.0	11.2	–1		15.5
1992	1.7	0.6	0.3	16.3	–5		12.1
1993	1.3	–0.2	–0.8	6.3	–10		10.7
1994	1.8	0.4	–0.3	5.7	–8		12.7
1995	2.5	1.4	6.0	6.3	9		14.9
1996	–0.5	0.5	8.6	1.6	21	16.2	14.9
1997	–1.1	2.1	17.5	4.1	51	13.9	13.5
1998	10.9	13.1	18.4	20.4	63	11.9	11.5
1999	–8.7	–3.5	17.7	–3.2	73	12.2	11.8
2000	–6.7	–3.7	18.0	–5.5	80	9.4	8.9
2001	0.9	0.1	18.7	7.0	79	6.9	6.5
2002	1.7	0.9	20.2	13.0	77	7.0	6.6
2003	0.3	2.5	23.0	–1.6	84	7.5	7.1

[a] Until 1999 all exchange-rate differentials were defined as realized.

In 2003 the Bank of Israel's net profit was NIS 0.3 billion, down from NIS 1.7 billion in 2002. The main item in the Bank's income is income from the foreign exchange reserves, most of which are invested in tradable bonds. Two factors acted to reduce this income from the reserves: interest rates were lower than in 2002, and bond yields rose (i.e., bond prices fell). Average dollar interest in 2003 was about half a percentage point lower than in 2002, so that interest income dropped by NIS 1.1 billion. The rise in yields caused a fall of NIS 1.3 billion in realized capital gains.

As the Bank of Israel's financial statements are presented in NIS, while most of the Bank's assets are dollar assets, part of the reduction in profit can be imputed to the 7.6 percent weakening of the dollar against the NIS. The strengthening of the euro against the NIS by 11 percent offset some of this reduction.

The main expense item of the Bank is interest payments on Treasury bills and time deposits. Despite the reductions in interest during the year (by about 4 percentage points), average interest rates on Treasury bills and time deposits were higher than in 2002 (7.1 percent on Treasury bills in 2003 compared with 6.4 percent in 2002, and 7.5 percent on time deposits in 2003 compared with 7 percent in 2002). The fall in the balance of time deposits offset some of the effect of the higher rate of interest, so that the interest payments on this item, about NIS 2.3 billion, were similar to their level in 2002. On the other hand, the average balance of Treasury bills rose, with the result that interest payments on them increased by some NIS 1.2 billion (after deducting the expenses of the changes in Treasury bills).

ISRAEL'S PAYMENT AND SETTLEMENT SYSTEMS

1. INTRODUCTION

Payment and settlement systems constitute a central feature of the economic and financial infrastructure. The proper functioning of these systems enables payments to be made promptly and securely, and contributes to overall financial performance and financial stability. However, payment systems can expose participants in the settlement process to risks, and can act as a channel through which the risks may pass from one system to another. This is referred to as systemic risk, and is one of the reasons for the great interest shown by central banks world wide in the establishment and operation of payment systems.

Central banks' activity in payment systems—provision of cash, clearing payment orders and managing the banks' current accounts—is the cornerstone of the modern payment system, and against the background of rapid technological progress in communications and computerization since the beginning of the 1980s, central banks have become even more deeply involved. This involvement is reflected in their initiating reforms and changes in this area, in the operation of the major payment systems, and in the supervision of the payment and settlement systems. Technological changes have increased financial activity and the number and value of payments settled, and with them also the liquidity risk and credit risk of the central bank, the commercial banks and the other participants. The payment and settlement systems thus constitute a possible source of national and international financial crises, and central banks therefore adopt measures to enhance safety, stability and efficiency of these systems, i.e., to reduce the risks inherent in settlement, headed by liquidity risk and credit risk. The Bank of Israel, like other central banks, was involved in the development and operation of the country's payment systems, and in the last few years has intensified its activities in this sphere.

2. THE REFORM OF ISRAEL'S PAYMENT AND SETTLEMENT SYSTEMS

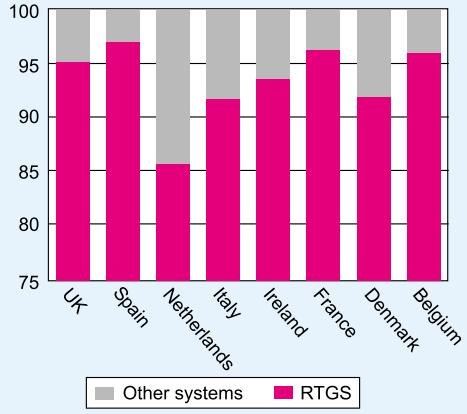
In 2003 the Bank of Israel started implementing a reform of Israel's payment and settlement systems. The reform involves adjusting the systems to the norms generally accepted in the advanced economies, and establishing a new settlement system in which large payments will be settled in real time, known as a Real Time Gross Settlement (RTGS) system. Participants in such a system will be able to settle payments efficiently and safely, and settlement will be final and irrevocable. A system such as RTGS, which is operating in all the advanced economies, reduces the risks inherent in settlement not only within the system itself, but also in the other systems that interface with it.

Experience has shown that integrating an RTGS system into the structure of payment systems leads to changes in the way the public uses the payment systems in general, so that more than 90 percent of the total value of payments made via all the payment and settlement systems, is settled directly in the RTGS system. Most payments in the economy are of small value (about 99 percent of the number of payments overall), and these continue to be settled via the paper-based and electronic clearing houses.

Israel's payment and settlement systems comprise the Banks' Clearing House (BCH), the interbank Banks' Clearing Center (BCC, or Masav, its Hebrew acronym), the Tel Aviv Stock Exchange (TASE), the credit card companies, and the Bank of Israel settlement

systems—one for trading in liquidity, one for trading NIS against the dollar, and a central accounting system. The Bank's central accounting system serves as the final settlement agency for all Israel's settlement systems. Settlement is on a net basis, and takes place at the end of the trading day; results are generally settled with a delay of one trading day.

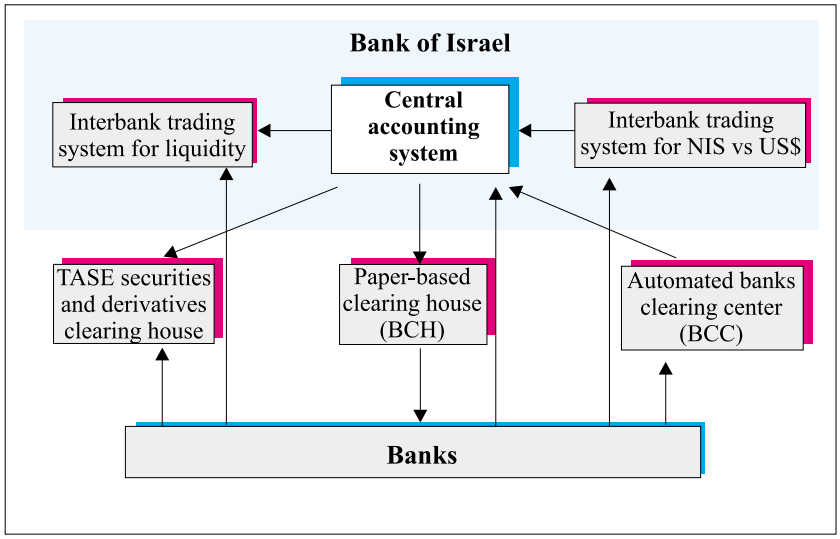
Distribution of Settlement Activity (by value), by System, in Selected Countries



Far-reaching changes are planned for Israel's payment systems and payment methods in the next few years. All local-currency payment systems will be connected directly to the RTGS system that will be established, and a large proportion of the systems will interface at fixed times during the day, and in certain cases immediately on executing the transactions. It is reasonable to expect that in the light of these changes, the public's behavior will also change: the use of electronic payment methods will grow (especially for large payments) at the expense of paper-based methods, such as checks, which will also undergo changes. Electronic settlement will become a requirement for all participants, summing up interbank returns will be performed according to current value, and the stage of check truncation[6] may eventually be reached.

In the wake of the reform, changes will also be introduced in other Bank of Israel systems such as the accounting, liquidity trading, monetary auctions, capital market and currency systems.

Israel's Current Settlement Systems

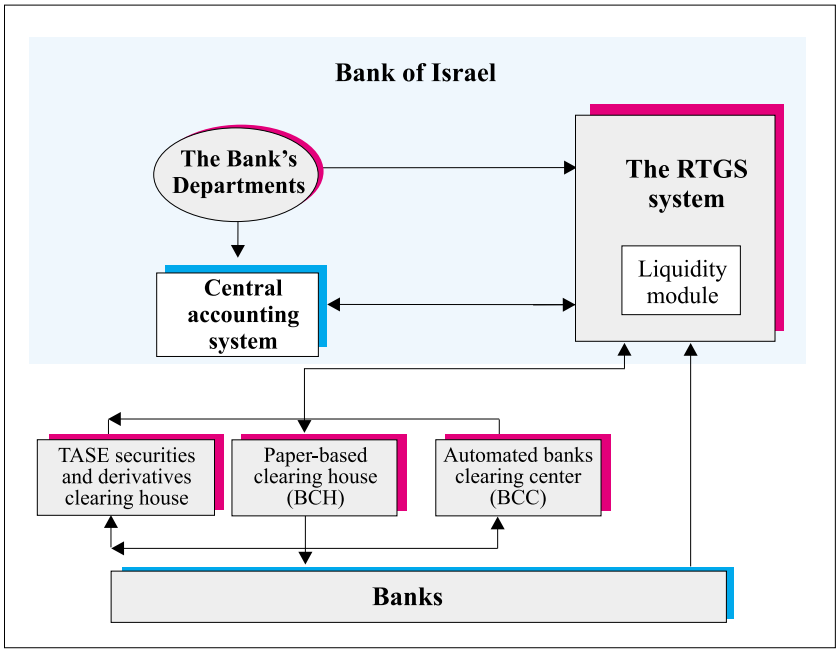


[6] A settlement process that renders the physical transfer of checks from bank to bank unnecessary.

The Bank's present central accounting system fulfills two main functions: one is keeping the books and managing the accounts in the Bank, and the other is final settlement of all interbank activity in local and foreign currency (in addition to their local-currency accounts, the banks may hold foreign-currency accounts—in dollars only—in the Bank of Israel). Once the RTGS system is introduced and connected to all the systems that perform local-currency payments, the central accounting system will cease local-currency settlement, and settlement will take place only in the new system, in which it will be final at every moment. Systems such as the monetary auctions, liquidity trading, and currency will be connected to the RTGS system at set times throughout the day, and in some of them settlement will take place simultaneously with payment.

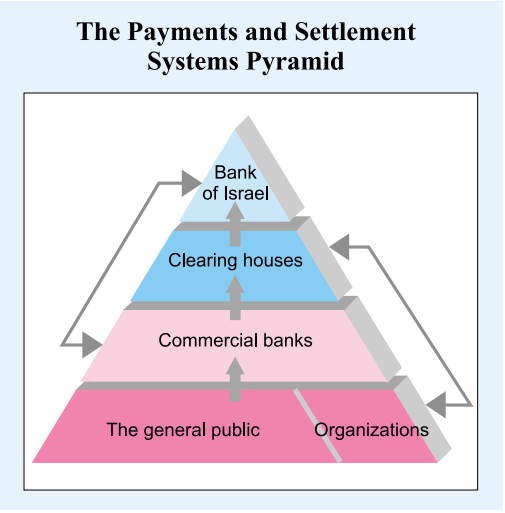
For historical reason[7] the current payment system enables transactions to be performed with retroactive value dates. To enable the banks to manage their daily liquidity in accordance with the Bank of Israel's directives, the Bank allowed them to carry out transfers with the previous day's value date. Since then other transactions can be settled with the previous day's value date, such as returns of payments settled in the BCC and taxes collected for the government by the banks; due to this method of keeping accounts the banks' balances in the Bank of Israel are not final at the end of the processing day. A non-final balance at the end of the day cannot be used for settlement in an RTGS system—in which the balance is final at every moment—and is therefore inconsistent with the BIS core principles that require a final balance at least at the end of the day. For these reasons the Bank of Israel decided to stop the practice of transactions with retroactive value dates.

Israel's Settlement Systems in the Future



[7] A reform effected in the mid-1980s in the paper-based clearing house introduced settlement of transactions in that clearing house at the value date of the presentation day, although the paper-based settlement process took at least a day. This meant that settlement took place one day later, but appeared in the books on the value date of the day of presentation.

3. THE PAYMENT SYSTEM AND THE SETTLEMENT PROCESS



An entity (an individual or a company) wishing to make a payment to another entity who does not have an account in the same bank is faced with several ways of doing so—direct transfer between the bank accounts, giving a check drawn in favor of the recipient, giving a standing order or a one-time payment instruction, payment via credit card, or issuing an instruction for payment via the internet. Each of these methods is carried out within its own system, but final settlement takes place in the banks' accounts in the central bank.

The *payment system* operates according to banking rules and procedures that enable participants to transfer money from one to another. Transfers between customers of the same bank are carried out within the bank, while transfers between customers of different banks take place via an interbank system in accordance with legal arrangements between participants.

Settlement is defined as an act that discharges obligations in respect of transfers of funds, securities or other financial assets between two or more parties, an act that takes place between the banks' accounts that are managed in the central bank.

A payment order may be transferred directly to the central bank or via another payment system such as the BCC, the BCH, or the TASE clearing house. Paper-based transactions (e.g., checks and securities) are settled via two separate clearing houses—one settles the paper, and the other, the payment. The BCH settles the checks, and the results are sent to the central bank to perform the payment. The TASE clearing house also settles securities against payment carried out between the banks' accounts in the Bank of Israel. It is accepted world wide that settlement of securities in stock exchanges is carried out when the payment is made (Delivery Versus Payment, or DVP).

4. ISRAEL'S PAYMENT AND SETTLEMENT SYSTEMS

a. The banks' clearing house—the paper-based Banks' Clearing House (BCH) and the automated Banks' Clearing Center (BCC)

The banks' clearing house is regulated by agreement between its members, i.e., the commercial banks in Israel, the Post Office Bank and the Bank of Israel. The activity of the clearing house is directed by the clearing house committee, which is appointed by the Governor of the Bank of Israel. The committee has fourteen members: seven, including the chairman of the clearing house, from the Bank of Israel, and seven representatives of the banks. The committee's functions are to determine operating procedures and work rules for the paper-based and automated clearing houses, and to supervise the clearing houses. Members who may participate in sittings at which settlement takes place are called direct participants, and they also represent non-participating members, called represented

members. The results of the settlement in both the paper-based and automated systems are entered in the banks' accounts in the Bank of Israel. Banks operating in the Palestinian Autonomy participate in settlement via Israeli banks that represent them. At the end of 2003 the banks' clearing house had 47 members, 18 of whom operated in the Palestinian Autonomy.

No. of Banks	Description
24	Banking corporations in Israel, auxiliary corporations
3	Branches of foreign banks
1	The Post Office Bank
1	The Bank of Israel
18	Commercial banks in the Palestinian Autonomy (including branches of foreign banks)

The number of participants, by type of settlement

Type of settlement	No. of participants	
	Direct	Represented
Magnetic and manual	14	32
Electronic	5	31
Non-magnetic debits and credits	16	30
In the BCC	15	32
Foreign currency checks	12	3

i. Settlement of paper-based payment orders

The BCH settles checks and other paper-based payment orders. Most of the checks are settled by electronic means, which combine a reading of the magnetic data imprinted on checks when they are issued and data entered into the banks' computers when the checks are deposited, i.e., the amounts on the checks, the date of deposit, and the branch where they are deposited.

The rest of the checks are settled by magnetic means, in which all the relevant information is recorded on and read from the lower part of the check. A small proportion of checks do not have all the details in magnetized form, and these are settled manually.

The payment messages are settled on the evening of the business day they were deposited in the banks (banks' business day closes at 15:00). Banks may refuse to honor payment messages for reasons which are numerated in the clearing house regulations; such messages are generally returned on the day following their presentation, and in some cases the regulations allow their return two days after presentation. Returned messages are entered with the value date of the day they were presented, i.e., with a retroactive value date.

ii. Settlement of payment orders transmitted via electronic media

Settlement of direct debit and credit orders transmitted via electronic means takes place in the BCC, which operates according to the regulations of the banks' clearing house.

Debits and credits are transferred to the BCC by the banks and by customers authorized to send payment orders directly to the BCC, and they are settled that evening at the current day's value date. As in the paper-based system, participants may return debits and credits for various reasons defined in the regulations; these allow payment orders which have been settled via the BCC to be returned within five days of being presented, and credit

orders within three days. Such returned orders have the value date of the day prior to their return.

Settlement by both methods (i.e., via the BCH and the BCC) takes place once per business day for all messages, debits and credits alike. The results are entered in the banks' accounts with the Bank of Israel on the day following the settlement (T+1) at the value date of the day the messages were presented in the clearing house (T). As the possibility exists of a debit or credit being returned with a retroactive value date, the banks' balances in the central accounting system of the Bank of Israel are only final after a one-day or two-day lag.

b. Large-value-payment settlement systems

The Bank of Israel operates two systems for settling large payments: one is for interbank trade in NIS versus US$, and the other for interbank trade in liquidity.

i. Interbank NIS/US$ trade

Since July 1994 the foreign exchange market in Israel has operated a system of continuous bilateral trading, the norm in advanced markets throughout the world. To enable the market to develop, and specifically to overcome banks' concern over exposure to the high credit risk involved in entering into interbank transactions, the Bank of Israel introduced a settlement system in which trade was conducted on a Payment Versus Payment (PVP) method. Locating this system in the Bank of Israel was possible because the banks, which are the market makers, hold both foreign-currency and NIS accounts in the Bank, and settlement is performed by transferring from one account to another.

The Bank of Israel receives instructions from the two parties to a transaction, and checks that the instructions accord with each other and that the balance in the banks' dollar accounts in the Bank are sufficient. If the instructions match each other and the dollar balance is large enough, the Bank of Israel settles the transaction at the value date agreed upon. If the instructions do not match, or if the balance in the dollar account in the Bank of Israel of the drawer of dollars is insufficient, the transaction is not performed. In settling transactions in this way, banks incur no credit risk, as they are debited dollars only if they are credited with NIS, and vice versa. If the transaction is not performed, however, the bank is exposed to market risk (mainly exchange-rate risk). The Bank of Israel is also exposed to risks because the balances in local-currency accounts are not final on the value date of the transaction, but only on the next day.

ii. Interbank trade in liquidity

Since 1982 a system of interbank transfers at the previous day's value date has operated, enabling banks to borrow from other banks to meet their liquidity requirements and avoid creating debit balances in the Bank of Israel. The Bank of Israel enables settlement at the previous day's value date as the results of the settlement in the BCH are submitted by the participants on the day after they were carried out, and the advice is only sent to the banks two days after settlement.

In such interbank transfers, the lending bank and the borrowing bank act in parallel: as soon as the lending bank gives the loan at the previous day's value date, it receives it back at the current day's value date, thereby reducing its credit risk.

In the course of a typical business day relatively large sums of money are settled via this system, at interest that is in most cases the same as that on the Bank of Israel's monetary

auctions. This trade is bilateral, and transfers are settled between the banks' accounts in the Bank of Israel.

c. The Bank of Israel's central accounting system

The Bank of Israel's central accounting system serves as the final settlement agency for all Israel's settlement systems. The system settles local- and foreign-currency transactions of the government and the banks, as well as the results of the settlement in the various other settlement systems (the TASE, the BCH and BCC, and various Bank of Israel systems).

Settlement takes place at the end of the day, once the messages from all sources, i.e., the clearing houses and the Bank's departments (the money auctions system, the NIS/$ conversion system, the capital market system, the State Loans Administration system, etc.), have been absorbed. Despite the fact that absorption of messages from all sources occurs at the end of the day, neither settlement nor the current-account balances in banks' accounts at the Bank of Israel are final as certain systems can send messages with retroactive value dates.

d. The TASE clearing house

The TASE clearing house settles transactions in securities carried out in the stock exchange and provides other securities-related services such as the payment of interest on bonds and the payment of dividends. Derivatives are settled in the MAOF clearing house, which is a subsidiary of the TASE clearing house.

The clearing houses that settle stock-exchange transactions in securities act as central counterparties (CCPs). In this method, the stock exchange is responsible for a member who has fulfilled his part of a transaction, and it carries out the transaction as the counterparty even if the counterparty to the transaction does not meet its commitments. In this way the stock exchange gives a guarantee to a member who has met all his obligations that his side to the transaction will be carried out.

The stock exchange settles securities transactions on the trade date, but settlement is conditional on the results of the financial settlement performed on the next day in the banks' accounts at the Bank of Israel. The commercial banks debit and credit their customers on the day the transaction is performed. In the current situation settlement of the securities and payment settlement are not simultaneous (i.e., the DVP method does not apply).

5. PAYMENT MEDIA

a. Cash payments

Banknotes and coins in circulation in Israel at the end of 2003 totaled NIS 19.1 billion (NIS 17.7 billion at the end of 2002, at 2003 prices). From 1995 to 2003 the amount of banknotes and coins in circulation increased by 75.2 percent (at 2003 prices).

The amount of cash withdrawn via ATMs and bank tellers in 2003 was 3.3 percent lower than that in 2002 (NIS 109 million and NIS 113 million respectively, at 2003 prices). The total amount of cash withdrawn via ATMs increased from 1995 to 2003 by about 96 percent, while that withdrawn via bank tellers rose by only 3 percent.

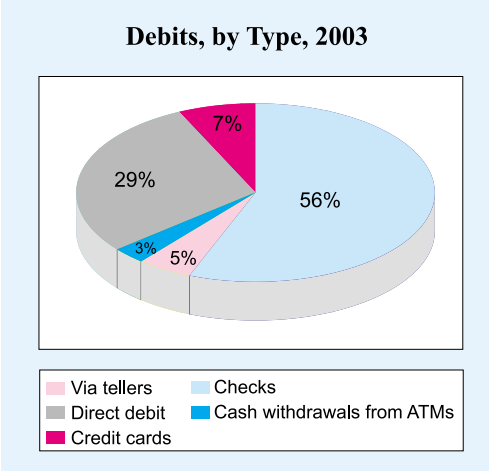
b. Non-cash payments

i. Paper-based payments

Most payments are made by paper-based means such as checks and various debits and credits (magnetic and nonmagnetic). The use of checks is widespread, but the share of withdrawals by check in total debits in the payment system (by value)[8] has declined steeply in the last few years, to only 56 percent in 2003.

ii. Payments by electronic means

Payments by electronic means are performed via the Banks Clearing Center, the Stock Exchange Clearing House and the Bank of Israel settlement systems.



- In the *Banks' Clearing Center* (BCC) direct debits and credits are settled, and since January 2001 also one-time credits. Credits settled by the BCC totaled NIS 2,764 billion in 2003, slightly higher than the NIS 2,647 billion in 2002. In 2003 the value and the number of credits increased relatively slowly (by 4.4 percent and 2.4 percent respectively). The value of debits via the BCC totaled NIS 163 billion in 2003, an increase of 7 percent from the amount in 2002, while their number rose by a mere 1.5 percent.
- The *Stock Exchange Clearing House* settles transactions in securities and bonds, and the MAOF clearing house settles various financial derivative assets. The total average turnover of shares and bonds settled in the stock exchange in 2003, including Treasury bills, was NIS 383 billion, up from NIS 339 billion in 2002 (at 2003 prices). Total financial activity in bonds fell by 7 percent in 2003, but this was partially offset by an increase of 29 percent in Treasury bills, and of 49 percent in activity in shares. Activity in dollar options (in terms of basis asset) went down by 31 percent from its 2002 level, mainly due to the volatility of the exchange rate in this period. Activity in Tel Aviv 25 Index options (in terms of basis asset) edged up by half a percent.
- The average daily volume of *interbank NIS/$ trade*[9] declined by some 10 percent in 2002 to $ 185 million.
- Trading activity in the *interbank liquidity trading system* (in terms of one day)[10] amounted to NIS 511 billion in 2003, a drop of 34 percent from the total in 2002. The number of transactions also declined, by 41 percent. The average trade in 2003 was NIS 255 million, up from NIS 225 million in 2002 (at 2003 prices). The average interest rate on interbank transfers was in most cases the same as the average rate in the daily Bank of Israel monetary auction.

[8] Total debits as defined above consist of: checks, debits via a teller, direct debits, cash withdrawals via a teller or from ATMs, and credit-card debits.

[9] Excluding interbank swaps.

[10] Transactions are for one day or a few days. This total activity is calculated in terms of one day; this means that a two-day transfer transaction will be doubled (as if two transactions had been performed).

- *Payment by magnetic card*. Wide use is made of credit cards in Israel, mainly in the retail trade and for services, including some payments for public services. In most instances the customer's account is charged once a month for monthly purchases. In addition, credit card companies provide credit for their customers in accordance with agreements between the companies and the banks. Debits via credit cards totaled NIS 90 billion in 2003, compared with NIS 84 billion in 2002. Foreign-currency payments by Israelis, included in the above figures, totaled about NIS 4.9 billion in 2003 and NIS 5.1 billion in 2002.

Other magnetic cards are also available for specific purposes such as prepayment for the use of public or cellular phones, but their use is fairly limited.

The subject of an electronic purse has been examined in the past. Trials were carried out, but these were not successful, and currently there is very little activity in this field.

- *Online banking* In the last few years banking services via the internet and other communication services have made great strides forward. Most banks allow their customers direct access to their accounts via their personal computers, cellular phones and the internet. Online banking is used by customers for information retrieval and for carrying out transactions in their accounts. The banks differ in the range of services they offer their customers: some allow a wide range of activities online (e.g., securities trading, foreign-currency activities, transfers between a customer's accounts, transfers to a third party, making various types of deposit, and requests for loans); others offer only information retrieval.

Activities carried out via computer to computer communication[11] in 2003 totaled NIS 225 billion (mostly the purchase and sale of securities), compared with NIS 157 billion in 2002. Activities via the internet (mainly local-currency deposits and withdrawals and activities in securities) rose to NIS 40 billion in 2003 from NIS 30 billion in 2002.

[11] The main transactions are local-currency withdrawals and deposits, transfers between a customer's accounts, transfers to a third party, purchase and sale of securities, and foreign trade transactions.