



***Bank of Israel***  
*Comptroller's Office*

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***FINANCIAL  
STATEMENTS***

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***for 2009***

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*and*  
*Israel's Payment and Settlement Systems*

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## CONTENTS

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Auditors' Report	5
Balance Sheet as of December 31, 2009 (Tevet 14, 5770)	6
Statement of Operations for the Year Ended December 31, 2009	8
Statement of Changes in Equity for the Year Ended December 31, 2009	9
Notes to the Financial Statements for 2009	11
Explanatory Remarks to the Financial Statements for 2009	39
The Payment and Settlement Systems in Israel in 2009	59





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## **Independent Auditors' Report to the Governor and Management of the Bank of Israel**

We have audited the accompanying balance sheets of the Bank of Israel (hereinafter "the Bank") as of December 31, 2009 and 2008, and the related statements of operations and changes in equity of the Bank for each of the years ending on such dates (hereinafter "the financial statements") appearing on pages 6 to 37. These financial statements are the responsibility of the Governor and Management of the Bank. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards in Israel, including standards prescribed by the Auditors Regulations (Manner of Auditor's Performance)-1973. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by the Management of the Bank, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Bank as of December 31, 2009 and 2008, and the results of its operations and changes in equity for each of the years ending on such dates, in conformity with generally accepted accounting principles in Israel (Israeli GAAP), adapted for principles applicable to central banks, as detailed in Note 1a.

Somekh Chaikin  
Certified Public Accountants (Isr.)

February 25, 2010

## BALANCE SHEET AS OF DECEMBER 31, 2009

(TEVET 14, 5770)

		December 31	
	Note	2009	2008*
<b>Assets</b>			
<b>Foreign currency assets</b>			
<b>Foreign currency assets abroad</b>	2		
Demand deposits		820	4,184
Short-term deposits		12,836	-
Tradable securities		204,007	154,894
Reverse repurchase agreements		5,818	2,457
Derivative financial instruments		23	-
International Monetary Fund	3	5,742	720
<b>Total foreign currency assets abroad</b>		<b>229,246</b>	<b>162,255</b>
<b>Other foreign currency assets</b>			
Credit to the government	4	502	1,111
<b>Total foreign currency assets</b>		<b>229,748</b>	<b>163,366</b>
<b>Local currency assets</b>			
Credit to the government	4	249	332
Loans	5	420	-
Tradable securities	6	20,221	2,427
Reverse repurchase agreements		-	2,001
Other	7	199	210
<b>Total local currency assets</b>		<b>21,089</b>	<b>4,970</b>
<b>Other assets</b>			
International financial institutions	8	836	836
Fixed assets	9	256	217
<b>Total other assets</b>		<b>1,092</b>	<b>1,053</b>
<b>Total</b>		<b>251,929</b>	<b>169,389</b>

\* Reclassified (See Note 1a)

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

(NIS million, reported amounts)

December 31

	Note	2009	2008*
<b>Liabilities and capital</b>			
<b>Banknotes and coins in circulation</b>	10	<b>41,490</b>	<b>34,360</b>
<b>Foreign currency liabilities</b>			
<b>Foreign currency liabilities abroad</b>	2		
Repurchase agreements		435	-
Derivative financial instruments		-	620
<b>Total foreign currency liabilities abroad</b>		<b>435</b>	<b>620</b>
<b>Other foreign currency liabilities</b>			
Government deposits	11	8,480	6,860
Deposits of banking corporations	12	1,700	19,711
International financial institutions	13	5,276	671
<b>Total other foreign currency liabilities</b>		<b>15,456</b>	<b>27,242</b>
<b>Total foreign currency liabilities</b>		<b>15,891</b>	<b>27,862</b>
<b>Local currency liabilities</b>			
Government deposits	11	11,852	1,506
Deposits of banking corporations	12	104,815	43,614
Makam	14	85,406	70,398
Other liabilities	15	4,411	3,799
<b>Total local currency liabilities</b>		<b>206,484</b>	<b>119,317</b>
<b>Total liabilities</b>		<b>263,865</b>	<b>181,539</b>
<b>Revaluation accounts</b>	16	<b>4,153</b>	<b>5,299</b>
<b>Capital</b>			
Share capital and general reserve	17	3,985	3,985
Accumulated losses		(20,074)	(21,434)
<b>Total capital (deficit)</b>		<b>(16,089)</b>	<b>(17,449)</b>
<b>Total</b>		<b>251,929</b>	<b>169,389</b>

  
Stanley Fischer  
Governor

  
Raphael Lankri  
Head of Comptroller's Office and Payment Systems February 25, 2010

# STATEMENT OF OPERATIONS

FOR THE YEAR ENDED DECEMBER 31, 2009  
(NIS million, reported amounts)

	Note	2009	2008*
<b>Interest income from</b>			
Assets in foreign currency abroad	20	2,567	3,438
Loans	21	-	189
The government	22	905	478
Other	23	12	46
<b>Total interest income</b>		<b>3,484</b>	<b>4,151</b>
<b>Interest expense</b>			
On liabilities in foreign currency abroad	24	5	221
To banks and the public	25	2,394	3,438
To the government	26	430	438
Other	27	103	150
<b>Total interest expense</b>		<b>2,932</b>	<b>4,247</b>
<b>Net interest income (expense)</b>		<b>552</b>	<b>(96)</b>
<b>Other financial income (expense)</b>			
Securities and derivative financial instruments	28	2,644	2,492
Exchange rate differentials	29	(923)	(2,372)
Miscellaneous	30	(26)	(1)
<b>Total other financial income (expense)</b>		<b>1,695</b>	<b>119</b>
<b>Profit on financial transactions</b>		<b>2,247</b>	<b>23</b>
<b>Expenses on printing banknotes and minting coins</b>		<b>(72)</b>	<b>(73)</b>
<b>Administrative and general expenses</b>	31	<b>(879)</b>	<b>(614)</b>
<b>Other income</b>	32	<b>64</b>	<b>51</b>
<b>Net profit (loss)</b>		<b>1,360</b>	<b>(613)</b>
* Reclassified (See Note 1a)			
The accompanying notes are an integral part of the statements.			

# STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED DECEMBER 31, 2009

(NIS million, reported amounts)

	Share capital	General reserve	Total share capital and general reserve	Accumulated losses	Total deficit in equity
<b>Balance as of January 1, 2008</b>	848	3,137	3,985	(20,821)	(16,836)
Net loss for the year	-	-	-	(613)	(613)
<b>Balance as of December 31, 2008</b>	848	3,137	3,985	(21,434)	(17,449)
Net profit for the year	-	-	-	1,360	1,360
<b>Balance as of December 31, 2009</b>	<b>848</b>	<b>3,137</b>	<b>3,985</b>	<b>(20,074)</b>	<b>(16,089)</b>

The accompanying notes are an integral part of the statements.



# NOTES TO THE FINANCIAL STATEMENTS FOR 2009



## 1. Accounting policies

### a. General

The financial statements are presented in accordance with generally accepted accounting principles (Israeli GAAP), adapted for the special activity of a central bank and consistent with the practice of other central banks.

The main items presented in accordance with generally accepted accounting principles of central banks are:

1. Revaluation accounts—as detailed in Section 1.m below.
2. Cash-flow statements—as detailed in Section 1.t below.

The comparative figures for 2008 have been reclassified in several items for amounts which are insignificant.

### b. Definitions

In these financial statements:

1. **"The Bank"**—the Bank of Israel.
2. **"CPI"**—the Consumer Price Index as published by the Central Bureau of Statistics.
3. **"Adjusted amount"**—the nominal historical amount adjusted to the CPI in respect of December 2003, in accordance with the provisions of Opinions 23 and 36 of the Institute of Certified Public Accountants in Israel.
4. **"Reported amount"**—the adjusted amount at the transition date (December 31, 2003), with additional amounts in nominal values that were added after the transition date, less amounts subtracted after the transition date.
5. **"Nominal financial reporting"** - financial reporting based on reported amounts.
6. **"Fair value"**—the amount for which it was possible to acquire or sell an asset (to undertake or repay a liability) in a current transaction between parties acting voluntarily.

### c. Financial statements in reported amounts

1. In October 2001, the Israel Accounting Standards Board published Accounting Standard No. 12, "Discontinuance of Adjustment of Financial Statements". Pursuant to this standard, and in accordance with Accounting Standard No. 17, which was published in December 2002, the adjustment of financial statements for the effect of inflation was discontinued as of January 1, 2004.



2. In the past, the Bank prepared its financial statements on the basis of historical cost, with no adjustment for changes in purchasing power of the Israeli currency. In the financial statements for 2005, comparative figures for the year ending December 31, 2003, were recalculated on a historical-cost basis, adjusted for changes in the CPI as required by Accounting Standard No. 12, in order to prepare for the transition to nominal financial reporting.

The adjusted amounts at December 31, 2003 constituted the starting point for the nominal financial report as of January 1, 2004. Any additions and disposals made during the period were included in their nominal values.

3. Amounts of non-monetary assets do not necessarily reflect their realizable value or current economic value, but only the reported amounts of those assets.
4. The term "cost" in these financial statements, denotes the reported amount of cost.

#### d. Reporting principles

1. Balance Sheet:
  - a. Non-monetary items (mainly fixed assets and investments shown at cost) are stated in reported amounts.
  - b. Monetary items are stated in the balance sheet at their nominal values at the balance sheet date.
  - c. The balance sheet is presented in the format generally accepted by central banks worldwide.
2. Statement of Operations:
  - a. Income and expenses originating in non-monetary items (e.g. depreciation, prepaid expenses, and deferred income) or from provisions included in the balance sheet, are derived from the difference between the reported amount of the opening balance and the reported amount of the closing balance.
  - b. All other operating items (such as interest income and expense) are stated at their nominal values.

3. Statement of Changes in Equity:

In accordance with the Bank of Israel Law, 5714-1954, the Bank must transfer its net profits to the government within 60 days of the end of its business year. In 2009, the Bank showed a profit (in 2008 it incurred a loss). This profit was offset against the retained accumulated losses, so that there was no obligation to transfer funds to the government.

On February 8, 2010, a first reading of the proposed new Bank of Israel Law was passed. This law will likely affect the Bank's activity and the way in which it transfers its profits to the government. The law in no way affects the 2009 financial statements.

## e. Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires the Bank's management to make estimates and assumptions regarding transactions or matters, the final effect of which on the financial statements cannot be determined with precision at the time the statements are prepared. Even though the estimates and assumptions are based on management's best judgment, the final effect of such transactions or matters may be different from the estimates and assumptions made in their respect.

## f. Income recognition

Income and expenditure are charged to the Statement of Operations on an accrual basis.

Realized profits or losses from foreign currency and securities in local and foreign currency are transferred to the Statement of Operations. These profits or losses are calculated on the basis of average cost of the balances in that asset.

Unrealized profits are not transferred to the Statement of Operations, instead they are charged to the "Revaluation accounts" line in the balance sheet.

Unrealized losses are transferred to the Statement of Operations after offsetting unrealized profits in the same asset. These losses originate in the difference between the average cost of an asset and its fair value.

Unrealized losses from foreign-currency securities, from local-currency securities, or a specific foreign currency are not offset against unrealized profits from other securities or foreign currency.

Losses recognized in the Statement of Operations are not offset against unrealized profits accrued in the future.

## g. Securities

### Foreign currency securities

Tradable foreign currency securities are stated in the balance sheet at their fair value at the balance sheet date. The fair value of quoted securities is based on market prices. Unquoted securities are revalued on the basis of data obtained from outside sources. Securities with maturity dates of up to three months are stated at an adjusted cost that constitutes a reasonable approximation of their fair value.

The adjusted cost of securities is their face value plus the interest, indexation differentials and the balance of the premium or discount not yet amortized. The premium or discount is amortized over the period from the date of purchase until the date of redemption.

The difference between the original cost of the securities and their face value plus



interest and the balance of the premium or discount not yet amortized is charged to the Statement of Operations.

Indexation differentials published overseas accumulated on the principal and not yet realized, as well as the difference between the fair value of the securities and their adjusted cost, are charged to the "Revaluation account" line in the balance sheet.

Interest income and amortization of the premium or discount are charged to the Statement of Operations on an accrual basis, and are stated in the item "Interest income from assets in foreign currency abroad".

Income from the disposal of securities is stated under "Other financial income from (expenses on) securities and derivative financial instruments".

The balance of the unrealized losses is charged to the Statement of Operations at the end of the year and stated under "Other financial income from (expenses on) securities and derivative financial instruments".

### **Local currency securities**

Tradable local currency government securities are stated in the balance sheet at their fair value.

The difference between the original cost of securities and their face value, plus interest and the balance of the premium or discount not yet amortized, is charged to the Statement of Operations.

Indexation differentials accumulated on the principal and as yet unrealized, as well as the difference between the fair value of the securities and their adjusted cost, are charged to the "Revaluation accounts" line in the balance sheet.

Interest income from local-currency securities and amortization of the premium or discount are charged to the Statement of Operations on an accrual basis, and stated under "Interest income from the government".

The balance of unrealized losses is charged to the Statement of Operations at the end of the year and stated under "Other financial income from (expenses on) securities and derivative financial instruments".

## **h. International financial institutions**

### **International Monetary Fund (IMF)**

The Bank of Israel's participation in the IMF less its liabilities on account of this participation, is shown on the Assets side of the "International Monetary Fund" item.

The Bank's Special Drawing Rights Holdings (SDR Holdings) are shown on the Assets side of the balance sheet under the item "International Monetary Fund".

Liabilities in respect of Drawing Rights granted by the IMF are shown on the liabilities side of the "International financial institutions" item.

### **Balances related to other international financial institutions and investment in shares of the Bank for International Settlements (BIS)**

The Bank of Israel's participation in other international financial institutions includes initial participation in their capital and additional participation payments towards increases in these institutions' capital. The Bank of Israel's participation in other international financial institutions is shown on the Assets side of the "International financial institutions" item according to the cost in the currency in which the participation was paid, expressed at the exchange rate on the transaction date. Liabilities to international financial institutions are shown on the Liabilities side of the "International financial institutions" item.

#### **i. Fixed assets**

1. Fixed assets are stated at cost less accumulated depreciation. Cost includes expenses directly attributable to the purchase of the asset.
2. Improvements and enhancements are charged to the cost of the assets, whereas maintenance and repairs expenses are charged to the Statement of Operations as incurred.
3. Depreciation is calculated by the straight-line method on the basis of the estimated useful life of the asset:  
Buildings—fifty to sixty-seven years;  
Motor vehicles—six and a half years;  
Computers—four years;  
Equipment—10 years.
4. Purchases of fixed assets in insignificant amounts are charged to the Statement of Operations.
5. Software that is not an integral part of the related hardware is shown under fixed assets at cost and depreciated by the straight-line method over four years.

#### **j. Banknotes and coins in circulation**

Banknotes and coins in circulation that were issued by the Bank reflect a liability on the Bank's part to their holders. This liability is shown in the Bank's balance at face value.

#### **k. *Makam* (short-term bills issued by the Bank of Israel)**

The balance of *makam* in the balance sheet reflects the redemption price of *makam* held by the public, less the balance of unamortized discount. *Makam* sold by the government to the Bank of Israel but not yet sold to the public are not included in this balance.





*Makam* are issued for a period of up to a year. The discount is the difference between the redemption price of the *makam* and the proceeds of their sale to the public. The discount is amortized by the straight-line method.

Expenses for amortization of the discount on the balance of *makam* held by the public are shown in the Statement of Operations in the "Interest expense to banks and the public" item.

## **I. Liabilities on account of employees' entitlements**

All liabilities on account of employer-employee relations have corresponding reserves in accordance with law, agreement, practice and management's expectations. Liabilities on account of employee pensions and severance pay are calculated by an expert actuary using the method of estimation of cumulative benefits with probabilities taken into account on the basis of past experience. The discount rate applying to the reserves is set in accordance with the rate established in directives issued by the Supervisor of Banks, and the rate of future wage increases is estimated by the management. The provision for vacation pay is computed on the basis of accrued vacation days due at the balance sheet date and the effective wage for vacation redemption (see Note 15).

## **m. Revaluation accounts**

The revaluation accounts include unrealized profits from exchange rate differentials on balances denominated in foreign currency and unrealized profits from indexation and the revaluation of tradable securities in local currency and foreign currency to their fair value.

Separate revaluation accounts are maintained for each item (currency, security) and are transferred to the Statement of Operations when the item is fully or partially realized. No offsetting among different types of items is performed.

Any net loss in the revaluation accounts that originates in indexation differentials and price differentials in local currency and foreign currency securities and exchange rate differentials on foreign currency balances is transferred to the Statement of Operations at the end of the year. (See also Section f above).

## **n. Foreign currency**

Assets and liabilities denominated in or indexed to foreign currency are shown in New Israel Shekel (NIS) according to the representative rate of exchange published by the Bank of Israel at the balance-sheet date.

Income and expenses in foreign currency are included in the Statement of Operations at the representative rates of exchange in effect on the value day of the performance of each transaction.

Exchange rate differentials arising from the adjustment of assets and liabilities due to changes in the exchange rate include realized and unrealized exchange rate differentials.

Unrealized exchange rate differentials are charged separately for each currency to the "Revaluation accounts" item. Realized exchange rate differentials are transferred to the Statement of Operations and are calculated on the basis of the average cost of the balances of the currency at issue. Realization is calculated separately for foreign currency assets and foreign currency liabilities in each calendar month and for each currency. The loss balance in the revaluation accounts at the end of the year is transferred to the Statement of Operations and is not offset against future unrealized profits. Unrealized losses in one currency are not offset against unrealized profits in another currency.

The following table details NIS exchange rates against other key currencies:

	December 31			Change	
	2009	2008	2007	2009	2008
	(NIS)			(percent)	
US\$	3.7750	3.8020	3.8460	-0.7	-1.1
Euro	5.4417	5.2973	5.6592	2.7	-6.4
Pound sterling	6.1112	5.5481	7.7105	10.1	-28.0
Special drawing rights (SDR) <sup>a</sup>	5.9180	5.8561	6.0705	1.1	-3.5
First currency basket <sup>b</sup>	4.6522	4.5214	4.9857	2.9	-9.3

<sup>a</sup> The SDR rate is published by the IMF, and is based on a weighted 4-currency basket consisting of US\$, €, ¥ and £.

<sup>b</sup> The first currency basket was in effect until July 31, 1986, and consisted of: US\$ 0.3500; £ 0.1295; and € 0.4667. The rates shown in the table are calculated on that basis.

## o. Indexation

Assets and liabilities linked to the CPI are shown in accordance with the indexation conditions determined for each balance.

Following are details of the CPI (based on the 2002 average):

		December 31			Change	
		2009	2008	2007	2009	2008
		(points)			(Percent)	
CPI	November	114.8	110.6	105.8	3.8	4.5
	December	114.8	110.4	106.4	3.9	3.8



## p. Interest rates

Some of the local currency interest on the government's and the banks' balances, which are collected or paid by the Bank of Israel, are based on the Bank of Israel interest rate or the prime interest rate.

The following are the interest rates as at December 31:

	December 31			Change	
	2009	2008	2007	2009	2008
	(percent)				
Bank of Israel interest rate	1.25	2.50	4.25	-50.0	-41.2
Prime	2.50	4.00	5.75	-37.5	-30.4

## q. Financial instruments

The Bank of Israel uses derivatives in its monetary policy and foreign exchange activities, both in Israel and overseas.

### 1. Activity in financial instruments in Israel

#### (a) Reverse repurchase agreements (R. Repo) for makam and government bonds

During the course of 2007 the Bank of Israel began to perform R. Repo transactions in *makam* and government bonds. These transactions are treated as secured debt and accordingly, securities purchased within the framework of these transactions do not appear in the balance sheet. The Bank's R. Repo transactions involving *makam* and government bonds were discontinued on September 21, 2009.

Interest income accrued on account of these transactions is stated under "Other interest income".

#### (b) Forward NIS/USD conversion transactions

These transactions are shown net in the balance sheet under "Other assets" or "Other liabilities": future receipt of US dollars less future remittance of NIS.

In the Statement of Operations, the results of the transactions are shown under "Interest income from assets in foreign currency abroad".

#### (c) Future remittances of *makam*

Outstanding liability for future remittance of *makam* at the date of the financial statement corresponds to or approximates its fair value and is presented in Note 19, "Contingent liabilities and commitments".

The Bank discontinued its activity in future remittances of *makam* on August 14, 2008.

## 2. Financial instruments in activities abroad

### (a) Repurchase (Repo) and Reverse-Repurchase (R.Repo) Agreements

The Bank carries out repurchase (Repo) agreements. Such a transaction is composed of the sale of securities under an agreement to purchase them in the future. The transaction is treated as a secure debt and accordingly the securities sold under its terms are not subtracted from the Bank's assets. The liability to purchase the securities is included in the "Repurchase agreements" item. In the Statement of Operations, the results of these transactions are shown in the "Interest expense on liabilities in foreign currency abroad" item.

The Bank also carries out reverse repo (R. Repo) agreements. These transactions are treated as a secure debt, and are included in the "Reverse repurchase agreements" item. Securities purchased within the framework of these agreements do not appear in the balance sheet. In the Statement of Operations, the results of these transactions are shown in the "Interest income from assets in foreign currency abroad" item.

### (b) Foreign currency swaps

These transactions are included in the balance sheet in the sum of the differences between the foreign currency received and the foreign currency to be remitted in future, and are shown in net form in the "Derivative financial instruments" item.

In the Statement of Operations the results of these transactions are included in the "Interest income from assets in foreign currency abroad" item.

### (c) Futures

The balance of futures contracts at market prices on the date of the financial statement is shown in Note 19, "Contingent liabilities and commitments".

In the Statement of Operations, the change in the value of the contracts is recorded under "Other financial income from (expenses on) securities and derivative financial instruments".

## r. Offsetting financial balances

Financial assets and liabilities are presented in the balance sheet in net amount only when the Bank has a legal and enforceable offsetting right, and when it is intended to settle the asset or liability on a net basis or to realize the asset and settle the liability simultaneously.



### s. Impairment of assets

The Bank applies Accounting Standard No. 15 (Amended)—Impairment of Assets (hereinafter: the Standard), which establishes procedures that the Bank must apply to ensure that its assets in the balance sheet (to which the Standard applies) are not stated in an amount greater than the recoverable amount, i.e. the net sale price or usage value (the present value of the estimated future cash flows expected to derive from the use and realization of the asset), whichever is higher.

The Standard applies to all balance sheet assets, except for financial assets. The Standard also lays down presentation and disclosure rules for assets that have been impaired. Where the value of an asset in the balance sheet exceeds its recoverable amount, the Bank recognizes an impairment loss in the amount of the difference between the asset's book value and its recoverable amount. A loss recognized in this manner is annulled only if changes occur in the estimates that were used to determine the recoverable amount of the asset from the date on which the last loss from impairment was recognized.

### t. Cash-flow statements

These financial statements do not include cash-flow statements because such statements provide no significant information beyond that appearing in the financial statements; this practice corresponds with the general practice among central banks worldwide.

### u. Taxes

According to the Bank of Israel Law, 5714-1954, concerning the payment of taxes, the Bank is tantamount to the State of Israel, and therefore exempt from paying certain taxes such as income tax and capital-gains tax.

## 2. Foreign currency assets and liabilities abroad

### Foreign exchange reserves

As presented in the explanatory remarks, the economic analysis refers to foreign exchange reserves which consist of the balance of the "Foreign currency assets abroad" item less the balance in the "Foreign currency liabilities abroad" item.

The Bank's investment policy relates to these balances.

Following is the composition of the foreign exchange reserves:

	December 31		December 31	
	2009	2008*	2009	2008*
	(NIS million)		(\$ million)	
Foreign currency assets abroad	229,246	162,255	60,727	42,676
Foreign currency liabilities abroad	(435)	(620)	(115)	(163)
<b>Total foreign exchange reserves</b>	<b>228,811</b>	<b>161,635</b>	<b>60,612</b>	<b>42,513</b>

\* Reclassified.

### 3. International Monetary Fund (IMF)

	December 31		December 31	
	2009	2008*	2009	2008*
	(NIS million)		(SDR million)	
IMF quota	5,493	5,436	928	928
Minus liability for the quota	(4,402)	(4,766)	(744)	(814)
<b>Reserve tranche<sup>a</sup></b>	<b>1,091</b>	<b>670</b>	<b>184</b>	<b>114</b>
<b>Special Drawing Rights (SDRs)</b>	<b>4,651</b>	<b>50</b>	<b>786</b>	<b>9</b>
<b>Total balance with IMF</b>	<b>5,742</b>	<b>720</b>	<b>970</b>	<b>123</b>

\* Reclassified.  
<sup>a</sup> 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 interest rate on December 31, 2009 was 0.22 percent (on December 31, 2008 it was 0.80 percent).

#### a. Bank of Israel participation in the IMF

Each member country of the International Monetary Fund has a quota for its participation in the Fund's capital which is denominated in the SDR currency. The quota is determined according to the country's economic indicators (national income, exports, balance of payments, and level of reserves) and it also determines the country's voting rights. The part of the quota that is paid in cash (the Reserve Tranche) is transferred to the Fund in foreign currency and may be withdrawn by the country, whereas the rest is deposited with the country's central bank in deposits and notes indexed to SDR.

Since 1999 Israel has been part of IMF's Financial Transaction Plan.

This plan is a mechanism through which an IMF member country may exchange SDR or foreign currency against its local currency, and another country is asked to perform a counter exchange. These exchanges can affect the composition of the quota (between the Reserve Tranche and the notes and deposits), and liabilities on account of the quota, but they do not affect the level of the quota.





## b. Special Drawing Rights (SDRs)

The balance includes SDRs granted by the IMF to Israel, as well as SDRs acquired by the Bank of Israel which to date remain unutilized. Against these SDRs the Bank has a liability towards the IMF with no repayment date, which is shown in the liabilities side of the "International financial institutions" item.

Following the economic crisis, in 2009 the IMF decided to grant its members SDRs in the amount of USD 250 trillion to support their foreign currency balances. In this context, in August and September 2009, the IMF made two SDR allocations, in which SDR 777 million was granted to Israel. In all, the IMF has granted Israel SDR 884 million to date (see Note 13).

At the end of 2009, Israel joined another IMF plan, "Voluntary arrangement for the purchase and sales of SDRs". Within the framework of this plan, Israel may be asked to sell or buy SDRs from other IMF members, as instructed by the Fund. These transactions may range from 50% to 145% of the accumulated allocation balance of the SDRs granted to Israel to date. Such activity may affect the balance of the SDRs held by the Bank of Israel, but not the balance of the Reserve Tranche.

## 4. Credit to the government

Credit to the government is composed of foreign-currency and local-currency balances.

	December 31	
	2009	2008
	(NIS million)	
<b>In foreign currency</b>		
Long-term indexed advances <sup>a</sup>	377	985
Binational funds	125	126
<b>Total foreign currency credit to the government</b>	<b>502</b>	<b>1,111</b>
<b>In local currency</b>		
<b>Long-term unindexed advance<sup>b</sup></b>	<b>249</b>	<b>332</b>
<b>Total credit to the government</b>	<b>751</b>	<b>1,443</b>

<sup>a</sup> This credit is indexed to the first currency basket and bears annual interest of 8 percent, indexed to that basket. See Section b below.

<sup>b</sup> This credit bears interest at prime rate plus 2 percent. The average interest rate in 2009 was 4.26 percent (in 2008, 7.34 percent). See Section b below.

## a. Binational funds

Credit on account of binational funds was given to the government of Israel for investment in conjunction with United States government in binational funds involved for research, industrial development, and science. The funds deposited these amounts with the Bank of Israel and they are shown in the balance sheet as liabilities under the "Other liabilities" item. The fund's credit and deposits earn interest on the basis of LIBOR.

## b. Long-term advances

Credit to the government consists of unindexed long-term advances and long-term advances indexed to the first basket of currencies, which were given until 1988.

- (a) Interest and indexation differentials on the principal balance on account of each year are due on December 31 of said year. The principal is payable in annual installments, the last of which is due in 2012.
- (b) (i) Correspondence in September 2003 between the Minister of Finance and the Governor of the Bank of Israel included several agreements regarding "Proposals in the Economic Program for 2004 Relating to the Bank of Israel". One of the items in that correspondence was the "repayment of the government's debt to the Bank of Israel due to be repaid on December 31, 2003", and it was determined that "the Bank of Israel will grant a loan to the government to finance the balance of the debt, principal and interest, due for repayment on December 31, 2003". This section also specified the repayment dates of the loan, the need for the conclusion of an agreement between the Bank and the Ministry of Finance on the interest payable, and that "if the Attorney General is of the opinion that the debt can be cancelled, then it shall be cancelled". The amount of the debt—principal and interest—due for repayment on December 31, 2003, was NIS 1,070 million (the total balance of the government debt, principal plus interest, prior to said repayment was NIS 5,460 million).
- (ii) In February 2005, the Deputy Attorney General's opinion on this matter, with the agreement of the Attorney General, was accepted that "there are no legal grounds preventing the Bank of Israel from canceling the government's debt to the Bank as agreed between the outgoing Governor and the Minister of Finance". The summary specifying the basis for this opinion stated that "It appears that from a legal standpoint the Bank of Israel has the authority to cancel a government debt to the Bank that predates the prohibition on granting loans to the government under Section 45 of the Bank of Israel Law". As for the reasonableness of a decision by the Bank of Israel to cancel a government debt to the Bank, the summary noted, "If there are macroeconomic reasons



supporting such a decision that are consistent with the Bank's objectives and policies, such a decision would not be unreasonable".

- (iii) On December 30, 2008, the Accountant General at the Ministry of Finance asked the Attorney General to intervene immediately to preclude the collection of the debt set for December 31, 2008. His request was not accepted. On January 4, 2009, the Attorney General stated in response that in his opinion, the dispute between the Ministry of Finance and the Bank of Israel was not a matter for legal decision, but a topic to be elucidated and resolved at the echelon of the Prime Minister, Minister of Finance, and the Governor of the Bank of Israel. On February 4, 2009, the Governor stated, in a letter to the Attorney General, that he agreed that the issue is not suited to a legal decision. The Governor stressed that even in the opinion of the Deputy Attorney General, as noted in Section (ii) above, the discretion to forgive or not forgive the debt resides exclusively with the Governor of the Bank of Israel.
- (iv) The Bank of Israel and the Ministry of Finance are currently in the advanced stages of negotiating a settlement of their disagreement regarding the summaries written in the correspondence of September 2003. The emerging solution is to recycle the long-term advances under conditions to be agreed. At the date of closing the financial reports, such agreement has not been signed.
- (v) In view of the aforementioned Section (iv), and based on the opinion of the Bank's management, appropriate provision was made in the Bank's books (see Notes 15, 22, and 26).

## 5. Loans

The balance at December 31, 2009 is for credit window monetary loans.

Where necessary, the Bank of Israel provides banking corporations with monetary loans via auction and a credit window in response to a request for monetary loans. The credit window monetary loans provided to banking corporations were given at interest of 0.25 percent above the Bank of Israel rate (until February 25, 2009—0.5 percent above the Bank of Israel rate; until December 23, 2008 1 percent above the Bank of Israel rate). The loans are not limited by quota and are given against appropriate guarantees.

The average interest rate for these loans in 2009 was 1.5 percent (in 2008—4.31 percent).

## 6. Tradable local currency securities

This item consists of tradable government securities indexed to the last CPI known on the balance sheet date, as well as unindexed securities (in 2008 the portfolio consisted of indexed securities only).

The securities are shown at fair value.

The yield to maturity on the securities portfolio at December 31, 2009 is 3.35 percent (yield to maturity at December 31, 2008 is 2.83 percent).

## 7. Other assets

	December 31	
	2009	2008
	(NIS millions)	
Loans to employees	188	208
Sundry receivables	11	2
<b>Total other assets</b>	<b>199</b>	<b>210</b>

## 8. International financial institutions

	December 31	
	2009	2008
	(NIS million)	
Investment in BIS shares	282	282
Balance related to other international financial institutions <sup>a</sup>	554	554
<b>Total</b>	<b>836</b>	<b>836</b>

<sup>a</sup> As follows:

- 1) The World Bank Group
  - a. IBRD - International Bank for Reconstruction and Development
  - b. IDA - International Development Association
  - c. MIGA - Multilateral Investment Guarantee Agency
  - d. IFC - International Finance Corporation
- 2) EBRD - European Bank for Reconstruction and Development
- 3) IDB - Inter-American Development Bank
  - IIC - Inter-American Investment Corporation



## 9. Fixed assets<sup>a</sup>

	Land and buildings <sup>b</sup>	Equipment, furniture, software, and vehicles	Total
(NIS million)			
<b>Cost</b>			
Balance as of December 31, 2008	224	106	330
Additions	2	52	54
<b>Balance as of December 31, 2009</b>	<b>226</b>	<b>158</b>	<b>384</b>
<b>Accumulated depreciation</b>			
Balance as of December 31, 2008	35	78	113
Additions	5	10	15
<b>Balance as of December 31, 2009</b>	<b>40</b>	<b>88</b>	<b>128</b>
<b>Net book balance as of December 31, 2009</b>	<b>186</b>	<b>70</b>	<b>256</b>
<b>Net book balance as of December 31, 2008</b>	<b>189</b>	<b>28</b>	<b>217</b>

<sup>a</sup> The Bank of Israel has a numismatic collection, which includes banknotes and coins issued in Israel from ancient times until today, along with various other items. According to an expert appraisal in November 2005, the value of the ancient coin collection is US\$ 1.7 million (the rest of the collection has yet to be appraised). The Bank of Israel also has a library containing professional (economic, financial, legal, etc.) and general literature. According to an assessor's appraisal in 2006, the replacement value of the library was US\$ 3 million. The "Fixed assets" item does not include these items.

<sup>b</sup> The land of the Bank's premises in Jerusalem, with a depreciated cost of structures thereon amounting to NIS 175 million as of December 31, 2009 (NIS 177 million as of December 31, 2008), is leased from the Israel Lands Administration through June 30, 2016. The Bank holds an option to extend the lease for another 49 years.

## 10. Banknotes and coins in circulation

	December 31, 2009		December 31, 2008	
	Quantity	NIS	Quantity	NIS
	(million)		(million)	
<b>Banknotes in circulation</b>				
NIS 20	32	637	31	612
NIS 50	51	2,535	46	2,298
NIS 100	154	15,425	140	13,998
NIS 200	107	21,485	81	16,132
Coins in circulation		1,376		1,287
Other <sup>a</sup>		32		33
<b>Total</b>		<b>41,490</b>		<b>34,360</b>

<sup>a</sup> Consisting mainly of old banknotes that can be exchanged in the Bank of Israel.

## 11. Government deposits

Government balances comprise balances in local currency and balances in foreign currency.

All the Government local currency balances in the Bank of Israel (excluding several extraordinary balances) can be offset against each other. The parties have no intention of offsetting the government's local currency balances with its foreign currency balances, and these balances are therefore stated separately.

	December 31		December 31	
	2009	2008*	2009	2008*
	(NIS million)		(\$ million)	
<b>Foreign currency<sup>a</sup></b>				
Deposit for money borrowed under US government guarantee	7,180	6,635	1,901	1,745
Current deposits	1,173	204	311	54
Other foreign currency deposit	127	21	34	6
<b>Total foreign currency deposits</b>	<b>8,480</b>	<b>6,860</b>	<b>2,246</b>	<b>1,805</b>
<b>Local currency<sup>b</sup></b>				
Current deposits	11,852	1,500		
Bond-price stabilization deposit	-	6		
<b>Total local currency deposits</b>	<b>11,852</b>	<b>1,506</b>		
<b>Total government deposits</b>	<b>20,332</b>	<b>8,366</b>		

\* Reclassified.

<sup>a</sup> Bond-price stabilization deposit

Government foreign currency deposits derived from borrowing under a US government guarantee and some other foreign currency deposits bear interest at the rate paid on US Treasury bills with an average of six months to maturity. The rate of interest on December 31, 2009 was 0.20 percent (on December 31, 2008, 0.27 percent).

<sup>b</sup> Government local currency deposits

Current deposits consist of balances used for bond lending and balances for the financing of budgetary activity. The government balances used for bond lending activity bears the Bank of Israel rate of interest. The average rate of interest on these balances in 2009 was 0.77 percent (in 2008, 3.69 percent). The other part of the government balances bears (when in debit) or is paid (when in credit) interest at prime. The average prime rate was 2.26 percent in 2009 (in 2008, 5.11 percent).

### Bond-price stabilization deposit

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 were 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 discontinued in January 1993 and the deposit was gradually reduced against the redemption of such bonds purchased in the past. The redemption of these bonds ended in July 2009, and the balance of this deposit at December 31, 2009 is therefore zero.



## 12. Deposits of banking corporation

	December 31		December 31	
	2009	2008	2009	2008
	(NIS million)		(\$ million)	
<b>Foreign currency deposits<sup>a</sup></b>				
Demand deposits	1,700	14,806	450	3,894
Unrestricted deposits	-	4,905	-	1,290
<b>Total foreign currency deposits</b>	<b>1,700</b>	<b>19,711</b>	<b>450</b>	<b>5,184</b>
<b>Local currency deposits<sup>b</sup></b>				
Time deposits	91,503	28,313		
Demand deposits	13,312	15,301		
<b>Total local currency deposits</b>	<b>104,815</b>	<b>43,614</b>		
<b>Total deposits of banking corporations</b>	<b>106,515</b>	<b>63,325</b>		

<sup>a</sup> Foreign currency deposits

1. Foreign currency demand deposits (called Pamach) serve as a liquid asset against nonresidents' foreign currency deposits. The reserve requirement ranges from 0 percent to 6 percent, depending on the term of the deposit.
2. The Bank of Israel receives unrestricted foreign currency deposits from the banks as collateral for their banks' activities in the Zahav (RTGS) system. The deposits are for a term of 30 days. The interest rate on these deposits on December 31, 2009 was 0.01 percent (on December 31, 2008, 0.01 percent).

<sup>b</sup> Local currency deposits

1. The Bank of Israel receives local currency time deposits from the banking corporations. The deposits are allocated by auction for terms of one day or one week. The deposits are not considered liquid assets with regard to the banking corporations' reserve requirements. In addition, deposits are received at the deposits window available to the banking corporations at an interest rate of 0.25 percentage points under the Bank of Israel interest rate (until February 25, 2009 it was 0.5 percentage points under the Bank of Israel interest rate; until December 23, 2008, 1 percentage points under the Bank of Israel interest rate). The interest rate for deposits at the deposit window on December 31, 2009 was 1 percent (on December 31, 2008, 2 percent). The average interest rate for deposits at the deposit window in 2009 was 0.51 percent (in 2008, 2.05 percent). The average interest rate for time deposits by auction on December 31, 2009 was 1.24 percent (on December 31, 2008, 2.45 percent). The average interest rate for time deposits by auction in 2009 was 0.72 percent (the average in 2008 was 3.13 percent).
2. The banking corporations' local currency demand deposits serve as a liquid asset against residents' local currency deposits. The reserve requirements ranges from 0 percent to 6 percent, depending on the term of the deposit.

## 13. International financial institutions

	December 31		December 31	
	2009	2008	2009	2008
	(NIS million)		(SDR million)	
Special Drawing Rights allocated <sup>a</sup>	5,230	624	884	107
Liabilities to international financial institutions <sup>b</sup>	46	47	8	8
<b>Total</b>	<b>5,276</b>	<b>671</b>	<b>892</b>	<b>115</b>

<sup>a</sup> Special Drawing rights (SDRs) are sums that member states in the International Monetary Fund (IMF) undertook to purchase from the Fund. No repayment date has been set for this liability. The IMF allocates SDR to its constituent states commensurate with the size of their quotas. In 2009 the IMF made two allocations to Israel, totaling SDR 777 million (see Note 3). Israel's allocation so far is SDR 884 million.

<sup>b</sup> Liabilities in notes, deposits or letters of guarantee to the following institutions: IDA, EBRD, MIGA and IDB (see Note 1h).

## 14. *Makam* deposits

	December 31	
	2009	2008
	(NIS million)	
Redemption value of <i>makam</i> sold to the public	86,082	71,722
Less discount at time of sale to public	(1,320)	(2,620)
<b>Proceeds of sale of <i>makam</i> to the public</b>	<b>84,762</b>	<b>69,102</b>
Plus reduction in discount for period to balance sheet date	644	1,296
<b>Total balance of <i>makam</i></b>	<b>85,406</b>	<b>70,398</b>

The Short-Term Loan Law, 5744-1984, authorizes the government to issue short-term bills (called *makam*, their Hebrew acronym) to be sold only to the Bank of Israel, with the Bank selling them to, and buying them from, the public in order to regulate the money supply and carry out its functions. The government must deposit all proceeds from sales of these bills with the Bank of Israel and may not use them for any purpose other than repayment of the loan taken under said Law, or payment of the yield on it. The purchase of bills from the government by the Bank of Israel and the deposit of the proceeds of this sale with the Bank of Israel are not reflected in the Bank's balance sheet.

The balance of *makam* shown in the balance sheet reflects the redemption value of bills held by the public, less the balance of the unamortized discount.





## 15. Other liabilities

	December 31	
	2009	2008
	(NIS million)	
Pension and severance pay liabilities <sup>a</sup>	3,780	3,447
Other liabilities on employees' rights	128	143
Binational funds	125	131
Accounts payable <sup>b</sup>	378	78
<b>Total other liabilities</b>	<b>4,411</b>	<b>3,799</b>

<sup>a</sup> The balance in 2009 includes for the first time the effect of the wage agreement signed on April 17, 2008, and an addition for wage erosion pursuant to the ruling of the District Labor Court in August 2008.

<sup>b</sup> The balance includes a provision for a loss on the expected recycling of long-term advances given to the government (see Notes 4, 22 and 26).

### a. Pension and severance pay liabilities

Pension liability is calculated according to the pension agreements with the Bank's employees and pensioners who commenced their employment before September 2002 and their survivors (on December 31, 2009—378 employees, 666 retirees; on December 31, 2008 this consisted of 430 employees, and 628 retirees). The pension liability includes future payment of benefits for Bank employees, former Bank employees whose pensions have been frozen, retirees, and survivors. It also includes obligations on account of the cash value of unused sick leave upon retirement and retirement grants.

The Bank's liability is calculated on the basis of salary and pension data for December 2009 and actuarial calculations. The calculation was performed using a method of estimating benefits which are accrued under various parameters: early retirement rates, pension rates for surviving spouses and orphans, employees' seniority and grade, relevant tax rates, etc.

The actuarial calculation is based on foreseen changes in white-collar mortality rates, in accordance with the Pension Fund Directives published by the Capital Market, Insurance, and Savings Division of the Ministry of Finance on May 17, 2007.

The Bank's actuarial liability was calculated on the basis of a 4 percent discount rate, in accordance with the public reporting directives of the Supervisor of Banks and based on past experience. The calculation assumes a real annual wage increase of up to 1.5 percent. (Until 2008, a real annual increase of up to 2 percent was assumed.)

For Bank employees who commenced their employment after September 2002, the Bank's liability for pension and severance pay is covered by regular deposits with a recognized pension and severance-pay fund on behalf of the individual employee. Since sums deposited in said manner are neither controlled nor managed by the Bank, neither they nor the liabilities against which they were deposited are reflected in the balance sheet.

## b. Other liabilities on employees' rights

This item consists mainly of an NIS 81 million liability for employees' vacation (in 2008–NIS 85 million).

The liability at December 31, 2009 and 2008 was calculated on the basis of the determining wage for the redemption of vacation and the number of vacation days as accrued up to the balance sheet date.

## 16. Revaluation accounts

Revaluation accounts include unrealized profits from the revaluation of the following items (see Notes 1.g, 1.m, and 1.n):

	December 31	
	2009	2008
	(NIS million)	
Foreign currency balances	2,530	2,169
Tradable foreign currency securities	899	2,432
Tradable local currency securities	724	698
<b>Total revaluation accounts</b>	<b>4,153</b>	<b>5,299</b>

## 17. Share capital and general reserves in historical nominal values

Data on the Bank's share capital and general reserves appear in the financial statements in reported values. (See Note 1.c.) The following shows the data in historical nominal values:

	December 31	
	2009	2008
	(NIS million)	
Share capital	60	60
General reserve <sup>a</sup>	260	260
<b>Total Bank capital in historical nominal values</b>	<b>320</b>	<b>320</b>

<sup>a</sup> The general reserve is in accordance with Section 6 of the Bank of Israel Law, 5714–1954, and has been applied in the past to increase the Bank's capital.



## 18. Assets and liabilities according to indexation bases

	December 31, 2009				December 31, 2008*			
	In local currency	In foreign currency <sup>a</sup>	Nonfinancial items	Total	In local currency	In foreign currency <sup>a</sup>	Nonfinancial items	Total
	(NIS million)				(NIS million)			
<b>Assets</b>								
Foreign-currency assets abroad		229,246		<b>229,246</b>		162,255		<b>162,255</b>
Credit to the government <sup>b</sup>	249	502		<b>751</b>	332	1,111		<b>1,443</b>
Loans	420			<b>420</b>				<b>-</b>
Tradable securities in local currency	20,221			<b>20,221</b>	2,427			<b>2,427</b>
Reverse repurchase agreements				<b>-</b>	2,001			<b>2,001</b>
Other assets	199			<b>199</b>	210			<b>210</b>
International financial institutions			836	<b>836</b>			836	<b>836</b>
Fixed assets			256	<b>256</b>			217	<b>217</b>
<b>Total assets</b>	<b>21,089</b>	<b>229,748</b>	<b>1,092</b>	<b>251,929</b>	<b>4,970</b>	<b>163,366</b>	<b>1,053</b>	<b>169,389</b>
<b>Liabilities</b>								
Banknotes and coins in circulation	41,490			<b>41,490</b>	34,360			<b>34,360</b>
Foreign-currency liabilities abroad		435		<b>435</b>		620		<b>620</b>
Government deposits	11,852	8,480		<b>20,332</b>	1,506	6,860		<b>8,366</b>
Deposits of banking corporations	104,815	1,700		<b>106,515</b>	43,614	19,711		<b>63,325</b>
International financial institutions		5,276		<b>5,276</b>		671		<b>671</b>
<i>Makam</i>	85,406			<b>85,406</b>	70,398			<b>70,398</b>
Other liabilities	4,286	125		<b>4,411</b>	3,668	131		<b>3,799</b>
Revaluation accounts	724	3,429		<b>4,153</b>	698	4,601		<b>5,299</b>
<b>Total liabilities</b>	<b>248,573</b>	<b>19,445</b>	<b>-</b>	<b>268,018</b>	<b>154,244</b>	<b>32,594</b>	<b>-</b>	<b>186,838</b>
<b>Difference</b>	<b>(227,484)</b>	<b>210,303</b>	<b>1,092</b>	<b>(16,089)</b>	<b>(149,274)</b>	<b>130,772</b>	<b>1,053</b>	<b>(17,449)</b>

\* Reclassified.

<sup>a</sup> Including foreign currency indexed.

<sup>b</sup> Foreign currency credit to the government includes long-term advances totaling NIS 377 million in shekel indexed to the first currency basket exchange rate (on December 31, 2008, about NIS 985 million).

## 19. Contingent liabilities<sup>a</sup> and commitments

	31 December	
	2009	2008
	(NIS million)	
<b>Off-balance-sheet financial instruments</b>		
Guarantees for government exports	191	193
Liabilities to pay international financial institutions on demand	3,181	3,208
<b>Commitments</b>		
<b>Financial instruments in activity in Israel</b>		
Reverse Repurchase Agreements (R.Repo)	-	1,740
Future remittances of <i>makam</i> -at par	-	160
<b>Financial instruments in activity abroad</b>		
<b>Currency swaps and forward transactions</b>		
Future receipts of foreign currency	4,588	5,009
Future payments of foreign currency	4,564	5,623
<b>Repurchase Agreements (Repo) and Reverse Repurchase Agreements (R.Repo)</b>		
Repo	434	-
R.Repo	8,285	3,518
<b>Futures transactions on interest—in face value terms</b>		
Purchase commitments	9,350	-
<b>Futures transactions on bonds—in face value terms</b>		
Purchase commitments	-	742
Sales commitments	-	416

<sup>a</sup> Several claims are pending against the Bank of Israel. However, it is the Bank's opinion, based on the opinion of the Bank's Legal Department, that the probability of these claims being upheld is low, or that the sums involved are not significant and therefore no provisions have been recorded in respect thereof.

## 20. Interest income from financial assets in foreign currency abroad

	For the year ended December 31	
	2009	2008*
	(NIS million)	
Demand deposits	2	16
Short-term deposits	6	416
Tradable securities	2,530	2,904
Securities purchased under R.Repo agreements	25	37
Derivative financial instruments, net	(3)	58
IMF	7	7
<b>Total interest income from assets in foreign currency abroad</b>	<b>2,567</b>	<b>3,438</b>

\* Reclassified.





## a. Interest income from (expense on) foreign currency abroad

The following shows the composition of interest income from (expense on) foreign exchange reserves (see Notes 2, 24).

	For the year ended December 31	
	2009	2008*
	(NIS million)	
Interest income from foreign currency assets abroad	2,567	3,438
Interest paid on foreign currency liabilities abroad	(5)	(221)
<b>Total income from foreign exchange reserves</b>	<b>2,562</b>	<b>3,217</b>

\* Reclassified.

## 21. Interest income from loans

	For the year ended December 31	
	2009	2008
	(NIS million)	
From monetary loans	-	173
From other loans <sup>a</sup>	-	16
<b>Total</b>	<b>-</b>	<b>189</b>

<sup>a</sup> Mostly deriving from interest on credit advanced to the Industrial Development Bank.

In August 2002 the Industrial Development Bank encountered liquidity problems and could not meet its liabilities. The Bank of Israel made available to it a special credit line to enable it to continue operating normally. The credit line was originally NIS 2,200 million, which was reduced from time to time till it was closed in December 2008. At the end of the period the government paid of the balance of the credit, in the sum of NIS 305 million. The Industrial Development Bank paid interest at the Bank of Israel interest rate on the credit it used (see also Note 25).

## 22. Interest income from the government

	For the year ended December 31	
	2009	2008
	(NIS million)	
<b>Long-term advances<sup>a</sup></b>		
Indexed	38	128
Unindexed	7	30
<b>From binational funds</b>	<b>71</b>	<b>69</b>
<b>From local-currency securities</b>	<b>789</b>	<b>251</b>
<b>Total</b>	<b>905</b>	<b>478</b>

<sup>a</sup> Including the effect of the reduction of interest due to the expected recycling of the advances in accordance with the principles agreed with the Ministry of Finance (see Notes 4, 15 and 22).

## 23. Other interest income

This item consists of interest income from reverse repurchase agreements of *makam* and government bonds.

## 24. Interest expense on financial liabilities in foreign currency abroad

This item consists of interest expense in respect of securities sold within the framework of repurchase agreements (see Note 20).

## 25. Interest expense to banks and the public

	For the year ended December 31	
	2009	2008
	(NIS million)	
<b>In local currency</b>		
On <i>makam</i> deposits	1,969	3,262
On local currency time deposits	425	29
Other <sup>a</sup>	-	49
<b>Total in local currency</b>	<b>2,394</b>	<b>3,340</b>
<b>In foreign currency</b>		
On banks' deposits	-	98
<b>Total</b>	<b>2,394</b>	<b>3,438</b>

<sup>a</sup> Expense due to the Bank of Israel's forgiving the Industrial Development Bank an amount of interest it had paid in the past on the special credit line made available to it. The amount was the interest above the Bank of Israel interest rate (see also Note 21).

## 26. Interest expense to the government

	For the year ended December 31	
	2009	2008*
	(NIS million)	
On account of local-currency balances <sup>a</sup>	410	332
On account of foreign currency balances	20	106
<b>Total</b>	<b>430</b>	<b>438</b>

\* Reclassified

<sup>a</sup> The expense of local currency interest paid to the government includes, in addition to interest expense on balances for financing the budget, the interest on the provision for the loss on the expected recycling of long-term advances made to the government (see Notes 4, 15 and 22), and on the bond price stabilization deposit (see Note 11).



## 27. Other interest expense

This item consists mainly of interest expense to international financial institutions, on deposits of the US-Israel Binational Industrial Research and Development (BIRD) Foundation, a deposit of the US-Israel Binational Science Foundation, and the National Insurance Institute.

## 28. Other financial income from (expense on) securities and derivatives

	For the year ended December 31	
	2009	2008*
	(NIS million)	
<b>Securities<sup>a</sup></b>		
In foreign currency	2,704	2,506
In local currency	(54)	-
<b>Total securities</b>	<b>2,650</b>	<b>2,506</b>
<b>Derivative financial instruments<sup>b</sup></b>		
In foreign currency	(6)	(14)
<b>Total</b>	<b>2,644</b>	<b>2,492</b>

\* Reclassified  
<sup>a</sup> Gain from the sale of securities and loss from reduction in their value at the end of the year, net.  
<sup>b</sup> Including financial income from (expense on) the realization of derivative financial instruments.

## 29. Other financial income from (expense on) exchange rate differentials

This item consists of realized exchange rate differentials on account of balances denominated in foreign currency—see Notes 1.m and 1.n.

### 30. Other financial income (expense) - miscellaneous<sup>a</sup>

	For the year ended December 31	
	2009	2008
	(NIS million)	
In local currency	4	8
In foreign currency	(30)	(9)
<b>Total</b>	<b>(26)</b>	<b>(1)</b>

<sup>a</sup> Consisting mainly of fees income from (expense on) the Bank of Israel's financial activities.

### 31. Administrative and General expenses

	For the year ended December 31	
	2009	2008
	(NIS million)	
Staff wages and employees' rights <sup>a</sup>	804	551
General expenses	75	63
<b>Total</b>	<b>879</b>	<b>614</b>

<sup>a</sup> Consisting mainly of employees' salaries (on December 31, 2009 there were 691 employee posts, and on December 31, 2008, 712), unfunded (non-contributory) pension payments, and an update of the Bank's pension and vacation liabilities to employees (see Note 15).

### 32. Other income

This item consists mainly of income from refunds for expenses paid by the Bank in the past, within the framework of guarantees given to banks in liquidation.





# EXPLANATORY REMARKS TO THE FINANCIAL STATEMENTS FOR 2009



## A. The Bank of Israel's balance sheet

The Bank of Israel's balance sheet totaled NIS 252 billion at the end of 2009 as against NIS 169 billion at the end of 2008—an increase of about NIS 83 billion (49 percent).

On the Assets side, this increase can be attributed to an increase of NIS 67 billion in the Bank's foreign currency financial assets abroad, and about NIS 18 billion in tradable local currency government bonds.

In view of the global financial crisis and its repercussions, there was a need for extraordinary monetary policy measures to limit the impact of the crisis on the Israeli economy. In addition to lowering the interest rate, the Bank also began to acquire government bonds on the secondary market, and continued to purchase foreign currency as it had done in 2008.

In 2008, after more than ten years without intervening in the currency market, the Bank of Israel began to purchase US dollars in order to build up the country's foreign exchange reserves.<sup>1</sup> This step was taken in light of the needs of the economy, against the background of the rapid GDP growth in recent years, Israel's deeper integration into the global economy and the global financial system, and against the backdrop of the global economic situation. The Bank also operated in the foreign currency market when exchange rates were extremely volatile and were inconsistent with basic economic conditions or where the foreign currency market failed to function reasonably. Consequently, the foreign-exchange reserves grew to \$61 billion at the end of 2009 (an increase of \$18 billion).

Furthermore, this year the Bank purchased government bonds on the secondary market in an effort to ease the credit crunch and enhance the effects of its monetary policy and the ability of the Israeli economy to withstand the negative effects of the global economic crisis. As part of this plan, the Bank of Israel purchased government bonds for NIS 18 billion.

On the Liabilities side, the increase in the balance sheet can be traced mainly to an increase in monetary absorption instruments—*makam* and time deposits—by NIS 78 billion, as well as notes and coins in circulation by NIS 7 billion. This purchase of foreign currency and government bonds injected liquidity into the economy over and above the

<sup>1</sup> In these notes, the term "foreign exchange reserves" is used in its economic sense. The reserves are composed of the balance of "Foreign currency assets abroad" on the Assets side of the Bank's balance sheet, less the balance of "Foreign currency liabilities abroad" on the liabilities side of the balance sheet. These balances are used to determine the Bank of Israel's investment policy and its reporting to various entities and they therefore constitute the basis for the analysis of trends in these Explanatory Remarks.



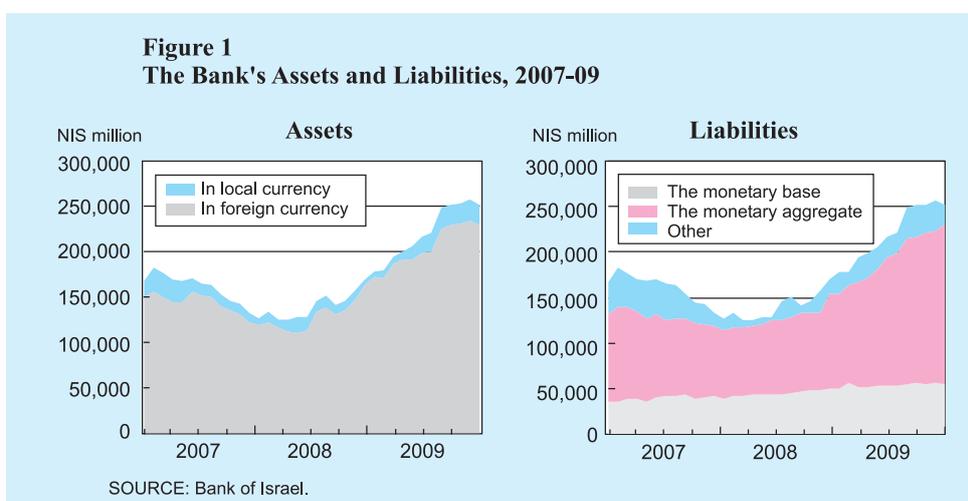
increase required in the monetary base. The Bank absorbed these surpluses mainly by increasing the time deposits that it held for the commercial banks, and to a lesser degree by expanding the issue of *makam* to the public.

At the end of 2009, the balance of the monetary instruments<sup>2</sup> was NIS 176 billion, as against NIS 97 billion at the end of 2008.

The increase in the reserve of banknotes and coins in circulation, which together with the banks' local currency current deposits in the Bank of Israel form the narrow monetary basis, is largely the outcome of the decline in the rate of interest to its lowest rate, as this generates an increase in the demand for money and an increase in the monetary base.

These changes in the Bank's balance sheet led to a marked increase in surplus assets over liabilities in foreign currency, from NIS 131 billion at the end of 2008 to NIS 210 billion at the end of 2009 (see Note 18 to the Financial Statements). In contrast, the surplus of liabilities over assets in local currency grew, from NIS 149 billion at the end of 2008 to NIS 227 billion at the end of 2009.

This contributed to a marked increase in currency asymmetry in the Bank's financial statements that has been a feature of the Bank's balance sheet for more than ten years: while most of its assets are denominated in foreign currency, its liabilities are primarily in local currency<sup>3</sup> (Figure1).



<sup>2</sup> *Makam* and time deposits less monetary loans and repo auctions.

<sup>3</sup> This currency asymmetry first began to manifest itself during the period 1995-1997, when the Bank adopted a contractionary monetary policy in order to attain the inflation targets set by the government. The resulting import of capital by the private sector forced the Bank of Israel to purchase foreign currency from the public in order to keep the exchange rate at the lower limit of the crawling band that was used at the time to re-absorb the local currency that was injected into the economy for this purpose. The foreign exchange reserves grew from an average of several billion US dollars in previous decades to \$23 billion in 1998. At the same time, the balance of monetary instruments, which until 1994 was composed mainly of monetary loans, as accepted by central banks worldwide, has since then been composed of liabilities.

## B. Statement of Operations

In the Statement of Operations, the Bank shifted from a loss of NIS 613 million in 2008, to a profit of NIS 1,360 million in 2009.

This improvement can be attributed principally to the decline in exchange rate differential expenses which this year were NIS 0.9 billion, as against NIS 2.4 billion in 2008, and to an increase in net interest income which this year was NIS 0.6 billion, as against expenses of NIS 0.1 billion in 2008.

Other financial income in respect of securities and derivatives was NIS 2.6 billion, as against NIS 2.5 billion in 2008.

The Bank's general and administrative expenses rose this year by NIS 265 million to NIS 879 million, as against NIS 614 million in 2008.

The fluctuations in the Bank of Israel's profits can be attributed to the currency asymmetry in the composition of its assets and liabilities. This asymmetry exposes the Bank to volatility in its reported financials due to changes in the exchange rates and to changes in Israel's interest trajectory relative to those of other economies.

In 2009, the NIS appreciated 0.7 percent against the US dollars (in 2008—1.1 percent), although the trend in the exchange rate was not uniform throughout the year. At the beginning of the year, the US dollar appreciated against other world currencies due to its role as a "safe haven" amid the collapse of the markets during the world financial crisis. This trend was supported by the Bank continuing to purchase foreign currency. Later in the year, against the background of the weakness of the dollar world wide, the trend of depreciation of the shekel halted, and it started to strengthen against the dollar.

This trend was reversed against other currencies—the pound sterling appreciated 10.1 percent (in 2008 it dropped 28 percent), and the euro rose 2.7 percent (in 2008 it fell 6.4 percent).

These fluctuations were reflected in the Bank's exchange rate expenses this year.

Net interest income rose this year to NIS 0.6 billion, mainly due to the effect of the Bank purchasing Israel Government bonds. The difference between the interest income on these bonds, and the expense of short-term interest on the monetary instruments which were used to absorb the injection of money created in the wake of this purchase, contributed to an increase in net interest income.

The growth in the monetary base, which reduced the extent of the required absorption, also helped reduce the interest expense.

During the year, the NIS interest rate drew considerably closer to interest rates abroad, and therefore had almost no impact on the Bank's profit, unlike most previous years.

The government's interest expense was affected by two contradictory factors; on the one hand, government reserves increased due to a smaller than expected deficit in





government activity and a particularly convenient environment for raising capital, which led to higher expenses, and on the other a sharp drop in the Bank of Israel interest rate which helped reduce expenses.

Provision for loss, which will likely be realized on account of an agreement to recycle long-term advances which were given to the government during the 1980s,<sup>4</sup> also contributed to the increase in these expenses.

Overall, the government recorded a net interest expense, excluding interest income from local currency securities, of NIS 0.3 billion (as against NIS 0.2 billion in 2008).

Net interest income from foreign currency reserves was NIS 2.6 billion this year, (in 2008—NIS 3.2 billion).

The interest expense on the monetary-instruments aggregate was NIS 2.4 billion this year (in 2008—NIS 3.1 billion).

Other financial income from securities and derivative financial instruments increased by NIS 0.1 billion due mainly to capital gains—the result of spread assets<sup>5</sup> (eurobonds), in which the spread between these assets and government bonds was reduced (their price rose as the financial crisis receded).

An economic review of the Bank's profits requires to sum the realized profits (losses) together with the change in the balance of the relevant item in the revaluation accounts (unrealized).

This year, the Bank of Israel posted total profit from capital gains of NIS 1.2 billion (as against NIS 3.3 billion in 2008). Capital gains were based principally on an increase in the prices of the spread assets (eurobonds) after events partly returned to normal this year. These profits were largely offset by the decline in value of government bonds, after the risk aversion declined, and investors shifted from secure government assets to more risky assets.

General and administrative expenses grew this year by NIS 0.3 billion. This was mainly the result of an increase in actuarial liabilities for retirement payments to employees and pensioners, due to a wage increase paid according to a master agreement from April 17, 2008, as well as a wage erosion supplement subsequent to a ruling handed down by the District Labor Court in August 2008.

<sup>4</sup> The Bank of Israel and the Ministry of Finance are currently in an advanced stage of negotiations towards signing the agreement. At the closing date of the balance sheet the agreement had not yet been signed.

<sup>5</sup> The Bank of Israel's benchmark is only composed of government bonds. A spread asset is an asset which is not included in the Bank of Israel's benchmark whose yield to maturity is usually valued by the spread from the yield to maturity of another security, generally a government security (e.g. a US Treasury bond) with similar characteristics. The yield spread reflects the risk inherent in the spread asset as against the government security.

## C. Analysis of the main components in the Bank of Israel's balance sheet

The Bank's financial statements are prepared in accordance with generally accepted accounting principles (GAAP), adapted for the special activity of a central bank. Analysis of financial statements data, in line with broader more general economic aggregates, in addition to an analysis of the individual items which appear in the Bank's balance sheet, is essential for understanding the impact of economic trends on the accounting financial statements.

Table 1 shows the Bank's balance sheet in aggregate form which differs from the accepted accounting format to allow these changes to be analyzed. The items were analyzed according to the aggregate balance sheet reserves, as they appear in this table.

**Table 1**  
**Aggregate Balance-Sheet Balances, and the Resulting Profit and Loss**

	For the year ended December 31		For the year ended December 31	
	2009	2008	2009	2008
	Balances		Income (expenses)	
	(NIS millions)			
<b>Assets, net</b>				
Foreign currency balances <sup>a</sup>	228,812	161,635	5,230	5,700
Securities portfolio in NIS	20,221	2,427	735	251
<b>Total</b>	<b>249,033</b>	<b>164,062</b>	<b>5,965</b>	<b>5,951</b>
<b>Liabilities and capital, net</b>				
Monetary aggregate <sup>b</sup>	176,489	96,710	(2,385)	(3,089)
Monetary base <sup>c</sup>	54,802	49,661	(69)	(56)
Government balances	19,581	6,923	(315)	(211)
Deposits of banking corporations in foreign currency	1,700	19,711	-	(98)
Other	8,397	3,207	(913)	(738)
Revaluation accounts <sup>d</sup>	4,153	5,299	(923)	(2,372)
Capital of the bank	(16,089)	(17,449)		
<b>Total</b>	<b>249,033</b>	<b>164,062</b>	<b>(4,605)</b>	<b>(6,564)</b>
<b>Net profit (loss)</b>	<b>-</b>	<b>-</b>	<b>1,360</b>	<b>(613)</b>

<sup>a</sup> Consisting of the balance in the item "Foreign currency assets abroad" on the asset side of the Bank's balance sheet, minus the balance in the item "Foreign currency liabilities abroad" on the liabilities side of the balance sheet.

<sup>b</sup> Consisting of the balance of *makam* and *pazak* (term deposits) minus the monetary loans and repurchase auctions.

<sup>c</sup> Consisting of banknotes and coins in circulation plus the banks' local currency demand deposits in the Bank of Israel.

<sup>d</sup> The profit (loss) on this item includes realized exchange rate differentials on foreign currency balances. (Realized capital gains are shown in the item to which they relate.)





## 1. Foreign exchange reserves

Foreign-exchange reserves<sup>6</sup> account for the largest part of the Bank's assets (about 92 percent of the Bank's total assets, as shown in Table 1).

The foreign-exchange reserves serve as a source of liquidity when needed and are also intended to provide additional benefits to the economy, such as reducing the probability of a crisis in Israel's foreign exchange market and enhancing Israel's status in global financial markets. The functions of the foreign-exchange reserves can be defined based on the benefit they bestow as well as possible uses that the government and the Bank of Israel can make from the reserves. These include: servicing government debt; financing imports in time of emergency; use of the reserves to manage the Bank's monetary policy with respect to stability of the banking system and foreign-exchange market; use of the reserves as an instrument for implementing monetary policy. Defining the functions of foreign exchange reserves also serves as the basis for deciding how to manage them, setting the currency numeraire, i.e., their currency composition, and determining the desired level of the reserves.

Further to the \$14 billion increase which was recorded in the previous year, the foreign-exchange reserves rose by \$18.1 billion in 2009 from \$42.5 billion at the end of 2008 to NIS 60.6 billion.

In NIS terms, the foreign-exchange reserves increased by NIS 67 billion from NIS 161.6 billion in 2008, to NIS 228.8 billion at the end of 2009.

Several factors explain the change in the reserves (Table 3). As in previous years, much of the increase this year was due to the purchase of foreign currency by the Bank of Israel in the NIS-foreign currency market which amounted to \$19.6 billion. The Bank's profit from interest and financial gains of \$2.1 billion also boosted the reserves, as did the IMF's allocation of \$1.2 billion of SDRs to the State of Israel in the wake of the financial crisis.

Some of these increases were offset by withdrawals of \$4.6 billion by the private sector, and \$0.2 billion by the government and National Institutions.

In 2009, the Bank of Israel continued its policy of purchasing foreign currency which began in 2008, for the purpose of increasing the country's foreign-exchange reserves and supporting the exchange rate. In continuation of the purchases made in 2008, fixed purchases initially of an average of \$100 million daily were made.

<sup>6</sup> Foreign-exchange reserves are composed of the balance of the "Financial foreign-currency assets abroad item" in the Bank's balance sheet, less the balance of "Financial foreign-currency liabilities abroad" item. These balances are used to determine the Bank's investment policy and its reportage to various entities, and therefore form the basis for the analysis of trends in these Explanatory Remarks.

From August 2009, the Bank of Israel began to operate in the foreign-exchange market only when there were serious fluctuations in the NIS exchange rate inconsistent with basic economic conditions, or when the foreign-exchange market failed to function normally.

Withdrawals by the private sector, mainly at the beginning of 2009, are withdrawals of foreign-currency balances which were transferred to Israel by commercial banks at the end of 2008 in view of the deteriorating financial crisis and increasing risk. This year, the government withdrew net negligible amounts from the reserves (about \$0.4 billion), whereas in recent years it had withdrawn more substantial amounts - \$13 billion in 2008 and 2007. This was a reflection of the balance of the government's activity abroad in 2009—a foreign deficit offset by raising capital abroad.

The global financial crisis led to a dramatic increase in credit risks in the international banking sector. Consequently, in September 2008 the Bank of Israel decided to discontinue making deposits in the international banking system and this directive remains in force to date. Reserves in short-term deposits of NIS 13 billion in 2009 consist of deposits in international financial institutions and foreign banks which are fully guaranteed by governments abroad.

#### **Rate of return on the foreign-exchange reserves**

The Bank of Israel invests the foreign-exchange reserves primarily in tradable assets of relative short duration. This is done to ensure an appropriate level of liquidity and avoid the risk of large fluctuations in portfolio value as a result of possible swings in the financial markets.

The returns obtained on the investment of the foreign-exchange reserves are judged against a benchmark return. The benchmark is based on a hypothetical portfolio that is created according to pre-set rules and reflects the Bank's long-term investment strategy. The returns on the holding of assets included in the benchmark, in all currencies, are weighted according to the weights of the currencies in the numeraire. The average duration of the benchmark is set according to the shortfall approach, in which benchmark duration is set so that the annual holding rate of return of the portfolio should not fall below a minimum desired threshold at the desired level of safety. The Bank's risk preference forms the basis for determining the parameters for this duration.

A change in duration may occur due to a change in the parameters of the approach or in the yield and risk to maturity data in the foreign bond markets where the reserves are invested. At the end of 2009, the benchmark duration was nine months in the US dollars portfolio, and fourteen to sixteen months in other currencies.



The actual annual rate of return on the reserve portfolio in terms of the numeraire was 1.91 percent in 2009, as against a return of just 0.81 percent on the benchmark<sup>7</sup> (Table 2). The difference between them, which this year was exceptionally high when compared with the previous decade, is the surplus yield in the reserve portfolio, reflecting the contribution of investment decisions made according to the permitted degrees of freedom in the active management of the reserves, which are reflected in deviations of the composition of the portfolio from the benchmark composition. These degrees of freedom are relatively limited and are restricted by a set of rules that is part of the investment policy for the reserves. The added value of the active management of the reserves is expressed in the difference in yields between the foreign exchange reserves portfolio and its benchmark, which is usually positive and came to 0.09% on average for the period 1999-2008. In 2009, the difference was extremely high at 1.1% and can be attributed to the recovery of the global financial markets from the crisis which erupted in 2008. This recovery began this year and led to an increase in the value of many financial assets held in the reserves portfolio but are not held in the benchmark (spread assets).

The main contribution to the high surplus yield in 2009 can be traced to the high profits generated by the short- and long-term spread assets in the portfolio (assets not included in the benchmark). In 2008, in the wake of the deepening global financial crisis, yield spreads between various spread assets and government bonds reached record levels. These reflected the uncertainty prevailing in the markets at the time and investors' fears that major financial institutions would collapse. With the onset of the global recovery in 2009, and as uncertainty receded in the financial markets, the spreads contracted considerably throughout the year, so that at year end they were even lower than those immediately prior to the crisis. As a result, the value of these securities rose relative to government securities held in the benchmark, and they recorded high capital gains which were credited to the reserves portfolio.

The return on the investment of the foreign exchange reserves is measured in terms of the currency composition of the numeraire rather than in terms of one currency or another. The arbitrary nature of measuring return in terms of a specific currency is particularly evident when assessing return in terms of US dollars (4.3 percent in 2009) and the euro (0.8 percent in 2009), and the high volatility of these returns over time (Table 2).

In NIS terms, the rate of return in 2009 was 3.6 percent, due to the positive contribution made by exchange rate differentials to the total yield: this is the result of the appreciation of non-dollar currencies in which some of the reserves are invested against the NIS,

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<sup>7</sup> The return on the foreign exchange reserves in 2009 did not include the return originating in the foreign currency deposits of Israeli commercial banks. These deposits are managed separately from the rest of the reserves in order to offset the Bank of Israel's exposure to the currency and interest risks that result from the acceptance of these deposits.

partially offset by a 0.7 percent appreciation of the NIS against the US dollar in 2009. Importantly, the NIS rate of return, like all the rates in Table 2, is calculated by weighting the daily rates of return over time, irrespective of increases or decreases in the level of the reserves. Accordingly it was not affected by the level of the Bank of Israel's purchases of foreign currency during the year.

**Table 2**  
**The Foreign Exchange Reserves—Total Income, Exchange Rate Differentials and Yield**

	2009	2008	2007
<b>Total foreign exchange reserves</b>			
		(\$ millions)	
End of year	(60,612)	(42,513)	(28,556)
Annual average	(51,310)	(32,270)	(28,994)
<b>Income and exchange rate and cross rate differentials</b>			
		(NIS millions)	
Interest and capital gains	5,230	5,700	6,037
Unrealized price differentials <sup>a</sup>	(1,533)	841	1,570
Exchange rate differentials	455	(1,837)	(8,365)
<b>Total</b>	<b>4,152</b>	<b>4,704</b>	<b>(758)</b>
		(\$ millions)	
Interest and capital gains	1,330	1,593	1,514
Unrealized price differentials <sup>a</sup>	(401)	226	409
Exchange rate differentials	1,169	(1,034)	578
<b>Total</b>	<b>2,098</b>	<b>785</b>	<b>2,501</b>
<b>Yields<sup>b</sup></b>			
		(Percent)	
In terms of NIS			
Interest and capital gains	1.8	5.9	6.9
Exchange rate differentials	1.8	(4.3)	(7.5)
<b>Total</b>	<b>3.6</b>	<b>1.6</b>	<b>(0.5)</b>
In terms of euro	<b>0.8</b>	<b>8.6</b>	<b>(2.2)</b>
In terms of \$			
Interest and capital gains	1.8	5.9	6.9
Exchange rate differentials	2.5	(3.1)	2.4
<b>Total</b>	<b>4.3</b>	<b>2.8</b>	<b>9.3</b>
<b>In terms of use of foreign reserves</b>	<b>1.9</b>	<b>5.9</b>	<b>6.9</b>
<b>Benchmark yield</b>	<b>0.8</b>	<b>6.1</b>	<b>6.9</b>

<sup>a</sup> Unrealized price differentials are expressed by the annual change in the revaluation account of foreign currency tradable securities (see Note 16 to the Financial Statements).

<sup>b</sup> Yields, which are shown at annual rates, are based on daily calculations, and relate to income from the foreign exchange reserves, including profit or loss resulting from market price changes.





## 2. Monetary instruments

Monetary policy is used to attain the inflation target, by supporting growth and financial stability.

The Bank of Israel sets the interest rate for lending to or borrowing from banking corporations, as necessary. The Bank uses the various monetary instruments to inject or absorb the required level of liquidity at the set rate of interest. The monetary instruments include loans/deposits of banking corporations, as well as market instruments—*makam* and repo.

In 2008, the Bank of Israel became an active player in the foreign currency market for the first time in ten years by embarking on activity to build up the country's reserves, a process which continued through 2009 in view of the repercussions of the global financial crisis. The Bank was also active in the government bonds market.

The purchase of foreign currency and government bonds injected more liquidity into the market than the required increase in the monetary base. The Bank therefore re-absorbed these surpluses to ensure that the short-term interest rate would be consistent with its set interest rate. Until August, surplus liquidity was absorbed from the banks mainly through banking corporation time deposits at the expense of *makam*. Consequently, these deposits mushroomed from NIS 6 billion in December 2008, to more than NIS 80 billion at the end of 2009. The decline in the use of *makam* issues to absorb surplus liquidity was just one of a series of monetary instrument measures introduced by the Bank in January. The use of time deposits to absorb surplus liquidity at the expense of *makam* strengthened the pass-through mechanism from monetary policy by diverting investors' resources. Since August, the Bank has absorbed surplus liquidity by accelerating the pace of *makam* issues as well.

At the end of 2009, the balance of monetary instruments was NIS 176 billion, as against NIS 97 billion at the end of 2008. Of this NIS 92 billion was in time deposits (as against NIS 28 billion in 2008) and NIS 85 billion in *makam* (as against NIS 70 billion in 2008).

### **Expense on account of the monetary instruments**

Net interest expense on account of the monetary instruments aggregate was NIS 2.4 billion in 2009, as against NIS 3.1 billion in 2008.

The reduction in NIS interest rate led to a decline in expenditure, which was partially offset by an increase in the aggregate reserve due to the need to increase the pace of liquidity absorption.

The expenses on account of *makam* still accounts for the major part of the interest expense for monetary instruments—about NIS 2 billion. This is because of the size of the

*makam* balance (NIS 78 billion on average) relative to the balance of time deposits (NIS 59 billion on average) and because *makam* are issued for a period of up to a year, so that the interest paid on account of *makam* is higher than the interest paid for time deposits, which are deposited for a day or a week.

### 3. Israeli currency securities portfolio

After almost ten years during which the Bank of Israel gradually reduced its shekel government bonds portfolio, in 2009 the balance in this portfolio rose sharply from NIS 2 billion at the end of 2008, to NIS 20 billion at the end of 2009, due to Bank of Israel purchases on the secondary market.

The Bank of Israel adopted an expansionist monetary policy in an effort to reduce the impact of the global financial crisis on the Israeli economy, action similar to that taken by many other countries.

In February 2009, the Bank of Israel began to purchase government bonds on the secondary market, and in March it announced that it would expand the use of this tool and purchase an average of NIS 200 million worth of government bonds daily, with the intention of purchasing NIS 15-20 billion through this plan. These purchases were designed to support the cuts in the longer-term interest rate, thus easing the credit crunch and supporting economic activity. In August, the Bank announced that it would discontinue these purchases, which amounted to NIS 18 billion. Due to the marked increase in the balance of the portfolio, interest income from this portfolio grew considerably to NIS 0.8 billion in 2009 (as against NIS 0.3 billion in 2008).

Interest income and the amortization of discount or premium for this portfolio is included in the Statement of Operations on an accrual basis. The income from indexation differentials as well as the revaluation to market value, is credited to the Revaluation accounts item in the balance sheet.

A negative balance in a revaluation account is charged at the end of the year to the Statement of Operations. In 2009, this had an effect of NIS 54 million.

### 4. The monetary base

The monetary base, composed of banknotes and coins in circulation and the banks' NIS-denominated demand accounts with the Bank of Israel, rose 10 percent during the year, from NIS 49.7 billion at the end of 2008, to NIS 54.8 billion at the end of 2009.

In an inflationary target regime, in which the interest rate is the policy instrument used to achieve goal, the amount of money is determined by the public's demand. The Bank of Israel sterilizes the liquid surpluses created in the banking system to ensure that the shortest-term interest rates are consistent with the declared interest rate. Monetary



aggregate trends, including the monetary base, therefore reflect the public's demand for money, given market interest rates and market condition.

The sharpest interest rate drop in 2009 led to an increase in the demand for money and subsequent increase in the monetary base.

The Bank of Israel injected NIS 19 billion net to the monetary base, while the government and National Institutions absorbed NIS 14 billion (Table 3). Most of this injection can be attributed to the expansionist monetary policy adopted by the Bank in 2009: foreign exchange purchases injected NIS 77 billion, and the purchase of government bonds injected NIS 18 billion. The Bank of Israel fully sterilized the surplus liquidity through the monetary instruments, mostly (NIS 63 billion) through time deposits, and to a lesser extent (NIS 13 billion) through *makam*. The government absorption was mainly the result of the large amount of borrowing by the government on the local market, due to large-scale anticipated redemptions and concern over the repercussions of the crisis on the budget deficit.

The monetary base does not bear interest. In 2009, the cost of printing money was about NIS 72 million, similar to 2008.

#### **Demand deposits from banking corporations**

Banking corporations use demand deposits with the Bank of Israel to fulfill their liquidity requirements in accordance with Bank of Israel directives, and to settle various payments carried out via the banks. The balance of these deposits declined from NIS 15.3 billion in 2008 to NIS 13.3 billion at the end of 2009.

The government injected about NIS 6.6 billion through the commercial banks in 2009 (as against NIS 9.6 billion in 2008). The public withdrew NIS 13.4 billion in cash from the banking corporations, similar to 2008 (Table 4).

In net terms, the Bank of Israel injected NIS 18 billion into the commercial banks (NIS 27 billion in 2008) by purchasing foreign currency (NIS 77 billion) and government bonds (NIS 18 billion), and by using various monetary instruments (NIS 77 billion).

**Table 3****The Monetary Base and the Foreign Exchange Reserves—Changes and their Sources**

	2009								
	2005	2006	2007	2008*	2009	I	II	III	IV
Change in monetary base (NIS million)									
1) Injection (absorption) of government and National Institutions <sup>a</sup>	(1,452)	(3,789)	(10,809)	(17,371)	(14,195)	(5,398)	(7,001)	(10,145)	8,348
2) Injection from (absorption by) Bank of Israel	9,920	3,797	15,693	(17,305)	(58,855)	(14,170)	(13,247)	(17,017)	(14,419)
3) Injection from foreign-currency conversions by Bank of Israel	-	-	-	43,995	77,413	21,628	20,372	30,171	5,241
4) Adjustments <sup>b</sup>	(1,111)	(1,184)	(905)	(1,022)	778	(240)	1,327	(226)	(83)
<b>5) Total change in monetary base (1+2+3+4)</b>	<b>7,357</b>	<b>(1,176)</b>	<b>3,979</b>	<b>8,297</b>	<b>5,141</b>	<b>1,820</b>	<b>1,451</b>	<b>2,783</b>	<b>(913)</b>
Change in foreign exchange reserves (\$ millions)									
Contribution to reserves									
6) Private sector <sup>c</sup>	1,026	25	(196)	4,291	(4,559)	(4,127)	(351)	(91)	10
7) Bank of Israel <sup>d</sup>	125	1,845	2,512	12,789	22,866	5,234	6,543	9,936	1,154
8) Government and National Institutions <sup>d</sup>	75	(673)	(2,912)	(3,204)	(208)	706	(247)	(153)	(515)
<b>9) Total change in foreign reserves<sup>e</sup> (6+7+8)</b>	<b>1,226</b>	<b>1,197</b>	<b>(595)</b>	<b>13,877</b>	<b>18,099</b>	<b>1,813</b>	<b>5,945</b>	<b>9,692</b>	<b>649</b>

<sup>a</sup> The government injection includes also the injection of the National Insurance Institute and of the Postal Bank.

<sup>b</sup> Adjustments include: transfers by the National Institutions from abroad via the banks but which are defined as public sector injection (in Row 2). Foreign currency domestic receipts and payments of the Bank of Israel and the government to the private sector, such as income tax receipts in foreign currency, do not change the monetary base as they are transferred directly from the private sector to the government; on the one hand they are defined as government absorption, while on the other they are defined as the private sector contribution to the foreign exchange reserves.

<sup>c</sup> Including income tax payments by the business sector in foreign currency.

<sup>d</sup> Government and National Institutions transfers from abroad and Bank of Israel income from the foreign exchange reserves (income from interest, capital gains and cross-rate differentials between the US\$ and other currencies).

<sup>e</sup> Including the change in accrued interest on the foreign exchange reserves.

\* Data according to value date. Other data in the table as at balance sheet date.





**Table 4**  
**Banking Corporations' Deposits in the Bank of Israel**

	In			In			In		
	In local currency	foreign currency	Total	In local currency	foreign currency	Total	In local currency	foreign currency	Total
	2009			2008			2007		
	(NIS million)								
Change in banking corporations' deposits <sup>a</sup>									
Activity with the government <sup>b</sup>	(6,629)	(74)	(6,703)	(9,574)	711	(8,863)	(3,132)	1,185	(1,947)
Withdrawal (–) of banknotes from Bank of Israel	(13,423)	-	(13,423)	(13,393)	-	(13,393)	(11,792)	-	(11,792)
Activity with Bank of Israel <sup>c</sup>	(59,016)	1,185	(57,831)	(17,453)	1,797	(15,656)	15,533	(135)	15,398
Transfers from (+) and to (–) abroad		(19,134)	(19,134)		14,916	14,916		(1,044)	(1,044)
Foreign-currency conversions at Bank of Israel	77,413	-	77,413	43,995	-	43,995	-	-	-
Adjustments	(334)	12	(322)	(672)	14	(658)	(57)	17	(40)
Total change	(1,989)	(18,011)	(20,000)	2,903	17,438	20,341	552	23	575
Deposit of banknotes by the Postal Bank in Bank of Israel	6,607	-	6,607	8,620	-	8,620	8,401	-	8,401

<sup>a</sup> Not including the change in term deposits.

<sup>b</sup> Government injection via the banking corporations' demand deposits

<sup>c</sup> Depositing term deposits, purchasing *makam*, selling government bonds and various interest payments.

<sup>d</sup> Deposits of banknotes deposited mainly by the Postal Bank; these deposits are absorbed by the government, and are included in the definition of "government injection."

## 5. Government accounts

Section 57(a) of the Bank of Israel Law states, "The Bank shall be the sole banker and fiscal agent of the government in Israel." Accordingly, the government manages all of its local currency accounts, and some of its foreign currency accounts with the Bank of Israel.

Government accounts with the Bank of Israel are composed of deposits in NIS and foreign currency,<sup>8</sup> as well as credit given to the government.

In 2009, the government held NIS 20.3 billion in deposits, as against NIS 8.4 billion at the end of 2008. This marked increase is mainly on account of the government's local currency deposits—the result of absorbing NIS 15 billion from the public (Table 5) through the issue of bonds, in view of the expectation of large-scale redemptions and an expected decline in tax revenues.

Net capital raised by the government abroad was positive in 2009 at NIS 4.9 billion (about \$1.5 billion), the largest US dollar issue ever made by an Israeli government.

The government raised \$1.2 billion through State of Israel Bonds, similar to the amount raised in 2008.

**Table 5**  
**Government Deposits in the Bank of Israel—Changes and their Sources**

	2009	2008	2007
	NIS millions		
<b>End-year balances</b>			
<b>Government deposits</b>			
Local-currency deposits	11,852	1,506	(3,252)
Foreign-currency deposits	8,480	6,860	6,551
<b>Total government deposits</b>	<b>20,332</b>	<b>8,366</b>	<b>3,299</b>
<b>Net change in government deposits</b>			
Government contribution (+) to foreign reserves <sup>a</sup>	(1,278)	(12,509)	(13,024)
Government absorption (+)	14,949	18,469	11,977
Government–Bank of Israel financial flow <sup>b</sup>	(1,709)	(1,094)	(1,596)
Adjustments <sup>c</sup>	3	203	53
<b>Total change</b>	<b>11,965</b>	<b>5,069</b>	<b>(2,588)</b>

<sup>a</sup> Government income and expenses abroad, receipt and repayment of government loans abroad.

<sup>b</sup> Payment of interest and redemption of government bonds held by the Bank of Israel; various fees from the government; credit to the government—interest payment, repayment of principal and payment of indexation differentials and interest on government deposits (in local and foreign currency); exchange rate differentials on government foreign currency deposits; and transfer of Bank of Israel profit.

<sup>c</sup> Including: interest accrued on government deposits to the end of the year; government interest payments on credit to the government for binational funds (these payments are included in "government injection," but in this table are also included in "Government–Bank of Israel financial flow"); and repayment of Israel Bonds to tourists in Israel (the repayment reduces the government's local currency deposits, but is not included in "government injection").

<sup>8</sup> Government deposits in local currency may be offset against one another, but the government does not intend to offset its local currency deposits against its foreign currency deposits and these balances are therefore stated separately in the financial statements. The economic analysis that appears in these notes refers to net government balances, i.e. the government balances that appear on the credit side of the balance sheet less the balances presented on the debit side.



## Credit to the government

Credit to the government is composed primarily of long-term advances that the government received during the 1980s in order to finance its budget deficits. In 1985 a law forbidding the printing of money was enacted, and no advances have been given since then—with the exception of an extraordinary loan given in 1988 for redeeming some of the banking shares. The advances given before 1988 are indexed to the first basket of currencies and bear an indexed rate of interest of 8 percent; the subsequent loan bears an interest rate of prime +2 percent. The loans will be repaid in annual installments by 2012.

At the end of 2009, the balance of the credit received by the government was NIS 0.8 billion, as against NIS 1.4 billion at the end of 2008. The Bank of Israel and Ministry of Finance are at an advanced stage of negotiating the settlement of a dispute between them regarding amounts that were expressed in correspondence from September 2003. The emerging solution is to recycle the long-term advances under conditions to be agreed. At the date of closing the financial statements, such settlement agreement had not been signed.

Income from interest paid by the government in 2009 includes the effect of the reduction in the interest rate for the anticipated recycling of advances consistent with the principles set forth together with the Ministry of Finance. The effect for previous years is included in the "Interest expense to the government" item.

## 6. Banking corporations foreign currency deposits

The balance of banks' foreign currency deposits declined considerably, from NIS 19.7 billion at the end of 2008, to just NIS 1.7 billion at the end of the year.

At the end of 2008, against the deteriorating financial crisis and increase in risk, there was noticeable evidence of capital being returned to its country of origin, particularly due to the lack of confidence in the banking system. As a result, at the end of 2008 the banks increased their foreign currency deposits with the Bank of Israel sharply after transferring foreign currency worth \$15 billion from abroad (Table 4).

At the beginning of 2009, the financial markets in Israel stabilized, and the public's fears of holding foreign currency in commercial banks abroad receded somewhat. Consequently, the private sector withdrew NIS 19 billion in foreign currency that it had brought to Israel.

## 7. Revaluation accounts

The revaluation accounts are composed of unrealized profits from exchange-rate differentials on the foreign exchange reserves and unrealized profits on account of the revaluation of tradable securities in local and foreign currency to their fair value.

The balance of the revaluation accounts declined by NIS 1.1 billion, from NIS 5.3 billion in 2008 to NIS 4.2 billion in 2009. This consists of a NIS 1.5 billion decline in the revaluation account in respect of tradable foreign currency securities and a NIS 0.4 billion increase in the balance of the revaluation account for balances denominated in foreign currency.

### **Balances denominated in foreign currency**

According to the accounting method used in the Bank's financial statements, exchange rate differentials on balance sheet balances are not fully charged to the Statement of Operations unless they are recognized as "realized". Realization for a particular foreign currency is recognized only when the balance held in that currency declines.

Unrealized exchange rate differentials are charged to the Revaluation Accounts item in the balance sheet. Future losses from a particular currency are first offset against the revaluation account for that currency, if such an account exists, and only afterwards are they charged to the Statement of Operations. A negative balance in the revaluation account of a particular currency at the end of the year is defined as realized and is therefore charged to the Statement of Operations.

In 2009, net negative exchange rate differentials of NIS 0.6 billion were created on account of adjusting the balances denominated in foreign currency to the representative exchange rate (in 2008—NIS 3.5 billion, Table 6). These differentials are traced to the depreciation of the US dollar against the NIS during the year, which was partially offset by the effect of the appreciation of other currencies against the NIS.

Negative exchange rate differentials were accrued mainly on banks' foreign currency deposits—about NIS 1.2 billion. Banks' deposits denominated in US dollars accumulated negative exchange rate differentials, mostly at the beginning of the year, when the portfolio balances were high due to the import of capital at the end of 2008, in addition to the sharp depreciation of the NIS exchange rate during this period.

These negative exchange rate differentials were offset by positive exchange rate differentials of NIS 0.6 billion accrued on the foreign exchange reserves.

The expense on exchange rate differential in 2009 was NIS 0.9 billion. Here too, the effect of the weaker US dollar against the NIS is evident, less the effect of the appreciation of other leading currencies in the reserves portfolio against the NIS.

The difference between the total exchange rate differentials accrued and realized increased the balance in the revaluation account.



### Tradable foreign currency securities

The revaluation account balance on account of tradable foreign currency securities declined from NIS 2.4 billion in 2008 to just NIS 0.9 billion in 2009.

In the wake of the financial crisis, there was a perceptible "flight to quality," i.e., an upsurge in the purchase of US government bonds. This led to a marked decline in yields and rising prices, which was reflected not only in capital gains which were realized in the Statement of Operations, but also in an increase in the balance of this revaluation account. During the course of 2009, the returns increased leading to lower prices for the portfolio held in US government bonds, and this was primarily reflected in a decline of the revaluation account balance.

**Table 6**  
**Exchange rate Differentials Due To Adjustment of Foreign Currency Balances to the Representative Exchange Rate**

	2009	2008
	(NIS millions)	
<b>Assets</b>		
Foreign exchange reserves	454	(1,891)
Credit to the government—binational funds	(1)	(1)
International financial institutions	(6)	(10)
<b>Liabilities</b>		
Government deposits	138	47
Banks' foreign currency deposits	(1,185)	(1,694)
International financial institutions	38	23
Binational fund deposits	-	2
<b>Total</b>	<b>(562)</b>	<b>(3,524)</b>
Realized exchange-rate differentials	(923)	(2,372)
Unrealized exchange-rate differentials	361	(1,152)

### Tradable local currency securities

The revaluation account balance on account of tradable local currency securities was only NIS 0.7 billion in 2009 (similar to last year). This, despite the sharp increase in the size of the portfolio following the bond purchases. The reason for this is that the accrual component for indexation on the new purchases is still small, and the price differentials component was almost zero as the price of the bonds at the end of year is extremely close to their average purchase price.

## 8. Bank of Israel capital

The Bank of Israel's capital is composed of share capital and a general reserve, less the balance of accumulated losses.

In line with Accounting Standard 12 of the Israel Accounting Standards Institution, the Bank's capital reserve includes a one-time adjustment of non-monetary components in the balance sheet to the CPI for December 2003. This adjustment increased the Bank's share capital and general reserve to NIS 4 billion, as against NIS 320 million previously.

In 2009, the Bank of Israel had cumulative losses of NIS 20.1 billion, compared with NIS 21.4 billion in 2008. This decline can be attributed to net profit of NIS 1.4 billion in 2009.

According to the Bank of Israel Law, the Bank must transfer any profit it makes to the government within 60 days of the conclusion of each business year, but the Bank's losses are not covered by the government. The profits are transferred to the government after being offset against the balance of the accumulated losses, if there are any. The Bank of Israel did therefore not transfer profit to the government in 2009, and will not do so until the entire balance of the accumulated losses in the Bank's books is offset.





# THE PAYMENT AND SETTLEMENT SYSTEMS IN ISRAEL IN 2009



## Reform in the payment and settlement systems

- In July 2007 the Bank of Israel launched the Zahav system (a Hebrew acronym for Real Time Credits and Transfers), more commonly known in the world as RTGS (Real Time Gross Settlement System). The Zahav system is an advanced system for final, effective and reliable settlement of shekel payments in the economy in real time. Payment instructions in the Zahav system are handled immediately and they are final. Settlement in the Zahav system is safe and fast: transactions are cleared within a few minutes, they are irrevocable, and recipients may use payment immediately, without exposure to risk.
- Introduction of the Zahav system required the entire banking system to improve the way in which it manages liquidity and to move from retroactive liquidity management to liquidity management on an intraday basis. The Bank of Israel initiated the development of a system for full collateral management against intraday and overnight credit. This system is managed by the TASE.
- Together with the creation of the Zahav system, as part of the reform in the payment and settlement systems, the Bank of Israel also introduced a series of other changes and improvements into the existing payments systems, in order to bring them into line with accepted international standards. The principal changes were:
  - Cancellation of retroactive recording of transactions in the banks' accounts so that balances in the banks' accounts are final.
  - Extending the business day from 15:00 to 18:30, so that transactions can be performed in the Zahav system in the afternoons and evenings as well.
  - Creation of an interbank arrangement to handle failure of one of the participants in the multilateral Masav clearing or check clearing house, to ensure that payments are settled by the clearing houses by the end of the day at the latest.
  - Implementing the improvements in the check clearance process, including: mandatory electronic settlement for all banks, cancellation of retroactive check clearing, check imaging and transfer of files between banks, and initiation of



a law for check truncation. In 2009 a memorandum of law "Electronic Check Clearing, 5768-2008" was published.

- Implementing the improvements in the Masav clearing process, including: a change in the order of operations so that sending of the files to the banks (clearing) takes place only after settlement in the Zahav system, cancellation of retroactive settlement of returns and the creation of two clearing windows during the day (morning and evening).
- The TASE Clearing Houses prepared to introduce a Delivery Versus Payment (DVP) system so that settlement of the payment in the Zahav system will be executed together with transfer of the security. This method significantly reduces the possibility of settlement risks in the TASE Clearing House. This move began with government bonds and *makam*, and in coming years the TASE will work to extend it also to corporate bonds and afterwards to securities.
- To minimize legal risks in the payment systems, the Bank of Israel initiated the process leading to the passing of the Payment Systems Law, 5768-2008. This law ensures the effective function of Israel's payments systems and minimizes the risks relating to them. The law also defines the Bank of Israel's powers in supervising those payments systems declared by the Governor as "controlled systems."
- The Zahav system has provided Israel with new options also in the international plane. The most important of these was for the shekel to be included in settlement by the CLS system in May 2008. CLS (Continuous Linked Settlement), which was established in the early 2000s, functions as an international clearing house for exchange transactions. The activity in CLS is similar to the activity in RTGS system, although instead of settlement action in a single currency, in the CLS system the actions of settlement and currency conversions are carried out simultaneously.

## A. Principal developments

Between 2004 and 2007, there was a comprehensive reform of the payment and settlement systems, including the TASE Clearing Houses, check clearing and Masav. In July 2007, a new payments system, the Zahav system was launched, which meets international standards and which brought Israel's financial infrastructure to an advanced international level. Development of the new system and legislation of the Payments Systems Law, 5768–2008, also helped the shekel join the CLS system.

These and other measures, which were completed in May 2008, helped improve the stability of the local financial

infrastructure, allowing foreign and local entities to continue to perform transactions in the shekel and between the shekel and other currencies in an immediate, final and secure fashion, even when the global financial crisis became more severe in September 2008.

The stability of the financial infrastructure reduced its sensitivity to the repercussions of the global financial crisis and enabled normal business activity to continue. The importance of preserving the safety and credibility of Israel's financial infrastructure during the financial crisis was recognized, as was the need to oversee the different payments systems. In 2009, the Bank of Israel started working towards the establishment of a system for the oversight of the payment systems, consistent with the Payments Systems Law, 5768–2008. This oversight will enable the Bank to monitor the operation of the system and reduction of the various risks associated with banks' activity—particularly operational risk, liquidity risk, legal risk and systemic risk.

The controlled systems will also be required to implement operational and legal arrangements allowing their business activity to continue even when one of the settlement participants is declared bankrupt. Settlement risks may develop into a system-

### Payment Systems Law, 5768-2008

As part of the reform of Israel's payments and clearing systems, the Bank of Israel promoted the legislation of the Payment Systems Law, 5768-2008. Among other things, the Law grants the Bank of Israel the authority to oversee the payment systems declared by the Governor to be "controlled systems," specifies criteria for classifying systems as controlled, the obligations applicable to the operators of controlled systems, and the tools given to the Bank of Israel for implementing this authority. The Law also prescribes the finality of the payments settled through a "designated controlled system" and sets out a legal arrangement granting legal protection to payments in the system even if one of participants in the settlement goes bankrupt.





wide risk in which the failure of one participant in the payment system causes the failure of other participants in the system. In more serious cases, risks may pass from one system to another, and even cause a financial crisis throughout the economy.

The Zahav system helps to reduce the various risks associated with payment systems significantly. In practice, the Zahav system eliminates the credit and liquidity risks, so that payment becomes final as soon as the transaction is completed, and the receiving bank can then credit its customer without worrying that the payment may be cancelled. The system thus reduces the dependence of one participant on the other participants in the system and

this significantly reduces the systemic risk faced by banks participating in the settlement. Operational risks are reduced through the setting up of backup systems for the various components of the Zahav system as well as a complete backup site established for the Zahav system. The enactment of the Payment Systems Law also reduces the legal risk inherent in the operation of Israel's payment and settlement systems.

In line with the rules of the Zahav system, during the course of 2009 a National Committee for Payments and Settlement was established, whose members represent different entities operating in Israel's payments system and include representatives from the Bank of Israel (including the Committee's chairman), banks and payment systems. The Committee is also composed of three representatives from interested parties. It is worth noting that the Committee is purely advisory, aimed at reinforcing the financial stability and efficiency of Israel's payment systems. The Committee meets once in each calendar year.

## Risks in the Payments System

Inefficient payment and settlement systems expose their participants to several risks, the most important of which are:

**Credit risk**—one of the parties to the transaction will fail to settle an obligation for full value, either when due or at a time thereafter.

**Liquidity risk**—one of the parties to the transaction will fail to settle an obligation for full value when due.

**Legal risk**—the risk of loss to one of the parties to the transaction because the payment and settlement systems are not supported by clear laws and regulations.

**Operational risk**—the risk of loss resulting from inadequate or failed systems or their environments, such as human error, technical failure of hardware or software, and communications failures.

## 1. The Zahav system

During the course of 2009 the Zahav system settled about 198 thousand transactions with a value of NIS 62,304 billion; compared with 216 thousand transactions in 2008, with a value of NIS 21,874 billion (an increase of about 185 percent in the amount settled).

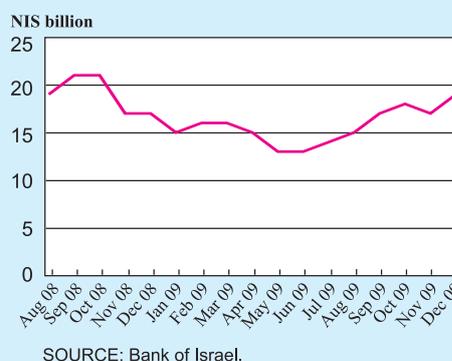
In September-October 2008, interbank activity<sup>9</sup> in the Zahav system expanded (Figure 1). In November-December 2008 and during the first two quarters of 2009 activity slowed and the volume of interbank transactions settled in the system declined. This decline can be attributed to the general

slowdown in the economy resulting from the financial crisis. Towards the end of 2009 the number of transactions increased, corresponding with the signs of recovery in the Israeli economy. It is worth noting that in the crisis months there were no irregular business events in the Zahav system which affected the normal course of settlement activity.

The average amount of one interbank transaction settled by the system during 2009 was NIS 28 million, as against NIS 33 million in 2008.

The amount of liquidity in the Zahav system grew noticeably in 2009; in the last quarter of 2009 the average daily value of liquidity in participants' accounts was NIS 109 billion, as against NIS 40 billion at the end of 2008. This increase can be attributed to the policy of the Bank of Israel of enhancing Israel's ability to withstand the negative repercussions of the global financial crisis. Such policy included, inter alia, the introduction of a plan to increase the foreign exchange reserves<sup>10</sup> from the end of the first quarter of 2008, and to purchase of government bonds<sup>11</sup> of different types and maturities, from February 2009. From September 2009 there have been signs of stability in the ratio between total debits<sup>12</sup> and the amount of liquidity in the system, so that in the last quarter of 2009, the average daily ratio was about 55 percent, as against about 60 percent in the last quarter of 2008 and 80 percent in September 2008.

**Figure 1**  
The Value of Interbank Transactions in the ZAHAV System, August 2008 to December 2009 (daily average)



<sup>9</sup> Interbank activity is composed of the activity of the banks, CLS Bank and the Postal Bank.

<sup>10</sup> Bank of Israel press release from March 20, 2008.

<sup>11</sup> Bank of Israel press release from March 25, 2009.

<sup>12</sup> Total debits settled in the participant's current account consist of bilateral payment instructions sent to the system by the participant, in which the participant's current account is debited, and the account of another participant in the system is credited, as well as debits to the participant's current account which are included in multilateral payment instructions from clearing houses.



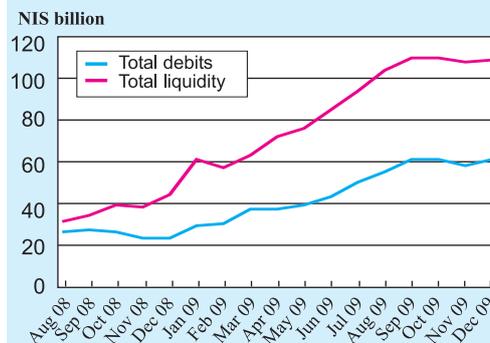
Figure 2 presents the total number of debits (daily average) settled in the Zahav system compared with the average liquidity in the system. It can be seen that the difference grew noticeably in 2009.

## 2. Paper-based clearing house (checks)

Total activity in the paper-based clearing house was NIS 788 billion, as against NIS 826 billion in 2008 (a 4.7 percent decline). During September 2008 there was an increase in the number of paper-based

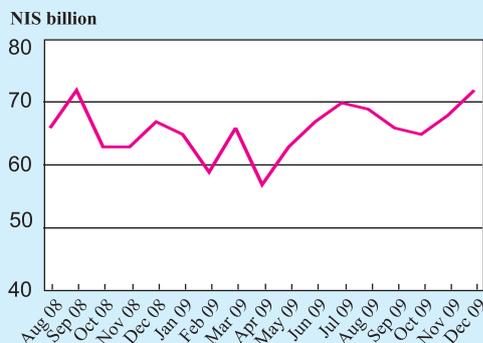
transactions compared with October and November, when the number and value of the transactions in the clearing house declined. The decline in the volume of activity is attributed to the general slowdown in the economy during the financial crisis.

**Figure 2**  
Total Liquidity and Total Debits in the ZAHAV System, August 2008 to December 2009 (daily average)



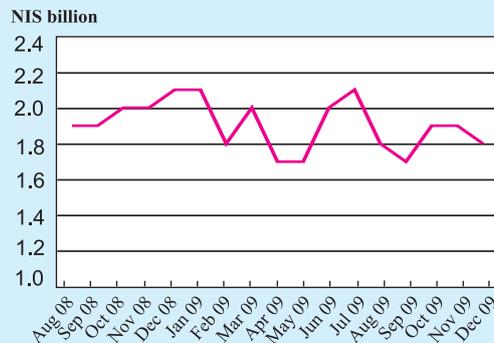
SOURCE: Bank of Israel.

**Figure 3**  
The Value of Transactions in the Paper-Based Clearing House, August 2008 to December 2009 (monthly total)



SOURCE: Bank of Israel.

**Figure 4**  
The Value of Returned Checks in the Paper-Based Clearing House, August 2008 to December 2009 (monthly total)



SOURCE: Bank of Israel.

The number and value of returned checks grew during the period October 2008 to January 2009, and in subsequent months, until mid 2009, the number and value of returned checks declined (Figure 4).

In 2009 3.1 percent of checks in the paper-based clearing house were returned, similar to the proportion in 2008.

### 3. Masav

The number of institutions operating through Masav grew by 5.2 percent in 2009. Overall Masav activity expanded by 2.4 percent, and the number of transactions increased by 2.5 percent.

### 4. TASE clearing houses

In 2009 the volume of trade handled by the TASE clearing houses totaled NIS 1,596 billion, compared with NIS 1,658 billion in 2008 (a 3.8 percent decline) (Table 6). From the fourth quarter of 2008 the component of government bonds increased, in contrast with trade in shares and convertibles, which declined. There was no noticeable change in the corporate bond and *makam* components. The increase in government bonds can be explained by the financial crisis which led many investors to seek low-risk and safe investment channels. Since April 2009 there have been signs of recovery—a decline in the amounts of trade in government bonds and an increase in shares and convertibles.

### 5. CLS (Continuous Linked Settlement) Bank

In 2009, the CLS bank settled \$870 trillion, compared with \$1,040 trillion in 2008 (a decline of 16 percent). In 2009, CLS Bank handled shekel transactions of NIS 930 billion (\$236 billion)—0.03 percent of the total amount settled by CLS during the year.

In 2009 CLS settled an average of \$3.4 trillion daily, compared with \$4 trillion in 2008 (a 15 percent decline). The total daily average settlement in shekel currency in 2009 was NIS 3.7 billion (\$0.9 billion).

Since September 2008 there has been a significant decline in the volume of activity in CLS, which can be explained by the financial crisis and the slowdown of financial markets around the world. Importantly, the decline in the volume of shekel activity in CLS was less than the decline in CLS activity overall. Starting from February 2009 CLS activity in shekel and other currencies began to recover.

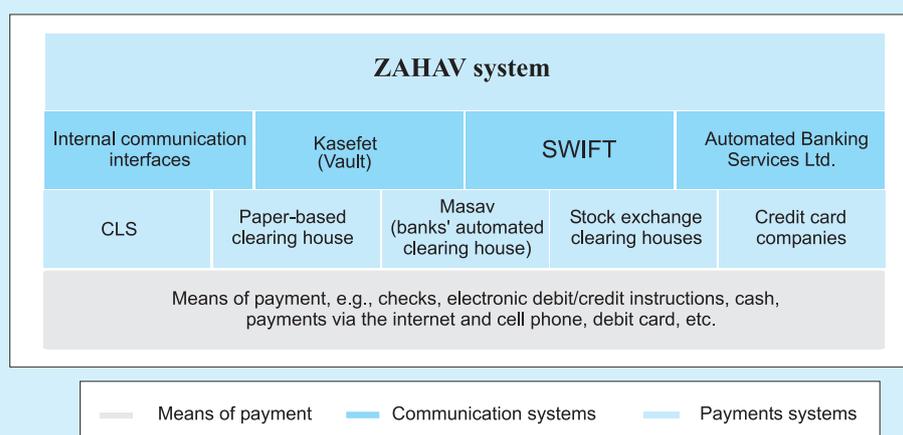


## B. The payment system in Israel

The financial infrastructure in Israel includes interbank payment and settlement systems which are used to transfer and settle payments, communication systems and means for making payments (Figure 5). The most important payment systems in Israel are the Zahav system, which is designated for immediate and final settlement of large or urgent payments; the paper-based clearing house for paper transmissions (checks and various debits and credits); the Masav (banks' automated clearing house) which settles electronic debit and credit instructions; the TASE clearing houses (the securities and the Maof clearing houses) and the credit card companies.

The CLS system which operates outside Israel is an integral part of Israel's payments and settlement system: it settles the Israeli currency against foreign currencies which are settled in CLS.

**Figure 5**  
**Israel's Payments System**



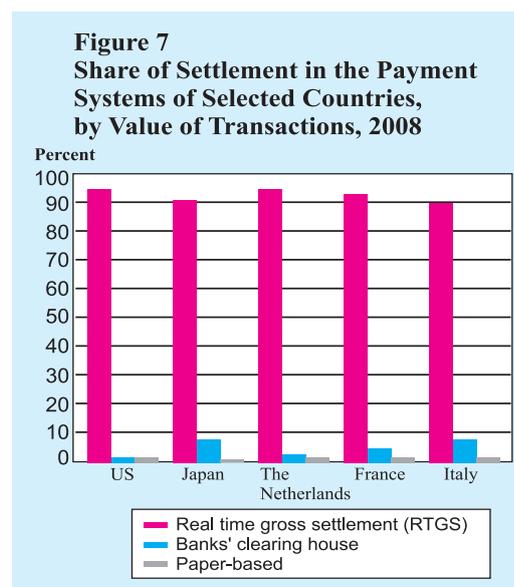
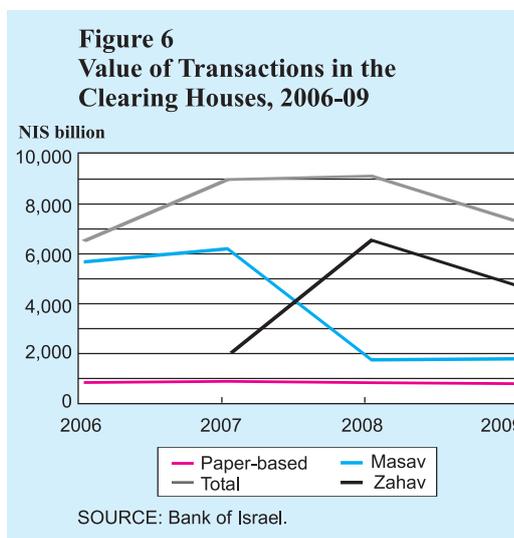
The payment systems encompass transactions using different methods—including automated (electronic) debit/credit instructions, checks, debit cards, cash and payments by means of Internet and cellular phone.

Participants in the various payment systems are mostly commercial banks and large financial institutions, and the payment methods are also used directly by the general public. Customers with accounts at the same bank have no need to use the interbank payment systems.

### The activity of the major payment systems in Israel in 2009

In the past, prior to the introduction of the Zahav system, when the settlement of funds was carried out only in the check clearing house and Masav, Masav accounted for about 87 percent, on average, of all amounts settled, while the check clearing house accounted for about 13 percent. In 2009 most of the large interbank amounts were settled directly through the Zahav system. This year about 65 percent of the total value of alternative interbank transactions<sup>13</sup> was settled in the Zahav system, Masav settled about 24 percent, and the checks clearing house settled 11 percent (Figure 6).

This contrasts with the distribution of the number of transactions among the different systems: Masav accounted for about 44 percent of transactions, checks for about 56 percent and Zahav for just 0.08 percent. As in most developed economies, the Bank of Israel's goal is to settle more than 90 percent of total value through the Zahav system (RTGS) (Figure 7).



<sup>13</sup> Masav transactions presented in figure 6 are composed only of credits and not debits, as the debits cannot be settled through the Zahav system.



## 1. Payment systems

### 1.1 The Zahav system

The Zahav system (real time credits and transfers), which was inaugurated in Israel at the end of July 2007, is an RTGS system (Real Time Gross Settlement) which operates in most countries of the world (developed and developing).

The system settles payments immediately, and they are final and irrevocable. Participants in the system are banks, the Postal Bank and CLS (hereinafter: "the Settlement Participants"), the clearing houses (Masav, TASE clearing houses, paper-based clearing house) and Bank of Israel divisions. One of the main goals of the Zahav system is to eliminate or reduce the various risks associated with the other settlement systems, mainly systemic risk, liquidity risk, credit risk, legal risk and operational risk.

The settlement in the Zahav system takes place in real time from 7:45 to 18:30 each business day. All payment instructions received in the system are settled separately, with no offsetting between debits and credits from the bank sending the instructions. The Zahav system operates through a "settlement account" held by each participant in settlement. The settlement account is composed of a current account and a credit account, to which the Bank of Israel transfers intra-day credit against collateral as necessary. The Zahav system manages payments according to order of their arrival, i.e., on a FIFO basis (First In First Out). Nevertheless, it allows participants to prioritize their payment instructions depending on their importance and urgency. If there are insufficient funds in the sending bank's account with the Bank of Israel to cover a transaction, the payment instruction is put into a queue, until sufficient funds are available, and the waiting transactions are registered in accordance with the priorities assigned by the participant.

The Bank of Israel provides the participating banks with intraday credit which they may utilize according to their needs during the system's operating hours. This credit does not bear interest, but it is fully covered by collateral for the specific day of operations only, and the banks must repay the credit by closing time of the Zahav system. The collateral provided against the intraday credit is government bonds, *makam* and the banks' deposits held with the Bank of Israel. The banks deposit bonds used as collateral for credit in a special Bank of Israel account at the TASE clearing house.

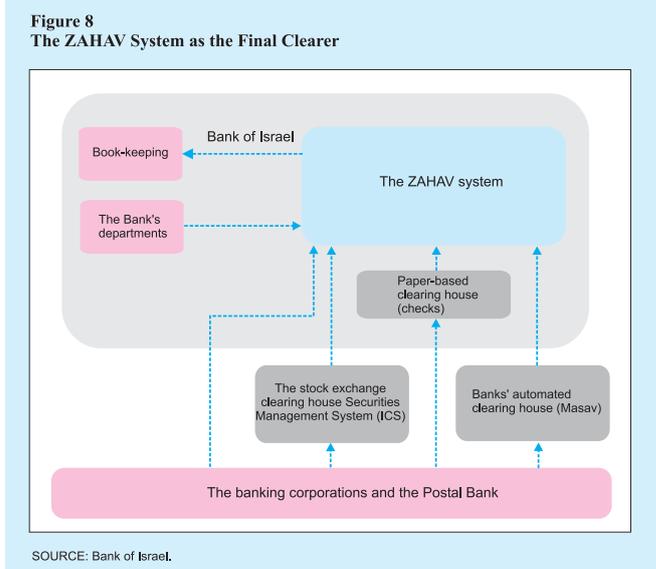
The TASE clearing house has developed a special Intraday Credit System (ICS) for the Bank of Israel, to handle each participant's securities submitted against the credit that enables participants to change the amount of intraday credit in their accounts. The system automatically calculates the amount of available intraday credit in accordance with the amount and type of securities deposited by the participant.

Settlement in the Zahav system is safe since the participants are linked to the system

through the SWIFT international communication system which is used for the safe transfer of funds in numerous countries in the world. In addition, the Zahav system meets the very high standards set by the National Authority for Information Security in Israel.

The Zahav system serves as the final clearer for all the settlement systems in Israel (Figure 8). The system settles bilateral transactions between

customers and participants in the system, as well as transactions between the participants and the Bank of Israel—credit to the banks, banks' deposits with the Bank of Israel, cash withdrawals from the Bank of Israel, etc. In addition, the system settles the net results of other payment systems (Masav, the paper-based clearing house and the TASE clearing house).



**Table 1**  
**ZAHAV System Activity 2008 and 2009**

	2008				2009			
	Total		Interbank <sup>a</sup>		Total		Interbank <sup>a</sup>	
	Value (NIS billion)	Transactions (number)	Value (NIS billion)	Transactions (number)	Value (NIS billion)	Transactions (number)	Value (NIS billion)	Transactions (number)
Jan.	2,017	22,039	639	19,938	2,899	15,669	381	13,026
Feb.	1,766	20,030	574	18,148	2,493	14,896	360	12,748
March	1,821	21,935	687	20,252	3,614	17,176	417	14,662
April	1,774	19,911	598	18,315	3,496	14,095	350	11,955
May	1,953	18,187	530	16,287	4,224	15,895	335	13,351
June	2,293	17,162	546	14,972	5,007	17,507	345	14,726
July	1,930	18,114	567	15,616	5,979	16,953	361	14,179
Aug.	1,843	15,186	465	13,297	6,608	16,790	398	14,054
Sept.	1,692	16,341	527	14,664	6,417	16,208	391	13,707
Oct.	1,383	14,679	458	13,264	7,303	16,205	455	13,609
Nov.	1,524	15,774	431	13,882	6,945	17,162	431	14,577
Dec.	1,878	17,046	459	14,847	7,319	19,093	507	16,263
<b>Total</b>	<b>21,874</b>	<b>216,404</b>	<b>6,480</b>	<b>193,482</b>	<b>62,304</b>	<b>197,649</b>	<b>4,730</b>	<b>166,857</b>
Change (%) <sup>b</sup>					184.8	-8.7	-27.0	-13.8

<sup>a</sup> Including transactions of the banks and their customers.

<sup>b</sup> The Zahav system started operating in July 2007. Hence no changes for 2008 are shown.

SOURCE: Bank of Israel.





Table 1 shows that during 2009 197,649 transactions were settled in the Zahav system with a total value of about NIS 62,304 billion; this is against 216,404 transactions with a total value of NIS 21,874 billion in 2008 (a decline of 8.7 percent in the number of transactions and an increase of 185 percent in total value). In 2009 there were 166,857 interbank transactions in the Zahav system, an average of 551 transactions per business day, and a total of about NIS 4,730 billion for the year; this contrasts with NIS 6,480 billion in 2008 (a decline of 27 percent). The rest of the transactions in the Zahav system were carried out by the clearing houses and the Bank of Israel, and their total value in 2009 was about NIS 57,573 billion.

Table 2 shows that interbank and clearing house activity declined this year (by about 36 percent), whereas Bank of Israel activity increased substantially (by about 568 percent), mainly due to the expansion of monetary activity.

**Table 2**  
**Activity in the Zahav System, by Component, 2008 and 2009**

	2008		2009		Change in 2009	
	Value (NIS billion)	Transactions (number)	Value (NIS billion)	Transactions (number)	Value (percent)	Transactions (percent)
Transactions						
<b>Total interbank</b>	<b>6,480</b>	<b>193,482</b>	<b>4,730</b>	<b>166,856</b>	<b>-27.0</b>	<b>-13.8</b>
Interbank (excluding CLS)	5,974	188,000	3,801	156,464	-36.4	-16.8
CLS <sup>a</sup>	506	5,482	930	10,392		
<b>Clearing houses</b>	<b>7,506</b>	<b>8,948</b>	<b>4,831</b>	<b>9,398</b>	<b>-35.6</b>	<b>5.0</b>
<b>Bank of Israel</b>	<b>7,887</b>	<b>13,974</b>	<b>52,742</b>	<b>21,395</b>	<b>568.7</b>	<b>53.1</b>
<b>Total</b>	<b>21,874</b>	<b>216,404</b>	<b>62,304</b>	<b>197,649</b>	<b>184.8</b>	<b>-8.7</b>

<sup>a</sup> Activity in shekel in CLS began on May 26, 2008.  
SOURCE: Bank of Israel.

Figure 9 presents the composition of the Zahav system's activity. The Bank of Israel accounts for about 85 percent of activity in the Zahav system; as against 6 percent for interbank transactions (excluding CLS), 8 percent for the other clearing houses (Masav, checks and TASE) and 1 percent for CLS settlement activity in CLS.

The Zahav system holds the settlement accounts of settlement participants. The participant's settlement account, which reflects its total liquidity in the system, consists of a current account used to settle (credit/debit) payments and its intraday credit accounts. Among other things, the intraday credit accounts are composed of intraday credit which the participant receives from the Bank of Israel against collateral deposited in a Bank of

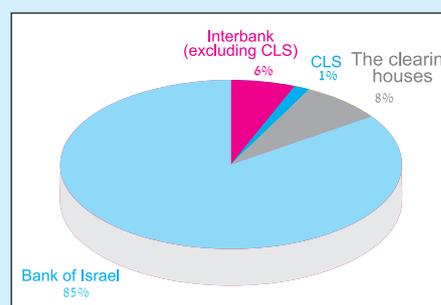
Israel account, in the TASE clearing house and in the participant's deposits (in NIS and dollars) held at the Bank of Israel.

Figure 10 presents the components included in the system's total liquidity and shows that the increase in total liquidity is due mainly to the growth of shekel deposits (monetary ICL) of the banks with the Bank of Israel. The increase in liquid reserves may be ascribed principally to the Bank of Israel's policy for enhancing the effect of monetary policy and the economy's ability to withstand the negative effects of the global financial crisis. This policy involved, inter alia, implementing a plan to increase the foreign exchange reserves<sup>14</sup>, which began in the first quarter of 2008. Starting from February 2009, as part of its open market activity, the Bank of Israel also purchased government bonds<sup>15</sup> of different types and maturities.

## 1.2 The banks' clearing house

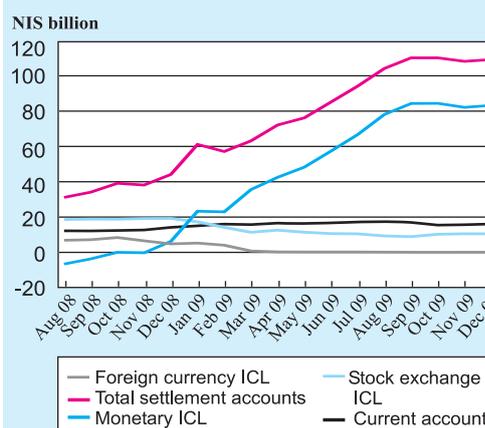
The banks' clearing house is composed of the paper-based clearing house (checks) and the Masav automated clearing house (Masav). The clearing house operates according to an agreement between its members, i.e., the commercial banks in Israel, the Postal Bank and the Bank of Israel. Some of the clearing house members operate directly within the clearing house while others are represented by other banks. The banks operating in the Palestinian Authority are also members of the clearing house and they are represented by three banking corporations in Israel<sup>16</sup>.

**Figure 9**  
Activity of the ZAHAV System, by Component, 2009



SOURCE: Bank of Israel.

**Figure 10**  
The ZAHAV System, Components of the Clearing Account, August 2008 to December 2009 (daily average)



SOURCE: Bank of Israel.

<sup>14</sup> Bank of Israel press release from March 20, 2008.

<sup>15</sup> Bank of Israel press release from March 25, 2009.

<sup>16</sup> Excluding branches operating in the Gaza Strip whose representation by Bank Hapoalim and Discount Bank was discontinued in January 2009.



The banks' clearing house is managed by its Board, which consists of 14 members, half of whom are from the Bank of Israel and half from the banking system. The banks' clearing house operates according to the "clearing house regulations," which are periodically updated according to the decisions of the Board. The Board meets periodically to discuss the ongoing needs of the clearing house and to update the clearing house regulations according to those needs.

### 1.2.1 Paper-based clearing house (checks)

The instruments presented by the banks to the paper-based clearing house are primarily checks, which are currently presented and returned electronically only. In addition, non-magnetic debits and credits (which are manual transmissions) are also presented.

In recent years progress has been made on several issues relating to the paper-based clearing house, including the tabling of a draft bill—Electronic Clearing of Checks Law, 5768-2008 (hereinafter: Check Truncation Law), deployment for check imaging, the introduction of measures to reduce the number of non-magnetic manual transmissions and establishing a standard for a uniform check.

The Check Truncation Law is now in the hands of the Ministry of Justice undergoing the legislative process, and is currently being discussed by the interested parties. The draft law means that checks will remain with the presenting banks and will not be transferred to the withdrawing banks, and instead files with images of checks will be conveyed between the banks. From the legal and business perspective, the check image will be the binding transmission. Check imaging<sup>17</sup> was devised to help the banks process their intraday processing work, reducing the time window as the business day was lengthened. It is worth noting that until the Check Truncation Law has actually been passed, imaging will not be a satisfactory substitute for the original check. A final date for application of the Law has not yet been set, nevertheless the banks have begun to prepare for this change and they are in advanced stages of preparing to implement the law.

During 2008–09 the clearing house Board discussed the issue of reducing the number of manual transmissions, and in 2009 a uniform standard for checks was defined. The repercussions of this definition are additional printing of magnetic information on the check so that partly torn transmissions and checks with illegible magnetic data can be dealt with.

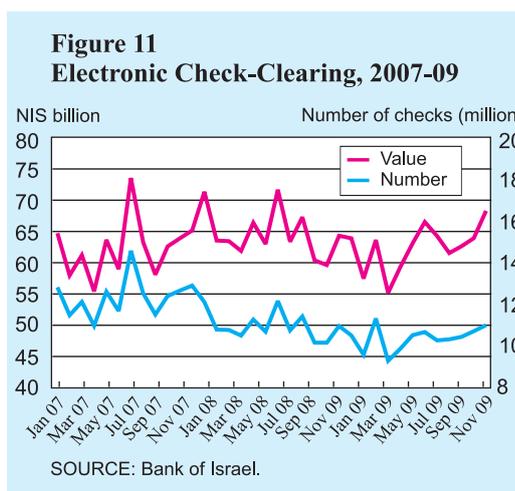
Table 3 shows that during 2009 activity in the paper-based clearing house totaled NIS 788 billion; compared with NIS 826 billion in 2008 (a decline of 4.7 percent).

Most of the transmissions presented and returned in the paper-based clearing house are checks, which are currently presented electronically only, and which account for about

<sup>17</sup> Check imaging is a photocopy of checks presented at the presenting bank and their transfer to the withdrawing bank.

95.2 percent of the clearing house's total activity. The rest of the transmissions are manual transmissions.

The transmissions settled manually in 2009 constituted about two percent of the total transmissions (checks and manual transmissions) settled by the paper-based clearing house, although they represented about 4.8 percent of the total value. The value of manual transmissions in 2009 totaled about NIS 38 billion, as against NIS 26 billion in 2008.



In 2009 the paper-based clearing house handled about 127 million transmissions (of which 125 million were checks) with a value of about NIS 788 million; 3.1 percent of the checks presented in the paper-based clearing house were returned.

These figures indicate that the number of checks presented declined by about 8 percent compared to the previous year, whereas the value of the checks declined by 6 percent; thus the average value of checks presented to the paper-based clearing house increased - from NIS 5,892 in 2008 to NIS 5,998 in 2009<sup>18</sup>.

### 1.2.2 Automated clearing house—Masav

The automated banks' clearing house (Masav) settles interbank transactions that are not based on paper on cash. Thus, Masav handles direct credits and debits of non-bank institutions. From December 2009 Masav has cleared monetary activity originating in credit returns.

The total value of the transactions carried out by Masav in 2009 was NIS 1,779 billion (compared with NIS 1,738 billion in 2008, an increase of 2.4 percent). Of this, credits accounted for NIS 1,503 billion, authorized debits for NIS 271 billion and the return of debits for about NIS 6 billion. The average value of a transaction in Masav in 2009 was NIS 6,827, as against NIS 6,839 in 2008.

A sharp drop in the value of transactions in Masav in the final months of 2007, which can be seen clearly in Figure 12, can be attributed to the inauguration of the Zahav system; this contrasts with the ongoing increase in the number of transactions.

According to the regulations of the Bank of Israel<sup>19</sup>, it is prohibited to transfer payments in Masav of an amount exceeding NIS 3 million, except for extraordinary circumstances

<sup>18</sup> Presentation of checks only (without returned checks).

<sup>19</sup> Letter from the head of the comptroller's office dated October 31, 2007.



**Table 3**  
**Paper-Based Settlement by Component, 2007-2009**

	2007		2008		2009		Change in 2009	
	Value (NIS billion)	Transactions (thousands)	Value (NIS billion)	Transactions (thousands)	Value (NIS billion)	Transactions (thousands)	Value (percent)	Transactions (percent)
<b>Manual instruments</b>	<b>106</b>	<b>3,172</b>	<b>26</b>	<b>1,994</b>	<b>38</b>	<b>2,343</b>	<b>44.6</b>	<b>17.5</b>
Debits	55	2,737	21	1,742	29	1,748	36.2	0.4
Credits	51	435	5	251	9	595	80.6	137.0
<b>Checks</b>	<b>772</b>	<b>151,762</b>	<b>800</b>	<b>135,348</b>	<b>750</b>	<b>124,507</b>	<b>-6.3</b>	<b>-8.0</b>
Presented	749	148,254	776	131,739	727	121,258	-6.3	-8.0
Returns	24	3,508	24	3,609	22	3,249	-5.7	-10.0
<b>Total</b>	<b>878</b>	<b>154,934</b>	<b>826</b>	<b>137,342</b>	<b>788</b>	<b>126,851</b>	<b>-4.7</b>	<b>-7.6</b>

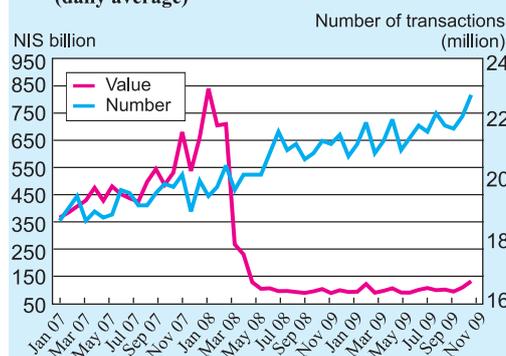
SOURCE: Bank of Israel

defined by the Bank of Israel, such as the transfer of payments by banks or institutions in batches. These regulations took effect in November 2007.

In 2009 the activity of Masav increased—both in value (by 2.4 percent) and in number of transactions (by 2.5 percent) (Table 4). Most of this increase was due to the credits component, NIS 1,502 billion in 2009 compared with NIS 1,473 billion in 2008, a 2 percent increase. About 12 million credits in Masav were transferred to the banks which sent them, and the rest of the credits (about 85 million) were transferred to the interbank settlement in the Zahav system. The “return of debits” component grew both in value and number—about 12.9 percent and 7.9 percent respectively.

Table 5 shows that of the credit transactions transferred for settlement in the Masav system in 2009, most were salary transfers (55.3 percent), although the monetary value of the salary component was the lowest (12.1 percent). In contrast, the number of interbank transactions was the lowest (9.4 percent), but their value was the highest (34.5 percent) in the credit transactions.

**Figure 12**  
**Clearances via Masav (Banks' Automated Clearing House), 2007-09**  
**(daily average)**



SOURCE: Bank of Israel.

**Table 4**  
**Automated Settlement, by Component, 2008-2009**

	2008		2009		Change in 2009	
	Value (NIS billion)	Transactions (millions)	Value (NIS billion)	Transactions (millions)	Value (percent)	Transactions (percent)
Credits	1,473	96	1,502	98	2.0	1.2
Debits	261	153	271	158	4.0	3.2
Returned credits	5	5	6	5	12.9	7.9
<b>Total</b>	<b>1,739</b>	<b>254</b>	<b>1,779</b>	<b>261</b>	<b>2.4</b>	<b>2.5</b>

SOURCE: Masav.

**Table 5**  
**Masav-Credits, by Destination, 2009**

	Value	Transactions	Value	Transactions
	(NIS billion)	(millions)	% of total credits	
Interbank	518	9	34.5	9.4
Wages	181	54	12.1	55.3
Institutions	480	22	31.9	22.9
Intrabank	323	12	21.5	12.4
<b>Total debits</b>	<b>1,503</b>	<b>97</b>	<b>100.0</b>	<b>100.0</b>

SOURCE: Masav.

### 1.3 The TASE clearing houses

The TASE clearing houses calculate the net value for each bank and transfer the results to the Zahav system for the purpose of settlement and debiting/crediting of the banks' relevant accounts at the Bank of Israel. The clearing houses settle the transactions related to all securities and provide additional services, such as payment of interest, dividends and redemptions of bonds. In addition, the TASE clearing houses settle payments resulting from the purchase and expiry of derivatives in the Maof clearing house.

Since the introduction of the Zahav system, the settlement of government bonds and *makam* has been parallel to the time of financial settlement (delivery versus payment—DVP). The TASE clearing houses have completed their preparations for transferring the clearing of corporate bonds on date t+1 (similar to government bonds). The transition is planned for the second quarter of 2010, and accordingly DVP will also apply to transactions in corporate bonds.



During 2009 the value of transactions initiated by the TASE which were settled in the Zahav system totaled about NIS 595 billion. In addition, the volume of trade in shares and *makam* dropped by 12 percent and 17 percent respectively, whereas the volume of trade in government bonds rose by 4 percent (Table 6).

**Table 6**  
**Trading Volumes in Securities, 2006-09**  
**(NIS billion, in current prices)**

	Shares and convertible	Bonds			<i>Makam</i>	Total
		Govt.	Other	Total		
2006	360	356	68	424	198	982
2007	506	636	165	800	207	1,514
2008	481	761	224	985	192	1,658
<b>2009</b>	<b>423</b>	<b>789</b>	<b>223</b>	<b>1,012</b>	<b>160</b>	<b>1,596</b>
Increase in 2009 (percent)	-12.1	3.8	-0.6	2.8	-16.6	-3.8

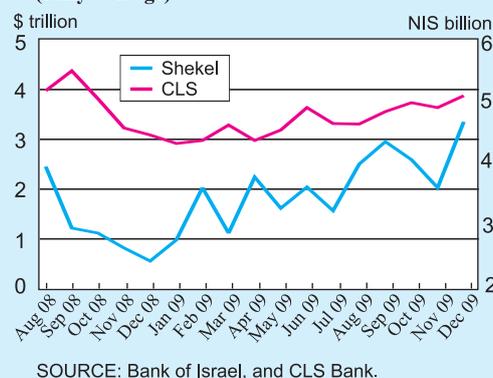
SOURCE: TASE Web site: statistics/turnover/annual

### 1.4 The CLS system

The CLS system, which was established by a group of major foreign banks to reduce the risk in settling foreign currency transactions, operates as an international clearing house for foreign currency conversions. The operations performed in the CLS system are similar to those of RTGS system, but instead of settlement activity in one currency, the CLS system carries out settlement and conversion activities from currency to currency simultaneously. The CLS system provides settlement services for 17 currencies, and all the central banks in those countries are connected to it directly through their RTGS. The CLS system settles more than 50 percent of all foreign currency conversion transactions worldwide.

In May 2008 the shekel joined the CLS system. The addition of the Israeli currency to the international system has significantly reduced the conversion risks involved in the activity between Israeli businesses and those abroad, reinforcing their stability. The

**Figure 13**  
**Total Shekel Activity Compared with Total CLS Activity, August 2008 to December 2009 (daily average)**



inclusion of the shekel among leading world currencies currently handled by the CLS system greatly strengthens Israel's currency and makes it fully convertible, traded freely around the world.

The CLS system is owned by more than 70 financial institutions worldwide, and is supervised by the American Federal Reserve Bank, in conjunction with representatives from all countries whose currencies are traded in the CLS.

In 2009 the average daily value of settlement in the CLS system was about \$3.4 trillion, of which the average daily value for transactions in shekel was NIS 3.7 billion (about \$0.9 billion). Shekel transactions in the CLS system in 2009 totaled NIS 930 billion (about \$236 billion). In 2009 about \$870 trillion was settled in the CLS system, of which shekel transactions accounted for 0.03 percent.

### 1.5 The credit card system

Direct debit card activity in general and credit card activity in particular, has grown considerably in recent years. This is due to the extensive use of such cards by various businesses and the ability to use them by means of internet and phone.

The number of credit card transactions in 2009 was 686<sup>20</sup> million, while the value of these transactions totaled about NIS 162 billion—about 5.2 percent higher than in 2008. The average credit card transaction this year was only NIS 236.

Table 7 relates only to transactions in shekels, including cash withdrawals by means of credit cards and does not include purchases and cash withdrawals in foreign currency.

**Table 7**  
**Use of Credit Cards, 2005-2009**

	Value	Transactions	Year on year
	(NIS billion)	(millions)	increase
			(percent)
2005	113	482	10.4
2006	126	532	11.2
2007	139	585	10.9
2008	154	642	10.1
<b>2009<sup>a</sup></b>	<b>162</b>	<b>686</b>	<b>5.2</b>

<sup>a</sup> Q3 data: estimate.  
SOURCE: Bank of Israel.

<sup>20</sup> It should be emphasized that the number of transactions shown in this table includes all the transactions listed in the customers' statements, whereas the other debits in the public's current accounts only list debits recorded in the current account (Table 8).



## 2. Communication systems

### 2.1 SWIFT

The SWIFT international communication system facilitates the safe and efficient automatic transfer of payment instructions. Thus, most developed countries have a payments system based wholly or partially on this system. In Israel SWIFT serves as a means of communication between different financial entities; inter alia to transfer payment instructions and other messages between the Zahav system and its participants and between the banks and the TASE clearing houses. SWIFT is also used by the banks and financial institutions for transferring foreign currency payment instructions abroad.

Due to the critical importance of the SWIFT system in most countries, the ten central banks of the G-10 countries decided to introduce joint supervision of the system. This supervision is led by the central bank of Belgium<sup>21</sup>.

### 2.2 ABS (Automated Banking Services)

The ABS (Automated Banking Services) Company (hereinafter: the Company), is a limited company established in 1978 by Israel's five largest banks with the purpose of providing services to various financial institutions—banks, financial institutions, credit companies, provident funds, etc. The company operates according to a permit issued by the Deputy Governor of the Bank of Israel in 1981. The Company is a joint services company as this term is defined in Section 23 of the Banking (Licensing) Law, 5741-1981.

ABS's operations focus on four key areas: management of the communication network between the credit card terminals in businesses (POS) and the credit card companies, management of the network of ATMs which are not located at bank branches, management of the communication network of ATMs located at banks, and providing the credit card companies with communication services to Masav and to banks participating in monetary tenders vis-à-vis the Bank of Israel.

### 2.3 Kasefet (Vault)

Kasefet (Vault) was established by the Cyber Ark Company. This communication interface facilitates the management of a set of virtual vaults which provide the secure and encrypted transfer of data (files with information) between enterprises over the internet network.

To facilitate the transfer of secure information on the internet, the system provides several layers of information security and encryption. Information transmitted from a particular source to the target enterprise is saved in computerized vaults, with advanced

<sup>21</sup> The central bank of Belgium was chosen as SWIFT's supervising body because SWIFT is registered in Belgium.

access passwords and controls. Each vault is accessible only to a defined group of users who share it. When logging in, the user sees only the vaults he is authorized to access.

The Bank of Israel uses this means to transfer/receive information to/from the commercial banks—classified documents, statistical data sent from the banks to the Bank of Israel and bank statements sent to banks, etc.

With the establishment of the Zahav system, use of the Kasefet (Vault) extended for transferring payment instructions to the Zahav system from Masav and from government ministries. In future it will also be extended to other participants (as a backup for the SWIFT). Furthermore, communication with the paper-based clearing house is performed through the Kasefet (Vault).

### 3. Means of payment

As noted, Israel's payment and settlement system is composed of payment systems, communication systems and means of making payments. The previous sections reviewed the payment system and communication interfaces, while this chapter will review the principal means of payment available in Israel.

The means of payment through which the public can make payments include cash, checks, electronic debits, use of debit cards, authorized debits, internet-based payments, payments by cell-phone, etc.

Data<sup>22</sup> on the public's current account transactions (Table 8) using the means of payments include: checks, cash withdrawn at ATMs and banks, authorized debits (executed through Masav) and other types of debits. Other type of debits include: electronic transfers (through Zahav and Masav), activity by debit cards, internet-based payments and other business transactions between the customer and the bank—purchase of securities, purchase of foreign currency, bank charges, etc.

The debits of current accounts held by the public totaled NIS 18,058 billion in 2009, as against NIS 21,474 billion in 2008. The total value of debits of current accounts held by the public in 2009 declined by 16 percent compared to 2008. Debits by check declined by 7 percent this year, and other debits declined by 17 percent (most of this was due to a decline in activity in the Zahav system). In contrast, cash withdrawals increased by 8 percent, and authorized debits increased by 2 percent.

It should be mentioned that data on the public's current accounts differ from the data of the Clearing Houses, since clearing house data list interbank transactions only, whereas the data of the public's current accounts include all transactions, including those settled in the bank that did not pass through the clearing house.

<sup>22</sup> Source: Banking Supervision Department, Bank of Israel.



**Table 8**  
**Debits on the Public's Current Accounts, 2005–09**

	Checks	Cash withdrawals	Authorized debits	Other debits	Total
Value (NIS billion)					
2005	821	137	471	13,731	15,160
2006	888	143	527	15,910	17,468
2007	970	158	572	21,051	22,751
2008	924	163	634	19,754	21,474
<b>2009</b>	<b>860</b>	<b>175</b>	<b>649</b>	<b>16,374</b>	<b>18,058</b>
Increase in 2009 (percent)	-7.0	7.9	2.4	-17.1	-15.9
Transactions (millions)					
2005	164	134	163	274	735
2006	163	138	171	304	776
2007	165	140	178	343	825
2008	159	135	188	338	820
<b>2009</b>	<b>152</b>	<b>131</b>	<b>195</b>	<b>305</b>	<b>782</b>
Increase in 2009 (percent)	-4.8	-3.1	3.7	-9.8	-4.6

SOURCE: Bank of Israel

### 3.1 Use of checks

According to the reports from the banks (Table 9) about NIS 152 million checks were drawn by Israelis in 2009, of which about 121 million were presented in the interbank clearing house, and the rest (about 31 million) were deposited in the banks from which they were drawn.

The number of checks drawn and their value were lower this year than in previous year, a trend which characterizes developed countries and originates primarily from the growing use of credit cards and other automated transfers.

Of the checks drawn in 2009 about 4.2 million (about 2.8 percent) were returned—the same proportion as last year. Of the total value of checks drawn (NIS 860 billion), about 3.3 percent were returned (as against 3.0 percent in 2008). About half of the checks were returned because of insufficient coverage, and about the half were returned for other reasons—checks past their validity date, an unrecognized signature, etc.

At the beginning of 2009 the percentage of returned checks was noticeably higher than the annual average.

**Table 9**  
**Checks Drawn and Checks Returned, 2009**

	Checks drawn		Checks returned		Return rate	
	Value	Transactions	Value	Transactions	Value	Transactions
	(NIS million)	(thousands)	(NIS million)	(thousands)	(percent)	(percent)
January	69,673	12,313	2,705	388	3.88	3.15
February	65,103	11,411	2,372	346	3.64	3.03
March	77,596	14,187	2,539	395	3.27	2.79
April	65,073	11,618	1,989	318	3.06	2.73
May	70,440	12,596	2,252	328	3.20	2.60
June	71,167	12,748	2,443	336	3.43	2.64
July	74,105	12,812	2,512	335	3.39	2.61
August	73,264	12,565	2,306	345	3.15	2.75
September	71,854	12,820	2,051	311	2.85	2.43
October	67,670	12,130	2,243	355	3.31	2.93
November	76,761	13,473	2,337	349	3.04	2.59
December	76,959	13,074	2,385	368	3.10	2.81
<b>Total 2009</b>	<b>859,666</b>	<b>151,748</b>	<b>28,134</b>	<b>4,174</b>	<b>3.27</b>	<b>2.75</b>

SOURCE: Bank of Israel.

### 3.2 Cash withdrawals

Cash withdrawals by the public totaled about NIS 175 billion (as against NIS 163 billion in 2008)—about 8 percent higher than last year. In 2009, cash accounted for about 0.97 percent of all current account debits by the public (compared to 0.76 percent last year).

**Table 10**  
**Cash Withdrawals and Held by the Public, 2004-2009**

	Cash withdrawals		Cash held by the public	
	Annual, cumulative (NIS billion)	Year on year increase (percent)	Annual, cumulative (NIS billion)	Year on year increase (percent)
2004	115	3.5	21	8.6
2005	137	19.0	24	17.5
2006	143	4.5	26	4.6
2007	158	10.4	29	13.4
2008	163	2.9	34	18.6
<b>2009</b>	<b>175</b>	<b>7.9</b>	<b>41</b>	<b>20.8</b>

SOURCE: Bank of Israel.



Despite the increase in the use of debits cards, prepaid cards, the internet and more, the use of cash as a means of payment does not seem to be in decline; quite the contrary: cash withdrawals increased from 2004 until the present time by about 52 percent.

### 3.3 Authorized debits

There were about 195 million authorized debits in 2009, with a value totaling NIS 649 million, compared to 188 million transactions and NIS 633 billion in 2008.

The value of authorized debits has increased over time and constitutes about 3.6 percent of total debits in current accounts held by the public. The table shows that in 2009 the annual increase in authorized debits was lower than in previous years—about 2.5 percent compared to an average of about 10.7 percent for the previous four years. According to figures published by the BIS the total value of these debits in the wealthiest countries has grown continuously over the last few years<sup>23</sup> at an average annual rate of 16 percent.

**Table 11**  
**Authorized Debits, 2005-2009**

	Value (billion)	Transactions (million)	Annual increase in value (percent)
2005	471	163	12.0
2006	527	171	11.8
2007	572	178	8.6
2008	633	187	10.6
<b>2009</b>	<b>649</b>	<b>195</b>	<b>2.5</b>

SOURCE: Bank of Israel.

### 3.4 Other debits

Other debits of the public's current accounts are not classified and mainly include one-time or standing orders for the transfer of funds to an account of the same customer or that of a different customer, debits resulting from business transactions between the customer and the bank (e.g., interest payments, commissions on the purchase of securities or foreign currency), orders to debit an account using a credit card<sup>24</sup> and payments made by the public in the Zahav system.

Other debits totaled NIS 16,374 billion for the reviewed period, as against NIS19,754 billion in the previous year. Most of this decline derives from the decline in the amounts settled in the Zahav system in 2009. In 2009 other debits accounted for about 91 percent of total debits in current accounts held by the public.

<sup>23</sup> Statistics on payment and settlement in selected countries, March 2008.

<sup>24</sup> Some of the banks include this in authorized debits.