Bank of Israel

Market Operations Department

Investment of the

Foreign Exchange

Reserves

Annual Report 2008

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Main Developments[1]

- The Bank of Israel's foreign exchange reserves grew by $14 billion this year, and at the end of 2008 stood at $42.5 billion.
- The growth in the reserves this year was mainly the result of purchases of foreign currency by the Bank of Israel since the end of the first quarter of 2008 as part of a program to increase the Bank's foreign exchange reserves. In 2008 purchases totaled $12.1 billion[2].
- For the first time in the past decade, in December 2008 the average level of the foreign exchange reserves has covered all the short-term external debt of the economy—103 percent, compared with a level of coverage of around 80 percent in previous years; This was equivalent to 4.8 months of imports, compared with 4 months on average during the previous year.
- Despite the severe global financial crisis this year, Israel's foreign exchange reserves were hardly affected.[3] This is because they were invested in conservative assets as part of the Bank of Israel's policy of managing the reserves. In addition, the Bank took steps during the year to reduce the exposure of the reserves to increasing financial risks. As part of these steps, the banking exposure was reduced to less than one percent, the investment rules were made stricter, and additional restrictions were imposed on the assets in which investment was permitted.
- The holding-period rate of return on the reserves in terms of the numeraire was 5.9 percent in 2008, up from 4.5 percent on average in the years 1999-2008. This rate of return was affected to a large extent by the decline in yields to maturity in the US government bond market and other government bond markets worldwide, against the background of the deepening global crisis.
- The contribution of active management this year was negative and totaled 19 basis points, in contrast to a positive average 9 basis points in the past decade. The negative contribution

[1] The Market Operations Department has been reporting to the public on the investment of the reserves since 2000. The reports for previous years, some of which have been published as chapters in the Bank of Israel's reports, can be found on the Bank of Israel's website www.bankisrael.gov.il Explanations and definitions of terms used in the current report appear in the previous reports, which also discuss various aspects of managing foreign exchange reserves that are not discussed in this report.

[2] This amount includes also the purchase of foreign currency as part of the Bank of Israel's intervention in the course of trading, which took place over two days in March 2008, prior to the commencement of the purchasing program, in light of the anomalous behavior of the shekel exchange rate on those days.

[3] For a description and an analysis of the crisis, see Bank of Israel Report 2008, Chapter D.

was affected mostly by the long-term spread assets in the portfolio, whose rates of return were lower than those of government bonds because of the widening of the spreads between them. The contribution of active management and its volatility, which rose this year, were greatly affected by the dramatic changes that took place in the markets as a result of the global crisis.

- In the wake of the low level of yields to maturity which prevailed in the United States from the beginning of 2008, the duration of the dollar portfolio was reduced from 24 months to 14 months. This was due to the concern that a rise in yields could cause large capital losses, greater than the income from interest, leading to a negative holding-period rate of return.

- The events that took place this year in the world underscored that beyond the existence of an appropriate level of reserves, it is also of considerable importance for them to be sufficiently liquid in order to be able to cope in times of crisis. This aim was particularly emphasized in the Bank of Israel's management of the reserves this year.

A. THE LEVEL OF THE RESERVES AND THEIR MANAGEMENT FRAMEWORK

1. The management framework

The management of Israel's foreign exchange reserves is subject to the **Bank of Israel Law, 5714-1954** and its accumulated legal interpretations. These define how the Bank may conduct its foreign-currency activities and limit the types of assets in which it may invest. In areas in which the Bank is not restricted by the wording of the Law, it acts within a framework that reflects the spirit of the Law and the Bank's priorities, and limits the various risks to which the reserves are exposed. The main financial risks are credit risk, controlled by a system of rules and quotas; interest-rate risk, controlled mainly by setting a target average duration for each currency portfolio; and currency risk, controlled by defining a neutral currency composition—the numeraire—that serves also as a yardstick for measuring the performance of the portfolio. Other risks, such as operational and legal risks, are also taken into account.

2. The level of the reserves

Israel's foreign exchange reserves grew this year in dollar terms by $14 billion, from $28.5 billion at the end of 2007, to $42.5 billion at the end of 2008.[4] The substantial increase this year is mainly the result of the purchase of foreign currency by the Bank of Israel as part of the program set in motion at the end of March 2008 to increase the Bank's foreign exchange reserves. Within this framework $12.1 billion were purchased this year. The changes in the level of the reserves this year were also the result of other factors: an increase in the banks' deposits of $4.3 billion dollars, and current income from managing the reserves of $0.8 billion (interest, capital gains, and exchange-rate differences against the dollar). On the other hand, government withdrawals of $3.2 billion for its foreign exchange activity, partially set off the increase in the level of reserves.

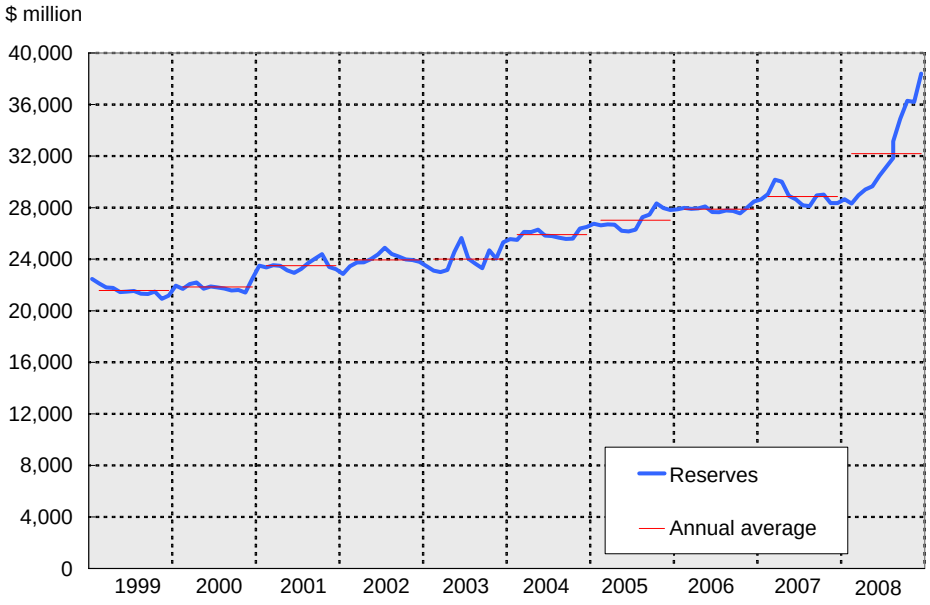
The reserves serve as a source of liquidity to be used as and when necessary, and their purpose is also to yield benefits that derive from the very fact that the country is holding them—reducing the probability of a crisis in the Israeli foreign-exchange market and enhancing the country's standing in the international financial environment. In recent years, the definition of the roles of the foreign exchange reserves has been derived from their possible uses by the

[4] This amount includes also the purchase of foreign currency as part of the Bank of Israel's intervention in the course of trading, which took place over two days in March 2008, prior to the beginning of the purchasing program, in light of the anomalous behavior of the shekel exchange rate on those days

government and the Bank of Israel, or according to the benefit that could accrue from them, and these also serve as a basis for deciding how the reserves should be managed, their neutral currency composition—the numeraire, and what their desired level should be.[5]

Figure 1 – Foreign Exchange Reserves, 1999-2008

(Monthly averages)



At the beginning of the year, following a thorough assessment of the desirable level of reserves, the Bank of Israel decided that in light of the needs of the economy, against the background of the rapid GDP growth in recent years, and its growing integration in the world economy and the global financial system, that Israel's foreign-currency reserves should be increased. Therefore, from the end of March 2008, the Bank of Israel began to implement a plan to increase the level of reserves by purchasing foreign currency in the course of trading. During 2008, $12.1 billion was purchased, most in the second half of the year in which the Bank of Israel increased the amount of purchases from $25 million a day, to $100 million. During 2009 Bank of Israel continued to purchase foreign currency in the course of trading and announced that against the background of the world economic situation and in the context of its overall policy it intends to continue with the program to increase the level of the reserves. The

[5] See details in the previous reports on the administrative framework of the foreign exchange reserves in general, and the desirable level of the reserves in particular. See, for example, details of the desirable level of the reserves in the 2007 report, and the definitions of the possible uses of the reserves in the 2005 report.

Bank will continue to review the program from time to time, taking into account the changing market conditions.

Since the impact of the program to increase the level of reserves was felt mainly in the second half of the year, the **average level** of foreign exchange reserves rose in 2008 by only $3.3 billion to $32.2 billion, as opposed to $28.9 billion in 2007 (Figure 1). At the same time, the change in the proportion of the average reserves this year to aggregates in the economy (it is customary to compare the level of reserves to the aggregates), was not uniform: while the GDP and the unindexed local-currency assets held by the public (M2) rose in dollar terms at a higher rate this year than the average reserves, and therefore its (the reserves) proportion relative to them (GDP and M2) fell slightly, the ratio of the reserves to imports remained almost unchanged at the level of four months of imports. On the other hand, the external debt fell slightly this year relative to the previous year, and therefore the ratio of the reserves to the gross external debt and to the short-term external debt rose at a not-insignificant rate (Table 1).

At the same time, the ratios of the reserves to these aggregates in the last month of the year increased sharply (the average level of the reserves rose to $38.4 billion in December). . Thus, for example, the ratio of the reserves to GDP rose to 19 percent, and their ratio to gross external debt reached a record 45 percent. Furthermore, for the first time in the past decade the reserves covers the total external short-term debt of the economy—103 percent, as opposed to levels of coverage of around 80 percent in previous years.

Table 1
The Level of the Reserves Relative to Other Aggregates, 1999-2008

	Average level of reserves ($ million)	Imports (months)	Gross external debt	Short-term external debt	Unindexed local-currency assets (M2)	Gross domestic product
			Reserves as percent of aggregate			
1999	21,569	5.4	33	78	55	20
2000	21,843	4.5	32	72	46	18
2001	23,495	5.4	35	79	43	19
2002	23,948	5.8	34	76	48	21
2003	23,999	5.5	32	80	46	20
2004	25,908	5.2	33	82	47	21
2005	27,020	5.0	35	82	46	20
2006	27,884	4.7	32	77	45	19
2007	28,865	4.1	32	74	37	18
2008	32,189	4.0	38	87	33	16
Dec-08	38,392	4.8	45	103	39	19

SOURCE: Bank of Israel, The Central Bureau of Statistics, and returns from the banks.

B. RESULTS OF INVESTING THE RESERVES IN 2008

Table 2
The Performance of the Actual Portfolio vis-à-vis the Benchmark Portfolio, 1999-2008
(percent, in numeraire annual terms, standard deviation in parentheses)

	Performance		Incremental yield				
	Actual portfolio	Neutral benchmark	Total	Currency management	Duration management	Asset selection	Dispersion and other contributions
1999	**3.26** (0.66)	**3.17** (0.60)	**0.08** (0.13)	**0.02**	**-0.06**	**0.08**	**0.05**
2000	**6.79** (0.89)	**6.78** (0.86)	**0.01** (0.11)	**-0.15**	**0.00**	**0.15**	**0.01**
2001	**6.35** (1.44)	**6.13** (1.36)	**0.22** (0.20)	**0.00**	**-0.01**	**0.18**	**-0.01**
2002	**5.18** (1.32)	**4.98** (1.41)	**0.20** [a] (0.17)	**0.03**	**-0.02**	**0.20**	**-0.01**
2003	**2.15** (0.81)	**1.94** (0.79)	**0.21** (0.09)	**0.04**	**-0.02**	**0.19**	**0.00**
2004	**1.70** (0.66)	**1.67** (0.68)	**0.03** (0.08)	**0.02**	**-0.05**	**0.09**	**-0.02**
2005	**2.64** (0.60)	**2.44** (0.67)	**0.21** (0.12)	**0.00**	**-0.03**	**0.19**	**0.04**
2006	**3.83** (0.73)	**3.70** (0.79)	**0.12** (0.14)	**-0.02**	**-0.05**	**0.21**	**-0.01**
2007	**6.91** (1.37)	**6.91** (1.50)	**0.00** (0.25)	**0.05**	**0.02**	**-0.08**	**0.01**
2008	**5.95** (1.42)	**6.14** (1.46)	**-0.19** (0.53)	**0.02**	**0.00**	**-0.24**	**0.02**
1999-2008	**4.46**	**4.37**	**0.09**	**0.00**	**-0.02**	**0.10**	**0.01**

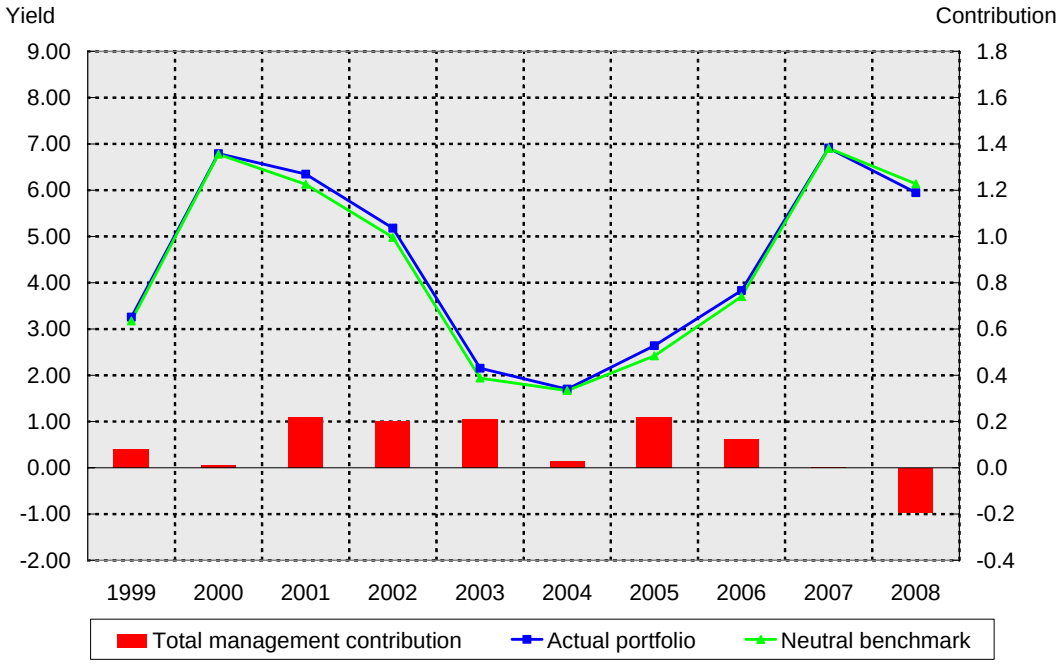
[a] 5.5 basis points of total incremental yield are not attributed to any listed component in this year.
SOURCE: Bank of Israel.

The holding-period rate of return on the reserves in numeraire terms in 2008 was 5.9 percent, which was higher than the average rate of return of 4.5 percent in the years 1999-2008, but lower than the highest recorded rate of return—6.9 percent in the previous year (Table 2 and Figure 2). In shekel terms the holding-period rate of return on the reserves reached 1.7 percent, following a negative rate of return of 0.5 percent in 2007 and a negative rate of return of 2.3

percent in 2006.[6] The rate of return in shekel terms was lower than that measured in numeraire terms because of the continued strengthening of the shekel in 2008 against most of the currencies in which the reserves are invested.[7]

Figure 2 – The Yield and the Total Management Contribution, 1999-2008

(Percent, in annual numeraire terms)



The rate of return on the reserves can be divided into two parts. The first is the benchmark rate of return, which is a hypothetical portfolio built according to rules determined in advance as part of the investment policy determined by the Bank, such as its currency composition, its duration, the types of assets in it and their distribution along the curve. The second is the contribution of active management, which is measured as the rate-of-return gap between the reserves and its benchmark. The active management is reflected in investment decisions that intentionally create differences in the reserves relative to its benchmark in terms of various parameters (duration, currency composition, types of assets, etc.) in order to achieve added value to the rate of return on the portfolio. The scale of the deviations from the benchmark is limited by system of rules as part of the Bank's investment policy, and is relatively small. Hence, the decisive factor in determining the holding-period rate of return on the reserves is the

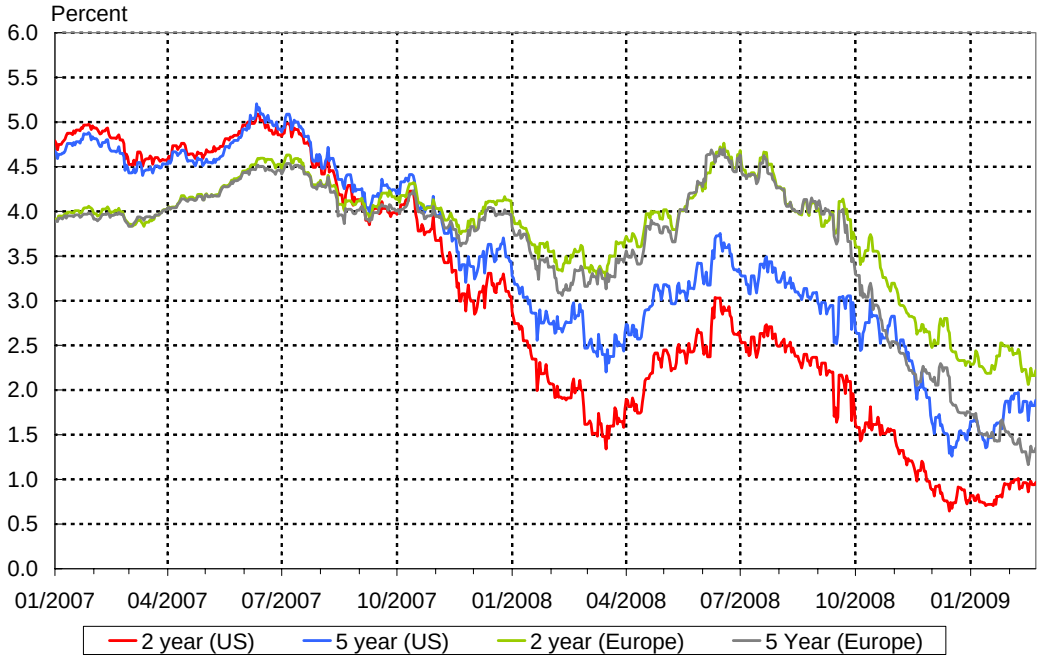
[6] The rate of return in shekel terms and in general is not affected by changes in the amount of the reserves, or by purchases of foreign currency by the Bank of Israel.
[7] For details see "Bank of Israel—Financial Report for 2008".

composition and the structure of the benchmark, while the contribution of active management is relatively small, even though both, of course, are affected by developments in the markets.[8]

1. The holding-period rate of return and the benchmark risk

This year, the benchmark holding-period rate of return was among the highest in recent years—6.14 percent compared with an average of 4.4 percent in the past decade. This rate of return was affected to a large extent by the sharp increase that took place this year in the prices of US government bonds (which are heavily weighted in the benchmark assets) and in government bonds of other countries in which the reserves are invested, in the wake of the global financial crisis and its intensification in the last quarter of the year.[9] The rising bond prices and the parallel decreases in their yields to maturity (Figure 3), were partly a result of the sharp interest-rate reductions by the world's central banks, headed by the United States, as a reaction to the ongoing crisis and to the freezing-up of the international money and credit markets, and partly a run by investors to hold government bonds ("a flight to quality"), especially those of the United States, which are perceived as a "safe haven" in times of stress and uncertainty in the markets.

Figure 3 – Yields to Maturity of American Treasury Bonds and Government Bonds in Europe, from 2007 to February 2009

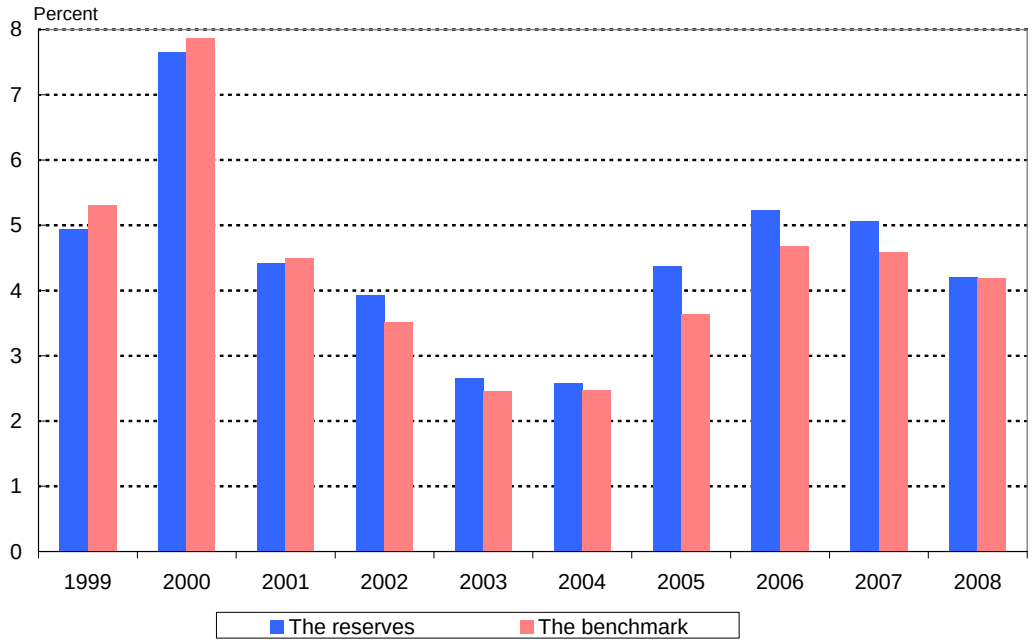


[8] Note further that as opposed to the benchmark rate of return, the portfolio rate of return is also affected by transaction expenses, which act to the detriment of the portfolio's performance compared with the benchmark.
[9] The increase in bond prices contributes to large capital profits, even though the current-income component from interest decreases as a result of the decline in yields to maturity on these bonds.

Note that in light of the low yield levels to maturity in the United States already in the first quarter of 2008, the duration of the reserves invested in the dollar was gradually shortened from 24 months to 14 months, in order to reduce exposure to the possibility of losses when the yields curve in the United States begins to rise.[10] Since yields to maturity in the United States continued to decline during the year as well, even reaching a historic low, the action of shortening the benchmark duration at the beginning of 2008 reduced the capital profits arising from the continuing fall of the curve, and therefore reduced the benchmark holding-period rate of return.

At 1.46 percent, the volatility (standard deviation) of the benchmark rate of return in 2008, similar to the previous year, remained high relative to previous years (Table 2). This volatility was affected mainly by the shocks in the markets, and the strong fluctuations in asset prices in the markets in the wake of the global crisis. As opposed to this, the standard deviation of the actual portfolio, which constitutes a measure of its inherent risk, was lower this year, as in the past five years, because of the greater diversification of the assets held in the portfolio than in the benchmark. This phenomenon was particularly salient in 2007.

Figure 4 – The Ratio of the Rate of Return to the Standard Deviation in the Portfolio and in the Benchmark, 1999-2008



[10] As the decrease in yields in the United States continued in 2008, it was decided at the beginning of 2009 to shorten the duration of the dollar portfolio from 14 months to 9 months. See Part 3 of this review.

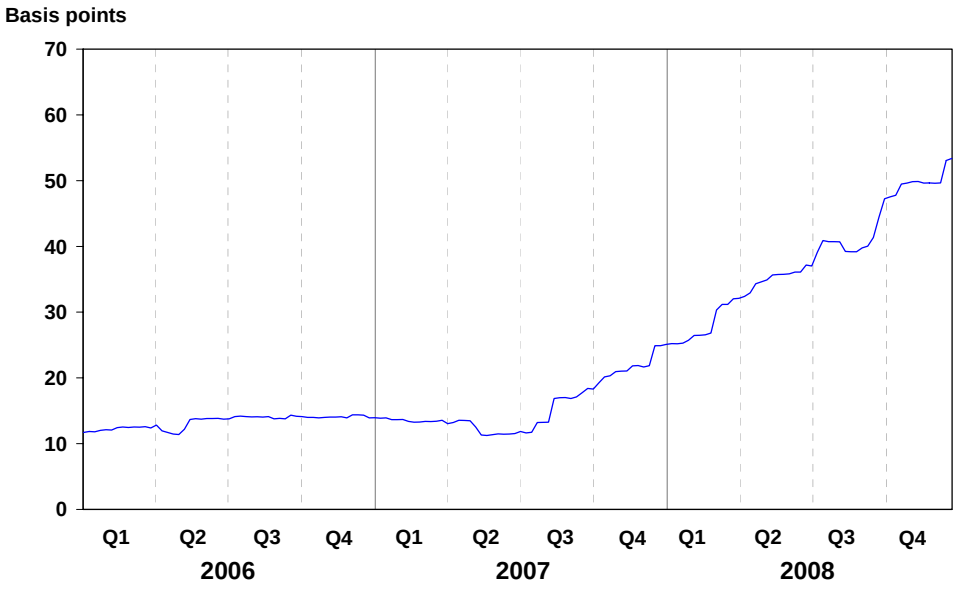
This year, the ratio of the benchmark rate of return to its standard deviation, which reflects the substitution between rate of return and risk, reached 4.2, which is similar in general to previous years (with the exception of 2000, which was characterized by high rates of return alongside low volatility—see Figure 4).

2. The contribution and the risk of the active management

The contribution of active management this year was negative and added up to 19 basis points. This is in contrary to the positive contributions obtained in all the years of the previous decade, which, on average, added up to 9 basis points. Even the volatility of this contribution (tracking error) rose significantly relative to previous years and added up to 53 basis points (Table 2, Figure 5). It is important to note that this increase is attributed to the extreme developments that took place in the markets this year, and not to an increase in exposures of the reserves, the scale of which was even less than in previous years.

Figure 5 – Volatility of the Active Management (Tracking Error), 2006-2008

(in annual terms)[11]



The contribution and its volatility were not uniform throughout the year (Figure 6), and were very much affected by the dramatic changes that took place in the markets as a result of the global financial crisis, which made it more difficult to achieve excess return by the active management of the reserves relative to previous years. The asset selection had a significant

[11] Based on the standard deviation of weekly yield differences.

effect on the negative contribution of the active management this year by adding up -24 basis points, compared with an average positive contribution of 10 basis points in the past decade. The negative contribution of the asset selection this year was partially offset by the positive contributions of the currency management and the dispersion positions, even though these were relatively small, each adding up to 2 basis points. The contribution of the management of duration was close to zero (Table 2).

Figure 6 – The Yield and the Total Management Contribution, January-December 2008

(Percent, in monthly terms)

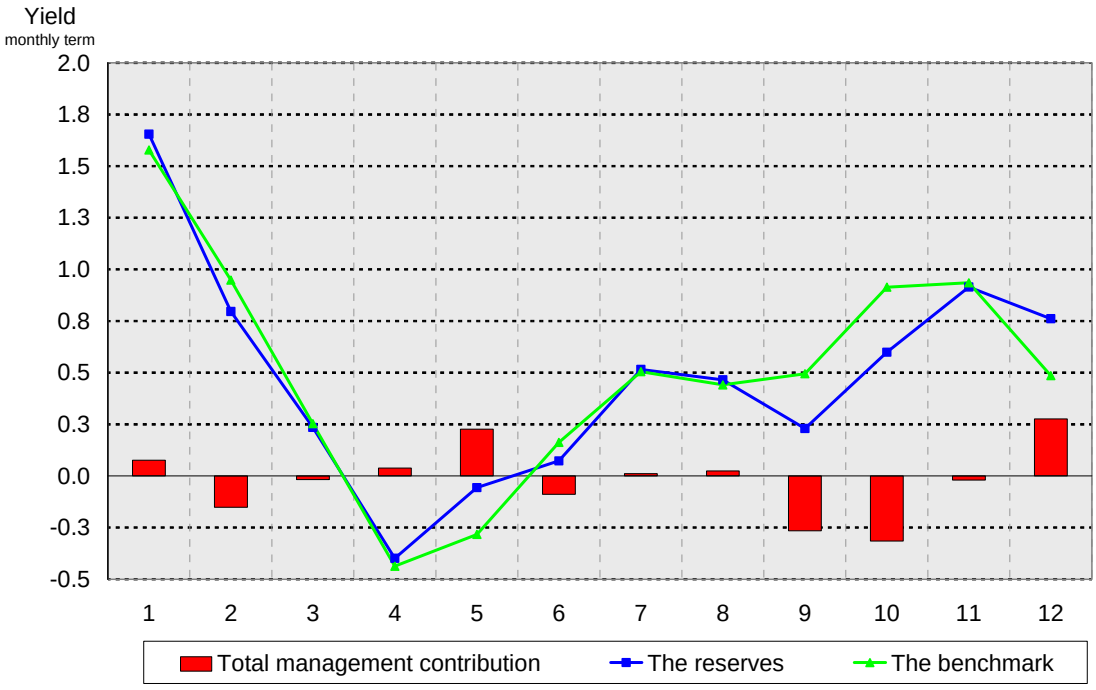


Table 3 shows a breakdown of the contribution of asset selection by type. The most negative contribution to the reserves was the selection of long-term assets (maturity of more than one year) of -33.6 basis points. The major reason for this is that these assets include a high proportion of spread assets, mainly Eurobonds[12] (Figure 8). The yield spreads between Eurobonds and government bonds grew considerably this year, particularly in the last quarter. This widening took place against the background of growing risk aversion by investors in the wake of the events in the markets. At the end of the year it was also affected by the new bond issues of the banks and other financial institutions that enjoyed full government guarantees as

[12] Spread assets are assets whose yields to maturity comprise the yield of another asset, usually government bonds, and a further yield spread that changes in response to market conditions. Eurobond assets are bonds sold in financial markets outside the country of the currency in which they are quoted.

part of the steps to extricate the financial sector from the crisis (see Part C). These bond issues led to re-pricing of existing Eurobonds, which was reflected in making them relatively cheaper than the new bond issues, which further increased their yield spreads. All in all, the average spread on Eurobonds held in the reserves this year widened by almost 80 basis points.

Table 3
The Contribution of Asset Selection[a], 2008
(basis points, in annual terms)

	Total reserve
Securities lending by the Department[b]	5.8
Assets longer than 1 year	-33.6
Short term assets (up to 1 year)	16.3
Inflation-linked securities	-2.7
GNMA	-6.7
Assets in external manegment	-3.3
Total	**-24.1**

SOURCE: Bank of Israel.

[a] Also includes the contribution of the asset dispersion along the curve, relative to the benchmark.

[b] In these transactions two trades are linked, in the Repo transaction a security is loaned in exchange for cash, and in the Depo transaction the cash received is invested in a bank deposit or in reverse Repo transaction the cash received is used to borrow another security. The two transactions are for the same term and have no effect on the duration of the portfolio. The Repo-Depo activity was discontinued during September 2008 as the global financial crisis intensified (see Part C)

Inflation-indexed government bonds, GNMA assets (mortgage-backed bonds fully guaranteed by the United States Government), and externally managed portfolios[13] also made a negative contribution. On the other hand, , securities lending and the selection of short term assets, made a positive contribution which offset part of the negative contributions. These benefited from the relatively high level of TED-spread[14] this year, and from its widening that already began in the previous year and that led to a large increase in income from the short-term interest on these assets (Figure 7). At the same time, the prohibition on deposits in banks during the last quarter of 2008 (see Part C), which over the years produced a not-insignificant positive contribution in the short-term part of the portfolio, moderated the contribution this year of the short-spread assets and of the securities-lending transactions whose returns were deposited in the banks (Repo-Depo).

[13] The Bank of Israel manages a small proportion of the foreign exchange reserves through two external managers. These portfolios include mainly GNMA assets and Treasury bonds, and the managers have similar degrees of freedom in managing the duration to those of the internal management.

[14] The spread between the Libor interest rate (usually for 3 months) and the yield on American Treasury bonds for the same period.

Figure 7 – The Three-month TED Spread and the Average Spread of Eurobond Assets in the Reserves, 2007-2008

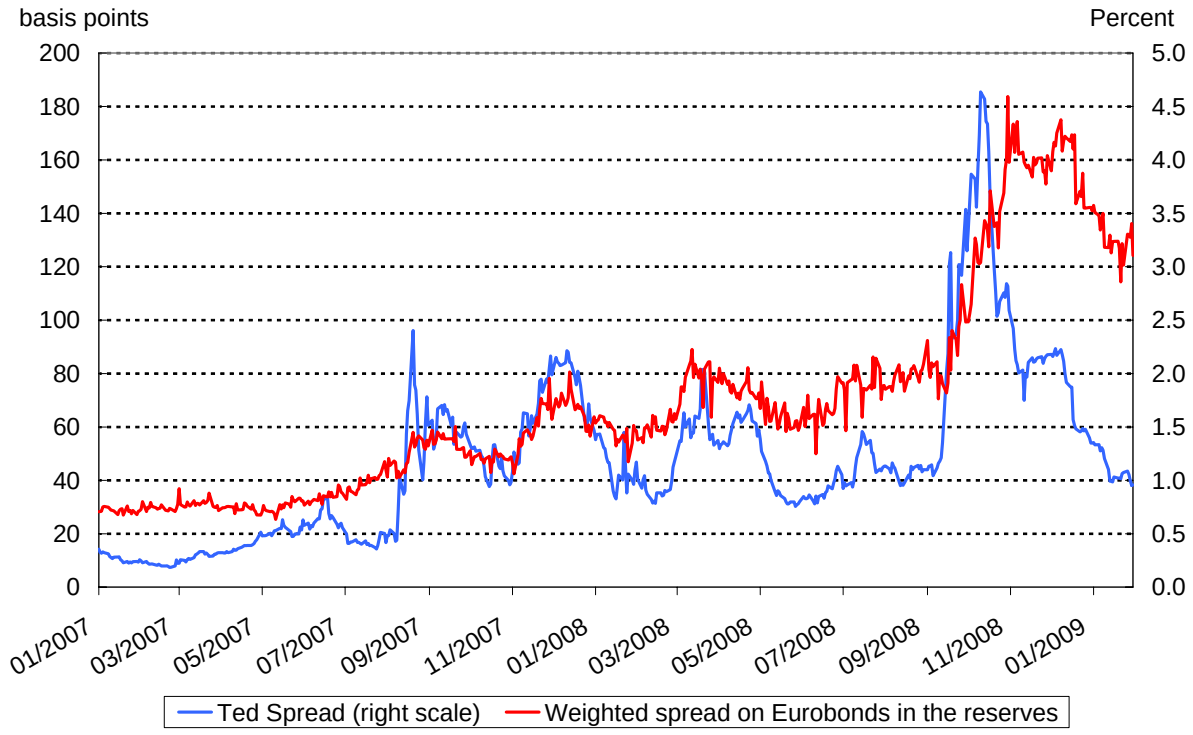
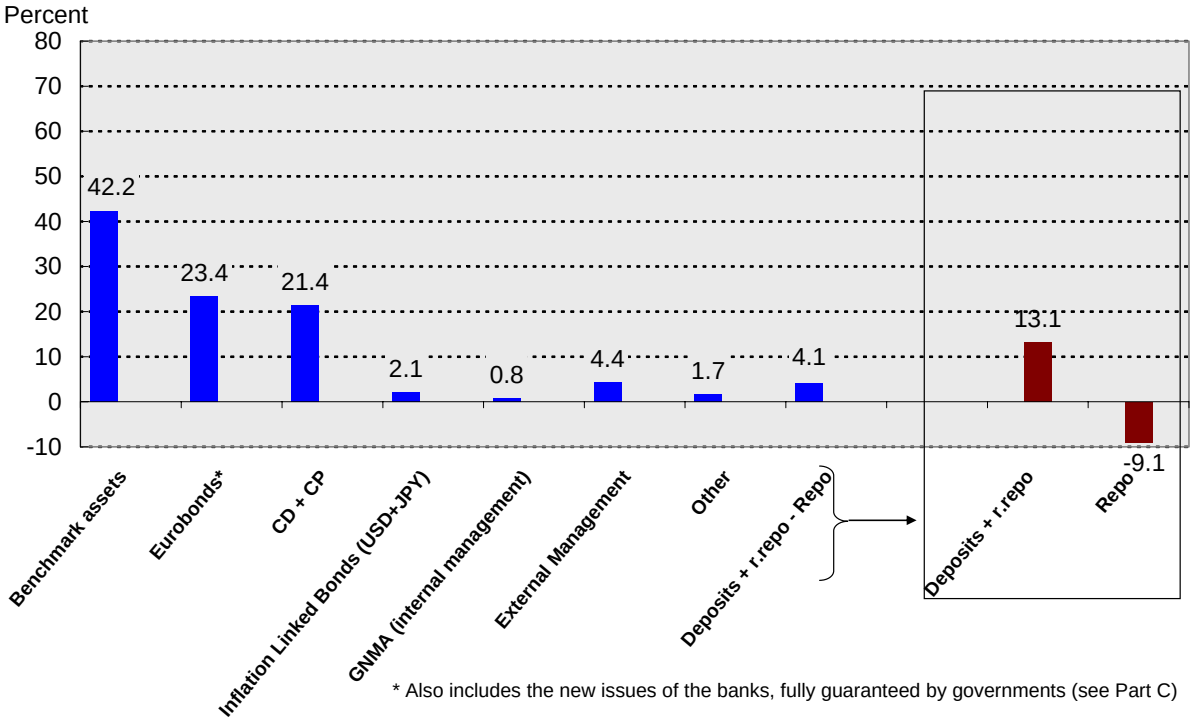


Figure 8 – Asset Distribution of the Reserves, 2008

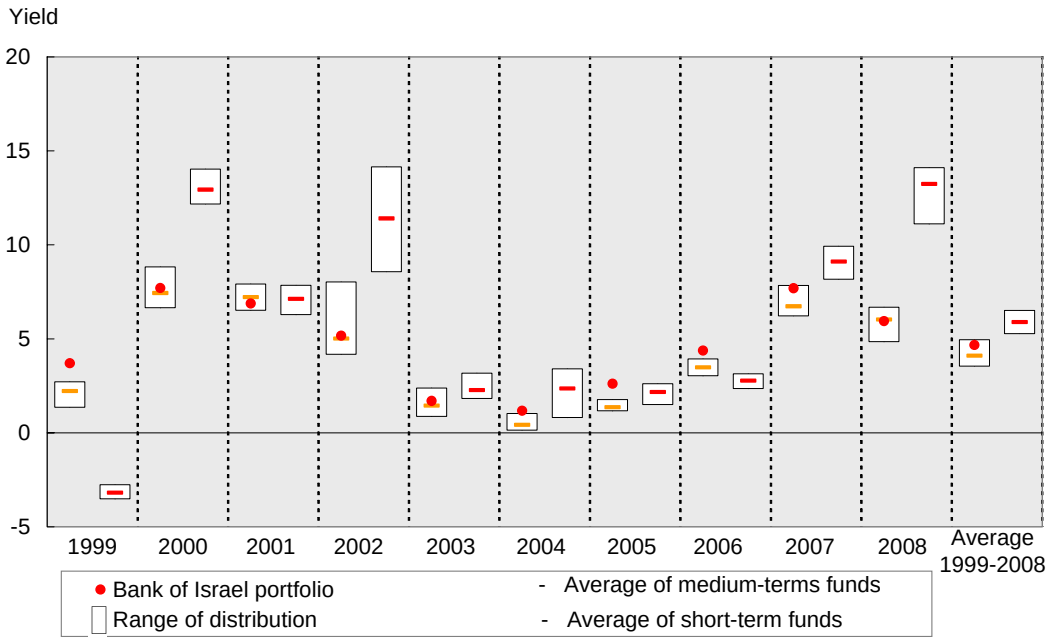
(Annual average, percent)



3. The yield on the dollar portfolio relative to other managed portfolios

In order to compare the performance of the Bank of Israel's dollar portfolio to other portfolios we used data on the performance of 11 mutual funds that operated in the American market from 1999-2008. These funds were primarily invested in US government bonds. Some of the funds are classified as "investors in short-term government bonds"; the rest are "general investors in government bonds," which, in practice, invest in the medium term. The funds invested no more than a small proportion of their portfolios in indexed US government bonds (TIPS) and in low-rated assets (less than AA).[15] These permit a rough comparison between the performance of the Bank of Israel's US dollar portfolio and that of the eleven mutual funds despite the differences between them.[16] Comparing the performance of different portfolios is problematic—both because they are generally managed relative to different benchmarks, and because of the differences in the management rules and the investment policy applying to them. Nevertheless, a comparison with the performance of portfolios of similar character can provide a measure to the dollar portfolio performance.

Figure 9 – Performance Distribution of Managers of Mutual Funds in the US Market, 1999–2008 (Percent, in annual terms)



[15] Possibly within these the component of corporate bonds is also included—which the Bank of Israel is precluded from investing in.

[16] Bear in mind that the performance of the mutual funds is after deducting commission, which reflects the cost of the current operating expenses, while the performance of the dollar portfolio of the Bank of Israel's reserves is reported without deducting expenses of this kind.

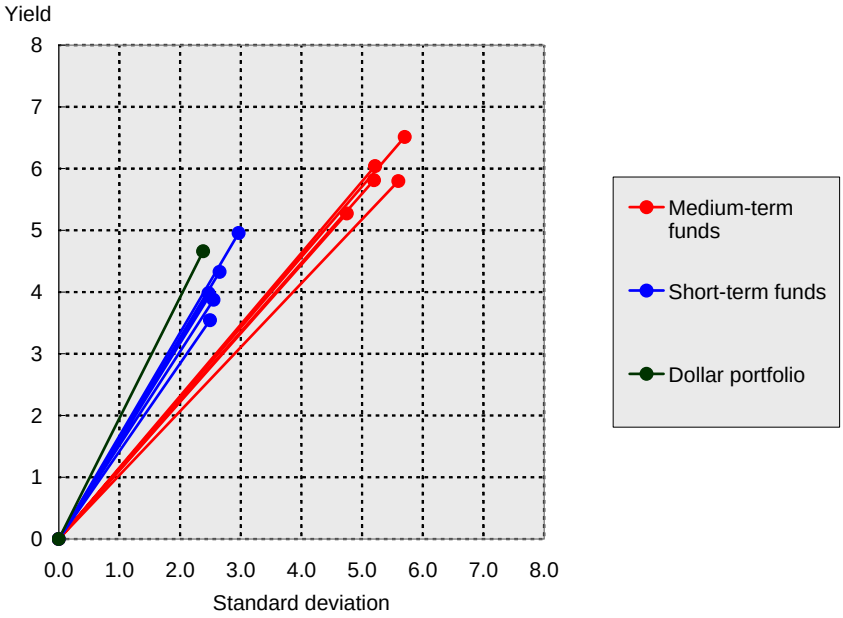
An examination of the range of the yields (Figure 9) indicates that the performance of the dollar portfolio during the review period was within or above the range of the "short-term" fund yields. In 2008, the yield of the dollar portfolio was within the mid-range of the distribution of yields of most short-term funds but 21 basis points below their average yield. Taking the decade as a whole, the average annual yield of the Bank of Israel's US dollar portfolio was greater than that of the "short-term" mutual funds, but still less than that of the "medium-term" ones.

In contrast to the past five years, this year was the large gap between the high yields on the medium-term funds and the short-term ones, apparently in light of the strong decline this year in the yields to maturity, which benefited the medium-term funds much more

An examination of the data shows that the duration of the dollar portfolio is closer to that of the "short-term" funds than to that of the "medium-term" ones. Possibly the shortening of the dollar portfolio this year from 24 months to 14 months explains its relatively low position this year on the scale of yields of the "short-term" funds relative to its higher place on this scale in recent years. However, it is not only the differences in duration that have an effect on the positioning on the scale of yields, but so too does the mix of assets and the management decisions. However, in the absence of detailed, appropriate information on the funds, the impact of each of them is unclear.

The average return of each fund compared with its volatility in the past decade (Figure 10) shows that in the dollar portfolio the yield-to-risk ratio, which is reflected by the slopes of the lines, is higher than in all the other funds. If we examine only the short-term funds it appears that not only is the dollar portfolio preferable to all of them with regard to the yield-to-risk, but that with the exception of one fund, it exceeds them all in the average yield achieved over the past decade. Furthermore, the yield-to-risk ratio in the short-term funds is greater than in the medium-term ones; in other words, the excess return that the medium-term funds show over the short-term ones is achieved at the expense of even greater risk.

Figure 10 - Yield and Risk: the Dollar Portfolio vis-à-vis Funds in the US Market, 1999–2008 (Percent, in annual terms)



C. MANAGING THE RESERVES DURING CRISIS

As the subprime crisis emerged and intensified in the course of 2007, the Bank of Israel increased its level of financial sector monitoring and the ongoing review of current developments in the developed countries. Market instability continued, and from September 2008, with the fall of the Lehman Brothers investment bank, the intensity and the scale of the crisis worsened significantly, reflected, among other things, by the drying up of liquidity and a credit squeeze in the international money markets, and increasing stress and high uncertainty in the financial markets.[17]

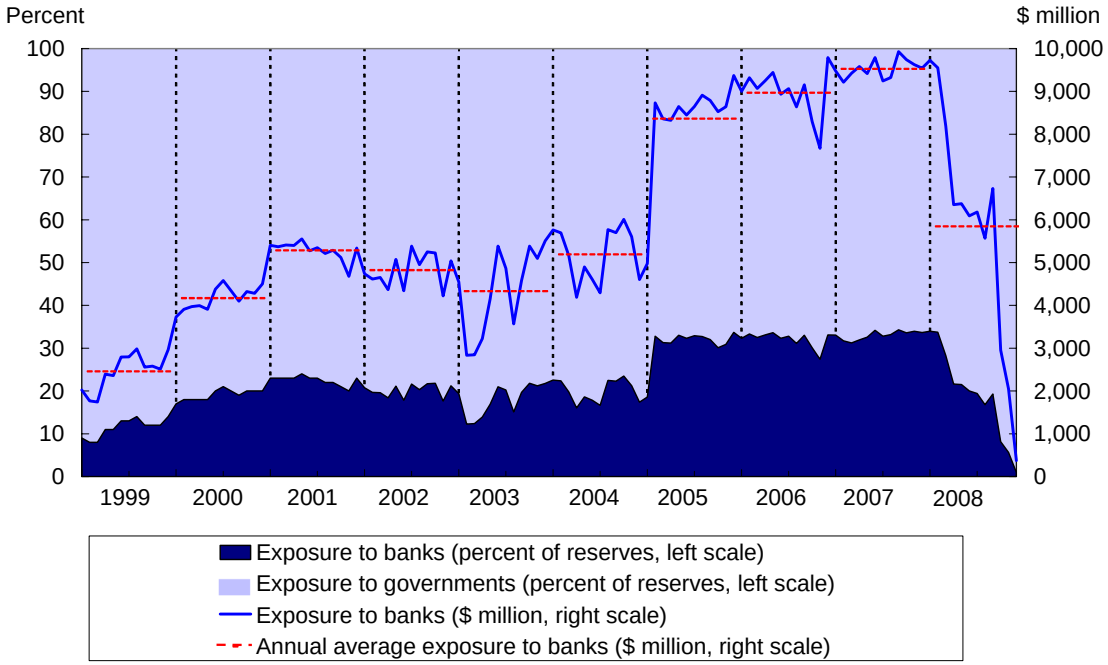
In the wake of the above, the financial risks that the reserves are exposed to increased even more, and already in the first half of the year the Bank of Israel took steps to reduce exposure to these risks—including reducing the permissible banking exposure,[18] and firming up some of the investment rules. As the global crisis intensified in the last quarter, additional steps were taken, mainly those of reducing the credit risks in the portfolio—especially the banking exposure, and increasing the holdings of liquid assets. Among the steps taken: prohibiting of deposits in banks (including CDs), in the wake of which the lending transactions of securities against deposits (Repo-Depo) were stopped, raising the minimum rating level required for countries in which it is permissible to invest, and reducing the permitted rate of investment in mortgaged-backed assets—GNMAs.[19] The Bank of Israel also continues to closely monitor the events in the international markets, and is constantly assessing the policy of managing the reserves according to the developments.

The steps for reducing the banking exposure, which throughout the years constituted an important and very significant part of the portfolio, is reflected in the reduction of the exposure to almost zero at the end of 2008, as opposed to 30% at the beginning of the year (Figure 11).
In the last quarter of the year countries such as the United States, Great Britain and Germany granted full government guarantees for certain corporate bond issues of banks and other financial institutions. Underlying these steps was an attempt by these countries to deal with the financial crisis and to try to extricate the financial sector, particularly the banks, from the difficulties they found themselves in. The Bank of Israel started purchasing these assets as soon

[17] For more details on the global financial crisis, see Chapter D of the Bank of Israel Report for 2008.
[18] The exposure to the international banking system includes mainly deposits that are deposited in banks with a high rating (including certificates of deposit—CDs) and other transactions connected to them.
[19] The only investment permitted in the portfolio in mortgage-backed assets is that which is fully guaranteed by the US government—GNMAs.

as they appeared, and they currently constitute a not-inconsiderable part of the spread assets in the reserves.

Figure 11 –Exposure to Banks and to Governments, 1999-2008



As mentioned, at the end of the first quarter of 2008, in order to reduce the interest-rate risk in light of the low-interest environment prevailing in the United States, it was decided to shorten the duration of the dollar portfolio from 24 months to 14 months. At the beginning of 2009, it was decided to shorten the duration even more, to 9 months, in light of the continuing decline in yields in the United States, particularly in the last quarter of 2008, to a historic low, which further increases the risk of obtaining a negative holding-period rate of return in the portfolio as a result of large capital losses, beyond the current income from interest when yields start to rise again rapidly.