

Monthly Macroeconomic Review

April 2, 2009

- **Indicators of economic activity in Israel** point to a continued negative trend: exports and imports of goods, incoming tourism, and tax revenues declined in February. In January, the industrial production index decreased, and the trade and service sectors revenue index remained almost unchanged.
- **The consumer price index** decreased by 0.1 percent in January.
- **The Bank of Israel interest rate** was lowered by 0.25 percentage point, to 0.5 percent. In addition, the BOI announced the expansion of its activity in the government bond market and in the foreign currency market. The BOI intends to purchase nominal and CPI-linked bonds for about ILS 200 million each day, up to a total of ILS 15-20 billion, in addition to daily purchases of USD 100 million.
- Following the BOI's announcement, **government bond yields** fell, while prices rose by 1 percent in both the linked and unlinked segments, and **the shekel weakened** by 1 percent.
- After several disappointing months, **March was positive in global equity markets**, as the US government's announcement of a plan to buy "toxic" assets from banks and financial institutions contributed to gains. The MSCI World index rose by 8 percent, the S&P 500 index gained 9 percent, the NASDAQ index gained 11 percent, and the MSCI Emerging Markets index gained 14 percent; the TA-100 index gained 10 percent, or 9 percent in dollar terms.



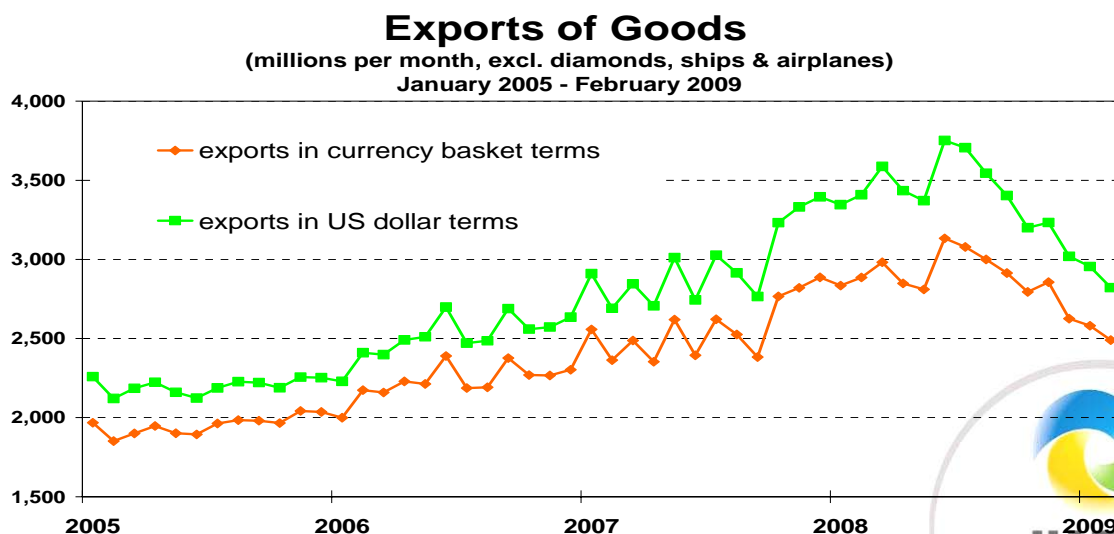
This review contains five chapters:

- A. Developments in the Israeli Economy.
- B. Developments in the Capital Market.
- C. Developments in Inflation and Monetary Policy.
- D. Developments in the Global Economy.
- E. A Model for Calculating Risk in Investment Portfolios Based on Composition.

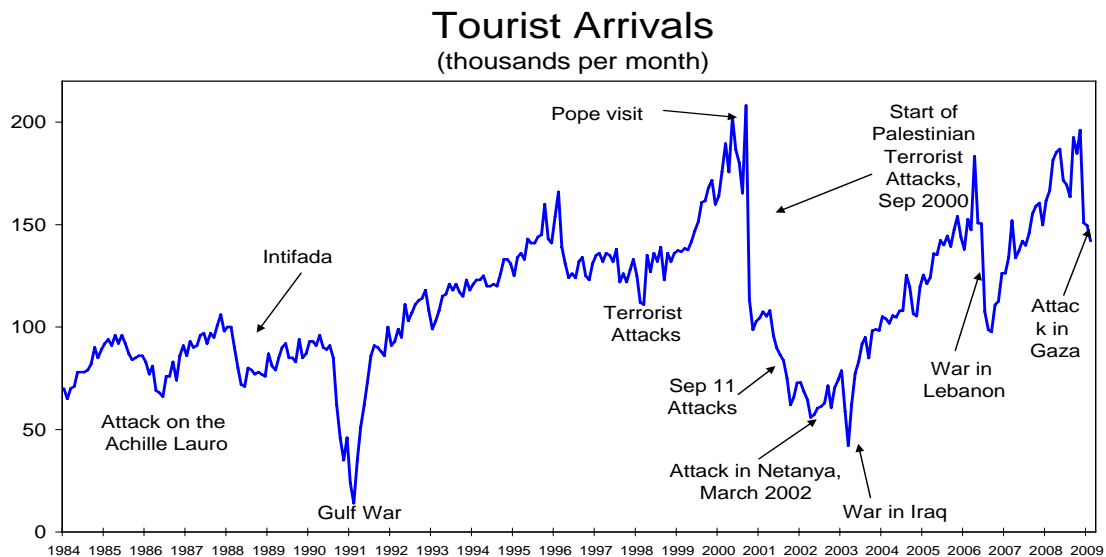
A. Developments in the Israeli Economy

Indicators of economic activity in February point to a negative trend: exports and imports of goods, incoming tourism, and tax revenues declined. In January, the industrial production index decreased, and the trade and service sectors revenue index remained almost unchanged.

Foreign-trade figures for February were weak. Exports of goods (excluding aircraft, ships, and diamonds; in dollar terms) decreased by 4 percent in February and by 17 percent in the last twelve months. Imports of goods fell by 7 percent in February and by 27 percent in the last twelve months.

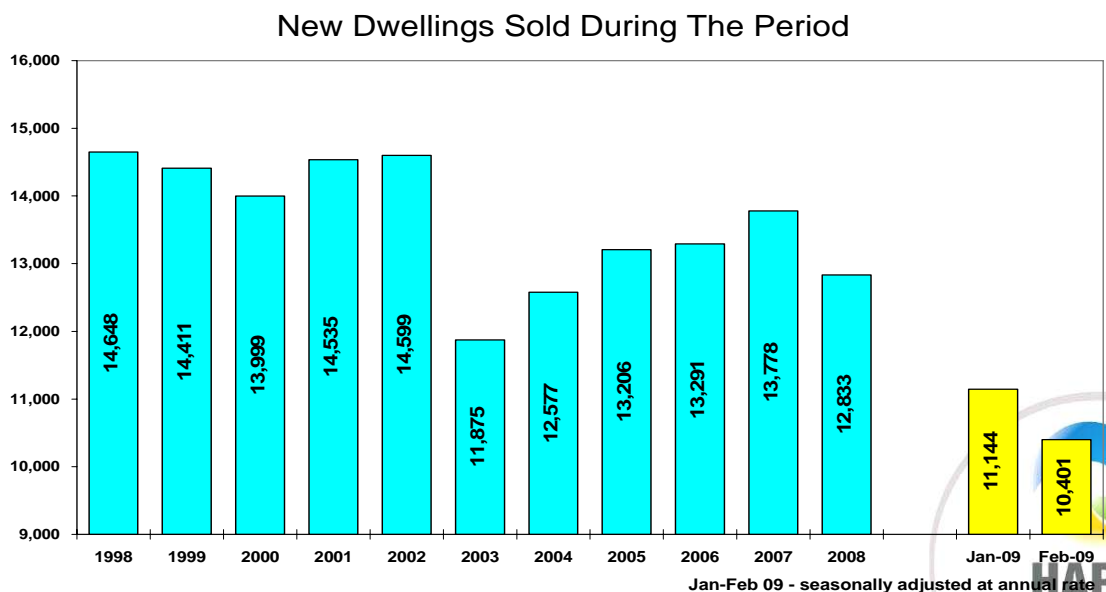


Incoming tourism by air decreased by 5 percent in February and by 15 percent in the last twelve months.



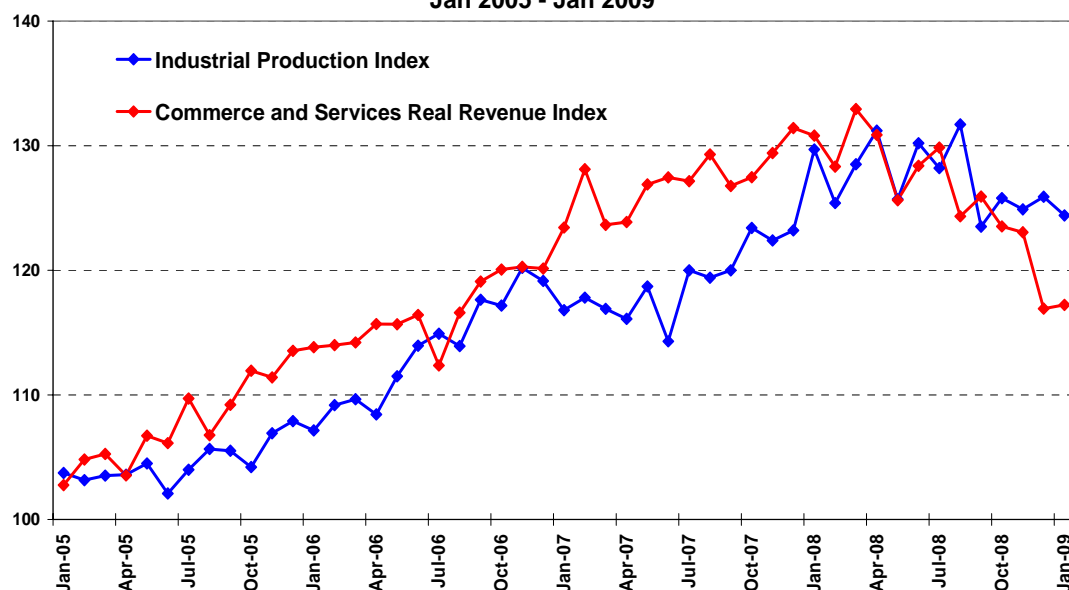
State tax revenues amounted to only ILS 13.5 billion in February. This figure is consistent with our estimate of an expected shortfall of ILS 35-40 billion, or about 5 percent of GDP, in tax revenues this year, relative to the original planning in the state budget.

The number of new homes sold decreased by 7 percent in February, and by 14 percent in the twelve months ended in February.



Indicators of economic activity in January were weak. The industrial production index fell by 1 percent in January and by 4 percent in the twelve months ended in January. The trade and service sectors revenue index remained almost unchanged in January, and fell by 10 percent in the twelve months ended in January.

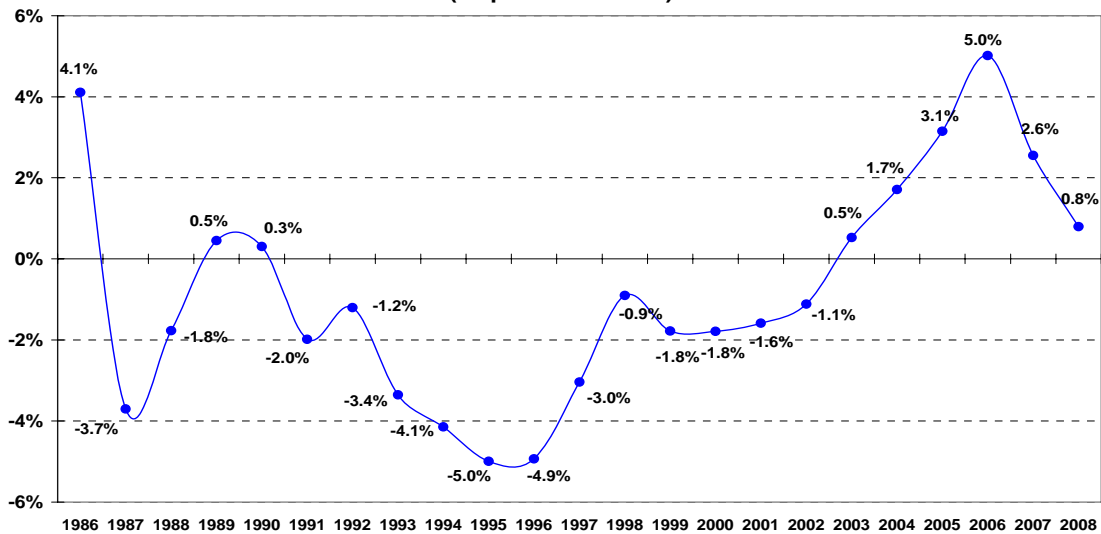
**Industrial Production Index
& Commerce and Services Sectors Revenue Index**
Jan 2005 - Jan 2009



The weakness in tax revenues, along with the sharp declines in exports and imports of goods, incoming tourism, the industrial production index, and trade and service sector revenues signal **substantial GDP contraction** in the first quarter of 2009, in our opinion.

Balance of payments data indicate that the surplus in the current account of the balance of payments in 2008 totaled 0.8 percent of GDP (USD 1.6 billion), versus 2.6 percent in 2007 and a record 5.0 percent in 2006.

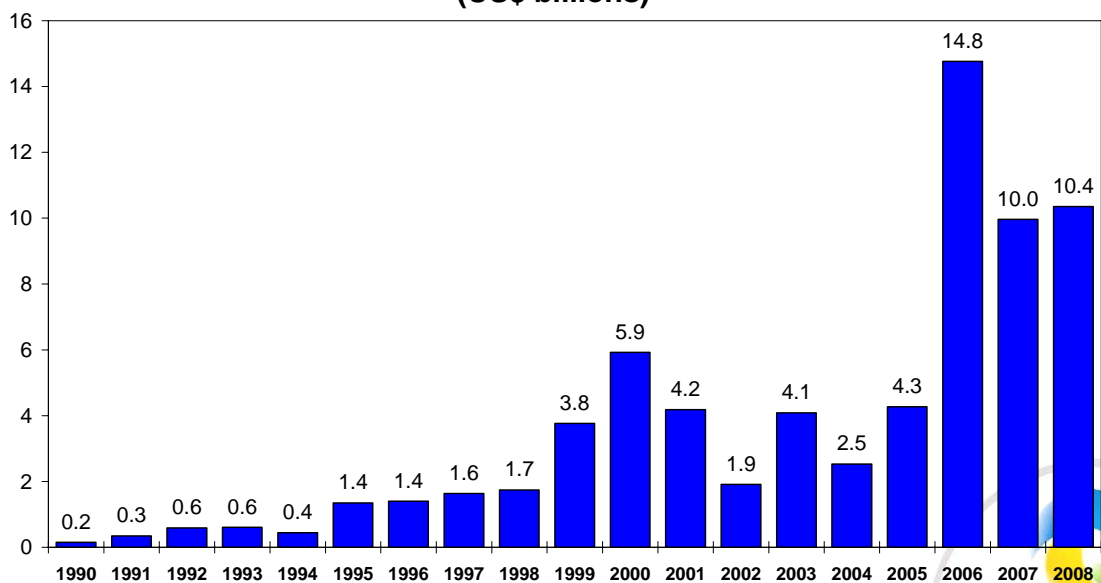
The Current Account (as percent of GDP)



The surplus in the current account totaled USD 0.5 billion in the fourth quarter of 2008, versus USD 0.7 billion in the preceding quarter. **Exports and imports of goods and services** decreased by 13 percent in the fourth quarter, in dollar terms, based on data net of seasonal effects.

Foreign direct investments in Israel totaled USD 10.4 billion in 2008, similar to 2007. Direct investments in the fourth quarter reached USD 1.9 billion, versus an average of USD 2.9 billion in the preceding three quarters.

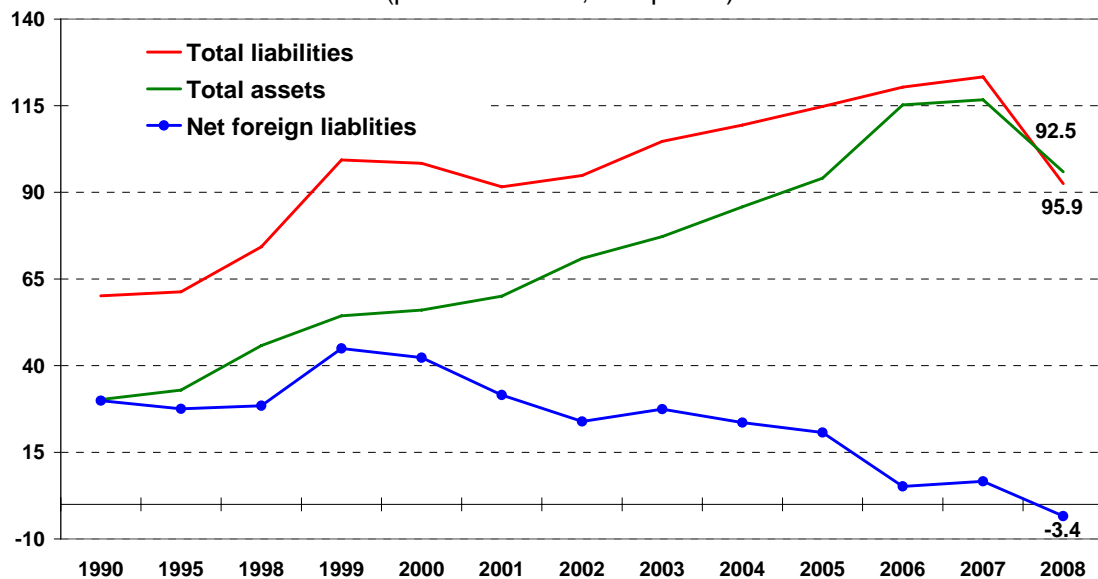
Net Inflows of Foreign Direct Investment in Israel (US\$ billions)



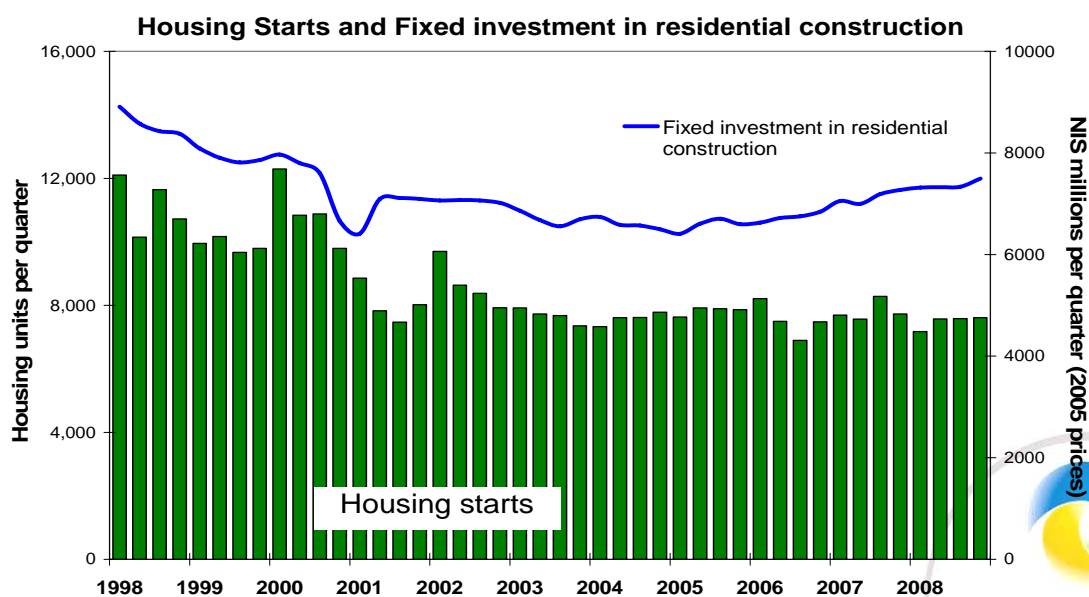
Net total external liabilities of the economy were negative at the end of 2008, for the first time in several decades; in other words, the economy's assets abroad exceeded its liabilities to foreigners. The balance totaled USD 7 billion, or approximately 3.4 percent of GDP. This change resulted from a moderate decrease in total liabilities and a more moderate decrease in total assets, due to the global financial crisis and the foreign-currency purchases by the BOI.

Foreign Liabilities, Gross and Net

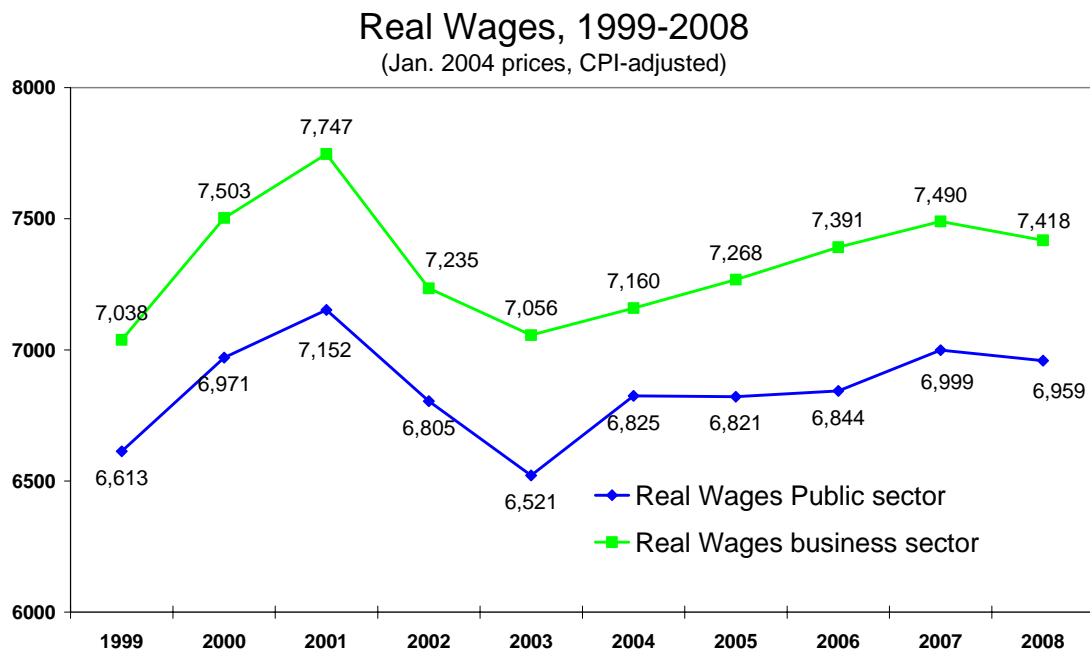
(percent of GDP, end-period)



The number of construction starts remained stable in the fourth quarter of 2008.



The number of employee positions in the Israeli economy increased by 3.6 percent in 2008, following a 5.0 percent gain in 2007. Real wages decreased by 0.8 percent in 2008, following consecutive increases in 2003-2007.



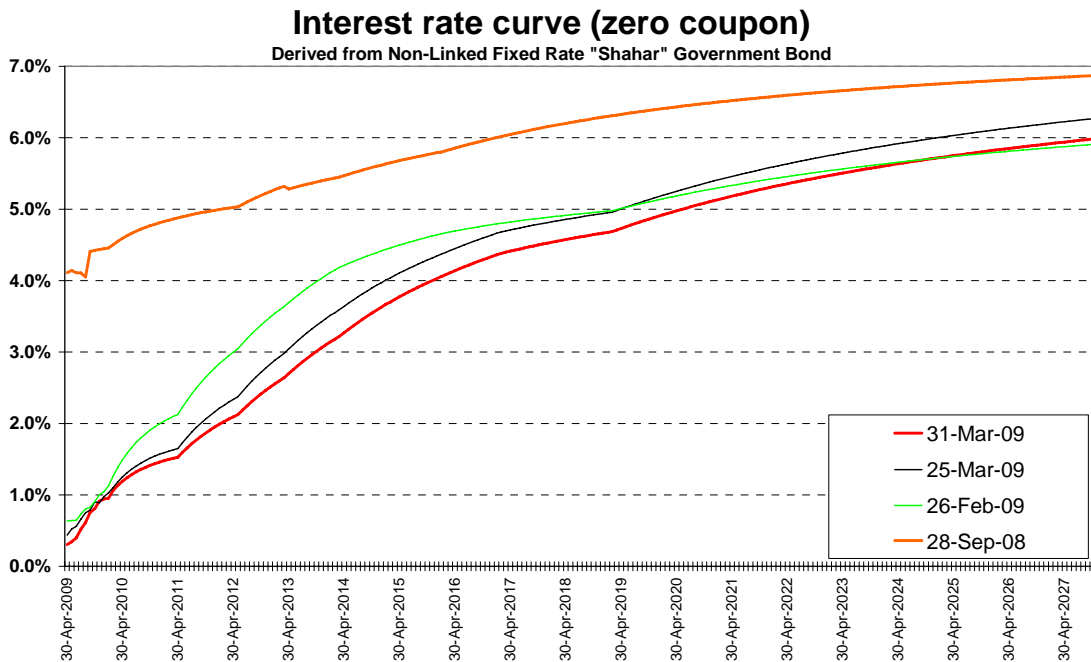
The number of employee positions in the **business sector**, including non-Israelis, decreased by 0.4 percent in December, while real wages fell by 1.4 percent.

B. Developments in the Capital Market

Bond Market

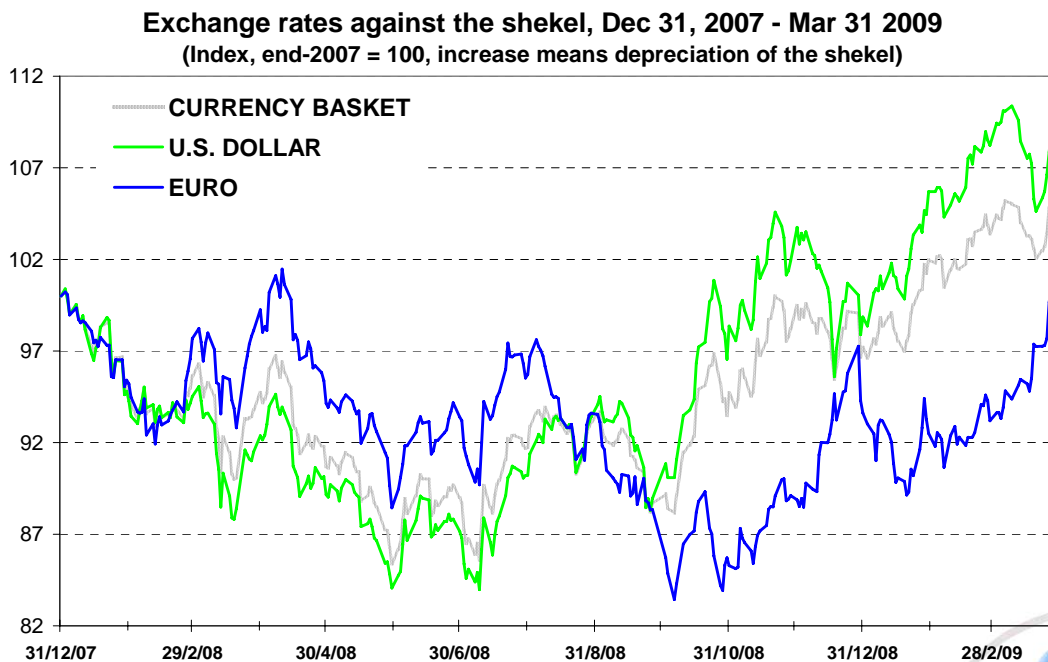
The yield curve of unlinked bonds fell almost across its entire length in March, particularly in the short and medium term. Following the BOI's announcement on March 25th of an increase in the volume of its purchases of government bonds, the curve fell moderately all across the board.





Exchange Rates

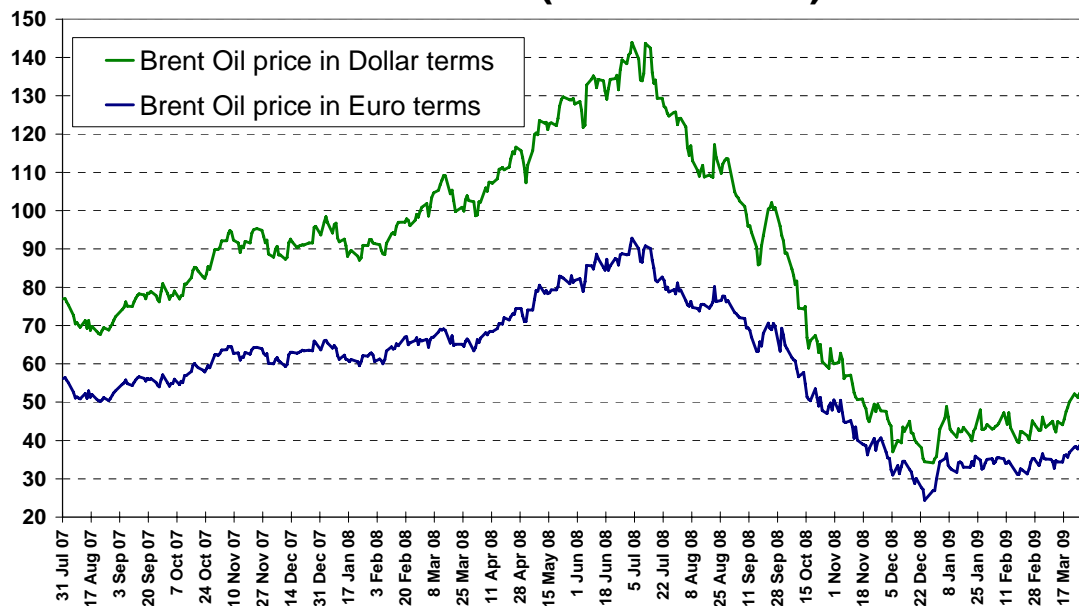
The shekel weakened by 2 percent against the currency basket, 1 percent against the dollar, and 6 percent against the euro in March.



Oil Prices

The price of a Brent oil barrel rose by 8 percent in dollar terms in March, and by 2 percent in euro terms. The rise in oil prices in the last days of the month, combined with the weakening of the shekel against the dollar, caused an 8 percent increase in fuel prices for Israeli consumers.

Price of Oil (Brent barrel)



Stock Markets

After several disappointing months, **March was positive in global equity markets**, as the US government's announcement of a plan to buy "toxic" assets from banks and financial institutions contributed to gains. The MSCI World index rose by 8 percent, the S&P 500 index gained 9 percent, the NASDAQ index gained 11 percent, and the MSCI Emerging Markets index gained 14 percent; the TA-100 index gained 10 percent, or 9 percent in dollar terms.

C. Developments in Inflation and Monetary Policy

The consumer price index fell by 0.1 percent in February, and inflation in the twelve months ended in February totaled 3.3 percent.

The Bank of Israel has lowered the interest rate by 0.25 percentage point to just 0.5 percent, in line with our expectations. Furthermore, The Bank of Israel has announced that it will **expand its activity in the government bond market**, buying nominal and CPI-linked bonds for about ILS 200 million each day, up to a total of ILS 15-20 billion. In addition, the BOI will continue to purchase foreign currency at a rate of USD 100 million per day. The BOI did not specify a new target for its foreign-currency reserves, and appears to prefer to leave this question open in order to retain the ability to change its decision immediately in the event of excessively rapid depreciation. The BOI stressed that at this point it does not intend to increase the amount of money in the economy and that all inflows from the purchases of bonds and foreign currency are to be sterilized.

The goal is twofold: to lower the interest rate across the entire curve, and to bring about depreciation of the shekel. The BOI is thereby attempting to assist economic growth, as low interest rates increase investment and consumption, while a weak shekel supports exports, and to generate positive inflation.

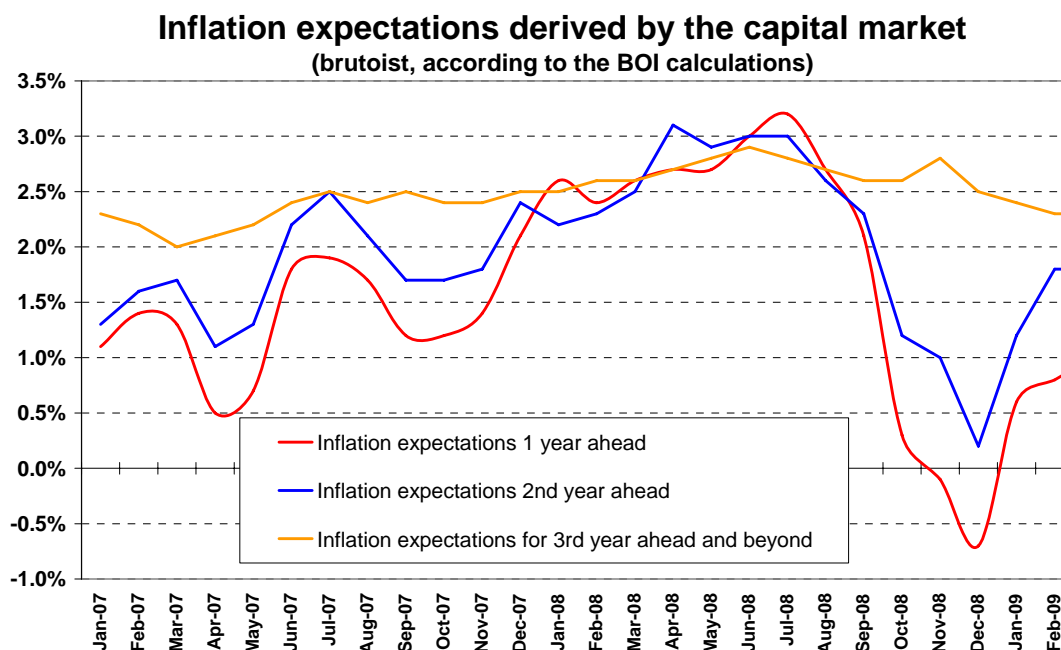
In addition, although not the explicit objective of this move, in our opinion the purchases of government bonds should also greatly reduce the difficulties in financing the government's budget deficit, which is expected to be very high this year. However, the significant risk inherent in this action by the BOI is that it may tempt the government to substantially enlarge the deficit and pressure the BOI to continue to finance this deficit in the future. We therefore find that the BOI's decision to purchase ILS 15-20 billion in government bonds is not prudent at this point in time, when the new government's budget policy for 2008 and 2009 is still unknown.



Following the BOI's announcement, **government bond yields** fell, while prices rose by 1 percent in both the linked and unlinked segments, and **the shekel weakened** by 1 percent.

However, we see the continued foreign-currency purchases as a highly positive move. This step lead to a weakening of the shekel on the immediate level, with depreciation of 2 percent against the currency basket , 3 percent against the dollar, and 1 percent against the euro since the BOI's announcement on March 25th.

Inflation expectations for the coming year remained stable, at 0.7 percent on average between mid-February and mid-March, similar to the previous month but far higher than the negative inflation expectations in November-December.



We estimate that inflation in the coming period will be higher.

The amount of means of payment continued to grow rapidly, rising by 7.5 percent in February, following increases of 3.6 percent in January and 3.9 percent in December. This figure rose by 32 percent in the twelve months ended in February.



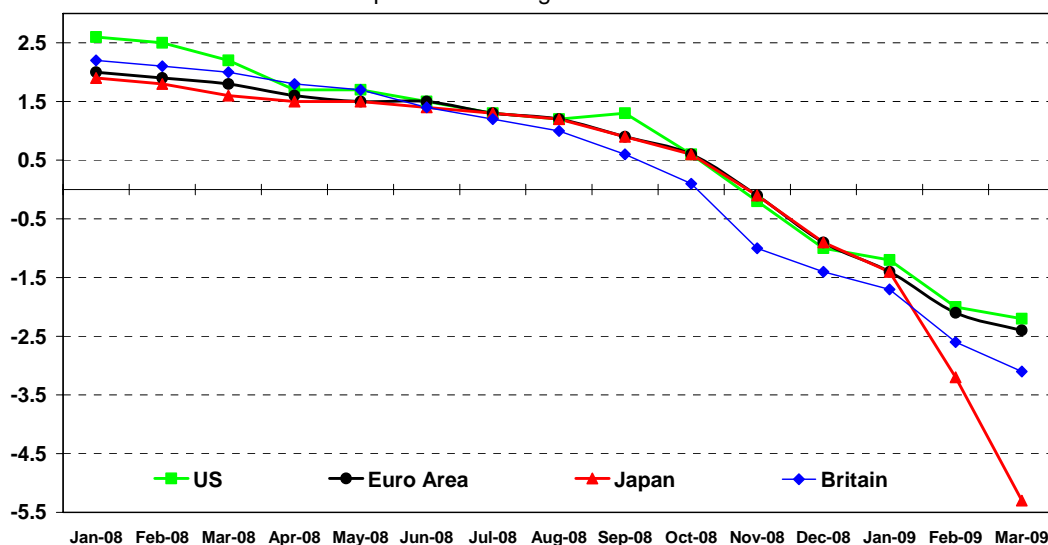
D. Developments in the Global Economy

Growth forecasts for advanced economies

The *Economist* has published its monthly Consensus Forecast of growth rates in the advanced countries: Growth forecasts for 2009 continued to fall, especially for **Japan** (negative 5.2 percent). Estimates for growth in 2010 are positive but moderate, at 1.9 percent in the US and 0.7 percent in the euro zone.

Growth Forecasts for 2009

as published during the last months



Source: The Economist, Consensus Forecast

United States

The government has presented a plan for dealing with the "toxic" assets held by the financial system. According to the plan, the government will invest USD 75-100 billion and grant additional subsidies in the form of low-interest loans to investment funds willing to buy the "toxic" assets held by the financial system. The government will encourage pension funds and insurance companies to join this process; it hopes for a total of USD 500 billion in toxic assets to be purchased. The administration has also mentioned the possibility of expanding this plan in the future, to total purchases of USD 1 trillion.

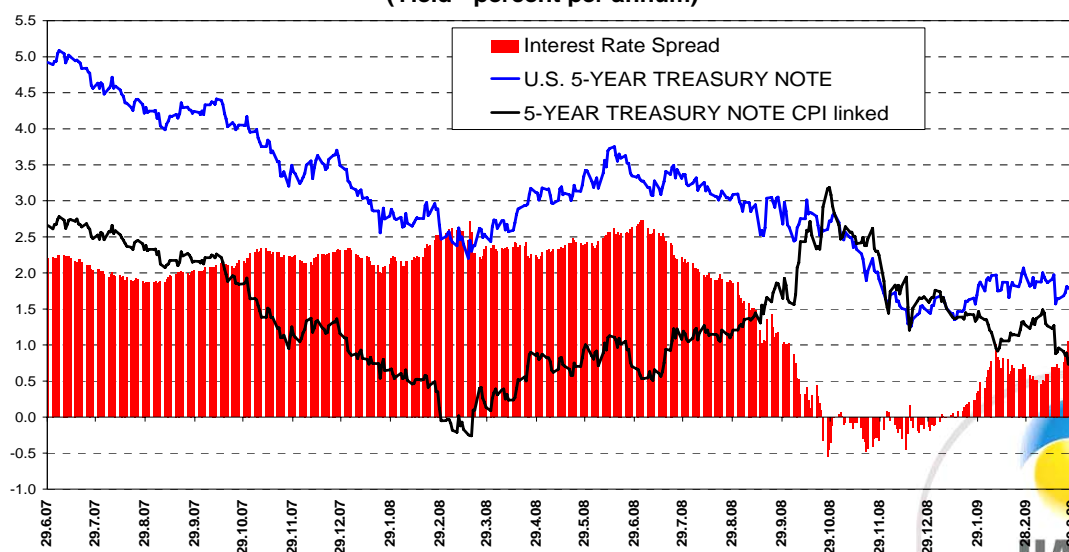


The plan is similar in structure to the leverage funds being established by the Finance Ministry in Israel, although, of course, the types of assets to be purchased are different: In Israel, the assets in question are corporate bonds, while in the US they are problematic assets held by banks and other financial institutions, mainly related to the mortgage market.

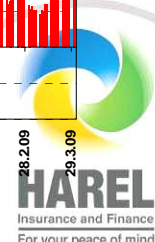
A plan of this kind requires capabilities of good planning and meticulous management by the government of the process of establishing the investment funds, and correct pricing of the government aid granted to the funds. If the administration carries it out properly, we believe there is a real chance that the plan will significantly reduce uncertainty in the financial system, renew the flow of credit to firms and households, and shorten the recession in economic activity. Yet given the considerable technical difficulties facing both the planning and execution of the plan, its success is not certain at this point.

The Fed left the interest rate unchanged, as expected. **The Fed** has announced that it will purchase long-term US government bonds for USD 300 billion over the next six months. In line with estimates, the Fed left the interest rate unchanged. The announcement was not much of a surprise, as the Fed had recently hinted at this move; however, government-bond yields dropped sharply after the publication, possibly due to investors' assessment of the amount as significant.

5-YEAR US BONDS (Yield - percent per annum)

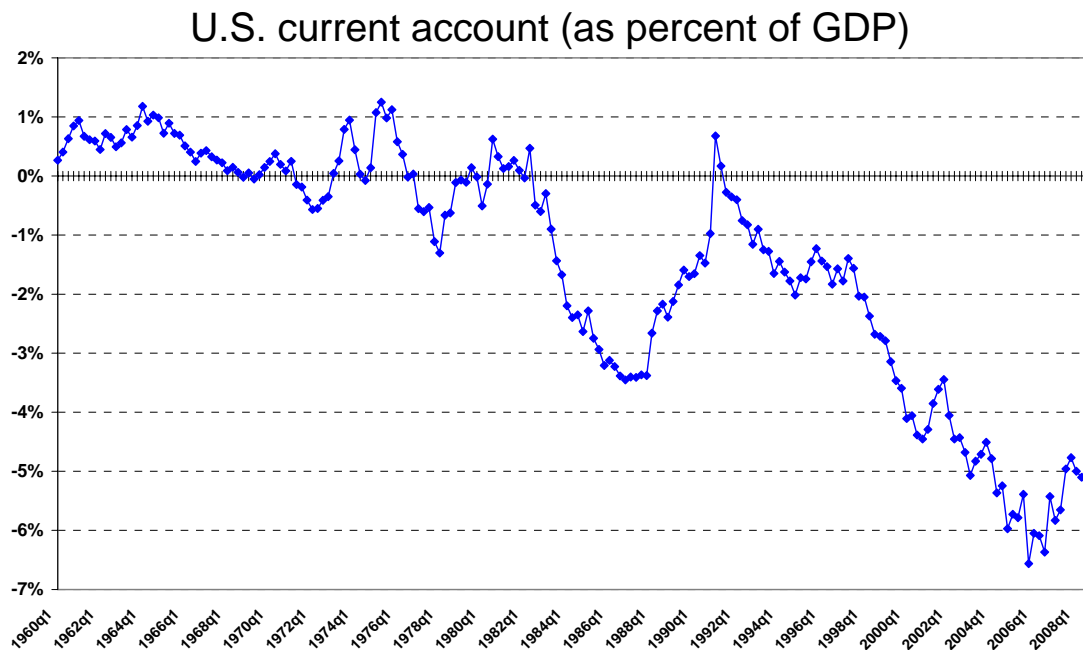


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The US economy contracted by 6.3 percent in the fourth quarter of 2008. A similar contraction is expected in the first quarter of 2009.

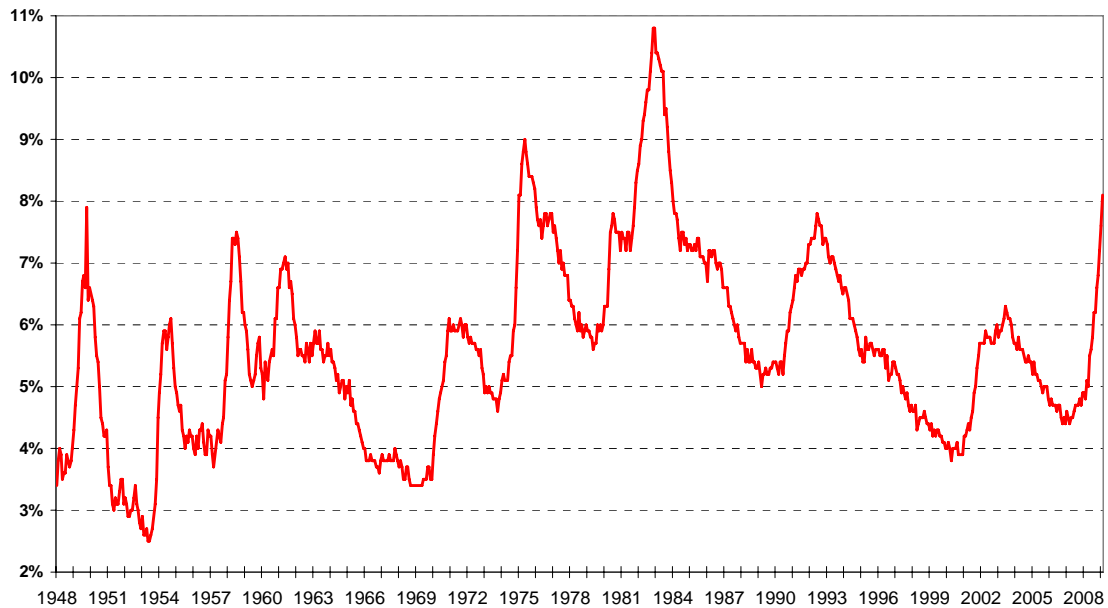
The deficit in the current account of the balance of payments narrowed sharply in the fourth quarter of 2008, to 3.7 percent of GDP, from 5.0 percent in the third quarter and 5.1 percent in the second quarter. This was the lowest rate of the deficit as a percentage of GDP since the fourth quarter of 2001.



The decrease in the trade deficit in the fourth quarter, as imports of goods dropped more sharply than exports of goods due to factors including the decline in oil prices, contributed greatly to the improvement in the balance.

The **employment report** for February was weak. The labor market lost 650,000 **jobs**, as expected, but data for the previous months were adjusted downward. The **unemployment rate** rose to 8.1 percent, from 7.6 percent in January, the highest rate in sixteen years.

U.S. Unemployment rate



In February, **retail sales** decreased by a minute 0.1 percent, less than expected, but fell by 9 percent in the preceding twelve months.

The University of Michigan's consumer confidence index stood at 57.3 points in March, higher than expected.

Housing market figures published over the last month were better than expected. **Construction starts** increased by 22 percent in February, the first gain in ten months, while the **number of construction permits** grew by 3 percent. However, these figures decreased by 48 percent and 44 percent, respectively, in the twelve months ended in February. **Sales of existing homes** rose by 5 percent in February, versus expectations of a slight decline. **Housing prices** remained almost unchanged, in contrast to the continuous decrease in prices since June 2008. **Sales of new homes** rose by 5 percent in February, in contrast to estimates of continued declines. In addition, data for the preceding months were adjusted upward. However, sales were still 41 percent lower than in February 2008, and the rate recorded for January is the lowest since records of sales began in the 1960s.



The consumer price index rose by 0.4 percent in February, versus estimates of a 0.3 percent increase. Inflation in the twelve months ended in February totaled 0.2 percent. The core index, excluding food and energy products, rose by 0.2 percent, versus an expected increase of 0.1 percent; core inflation totaled 1.8 percent.

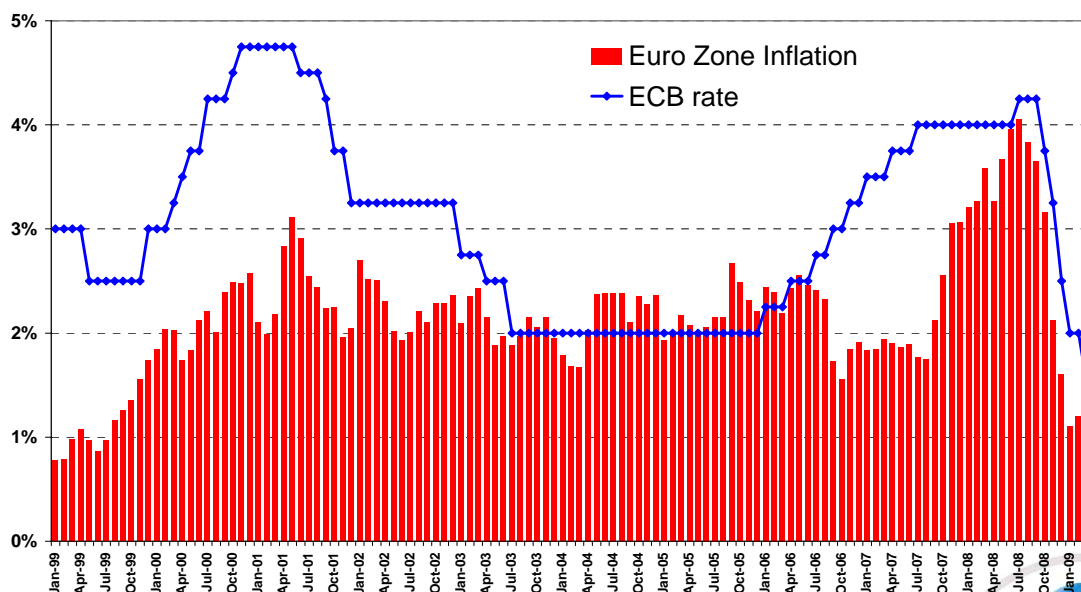
Europe

Retail sales increased at a minute rate of 0.1 percent in January, and decreased by 2.2 percent in the twelve months ended in January.

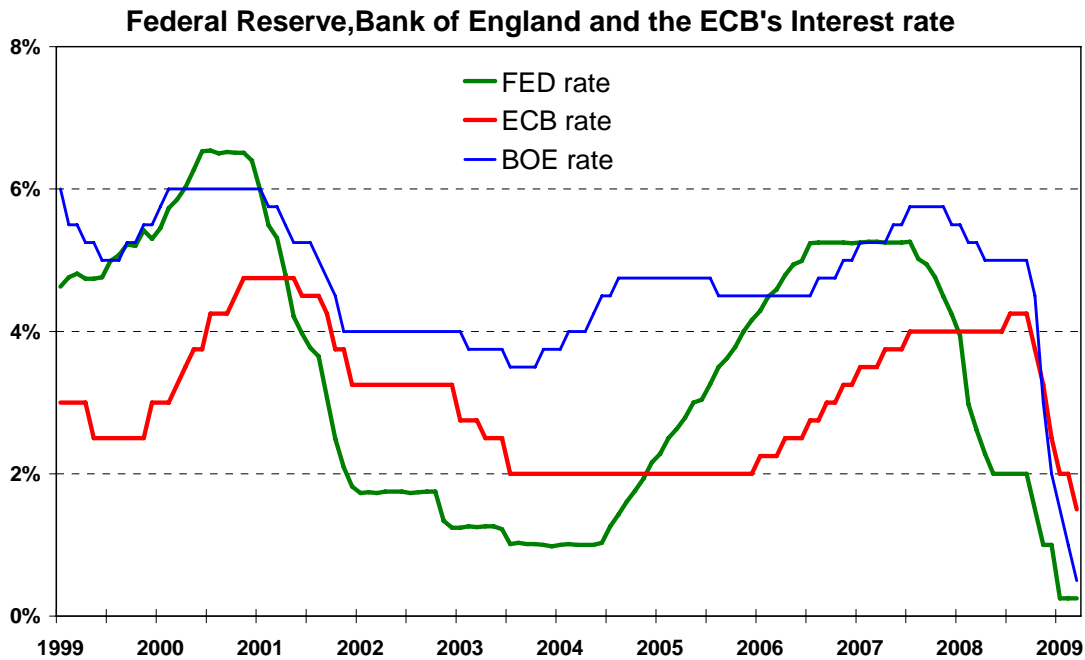
Unemployment in the euro zone increased to 8.5 percent in February, from 8.3 percent in January and 7.2 percent last year.

Inflation in the twelve months ended in March was 0.6 percent, according to an initial estimate, lower than expected.

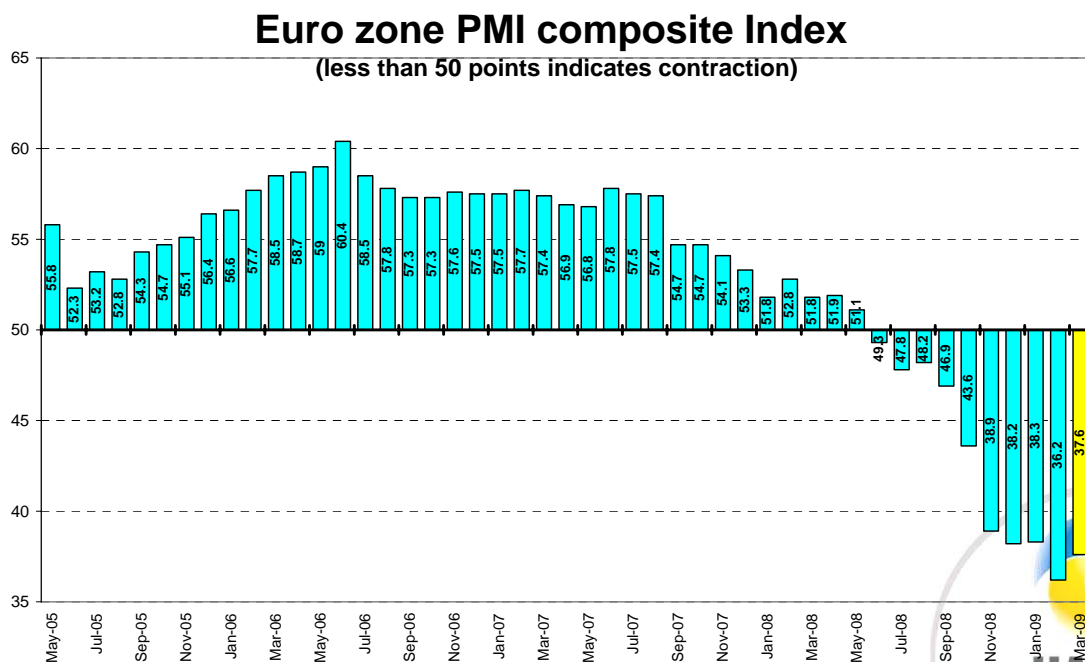
Euro Zone Inflation and ECB Interest Rate



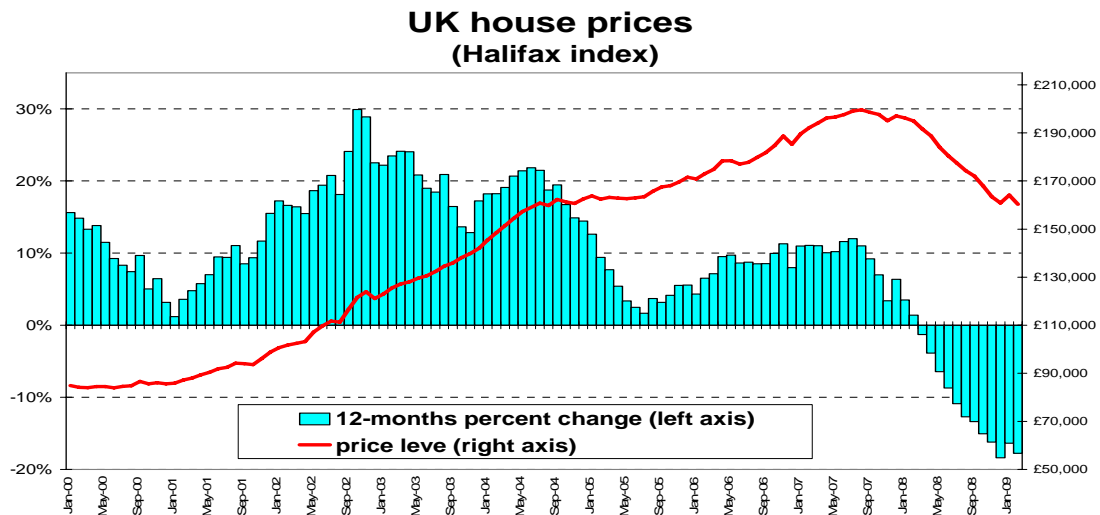
The European Central Bank (ECB) lowered the interest rate by 0.5 percentage point to 1.5 percent, in line with expectations. The UK central bank lowered the interest rate by 0.5 percentage point to 0.5 percent, the lowest level in the bank's history.



The purchasing managers' index was 37.6 points in January according to the initial estimate, still under 50 points but higher than expected.



Housing prices in the UK, according to the Halifax house-price index, surprisingly rose by 2.3 percent in January, but remained 20 percent lower than the high of August 2007.



E. A Model for Calculating Risk in Investment Portfolios Based on Asset Composition. ¹

One of the key questions in investment management is the desirable distribution of the investment portfolio among the portfolio's components. The aim is to achieve an optimal portfolio, so that taking into consideration the correlations between the components of the investment, maximum returns may be obtained from the investment with minimum risk.

This model uses a relatively simple calculation to present the risk in the investment portfolio, as derived from the historical standard deviation of all components of the portfolio, including the correlations among them. This calculation allows investors to set various limits which, in combination with the investor's assumptions regarding the future returns of each portfolio component, can delineate the chance of maximum profit and loss, at a high probability. The model enables investors to decide on the optimal portfolio for them, depending on their degree of risk aversion.

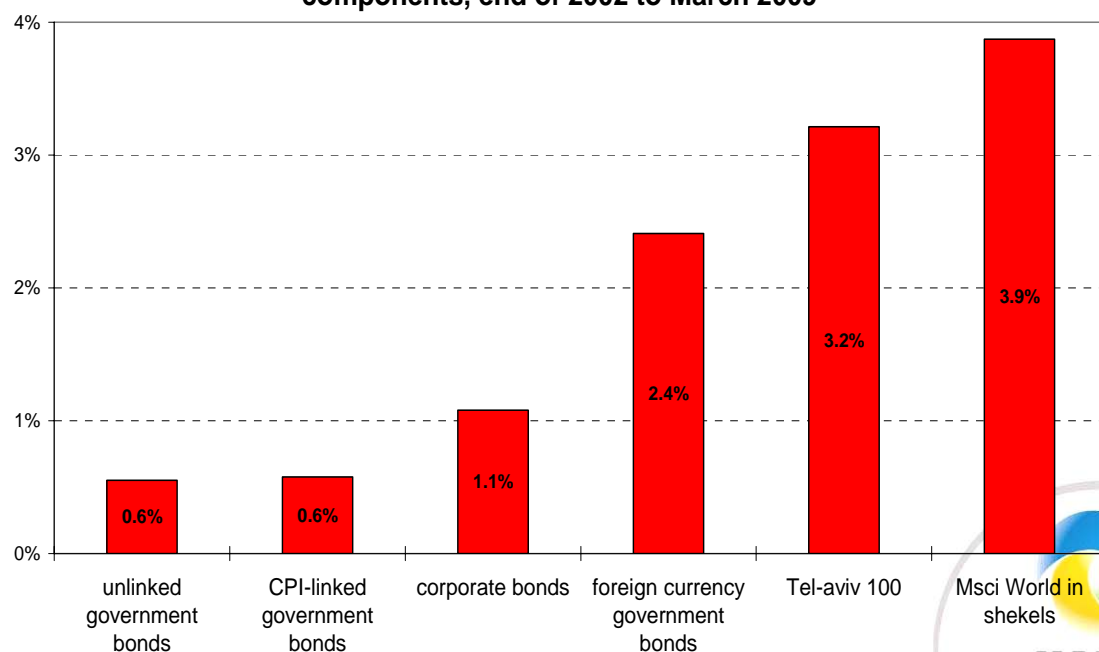
¹ This chapter was prepared by Ran Singer.

It is important to note that this calculation refers to an unleveraged investment portfolio, more suitable for creation by an investor not conversant with all of the different products, and/or with insufficient time to continuously monitor the portfolio, and uninterested in speculative trading. In other words, there are no loans in order to take various positions, such as index or currency options, as a percentage of the portfolio that could reduce risk and/or increase returns.

We used the principal components of an Israeli investment portfolio for our calculations: the unlinked government bond index, the CPI-linked government bond index, the foreign currency linked government bond index, the CPI-linked non-government bond index, the TA-100 index, and the MSCI World index in shekels. We used weekly data (each Monday) for a sample period from the end of 2002 to the end of March 2009.

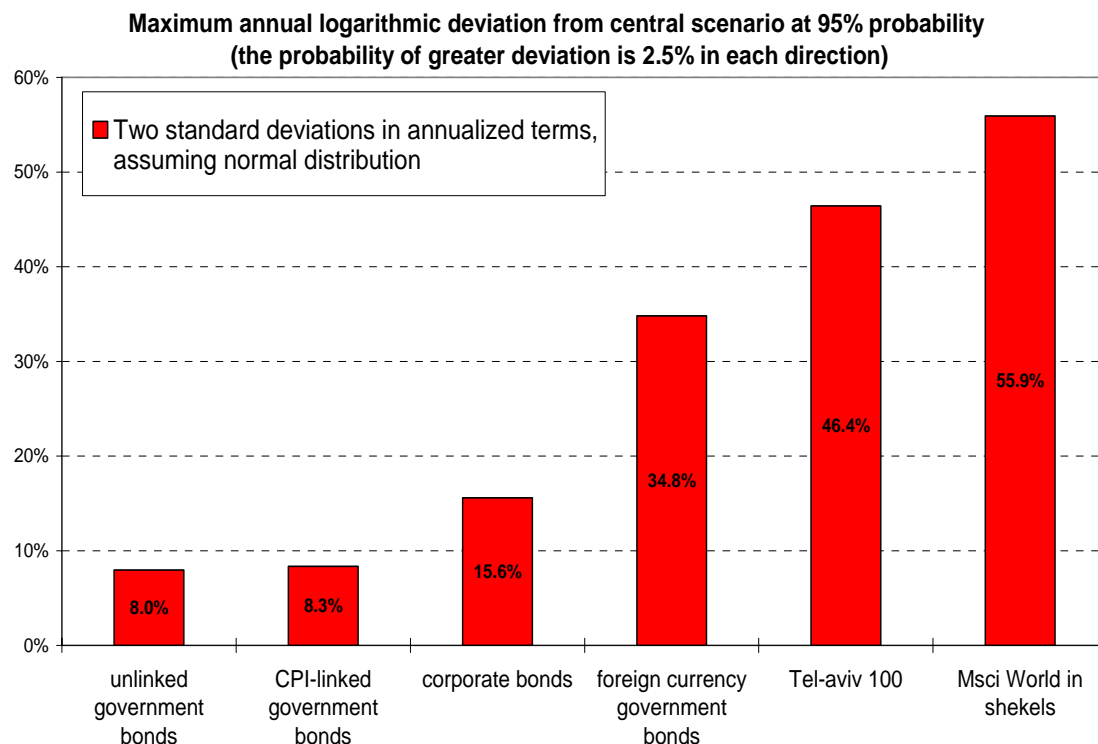
For each component, we calculated weekly logarithmic return; from there, we calculated the standard deviation of that investment component throughout the period. Logarithmic returns were used in order to obtain a normal distribution and symmetrical results. In logarithmic terms, an increase of X by 10 percent followed by a decrease of this result by 10 percent leads to a result equal to X again.

Volatility of weekly logarithmic return of the various portfolio components, end of 2002 to March 2009



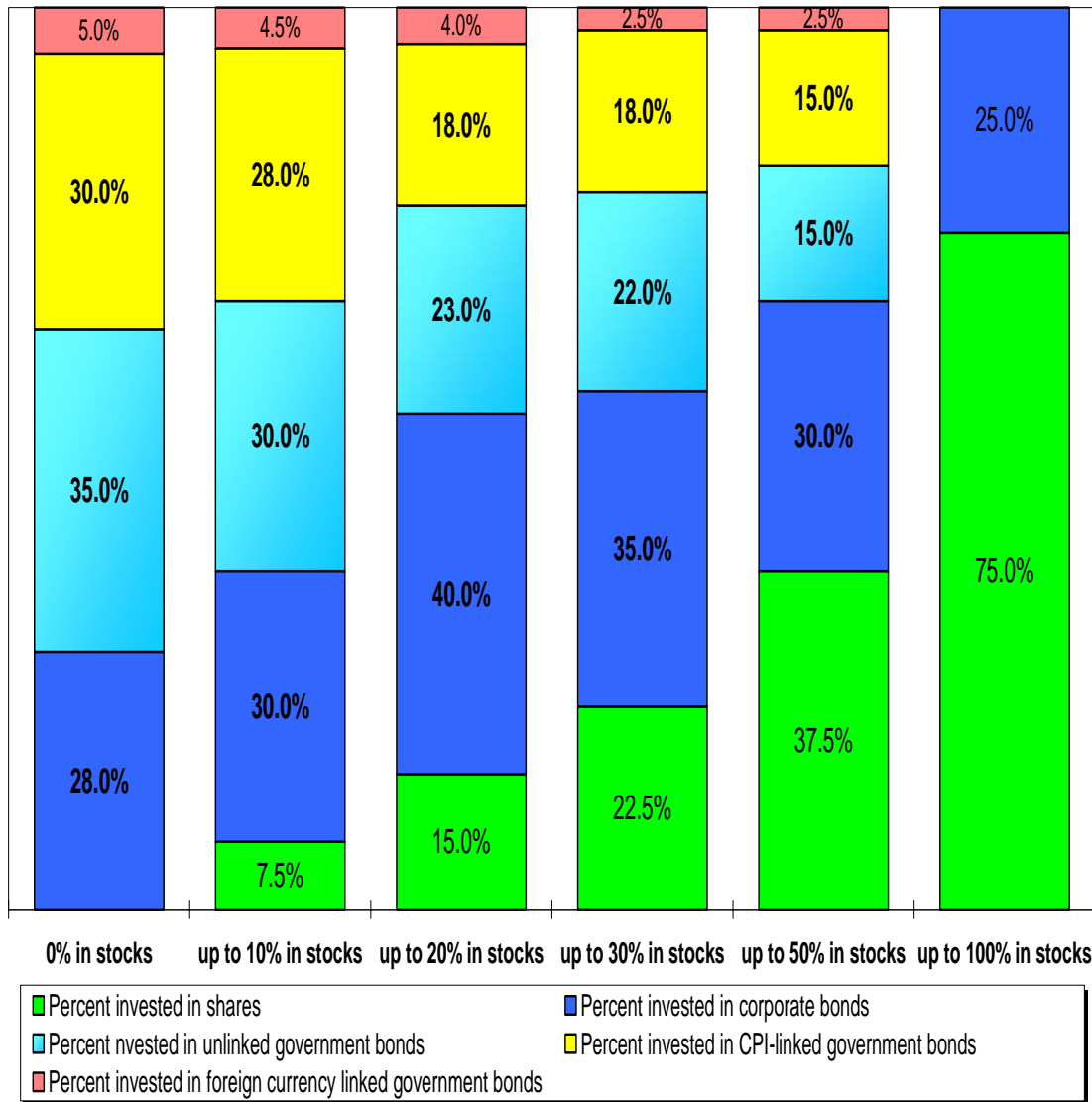
The results obtained were in line with our expectations, as the weekly standard deviations of unlinked and CPI-linked government bonds were significantly lower than the standard deviations of the TA-100 and MSCI World indices.

In order to calculate standard deviation at an annualized rate, assuming a normal distribution, we multiplied the weekly deviation by 7.22 (the square root of the number of weeks in a year). We then multiplied by 2 in order to obtain the maximum annual deviation at a probability of 95 percent (2 standard deviations).

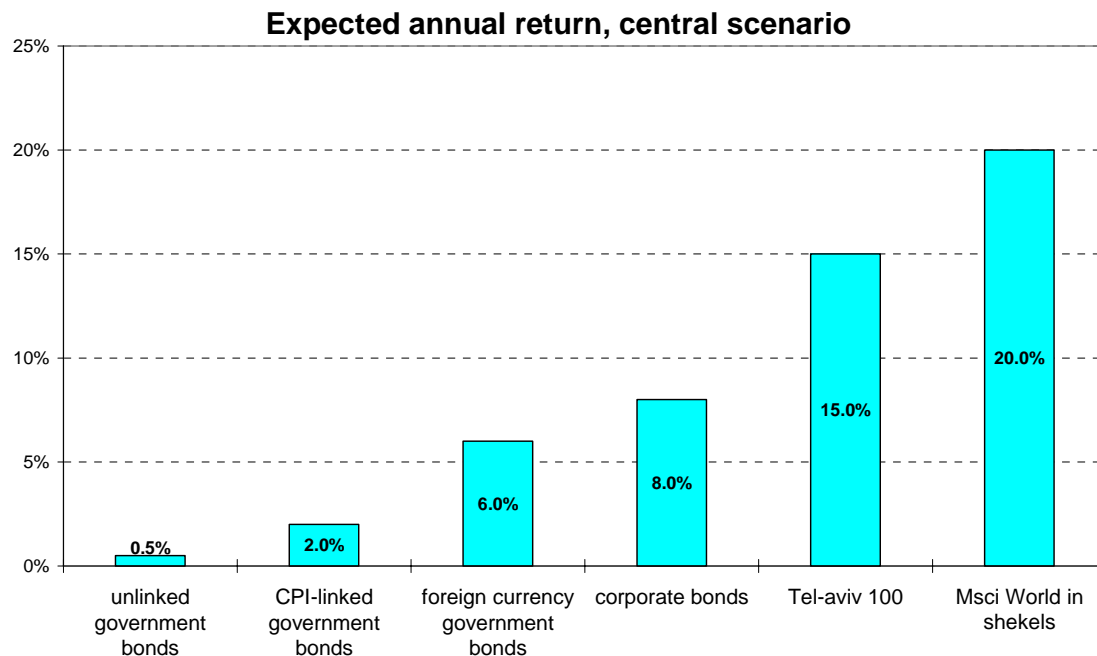


At this stage, we construct an investment portfolio and examine its weekly return, multiplying the logarithmic return of each component of the investment portfolio by the percentage of the investment in that component out of the portfolio. Likewise, the weekly standard deviation of the return of the entire portfolio is examined, with the outcome obviously reflecting the correlations among the portfolio components. This result, multiplied by 7.22, multiplied by 2, provides the annualized standard deviation of the portfolio. The exponent of e is calculated using the standard deviation, subtracting 1 to obtain standard deviation in ordinary (non-logarithmic) terms. We thereby calculate the maximum expected volatility, at a probability of 95 percent, of our portfolio. This is added to the expected return of the portfolio, according to the investor's assumptions, in order to calculate the upper and lower limits of the portfolio's returns, at a probability of 95 percent.

To simplify and expand this explanation, we constructed six different investment portfolios. The guideline in moving from one portfolio to the next was an increase in the rate of shares in the portfolio. The investment in shares is comprised of 50 percent invested in the TA-100 index and 50 percent in the MSCI World index in shekels.



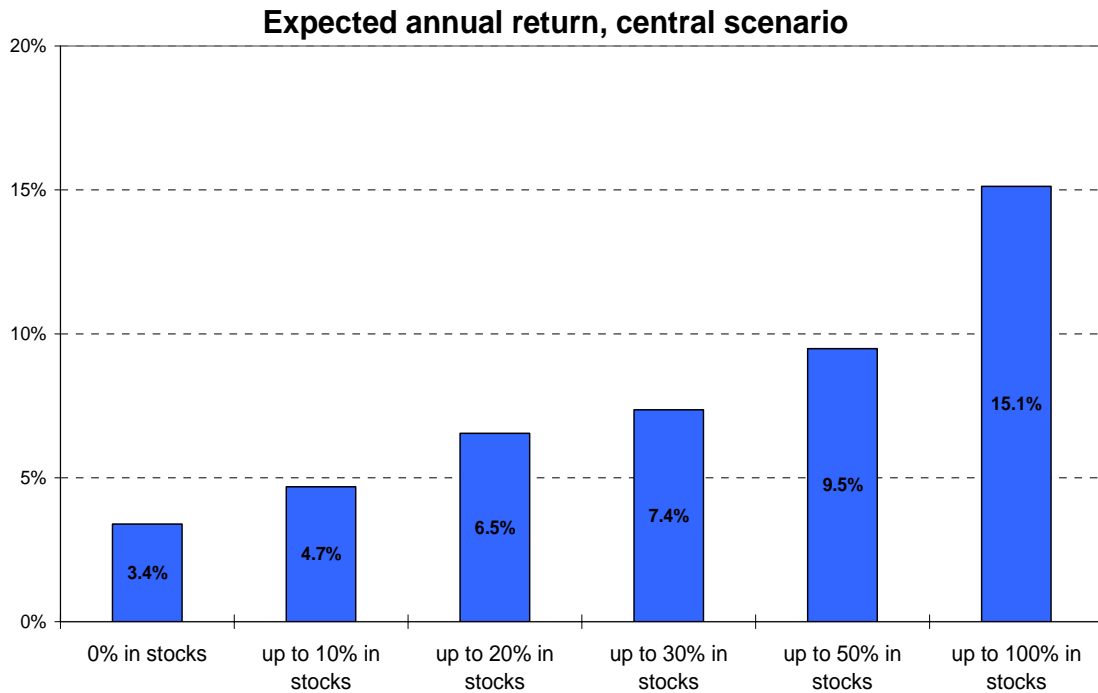
For the purposes of this example, we assumed returns over the coming year for each component of the investment:



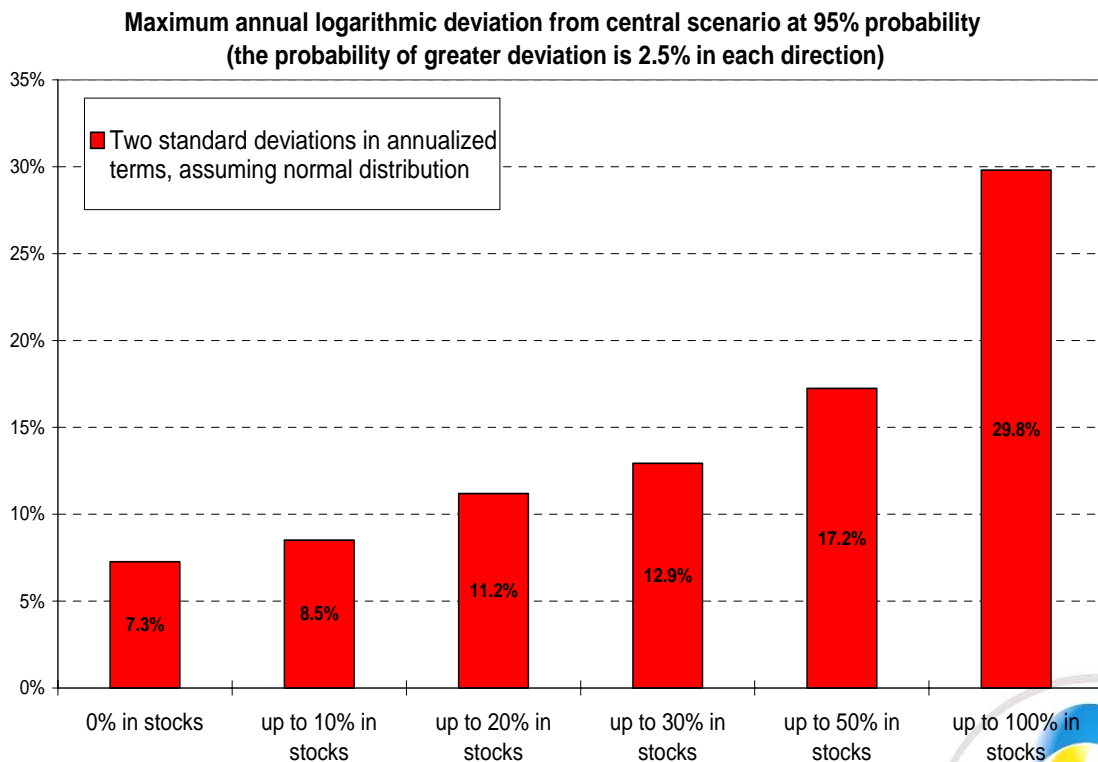
Of course, every investor may use different assumptions regarding expected returns, according to taste and judgment.

A note regarding return assumptions: There are generally no "free gifts" in the investment world. The higher the forecast return, the greater the risk. The greater the risk, the higher the risk that the return on the investment may be lower than expected (at a certain probability). In such a case, the return may be below expectation at best, or an overall loss at worst.

We multiplied each component of the portfolio, according to the percentage invested in that component, by our forecast return, and calculated the expected return of the entire portfolio, as a weighted average:

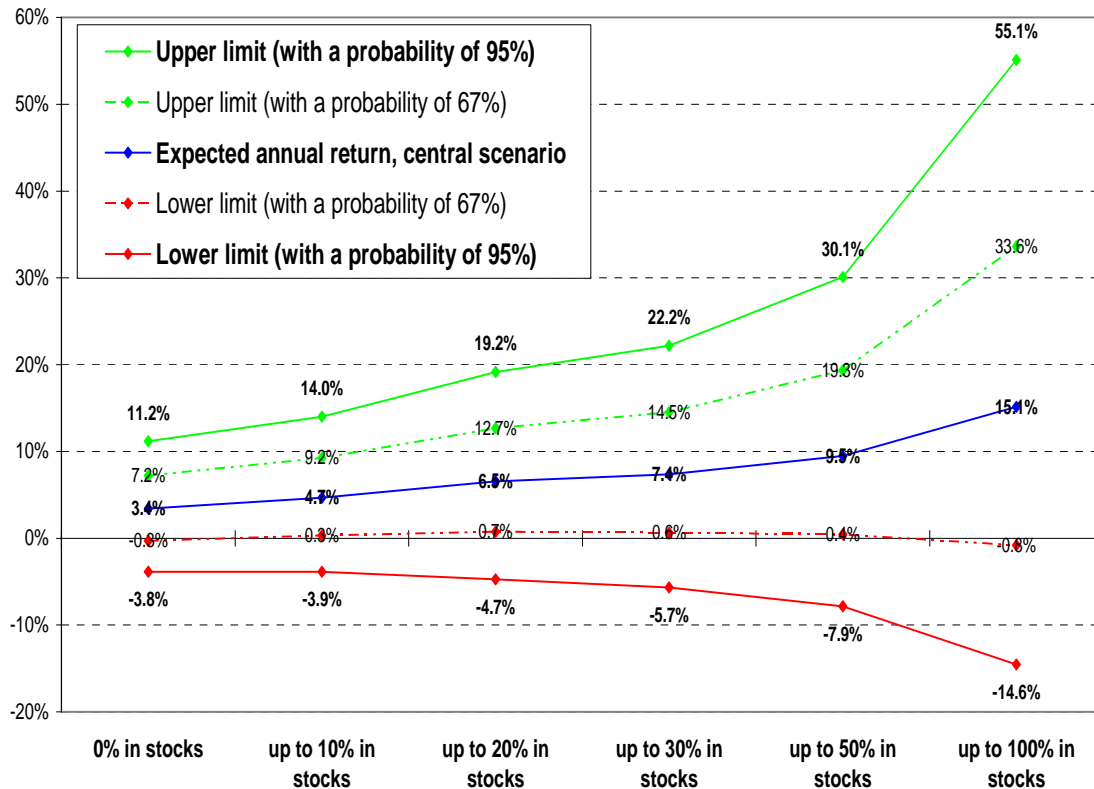


Similar to the calculation of weekly standard deviations for each component, we calculated the logarithmic standard deviation of the entire portfolio:



In the following diagram, we took the forecast return of each portfolio in the central scenario, and added and subtracted two standard deviations, according to our calculations.

Annual returns and maximum deviations at a probability of 95%
(the probability of greater deviation is 2.5% in each direction)



This diagram allows investors to easily view the expected return and the risk inherent in their investment portfolios. Investors can thereby select their optimal portfolio, depending on their degree of risk aversion. In other words, they can choose the portfolio which they prefer to own, given the calculated risk probabilities.

In order to match an investment portfolio to reality, investors should use exchange-traded funds or mutual funds tracking their selected investment components, as the volatility of the mutual fund or exchange-traded fund is likely to be similar to the volatility of the index itself.



Of course, we recommend consulting an investment advisor or portfolio manager who can offer greater details regarding investment components, in order to obtain a more diverse portfolio, and can choose the best-managed funds, diversify the portfolio according to the customer's profile, and keep up to date with economic changes that affect forecast returns in order to change the portfolio composition accordingly.

This review is posted online at www.harel-finance.co.il/macro in Hebrew

and at www.harel-finance.co.il/macro/ENG in English.

Please address comments or questions to Mr. Ofer Klein at

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Important Announcements in the Coming Month

Title	Date	Day	Time	Link
ISM manufacturing sector index, US	1 Apr	Wed	17:00	www.ism.ws
Quarterly Tankan survey, Japan	1 Apr	Wed	02:50	http://www.boj.or.jp/en/theme/research/stat/tk/index.htm
Interest-rate decision, euro zone	2 Apr	Thu	14:45	www.ecb.int
PMI (purchasing managers' index), euro zone	3 Apr	Fri	11:00	http://www.markiteconomics.com/
ISM service sector index, US	3 Apr	Fri	17:00	www.ism.ws
Employment report, US	3 Apr	Fri	15:30	www.bls.gov
Average wages	5 Apr	Sun	14-12	http://www1.cbs.gov.il/reader
Retail sales, euro zone	6 Apr	Mon	12:00	www.ec.europa.eu/eurostat
Interest-rate decision, Japan	6 Apr	Mon	07:00	http://www.federalreserve.gov/
Interest-rate decision, UK	9 Apr	Thu	14:00	www.bankofengland.co.uk
Retail sales, US	14 Apr	Tue	15:30	http://www.census.gov/svsd/www/adseries.html
CPI, Israel	14 Apr	Tue	13:30	http://www1.cbs.gov.il/reader
CPI, US	15 Apr	Wed	15:30	www.bls.gov
CPI, euro zone	16 Apr	Thu	12:00	www.ec.europa.eu/eurostat
Construction starts and permits, US	16 Apr	Thu	15:30	http://www.census.gov/pub/const
Incoming tourists, Israel	20 Apr	Mon	14-12	http://www1.cbs.gov.il/reader
CPI, UK	21 Apr	Tue	11:30	
Foreign trade, Israel	22 Apr	Wed	14-12	http://www1.cbs.gov.il/reader
Sales of existing homes, US	23 Apr	Thu	17:00	http://www.realtor.org/Research.nsf/Pages/EHSdata
Sales of new homes, US	24 Apr	Fri	17:00	http://www.census.gov/const/www/newressalesindex.html
1Q growth rate estimate, UK	24 Apr	Fri	11:30	http://www.statistics.gov.uk
Retail sales, UK	24 Apr	Fri	11:30	http://www.statistics.gov.uk
Industrial production index and trade and service sectors revenue index	26 Apr	Sun	14-12	http://www1.cbs.gov.il/reader
Interest-rate decision, BOI	27 Apr	Mon	17:30	http://www.bankisrael.gov.il/
Hotel stays	27 Apr	Mon	14-12	http://www1.cbs.gov.il/reader
1Q growth rate estimate, US	29 Apr	Wed	15:30	http://bea.gov/
Interest-rate decision, US	29 Apr	Wed	21:15	http://www.federalreserve.gov/
CPI estimate, euro zone	30 Apr	Thu	11:30	www.ec.europa.eu/eurostat
New dwelling sold in private sector	30 Apr	Thu	14-12	http://www1.cbs.gov.il/reader
Private income and consumption data, US	30 Apr	Thu	15:30	www.bea.gov