Israel Economic Review Vol. 13, No. 1 (2016), 79–89

# CENTRAL BANKS AND POLICY TOOLS: CONCEPTUAL CHANGES AS A RESULT OF THE GLOBAL FINANCIAL CRISIS[1]

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In the years prior to the Global Financial Crisis, after the advanced economies achieved price stability targets most of the central banks would meet periodically and make decisions regarding the monetary interest rate, taking care to maintain inflation within the target range. Some also took into account considerations of supporting growth. This more or less summed up the role of monetary policy. Since the crisis, the central banks' concept of their roles and their policy tools has undergone a dramatic change.

The change in concept regarding the goals and functions of central banking can be summarized in a quote from a policy paper by the International Monetary Fund: "*Long-term price stability remains a primary objective and central bank independence a critical ingredient to achieve it. Other intermediate objectives (such as financial and external stability) may have to play a greater role than in the past to guarantee macroeconomic stability. And, this expanded mandate requires either new tools or the acceptance of new trade-offs.*" (IMF, 2014)

Prior to the crisis, almost all of the central banks focused on price stability as the main objective, and some of them, subject to maintaining price stability, also focused on supporting activity and employment. The exception was the Federal Reserve, whose "dual mandate" gave similar weight to the two objectives. At most central banks, the main tool for achieving the objective was the short-term interest rate. Following the crisis, as one of the main lessons learned from it, and in the spirit of the recommendations of international financial institutions, the objective of supporting financial stability was added to the central bank's objectives in many countries, and the law was changed in 20 countries to include support of financial stability among the central bank's objectives. The variety of policy tools was also expanded, and many countries added "unconventional monetary accommodation", capital flow restrictions, and direct intervention in the foreign exchange market, as well as a variety of "macroprudential" tools to their policy tools.

There are two components in the conceptual framework proposed by the International Monetary Fund for unconventional monetary policy. The first is additional monetary accommodation in situations where the interest rate is near-zero, which is reflected in asset purchases, mainly the purchase of bonds in the secondary market, and forward guidance that mainly takes the form of expressing a commitment that accommodative policy will continue over time. The second is the rehabilitation of the functioning of the financial markets by providing liquidity as a loan of last resort to non-bank entities as well, and by purchasing private and public assets of various entities, in order to prevent a downward price spiral or market paralysis.

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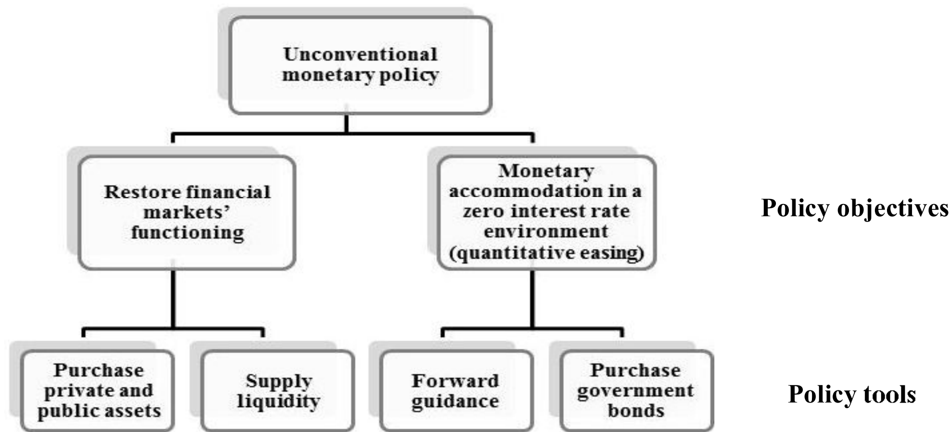
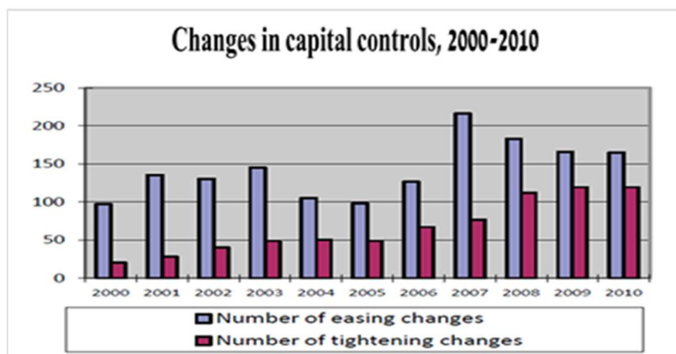
[1] Based on remarks delivered at the Israel Economic Association's Annual Conference in 2014.

**Figure 1**
**Unconventional monetary policy**




Capital flow restrictions are intended to reduce the risks inherent in exposure to sharp fluctuations in the exchange rate that are the result of fluctuations in the capital flow. Since the crisis, a trend can be discerned of countries applying various restrictions on capital flows, alongside continued—although slower-paced—liberalization of capital flows in other countries. In this context, the International Monetary Fund warned against the use of capital flow restrictions as an alternative to the appropriate macroeconomic policy (mainly referring to a situation that is the opposite of our current situation, where the lack of equilibrium in the economy, which is reflected in large deficits in the current account, causes a rapid depreciation, leading countries to sell foreign exchange in order to moderate it).

**Figure 2**
**Capital flow management measures**

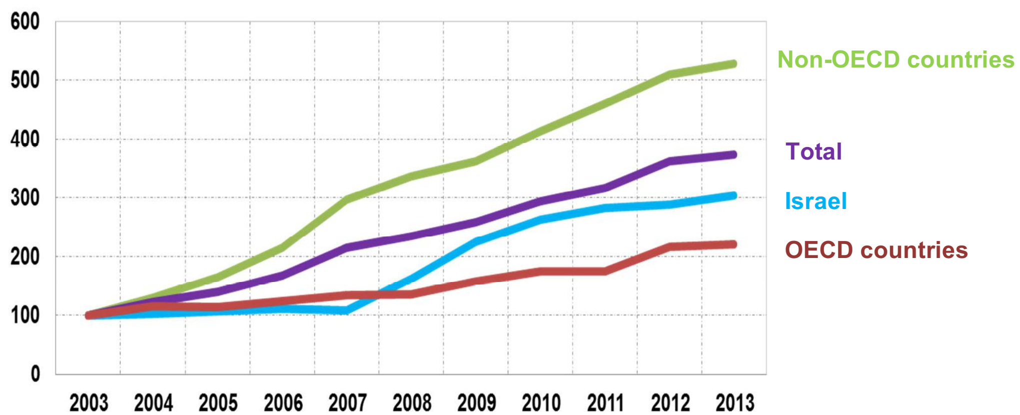



SOURCE: IMF, "Liberalizing capital flows and managing outflows", April 2012.

There are two aspects of intervention in the foreign exchange market, and both have been discussed by the IMF in policy papers in recent years. The first is the importance of maintaining a suitable level of foreign exchange reserves, and the second is the use of the intervention tool as part of monetary policy in order to assist in attaining policy objectives.

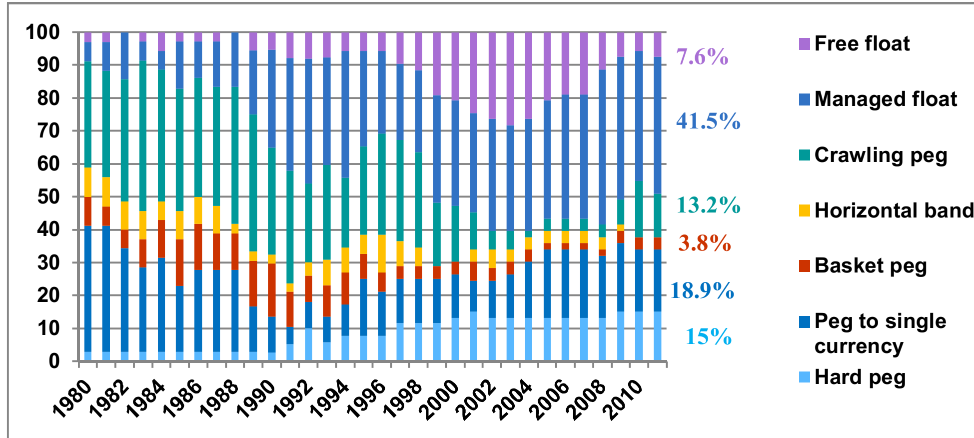
The concept of a suitable level of foreign exchange reserves was revised significantly upward following the experience of many countries since the crisis. The reserves supply foreign exchange to economies during emergencies; enable the central bank to intervene when the exchange rate deviates significantly from the basic balance, or in order to moderate the effect of large volumes of capital flows that may have a destabilizing effect. The IMF presented a position that in situations where there is relatively high likelihood of a crisis (above 10 percent), an increase of one percent of GDP in the reserves will reduce the likelihood of a crisis by one percent. A number of countries that had large foreign exchange reserves sold significant volumes of foreign exchange when capital flows changed direction, and thereby prevented a serious shock to the exchange rate that could have caused a financial shock.

**Figure 3**
**Changes in foreign exchange reserves in selected country groups and in Israel, 2003–2013** (Index, 2003=100)



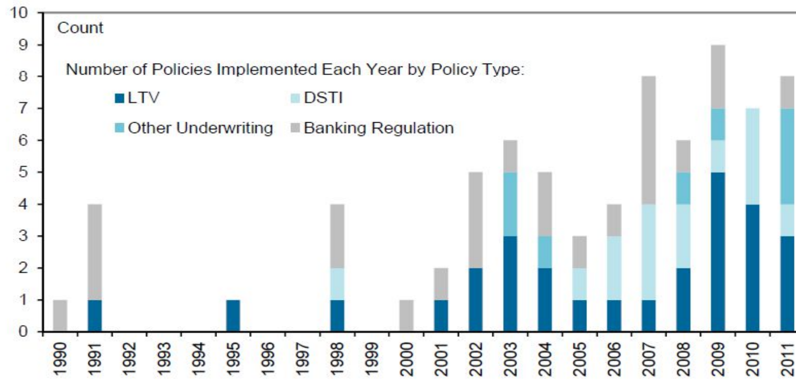

As to intervention in the foreign exchange market, contrary to the concept that prevailed in the past that the stable foreign exchange policy regimes were the ones at the extremes—a fixed exchange rate or a completely floating exchange rate—there was increased recognition after the crisis that a regime of a mobile exchange rate with occasional intervention, referred to as “managed float”, may have the potential to support policy objectives, provided that there is no declared exchange rate level that could constitute a “soft target for speculators”. Thus, the managed float became the most common exchange rate regime in the emerging markets, while the “free float” regime is in place in less than 8 percent of these economies.

**Figure 4**
**Exchange rate regimes worldwide**
**Distribution of Exchange Rate Regimes in Emerging Markets, 1980-2011**




In addition to these tools, thought is being developed in relation to the use of macroprudential tools intended to reduce risks as they are generated and to strengthen the system's ability to recover from a financial crisis should one take place. Such tools include various restrictions on mortgages that are intended to reduce the risks inherent in them, additional capital requirements over the course of the business cycle, and other tools in the foreign exchange market. The two types of measures that have come into common use in the OECD countries are LTV (loan to value) restrictions and restrictions on the PTI (payment-to-income) ratio (or DSTI, debt-service to income).

**Figure 5**
**Macroprudential policy**
**The number of macroprudential policies in the housing market used by OECD countries has increased**




SOURCE: BIS, Goldman Sachs Global Investment Research, April 2014.

This is a global trend that has been developing at an accelerated pace since the crisis, as reflected in the updated concept of the international institutions, led by the Bank for International Settlements (BIS) and the International Monetary Fund, and the actions of many central banks—and the Bank of Israel is certainly involved in this trend, and in certain areas is even leading it.

The Bank of Israel's monetary policy objectives as outlined in the Bank of Israel Law state that the Bank must attain price stability over time, and subject to that, must support growth, employment and reducing gaps. As a result of the fact that our legislation was only completed in 2010, the law already internalizes the initial lessons from the global crisis. Therefore, support for financial stability is included in the Bank's objectives.

The policy tools used by the Bank of Israel since then are focused on attaining these objectives. In order to illustrate this, the main trends of the variables and the major markets will be reviewed, followed by a discussion of the variety of policy tools that have been used in order to attain a variety of objectives.

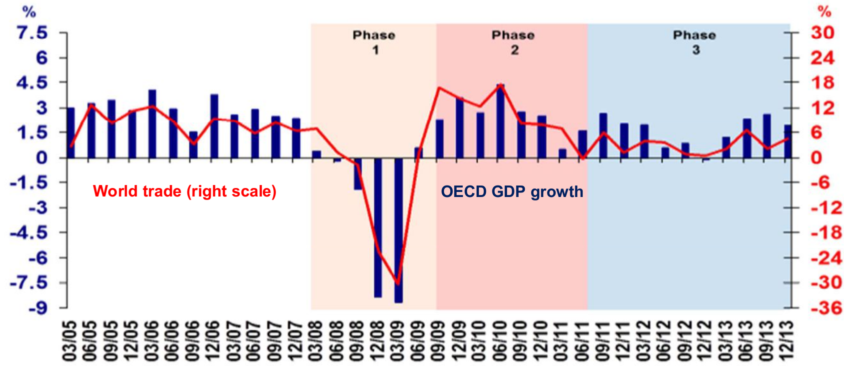
Since the global economic crisis, three periods, or stages, can be identified in the development of the global economy, and of the Israeli economy, during which the Bank of Israel used the various policy tools in various different combinations and permutations.

The first period is the beginning of the crisis, the collapse of world trade, and then the rapid exit from the crisis. The second period is the relatively rapid recovery and growth in the global economy and in the Israeli economy, which lasted until mid-2011. The third stage is from mid-2011 until today, moving to a renewed slowdown as a result of the European debt crisis, which is reflected in Israel in a slowdown in growth to a level of about 3 percent per year, or, according to the most recent data, even slightly below that.

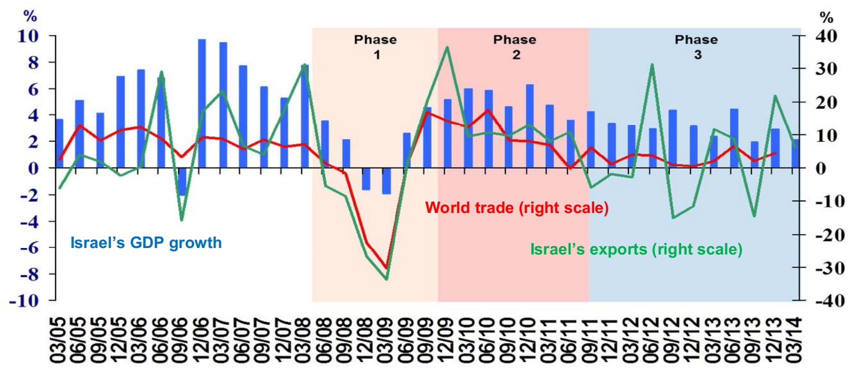
Inflation, and even more so inflation expectations, reacted to the level of demand as reflected in the various stages since the crisis. At the start of the crisis, with the fall in global trade, we saw a rapid decline in inflation expectations (which even became negative for a short time), and inflation, which at the time exceeded the upper bound of the target range, declined rapidly. With the global recovery, and in Israel as well, inflation again increased, and with the renewed slowdown, it again moderated. All this took place within the bounds of the inflation target range. It is worth noting here that longer-term inflation expectations were always within the bounds of the inflation target range, which testifies to the credibility of the policy of maintaining price stability.

**Figure 6**

**Growth rates of OECD GDP and of world trade** (Quarterly data in annual terms, 2005–2013)

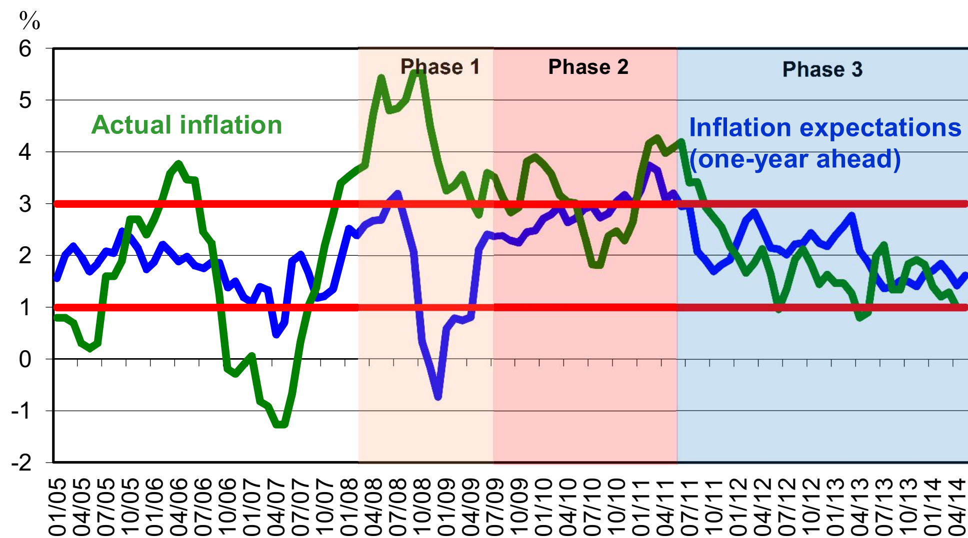



**Growth rates of Israel's GDP, world trade, and Israel's exports**
(Quarterly data in annual terms, 2005–2013)



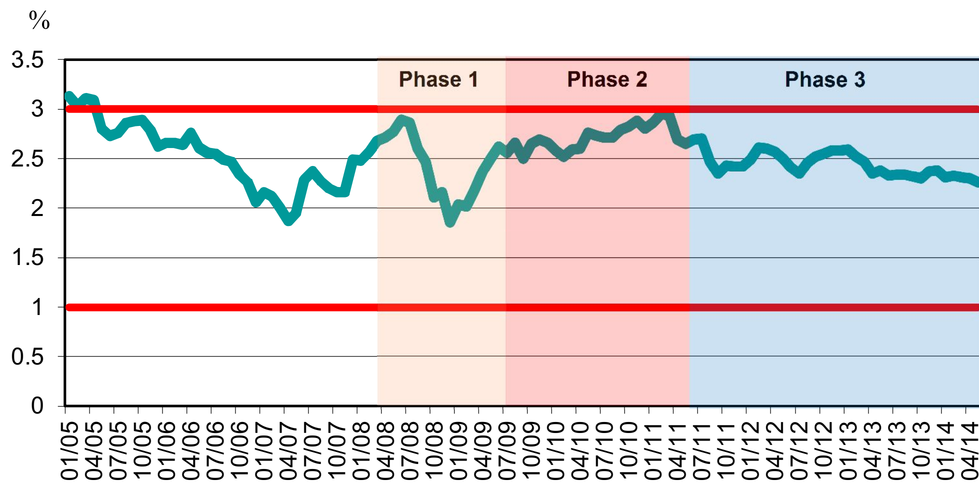

SOURCE: OECD and Bank of Israel.

**Figure 7**
**Actual inflation* and inflation expectations**, (2005–2014)**




* Over the preceding 12 months
** One-year ahead, derived from capital markets.
SOURCE: Bank of Israel.

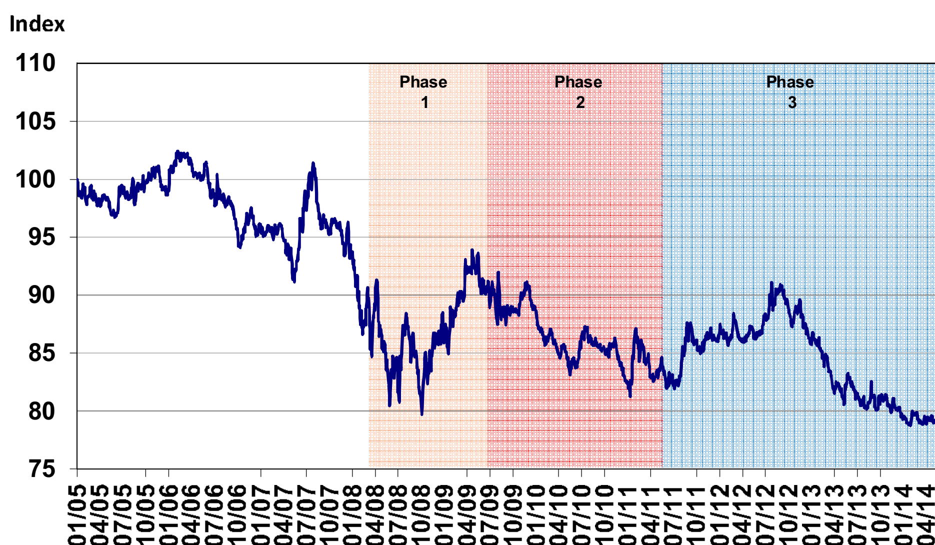
**Figure 8**
**Long-term inflation expectations** (Average for 8-10 years, 2005–2014)




SOURCE: Bank of Israel.

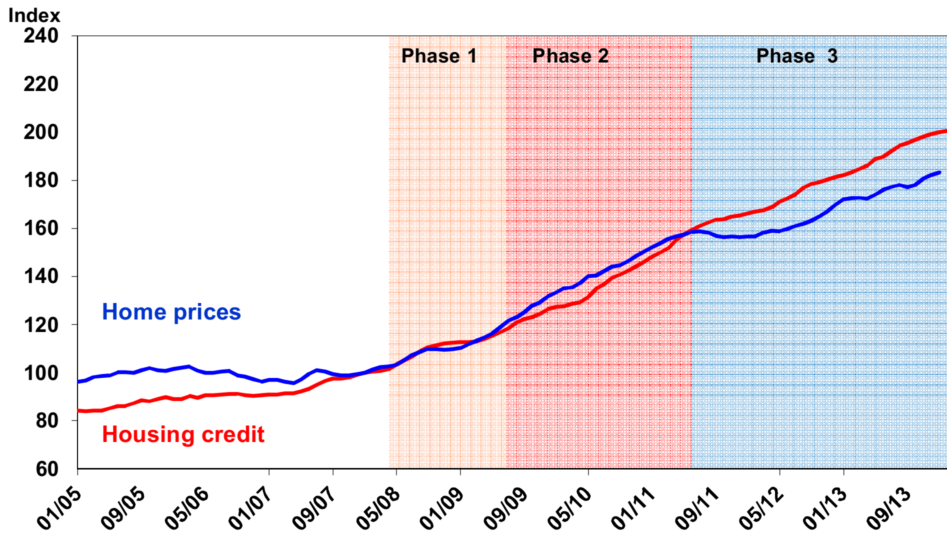
For most of the period, the exchange rate was in a trend of appreciation. Initially, this was due to the better performance of the Israeli economy than other advanced economies, which was reflected in capital inflows. Later when the interest rate in Israel was raised and interest rate gaps opened vis-à-vis the major economies due to our rapid recovery, we saw pressure resulting from short-term movements. In the first half of 2013 there was a sharp appreciation due mainly to a decline in geopolitical tensions and the start of natural gas production, which led to an excessive response in the foreign exchange market.

**Figure 9**
**Nominal effective exchange rate** (monthly, 2005–2014, January 3, 2005=100)




In the housing market, the decline in interest rates and in yields—against the background of low global interest rates—alongside the low inventory of homes and the slow response of supply—were reflected in a continued increase in home prices and an increased volume of mortgages, which may lead to macroprudential risk.

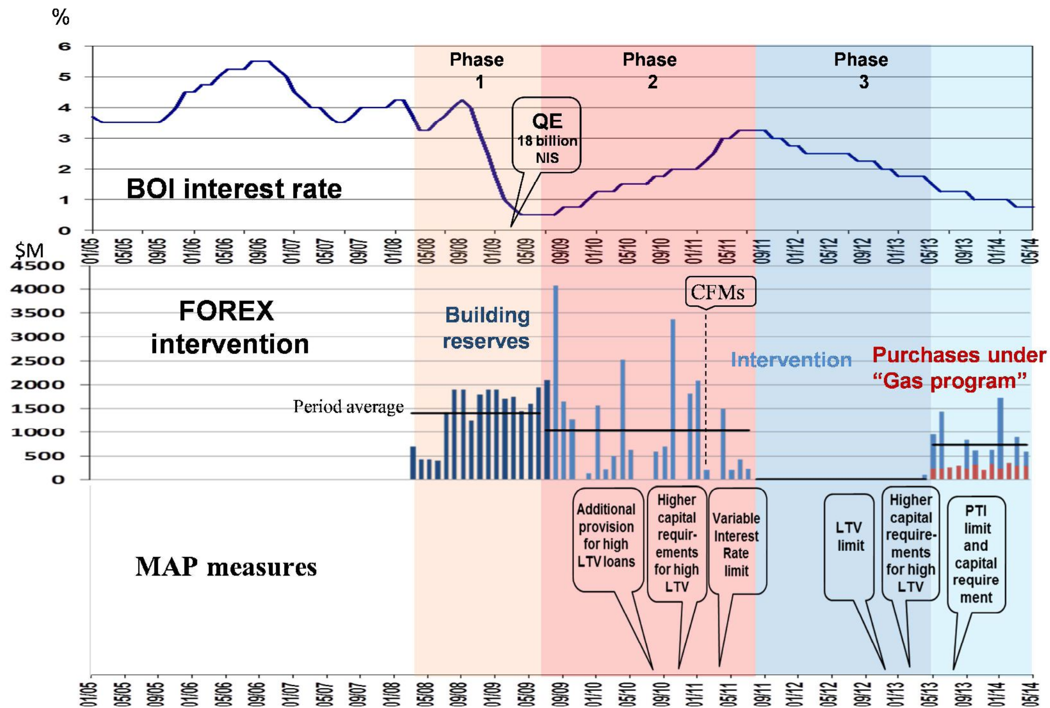
**Figure 10**
**Outstanding housing credit and home prices**
(monthly, 2005–2013, January 2008=100)




SOURCE: Bank of Israel.

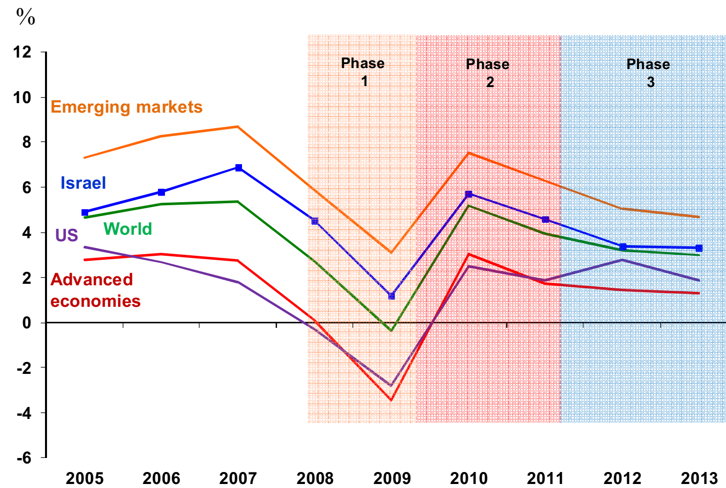
These trends were the challenges faced by the Bank of Israel, which made use of the variety of policy tools at its disposal: the Bank of Israel interest rate, which was sharply lowered at the start of the crisis, was raised with the rapid recovery and increase in inflation, and again reduced gradually with the renewed slowdown and decline in inflation. The Bank of Israel purchased foreign exchange in the market, first at fixed amounts in order to increase the level of reserves, and then when sharp fluctuations were not in line with economic fundamentals. In May 2013, the Bank announced a new foreign exchange purchasing program intended to offset the effects of natural gas production and prevent Dutch disease, as long as the sovereign wealth fund is not yet operating. And in order to reduce the risks in the mortgage market, the Supervisor of Banks took a series of measures intended to make new mortgages safer.

**Figure 11**
**Bank of Israel's policy tools, 2005–2014**




The performance of the Israeli economy over the entire period was good relative to those of other advanced economies. Some of this is certainly the result of the good background conditions enjoyed by the Israeli economy prior to the crisis—a current account surplus, a balanced government budget, a declining debt-to-GDP ratio, a conservative and robust banking system, and more. The Bank of Israel's active monetary policy certainly played a part in creating the conditions for such good performance.

**Figure 12**
**GDP growth rates in Israel and selected countries**




SOURCE: Bank of Israel and World Economic Outlook, April 2014.

Former Governor of the Bank of Israel, Prof. Stanley Fischer, in remarks he made at the annual conference of the Israel Economic Association in 2013, said, *"I long for the days before the crisis when we would meet once a month to set the interest rate, and that would be the sum total of our job for the month…. I believe that in another few years, and I refuse to use a precise number, we will return to a more normal environment."*

In the meantime, as has been seen, a normal environment has not yet been reached, and it does not seem that we are drawing close to one. The dialogue between central banks, and in international institutions, has begun to also deal with the question of the "new normal". And in the meantime, both the international institutions through their recommendations to various countries, and the various central banks, are anchoring their expanded roles both in legislation that defines their objectives and in practice, through the use of a variety of policy tools to attain those objectives, and the Bank of Israel is not absent from this global trend.

## REFERENCES

Bayouni, T., G. Dell-Ariccia, K. Habermeier, T. Mancini-Griffoli, F. Valencia, et al. (2014), "Monetary Policy in the New Normal", International Monetary Fund Staff Discussion Note SDN/14/3 (April).