Yaron Amir: Are we again taking financial stability for granted? (Or: Do we need central banks?)

Speech by Mr Yaron Amir, Governor of the Bank of Israel, at the Israel Economic Association Conference at the Hebrew University of Jerusalem, Jerusalem, 6 June 2019.

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"In recent weeks that has been an increase in uncertainty in Israel. While the financial markets have so far not been tremendously agitated by it, we cannot assume that there is no damage, and it is clear that we must deal with it and that this is a challenging period. In order to prevent harm to the economy, all policy makers and public officials must act responsibly and do all that they can in order to reinstill certainty and fiscal responsibility soon after the elections."

Summary:

- The volatility in consumption and income may, under certain circumstances, have a significant negative impact on well-being, such that the central banks' stabilizing policies may be very valuable. The volatility may have an impact on the path of growth, such that the stabilizing policies also have an impact on growth.
- There is "bad" uncertainty, because of which we must guard stability, but there is also "good" uncertainty. We must maintain stability while enabling that good uncertainty, which is reflected in innovation and technological improvements, research and development, and competition.
- The stabilizing policy is particularly important to prevent financial crises, since the damage from such crises is significant. Therefore, the financial stability committee becomes all the more important as a vital layer in the early identification of risks. The establishment of the committee is a very important step in view of the reforms in the financial system that are being formulated.
- The Bank of Israel advises the government on how to increase the long-term growth rate, and indicates main policy measures that can increase the long-term growth path: in the areas of education, infrastructure, and bureaucracy. The Bank is currently working diligently on a formal report containing the Bank's recommendations to the government regarding the advancement of productivity in the economy and an analysis of their expected costs and benefits in the long term, which we will publish soon.

I chose to deal today with this question, because I think that this conference is the proper platform for such a discussion, which combines economic theory, policy measures, and the current public discourse in Israel, a decade after the Global Financial Crisis.

There is a model by a very famous economist behind this question, and his insights can lead us to the conclusion that the value of stabilizing policy, mainly by the central banks, is not great. But there is also widespread economic literature that proves otherwise, as well as insights that are specific to Israel. These insights have become clearer to me in recent months, since I took on the position of Bank of Israel Governor and saw how the Bank of Israel's measures, in their various forms, have contributed to the economy's growth and its resilience to shocks.

First, let us mention the Objectives of the Bank of Israel, according to the Law:

- * To maintain price stability, as its central goal;
- * To support economic policy, especially growth, employment and reducing social gaps;

• To support the stability and orderly activity of the financial system.

It is common in the economic literature to assume that one of the central bank's roles is to moderate the volatility of the business cycle, since the widespread assumption is that this volatility is undesirable among consumers and firms. And in fact, since the mid-1980s, there has been a decline in the volatility of business cycles in the advanced economies, which has been reflected in GDP, production, employment, and more. The success in reducing the volatility is mostly attributed to the policies of the central banks, which, thanks their independence, can act in the interest of macroeconomic stability.

If so, it is worth examining whether the effort to stabilize economic activity, which has in fact borne fruit in recent decades, is actually important and worthwhile.

The economist Robert Lucas examined this question in 1987 by estimating the negative impact to well-being that results from volatility in consumption, assuming that potential consumption increases at a fixed rate while actual consumption is volatile. Lucas's model shows that the consumption value that individuals will agree to pay for completely cancelling volatility—for convenience, let's call it the "insurance premium for nonvolatile consumption"—is near zero. This means that the value to the consumer of smoothing consumption is negligible, and we can theoretically conclude that there is no tremendous value to a stabilizing policy. This leads to a similar potential interpretation regarding the importance of the central banks. Is this really true? Where does the gap between the intuitive notion that volatility should be moderated and Lucas's conclusion come from? The answer has to do with three components that are not reflected in Lucas's paper:

- 1. The single individual is exposed to greater risks than the average individual.
- 2. The path of growth on its own is subject to volatility and is not certain.
- 3. The significant impact of financial cycles on the business cycles.

For now, I will expand a little on each of them.

A more correct assumption for the model, which is closer to the economic reality, is that **the single individual is exposed to greater risks than the average individual.** Therefore, when the distribution of risk among the individuals is not uniform, aggregate data do not necessarily provide the complete picture. A more simplistic description of this assumption is used a lot in describing the statistical average, ignoring variance and volatility: "You can also drown in a pool with an average depth of 20 cm." So when examining the change in the effect of volatility on different population groups in different situations, the "consumption insurance premium" that Lucas thought was negligible becomes positive in the model and significant in "real life". For instance, during a recession, most of the public that continues to work and receive wages feels the recession only on the margins, while workers who have been laid off take a serious hit. From the point of view, a reduction in volatility would have led to a very large advantage.

Another parameter that needs to be taken into account is that, as opposed to Lucas's assumption, the path of growth actually is subject to volatility and is not certain. Economists who took this into account in their models, such as Obestfeld (194), and Dolmes (1998) actually found that the effect of shocks is prolonged. As such, if the shocks affect consumption over time, and are not limited to short-term volatility of consumption, then the value of stability—the "consumption insurance premium"—is high. Those shocks that we mentioned have an effect that is not uniform. Positive business cycles accelerate the economy, while negative business cycles moderate it asymmetrically, so that the volatility itself has a negative impact on the path of growth. A study by Yellin and Eckerloff (2004) shows that unemployment responds asymmetrically to changes in inflation, such that a stabilizing policy may increase GDP by 0.5–0.8 percent per year on average. One of the studies that helps to

explain this positive outcome was done by DeLong and Summers (1988), in which they show that a stabilizing policy can have a medium-term impact because it is not necessarily symmetrical, and hence its importance. The troughs can be smoothed without "shaving" the peak periods in the business cycles.

Another way of examining the cost of volatility, or alternatively the value of stability, is to examine investment in the economy, which has a large effect on GDP and on consumption. Uncertainty affects production decisions, when firms must made decisions in advance regarding the technology that they will use and the means of production they will employ. Firms may therefore inefficiently allocate their resources. Ramay and Ramay (1991) also found a statistically significant value to the "consumption insurance premium". In addition, Bar-Levy (2004) found that an increase in investment during peak periods contributes less to growth than the negative impact to growth from a reduction in investment during a recession. Therefore, a stabilizing policy is not limited to smoothing consumption volatility, but contributes to the growth rate and to improving per capita consumption. It is important to note that there is "bad" uncertainty, regarding which we must guard stability, but there is also "good" uncertainty, as shown by a study I conducted with Segal and Shaliastovich (2015). We must maintain stability while enabling that good uncertainty that is reflected in innovation and technological improvements, research and development, and competition.

Until now, the discussion has been regarding volatile business cycles. But what about the significant effect of financial cycles on that volatility?

"Financial cycle" is a term that is described and analyzed in the Bank of Israel's upcoming Financial Stability Report. It is a method of identifying cyclical behavior of financial activity. The financial cycle is defined as "deviations from the long-term trend of a group of variables that are important to financial stability". The definition first requires us to choose the relevant variables, and then to choose the method of identifying deviations in the trend. In accordance with the literature, the Bank of Israel examined a number of estimations for identifying the financial cycle, including private credit, home prices, share prices, and the slope of the real yield curve. It was found that, except for private credit and home prices, the rest of the estimations that were examined vary at a different (high) rate, and therefore do not contribute to identifying the financial cycle.

We can see that recessions accompanied by a downturn in the financial cycle (movement from a high point to a low point) are the deepest and most serious. This finding significantly increases the "consumption insurance premium", as shown in a study I conducted with Bansal and Kiku (2010). An examination in the forthcoming Financial Stability Report tested the effect of the intensity of the financial cycle on periods of slowdown in Israel. It shows that during downturns in the financial cycle, there was a significant negative impact to the real cycle (-3.3 percent at the beginning of the 2000s, compared with 0.2 percent in the mid-1990s and -2.0 percent during the Global Financial Crisis, when the financial cycle in Israel was in an upward path). One of the issues raised by such an analysis is the question of the need for setting anti-cyclical capital buffers: a demand that the banks hold higher levels of capital during boom periods, which can be decreased during economic downturns, thereby releasing the credit supply constraint during such periods. The use of anti-cyclical capital buffers obviously requires precise identification of the financial cycle. A number of countries, such as the UK, the Czech Republic, Hong Kong, and the Scandinavian countries, are already implementing anti-cyclical policy in setting capital buffers, in accordance with the Basel 3 guidelines.

As such, we can say that volatility in consumption and in income may, in some circumstances, have a significant negative impact on well-being, such that a stabilizing policy on the part of the central banks can have tremendous value. The path of growth on its own may be affected by volatility, such that a stabilizing policy also affects growth. The stabilizing policy is particularly important for preventing financial crises since financial crises have a very strong impact.

How does the Bank of Israel, in practical terms, implement the insights from these analyses and studies in order to contribute to the stability, prosperity and growth of the Israeli economy?

First we examine long-term price stability, which influences many of the decisions previously discussed. We can see that the long-term inflation expectations are anchored around the midpoint of the target range, meaning that the Bank's policy is credible and the market participants benefit from certainty regarding long-term inflation. The monetary policy that enabled this outcome was accompanied by macroprudential measures taken by the Bank, which succeeded in preventing overleverage despite the low interest rates, thereby protecting financial stability with a long-term systemic view, and enabling monetary policy to focus on achieving its main objectives. At the same time, the Bank of Israel worked to strengthen the capital buffers in the banking system in order to increase its resilience to crises, and increased the foreign exchange reserves to around 30 percent of GDP in order to strengthen the economy's financial safety buffer.

Notwithstanding these actions, there is room for advancing further measures, partly because the credit market is becoming more varied and requires a more integrated regulatory view. The volume of credit issued by nonbank entities has been expanding in recent years, partly due to the reforms in this market. Regulation of nonbank financial entities, particularly over the granting of consumer credit, is not the same as regulation over the banks. While the difference in the type of activity between the entities justifies certain differences in regulation, it is important to make sure that these differences don't develop into regulatory arbitrage that could under certain circumstances create a systemic risk. Therefore, the Financial Stability Committee that convened for the first time in April 2019 is increasingly important, and provides an important element in reducing regulatory arbitrage and in the early identification of risks. The establishment of the committee is a very important step in view of the reforms taking place in the financial system. The multiplicity of participants in the credit market, and the division of responsibility between the various regulators require a view of the entire system and close coordination between the regulators.

If we have so far discussed the Bank of Israel's contribution to reducing volatility, I would like to mention that volatility and growth are connected to each other in certain ranges. This brings up another area under the Bank of Israel's responsibility, where, as opposed to most other central banks, the Governor of the Bank of Israel also serves as economic advisor to the government. As such, the Bank advises the government on how it can increase the long-term growth rate. The Research Department indicates main policy measures that can increase the long-term growth path: in the areas of education, infrastructure, and bureaucracy. The Bank is currently working diligently on a formal report containing the Bank's recommendations to the government regarding the advancement of productivity in the economy and an analysis of their expected costs and benefits in the long term, which we will publish soon.

In conclusion, it is, of course, important to enable and promote innovation and competition, but as I have emphasized throughout this discussion, it is no less important to avoid taking stability for granted. There is tremendous value to overall well-being from a policy that stabilizes volatility and uncertainty in the short term, the medium term and the long term, and certainly when volatility increases to the point of a financial crisis.

In recent weeks that has been an increase in uncertainty in Israel. While the financial markets have so far not been tremendously agitated by it, we cannot assume that there is no damage, and it is clear that we must deal with it and that this is a challenging period. In order to prevent harm to the economy, all policy makers and public officials must act responsibly and do all that they can in order to reinstill certainty and fiscal responsibility soon after the elections.