

## **Analysis of the Impacts of Changes in Expectations of Economic Agents on Domestic Economy and Monetary Policy**

Much attention has been drawn to the theory of expectation-driven business cycle fluctuations since the global boom and burst of the IT bubble around the year 2000. This theory claims that changes in the expectations of economic agents cause rapid economic fluctuations regardless of economic fundamentals. In Korea, changes in the expectations of economic agents are judged to have played an active role in the process of the growing irregularity in business cycle fluctuations. For instance, facilities investment in Korea grew rapidly based on optimistic expectations about the IT industry after the Asian Financial Crisis, but then went through a correction phase later on.

Against this backdrop, taking into account that the monetary authorities, which pursue economic and price stability, need to consider expectations from the private sector, this paper examines the economic effects of changes in the expectations of economic agents. It is distinct from other domestic and overseas studies in several respects. First, this paper, reflecting recent trends in studies in major advanced countries including the U.S., analyzes expectation effects using a dynamic stochastic general equilibrium (DSGE) model, which endogenously embraces future-oriented expectations. Second, it sets an expectations shock, which reflects changes in expectation in a model, in a recent theory-based linear and additive form to ensure flexible control over a point of time of birth of expectations, the degree of their disappearance and duration. Third, it attempts to establish, in a more realistic way, macroeconomic conditions, such as interaction between economic agents in the private sector and the monetary authorities, to analyze policy effects by even taking into account expectations of the policy rate and prices, which were not covered in the existing studies based on a DSGE model.

An analysis conducted with the use of the DSGE model for the domestic

economy shows that only the birth of expectations of improved productivity can lead to an increase in consumption, employment and investment, suggesting that expectations-driven business cycles may also occur in the Korean economy. The results also show that a policy rate-expectation shock affects price variables, such as wages and stock prices, as well as real economic variables, even before the expectations even take shape. Particularly, the result shows that an inflation-expectation shock has a substantially different influence on the business situation and inflation depending on the reaction of the monetary authority. When an increase in expected inflation leads to a further price rise, an upward adjustment of interest rates may curb the price rise but at the same time dampen the economy, while an interest rate freeze can prevent an economic slowdown but not a sharp rise in prices. In other words, the result confirms that the stability of both the economy and prices are hardly to achieve under a monetary policy regime whose sole instrument is changes in the policy rate.

These results suggest that, when making policy decisions, the monetary authority needs to consider the process of the birth and realization or disappearance of economic agents' expectations so that it can implement its monetary policy effectively. As expectations too distant and detached from economic fundamentals may increase the volatility of real economic & price variables and cause unwanted economic changes, the monetary authority should closely monitor the expectations concerning the policy rates or inflation that are formed in the financial markets, and when necessary, send prompt signals so as to keep the financial markets, including the stock market, from entering the stage of irrational exuberance.

In addition, in order to convey the content and purpose of its monetary policy and gain confidence from the markets, it is necessary for the monetary authority to strengthen the transparency of the process from policy making to implementation. As a part of such efforts, it needs to develop and make good use of various communication channels that facilitate the exchanges of opinions with economic agents.