Description for the general public

The principal objective of the central banks is to maintain the stability of prices as well as helping the economy to remain on the path of the sustainable growth. The process of a sustained increase in the general price level commonly known as inflation is a widespread phenomenon in all modern economies. Empirical research suggests that the determinants of inflation vary between countries with consumer prices reacting heterogeneously to global, regional, domestic and country-specific factors. Therefore, one would suspect price-setting processes between economies to remain moderately independent. However, a simple analysis of inflation co-movements between countries reveals that in some periods the changes in the level of prices can evolve in a coordinated manner for a considerable number of economies. The principal aim of this paper is quantifying the time-varying co-movements of inflation rates between countries and identifying the sources of these fluctuations, especially in small open economies.

In the proposed empirical study in the first step I employ a dynamic conditional correlation model to assess the strength and stability of the relationship between the country's general price level developments and a global measure of inflation. Secondly, I aim to understand the reasons of the estimated fluctuations of inflation co-movements between the Polish and the euro area headline inflation with the use of a structural vector autoregression model estimated classically and in a Bayesian fashion. Having employed a structural analysis I will determine the impact of business cycle synchronization between countries, co-movements in the monetary policy conduct between central banks, volatility of exchange rates and commodity prices, global uncertainty and the openness of the economy on the correlation between the domestic inflation rate and the changes in the price level in the euro area. In the final step I aim to extend the study by estimating a panel vector autoregression model using a large macroeconomic database.

The results of the project will unravel the sources of inflation co-movements between a number of economies in the last twenty years. From the theoretical point of view, the proposed study will contribute to extending the knowledge on the determinants of the period of Great Moderation as well as the puzzling price changes in many economies present after the outburst of the great financial crisis. Apart from expanding the existing knowledge, the results may prove beneficial for the central banks responsible for the effectiveness of the conducted monetary policy. The identification of the sources of temporary co-movements of inflation is important in order to calibrate the parameters of the monetary policy accordingly.