ABSTRACT

Essays on International Currency Markets

By Tigran Poghosyan

This dissertation consists of three essays on foreign exchange risks in international financial markets and financial integration in the new EU member countries.

The first essay focuses on the determinants of foreign exchange risks in post-transition economies. Using a unique dataset on foreign and domestic currency denominated deposit rates in Armenia, we estimate excess returns on foreign exchange operations, which are free from the impact of country risk and transaction costs. The calculated excess returns are largely positive (existence of the premium for risk) and exhibit substantial variation over time. The two-currency interdependent factor affine term structure model captures the time-variability of the risk premium and predicts that the Central Bank interventions in the foreign exchange market and ratio of volumes of foreign and domestic currency denominated deposits (proxy for external shocks) are important explanatory variables driving the premium. The GARCH-in-Mean approach supports the previous conclusion and suggests that the Central Bank interventions (policy factor) are significant for the premium on the short horizon, while deposit ratios (fundamental factor) are more influential on the long horizon. It was also found that the foreign exchange risk premium accounts for the largest part of interest differential.

The second essay addresses the issue of macroeconomic sources of foreign exchange risk in the new EU member countries. The joint distribution of excess returns in the foreign exchange market and the observable macroeconomic factors is modeled using the multivariate GARCH-in-Mean model, which explicitly rules out arbitrage possibilities in the foreign exchange market. Using data from three new EU members sharing similar monetary characteristics, the Czech Republic, Hungary, and Poland, we find that the real factor plays a small role for explaining variability in foreign exchange returns in comparison to the nominal factor. In addition, the monetary factor, which is disregarded in standard C-CAPM models, has significant explanatory power, implying that monetary policy has an important effect on the behavior of exchange rates in the new EU members, and investors make use of this information in pricing contingent claims.

The third essay investigates cross-country interest rate linkages between new EU member states and Germany as a measure of financial integration. The analysis is performed using the threshold vector error-correction (TVECM) methodology with a fixed rolling window. This approach delivers a conceptually new measure of financial integration and enables us to analyze the dynamics of transaction cost estimates over time and detect any correlations with (policy induced) changes in the financial environment. Using interest rates data from different segments of financial markets (TBill, interbank, deposit, and loan) we find support for the hypothesis that transaction costs and other market frictions are diminishing over time, which implies gradual integration of financial markets.