Evaluating Feedback Links Between the Financial and Real Sectors in a Small Open Economy: The Case of the Czech Republic

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Non-technical summary

Various approaches have been employed to study the possibility of non-linear feedback links between the real and financial sector. The endogeneity of credit markets in the financial accelerator mechanism, the propagating sectoral dynamics of the liquidity channel and, for example, the relevance of the bank capital channel for a subset of (less capitalized) banks each point to the potential importance of non-linearities in applied work. We estimate a standard monetary policy model for a small open economy augmented by financial sector aggregates as a Bayesian threshold VAR. By allowing for endogenous high- and low-interest rate (accomodative) regimes, we impose greater flexibility than in the case of a linear system, so that the impact of shifts in the policy rate and the implicit non-linearities in the transmission of shocks from the financial system can be evaluated.

The study combines the information on aggregate credit and non-performing loans (NPL) in the Czech Republic over the period 2002m1–2012m3. Our results indicate that the omission of non-linearities might lead to an imprecise understanding of the interactions and transmission mechanisms between the real economy and the financial sector. Despite the absence of asymmetries in the effects of positive and negative shocks, the magnitude and, less frequently, the timing of the impulse responses differ in the standard and accommodative interest rate regimes. The uncertainty and lack of confidence in the accommodative (*low*) regime weakens the incentives for economic agents to take on loans and reduces the cyclicality of the financial sector. As the financial sector in the Czech Republic is largely bank-based and funded predominantly by domestic deposits, the direct impact of foreign factors on lending seems to be rather limited and credit volumes tend to be affected indirectly through the situation within the production sector of the economy. The responses to foreign shocks thus appear to reflect the convergence path of the Czech economy over the longer term. The complementary investigation of non-performing loans indicates that the procyclicality of NPLs in the *low* regime (represented mostly by the

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economic environment of the current crisis) is lower. The recovery from the *low* regime thus needs to be sufficiently robust to translate into lower NPLs.

While the financial sector feeds back into the real sector, the responses to credit shocks are roughly similar across regimes, with the exception of the policy reaction of the monetary authority, which is more pronounced in the *low* regime. This finding differs from the results of other studies employing the threshold VAR framework, which report asymmetric feedback from credit to the real economy. Asymmetries are nonetheless present in the responses of the real economy to shocks to NPLs, which differ in both size and timing and are probably aligned with cyclical factors.