

Box 6

New evidence on international currencies and the monetary policy trilemma

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The trilemma, or impossible trinity, is a cornerstone of international macroeconomics. Under the trilemma, policymakers can have at most two of the following three: a fixed exchange rate, free movement of capital and an independent monetary policy. The trilemma is a theoretical hypothesis that rests on the possibility of arbitrage under uncovered interest rate parity. A large body of research in international macroeconomics and finance has tested the empirical validity of the trilemma. Traditionally, the literature has confirmed its predictions, which suggests that it is an empirically valid description of the trade-offs faced by policymakers.⁶⁶

Recent research carried out by ECB staff analysing a sample of 47 advanced and emerging market economies over the period 2002-2018 confirms these findings in general.⁶⁷

Specifically, the analysis is based on the estimation of Taylor rules and explores whether changes to policy interest rates in so-called centre-countries – i.e. the United States and euro area countries – have an impact on local policy rates after controlling for fundamentals, including real-time forecasts of local inflation and GDP growth, as well as commodity prices and global risk appetite. The findings suggest that the sensitivity of local to centre-country policy rates over and above what can be explained by local fundamentals is dampened by both exchange rate flexibility and obstacles to capital flows (see the left panel of **Chart A**).

⁶⁶ See Klein, M. and Shambaugh, J., Rounding the corners of the policy trilemma: Sources of monetary policy autonomy,” *American Economic Journal: Macroeconomics*, Vol. 7(4), 2015, pp. 33-66, and references therein.

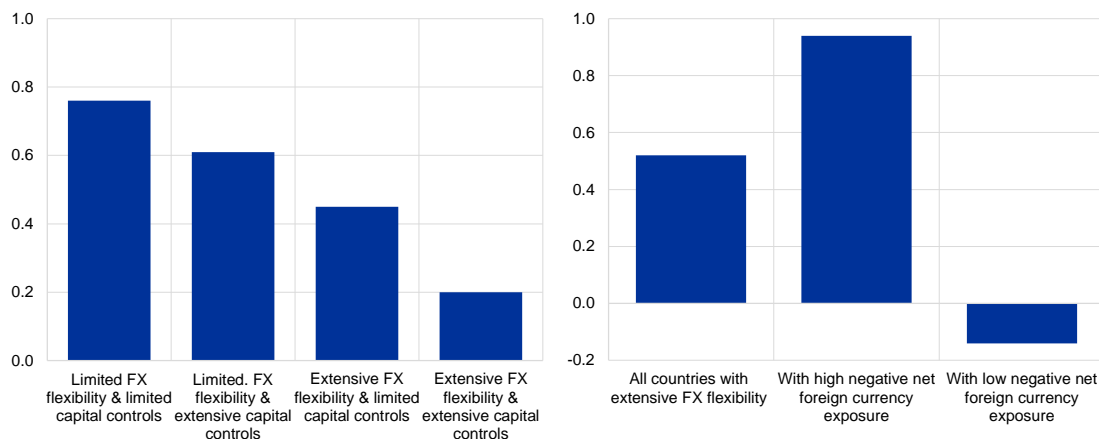
⁶⁷ See Georgiadis, G. and Zhu, F. “Monetary policy spillovers, capital controls and exchange rate flexibility, and the financial channel of exchange rates,” Working Paper Series, ECB, Frankfurt am Main, forthcoming.

Chart A

New evidence regarding the debate on the monetary policy trilemma versus the monetary policy dilemma

Sensitivity of the local to centre-country policy rate across policy configurations (left panel) and sensitivity of the local to centre-country policy rate among economies with flexible exchange rates (right panel)

(percentages)



Source: Georgiadis, G. and Zhu, F. (2019), op. cit.

Notes: The bars show the coefficient estimate of the centre-country policy rate. See Georgiadis, G. and Zhu, F. (2019), op. cit. for details on the definition of the policy configurations and net foreign currency exposures.

One particular mechanism through which the dominant role of the US dollar – and potentially the euro in the case of European economies – could have an impact on the empirical validity of the trilemma comes from the implications of foreign currency exposures on economies' external balance sheets for domestic financial stability in an economy with a flexible exchange rate regime. In such an environment, when the local currency appreciates in response to an easing of monetary policy in the centre economy, those local borrowers that have balance sheets with net short foreign currency mismatches as a result of cross-border borrowing benefit from lower perceived credit risk and increased perceived borrowing capacity. Ultimately, this sets in motion a feedback loop in which accommodative centre-country financial conditions are transmitted to local financial conditions.⁶⁸ In turn, when the local currency depreciates in response to a tightening of monetary policy in the centre economy, the feedback loop reverses and local financial conditions tighten, with potential adverse implications for local financial stability. Thus, instead of insulating local financial conditions from base-country monetary policy, the combination of flexible exchange rates and foreign currency exposures may, in fact, amplify spillovers from centre-country monetary policy. To the extent that these spillovers lead to a build-up of vulnerabilities that put at risk financial stability when global liquidity conditions become more restrictive, a local monetary policy response aimed at reducing exchange rate variations to mitigate unwelcome effects arising from this financial channel may be optimal. In other words, it may be optimal for local monetary policy to shadow centre-country monetary policy regardless of the stage of the domestic business cycle, even for those economies for which a flexible exchange rate regime in principle confers monetary policy autonomy.

Recent research analysing the sensitivity of local to centre-country policy rates in economies with flexible exchange rates and across different degrees of foreign currency exposure finds evidence to

⁶⁸ See Bruno, V. and Shin, H.-S., "Cross-border banking and global liquidity," *Review of Economic Studies*, Vol. 82(2), 2015, pp. 535-564.

support this hypothesis.⁶⁹ In particular, changes in centre-country policy rates have a stronger impact on local monetary policy in economies with large foreign currency exposures on their external balance sheets (see the right panel of **Chart A**). In line with the mechanisms discussed in recent literature, further analysis suggests that the reaction of local monetary policy is particularly strong when the local economy has foreign currency liabilities that are larger than foreign currency assets, when foreign currency exposures stem from portfolio debt and other investment items. The reaction is also particularly strong when monetary policy in the centre-country tightens, suggesting that concerns about the financial stability implications motivate local monetary policies. Overall, these findings are consistent with the view that in the presence of foreign currency exposures, it may be optimal for local monetary policy not to exploit the policy space afforded by exchange rate flexibility, but instead to stabilise the exchange rate by shadowing changes in centre-country monetary policy rates. Such developments would be observationally equivalent to those in which the trilemma had morphed into a dilemma, although flexible exchange rates continue to confer monetary autonomy in the absence of large net foreign currency exposures.

⁶⁹ See Georgiadis, G. and Zhu, F. (2019), *op. cit.*