Summary for non-specialists
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The portfolio balance effect and reserve diversification: An empirical analysis

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Since the late 90's, the macroeconomic environment of the world economy has experienced three major developments: Firstly, the large increase in the US external debt, reflecting the large increase in the current account deficit, secondly, the introduction of the euro, which increased the expectations that the new currency will become a serious rival and even surpass the dollar as the main asset in the reserve portfolios, and thirdly, the increased willingness of developing and emerging countries to buy up surplus dollars in order to limit the appreciation of their currencies against the dollar. Concerns that developing and emerging countries would diversify reserves composition away from dollar toward euro assets should only matter if the portfolio balance effect is relevant. If we assumed that the private investors were content with the existing composition of their portfolios before the shift, then the official reserve diversification will force them to adjust to the mirror image change in their asset allocation, that is, to hold more dollar assets and fewer euro assets. For private investors to accept this portfolio shift the dollar should decline against the euro and the dollar rate of return should rise, as predicted by the portfolio balance effect. If the foreign central banks' shift takes down significantly the dollar holdings, it will jeopardize the role of the dollar as a reserve currency. The impact of such official reserve diversification on private holdings of securities is equivalent to sterilized intervention in which the FED or the European Central Bank sells dollars against euro and takes actions to leave the monetary conditions unchanged.

In this study, we examine the effects of debt and intervention on the euro/dollar exchange rate. Firstly, we consider whether the portfolio balance effect, operating through the outstanding debts of US and euro area, has an impact on the exchange rate beyond the impact of the monetary fundamentals. The approach taken in testing this hypothesis controls for any signaling effects of the sterilized intervention of the FED or the European Central Bank about future monetary policies changes by focusing on the predicted exchange rate from the pure monetary model, which constitutes the null hypothesis. Under the alternative hypothesis that there exists a risk premium, any additional explanatory power should be the result of portfolio adjustments.

Secondly, we test whether the sterilized intervention of developing and emerging countries has an impact on the exchange rate through the signaling channel of the relative composition of official reserves. The foreign central banks are buying up large amounts of dollars through sterilized intervention to prevent their currencies from appreciating against the dollar and at the same time to self insure against the effects of future crises. This policy attitude may signal to the market that the large dollar holders fearful of what might happen to the value of their hoards should there be a run on the dollar will continue to accumulate dollar reserves in the future and investing the intervention proceeds in dollar assets will appreciate further the greenback.