

## 'To Be or Not to Be' a Member of an Optimum Currency Area?

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This study introduces two novel metrics for determining which countries could form a currency area (CA) - namely, the absolute net pairwise directional connectedness (ANPDC) and the pairwise connectedness index (PCI). The proposed framework investigates whether the argument stated by Mundell (1961) that countries in an optimum currency area (OCA) are faced with symmetric shocks. Symmetric shocks are analysed dynamically by examining the adjusted connectedness measures (Diebold and Yilmaz, 2014) based on the TVP-VAR algorithm of Koop and Korobilis (2014). The empirical investigation examines the pairwise exchange rate spillovers of all 14 countries that have joined (at least temporarily) the European Exchange Rate Mechanism (ERM) and Sweden. The findings of the exchange rate return and stochastic volatility connectedness measures are nearly identical which provides strong evidence of their reliability. The most dominant country in terms of net bilateral transmission is Germany, followed by the Netherlands and Austria. Net transmitters are the aforementioned countries together with Belgium, Denmark, Luxembourg, France, Ireland and Italy; however, Ireland and Italy should not join the CA according to both OCA metrics. The main findings point to the existence of two potential OCAs whereas the first and most stable one would be between Austria, Germany and the Netherlands, and the extended second OCA would further include Belgium, Denmark, France and Luxembourg. The dynamic total connectedness provides additional evidence for the reliability of the results.