

A key economic policy question for European countries today is whether or not to leave the European Monetary Union. Not surprisingly, the impact of currency unions on trade has been a major topic in International Macroeconomics in the past decade. More surprising is the large measured increase in trade due to sharing a common currency: Rose's (2000) innovative research found that currency unions (CUs) triple trade. This was followed by Glick and Rose (2002) and Barro and Tenreyro (2007), who found that CUs increase trade 2-fold and 7-fold, respectively, with many more studies finding large and significant impacts. It was these findings that Paul Krugman refers to in a New York Times magazine article early last year on the euro: "statistical analysis suggested that adopting a common currency had big effects on trade, which suggested in turn large economic gains." Krugman also noted that so far the research exclusively on the euro has shown a much smaller impact on trade than for earlier CUs. For example, Havranek's (2010) meta-analysis found a mean trade impact from the euro of just 3.8% vs. over 60% for pre-euro studies, and, in addition, he found systematic evidence of publication bias for the euro studies. Even as estimates have shrunk over time (Baldwin (2006) provides an excellent critical overview of this literature), the puzzling earlier large estimates have yet to be explained in full. Hence, a technocrat on the European periphery with an eye on the academic literature could be forgiven for fearing that leaving the euro might trigger a large decline in trade and thus welfare.

In my research, I revisit the early time series estimates for the impact of CUs on trade using a historical approach. Pre-euro estimates primarily came from exits, which is complicated by the non-random nature of the decision to leave a CU. Currency unions are intimate relationships, not unlike marriages in that they are usually meant to be forever and so unlikely to come apart for trivial reasons. Much like Tolstoy's Anna Karenina principle, these unhappy unions came apart due to multifarious factors, which were likely to have adversely affected trade. These include wars, coup d'etats, communist takeovers, ethnic cleansing episodes, and severe recessions. A case in point is India and Pakistan: trade declined sharply after the 1965 currency union dissolution, but an obvious factor in the trade decline was the brutal border war that erupted in the same year. Similar cases abound -- Tanzania and Uganda ended their CU amidst the Liberation War resulting in the overthrow of Ugandan dictator Idi Amin.

The more interesting piece of the puzzle's solution is that many of the currency dissolutions in the early research were between countries and their former colonizers. Colonial trade relationships have been observed to decay slowly after independence, which Head, Mayer, and Ries (2010) argue indicates the existence of some kind of trading capital which depreciates slowly. In a thoroughly underappreciated contribution, Eichengreen and Irwin (1998) show that shocks to trade patterns, such as from the world wars, have long-lasting effects -- path dependence with decay. Standard estimates of CU impacts on trade employed a static conception of the gravity equation for trade whereby bilateral trade was thought to be a function of bilateral GDP and contemporaneous trade costs, including distance. References to new trade theory, based on increasing returns, are often given to justify the gravity equation (although the foundations are in fact more general). A common feature of increasing returns is the existence of sunk costs of some sort, such as the costs to build a factory but which can also be market-specific. Sunk entry costs, such as those found in the widely-used Melitz (2003) model, would imply a dynamic gravity equation, wherein trade is a function of bilateral GDP, trade costs, and the past history of trade costs. This dynamic relationship better describes the findings of Head, Mayer, and Ries (2010) and Eichengreen and Irwin (1998). And, indeed, sunk cost hysteresis was very much on the minds of the progenitors of increasing returns and new trade theory in the 1980s, with Dixit, Krugman, and Baldwin all weighing in with multiple contributions, as it seemed also to describe quite well the US experience with manufacturing in that decade (as it does more recently).

I found that controlling for the slow decaying of colonial trade ties eliminates the large measured impact of currency unions on trade for the UK colonial sample completely. This can be seen from the graph below plotting the coefficients by year from a gravity regression for former UK colonies vs. countries which formerly used the Sterling, many of whom left after the Sterling crisis of the 1960s. A coefficient of 1.5 indicates that countries which used Sterling in 1950 traded 3.48 ($=\exp(1.5)-1$) times

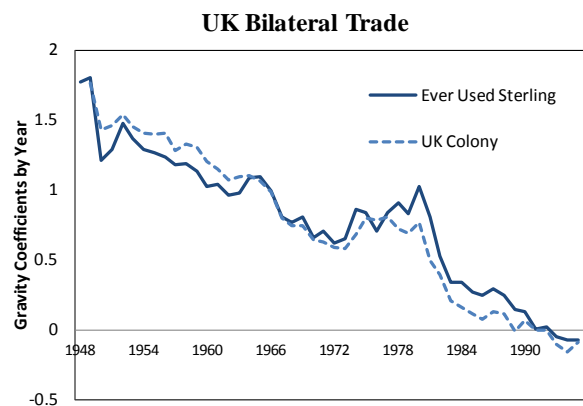
more than this same group of countries did in the 1990s, all else equal. Overall, controlling for country-pair trends, clustering the errors, and removing observations such as India-Pakistan from the sample, I arrived at a small, insignificant negative estimate for the impact of CUs on trade. My findings match the recent work on the euro, and historical estimates from the classic gold standard era, when even Keynes feared that leaving the gold standard might reduce trade. *E.g.*, the time series estimates with country-pair and year fixed effects by Meissner and Lopez-Cordova (2003) and interwar estimates by Ritschl and Wolf (2011) suggest no statistically significant trade-inducing effects of moving to fixed currency arrangements.

Macroeconomists may not be able to do randomized controlled trials, but economic history can always be mined to test theories out of sample and in this case to provide a guide as to what typically happens when currency unions dissolve. My findings suggest that decision-makers in Europe should not necessarily expect any large negative trade effect from leaving the euro, and should base their calculus around other considerations. Economic history tells us much more: CU exits do not generally lead to any rise in instability or trigger declines in GDP (Rose, 2007). Overvalued exchange rates have not been good for growth (Rodrik 2008, Di Nino *et al.* 2011). The similarity of the euro with the gold standard straitjacket which exacerbated the Great Depression is readily apparent (Eichengreen and Temin, 2010), with one key difference being that the ECB controls the supply of euros and has a clear choice whether or not to continue crucifying Europe on a cross of ever-lower inflation. (While the core inflation rate over the past 12 months ending in November was 2.2%, this was driven in part by VAT increases. The GDP deflator in the euro area has risen just 1.3% over the past year and has remained below 1.5% annually since early 2009, well below the 2000-2007 average of 2.2%, and even supposed economic star Germany has grown slowly.) While economists have not documented any measurable benefits to 1% vs. 2% inflation, prolonged periods of mass unemployment have been linked to higher suicide rates, to massive fiscal deficits now threatening to unwind Europe's social safety net, and to the rise of extremist political parties as incumbents are discredited.

Another lesson comes from the slow observed decay of UK colonial trade and the findings of Eichengreen and Irwin (1998) that trade relationships are the product of history. Countries in the European periphery today are running current account deficits despite severely depressed economies -- telltale signs that these countries need currency adjustment after a decade of capital inflows led to relative increases in prices and wages versus their trading partners. Chen *et al.* (2012) and others have documented a correlation between real exchange rate appreciation and declines in net exports in Euro-area countries. If history is any guide, then the effects of the suffering in the European periphery today due to an overvalued exchange rate and the disinflationary policies of the ECB will be long-lasting, the negative consequences of choosing to sail thru the storm felt long after the sea is flat.

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