Comments on *Optimal Currency Areas*

by Alesina, Barro, and Tenreyro

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What's Here

Currency unions are all the rage in international policy circles these days. But suppose a country – say Argentina (the usual crisis de jour) – decides that it needs to adopt a foreign currency. Which one should it pick? Alesina, Barro and Tenreyro provide the methodology, or at least most of it, to answer this important and interesting question.

Their methodology is reasonable in a number of aspects. First, it is based on solid but standard theory. Second, it seems to yield mostly sensible results in practice. And third, the authors deal with the endogeneity issue carefully; that is, the potential *ex post* effect of currency union itself on the criteria used to judge the *ex ante* desirability of currency union. They focus on three key issues: 1) the benefits from enhanced international trade that currency unions bring; 2) the low inflation that clients get from joining a currency union with a low-inflation anchor; and 3) the potential effects of currency union on price and output co-movements, which

represent the cost of more imperfectly stabilized business cycles. All this I find eminently plausible and valuable.

What's Not

All modeling relies on abstraction and this paper is no exception. There are some omissions which have been made deliberately but which may affect the results in practice. In particular, there are at least four potentially important issues that are absent from the analysis of Alesina, Barro and Tenreyro. Least important is the fact that the authors do not consider the issue of factor mobility. Labor mobility in practice is glacial both within-country and across-countries for most of the world. Thus it is generally not considered as a response to the sorts of business cycle shocks that monetary policy might handle (outside a currency union, that is). Still, homage to Mundell's original idea is appropriate for a paper with this title!

A slightly more important consideration is the fact that monetary sovereignty is fiscal policy of last resort. Any country with its own country retains the option of monetizing its national debt. This issue has not attracted much attention in the literature but is clearly important for a number of the Latin countries that the authors are most interested in.

A more important omission is the issue of insurance. Regions (whether countries or areas within countries) may be insulated from idiosyncratic productivity shocks with an appropriate insurance system. At least two are widely considered to be important: a federal system of taxes and transfers of the type that we usually see within countries; and the private exchange of financial claims. Growing international financial integration may alleviate the costs of national business cycles, especially if currency union spurs financial integration. I expect this issue to grow in importance over time, and I encourage the authors to pursue it.

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The most striking issue is the intentional avoidance of financial issues such as liquidity, bailouts, moral hazard, corporate finance and banking issues, and the lender of last resort. As the authors show, there is no clear reason why Argentina and Brazil are part of the dollar block, if one does not consideration the level of financial integration. Yet these countries are clearly members of the dollar zone, presumably because of their strong financial ties with the United States. Indeed these issues have obsessed much of the recent literature on currency unions, mostly on a theoretical basis only. I would be more comfortable with the generality of the results here if they had considered financial issues.

What's the Question?

The results are mostly quite sensible. Using the criteria of inflation, trade, and price- and output co-movements, the authors find well-defined dollar and euro areas, although a few countries fall between the cracks. Their most striking result is that there is little evidence of any yen zone. Fine. But at least two issues arise immediately. The first is that there is no obvious way to weigh the various criteria when the latter disagree about which currency union to join. What should be done when the criteria give conflicting signals, as they do in certain important cases such as Brazil?

Even more important is the question itself. Usually the issue is not *which* currency union to join but *whether* to join. Countries like Denmark, Sweden, and the UK know that the issue is whether or not to join EMU. Similarly for Argentina, Canada, and Mexico who are (at least vaguely) considering dollarization. The big payoff in this literature will be a methodology which allows a country to decide in practice, on the basis of quantitative economic criteria, when it

makes sense for a country to join or not. Alesina et al. have certainly made progress on this issue, but the work has not yet been finished.

What's Up?

While I believe most of the results in this paper, some are more plausible than others. The authors find larger effects than others (like me) have found in the nexus of price co-movements, and smaller than those of others on business cycle co-movements. Fair enough; they use a new methodology and a better dependent variable. Their results become the new target.

But speaking of targets, I cannot resist emphasizing the estimated effects of currency union on trade that the authors tabulate in Table 10. These are large compared to those in the literature (summarized in Table 8). But mostly they are just large. Enormous, in fact. The (preferred) instrumental variable estimates are 1.56 (without country effects) and 2.70 (with them); both are statistically significant. They are even higher using a stricter version of currency unions, as note 30 shows. Even the smallest estimate of 1.56 implies that currency union is associated with extra trade to the tune of 475% (since $4.75 \sim \exp(1.56)$). My original estimate that currency union tripled trade seems positively moderate by comparison.

What's More

The authors pursue their analysis as if currency unions are all unilateral; a client country adopts the currency of a large anchor, or not. But in fact there are a number of multilateral currency unions, such as the East Caribbean Currency Area and the CFA franc zones in Africa. These exist without any clear center country, though both are moored externally via exchange

rate pegs. Above and beyond those of small countries considering joining G-3 currencies, it would be nice to extend the analysis of Alesina et. al. to multilateral currency unions. This is especially important for Latin countries, Africans, and the Gulf states. The benefits of regional currency unions are likely to be at least as high as any involving the G-3, at least in terms of trade integration, price and output co-movements.

But do multilateral currency unions have as much monetary discipline as unilateral currency unions based on G-3 countries? Yes. In practice inflation for ECCA and the CFA averaged 6.7% between 1960-1996, while inflation for unilateral CU joiners was significantly higher at 8.9%. I conclude multilateral currency unions are certainly worthy of more research.

What's Down

The most innovative contribution of this work is its exploitation of the new instrumental variable developed by Tenreyro. This allows the authors in principle to estimate the effect of currency union on phenomena like trade, taking into account the potential for measurement error, reverse causality, and the like. As the authors realize, this instrument requires that bilateral trade between countries i and j depends on bilateral gravity variables for i and j but not on gravity variables involving third countries. Is this a legitimate assumption to make?

Not generally. A number of authors include *remoteness* in trade equations. Remoteness is usually measured as the (inverse of) distance-weighted GDP, so that New Zealand is usually the most remote country, Luxembourg the least remote. Remoteness violates the identifying assumption made in the paper.

Above and beyond remoteness, the instrumental variable seems a little fishy, since it is almost a combination of variables that are already in the equation. To use the example of the

paper, Ecuador and El Salvador speak a common language and are therefore more likely to be in a currency union, as is clear from Table 9. That is, the two countries are "close" to each other directly and engage in more trade. They will also both be "far" from anchors who do not speak Spanish. This makes me somewhat uncomfortable with the instrumental variable. This is especially true in the context of multilateral currency unions, where no obvious anchor exists.[1] Further, there are a number of odd coefficients in Table 9 in any case, which shows that contiguous countries and countries in a common regional trade agreement are less likely to be in a currency union, somewhat contrary to (at least EMU-based) intuition.

What's Good

Mine are essentially petty grievances; mostly requests for even more work. Alesina, Barro and Tenreyro have made progress on an important and interesting topic, and I look forward to more of their research.

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[1] The fact that the procedure seems intuitively more plausible for unilateral than multilateral currency unions may explain why the authors make some implausible assumptions about multilateral currency unions. The CFA was never really in a currency union with France. They were pegged to the Franc at 50 per franc before the 1994 devaluation to 100 (except for Comoros). And the ECCA was not in currency union with the US; rather they are pegged at 2.7/$ (and were pegged at 4.8 per pound before 1976).