



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

## Friends Without Benefits?

### Citation for published version:

Zymek, R & Mika, A 2016, Friends Without Benefits? New EMU Members and the "Euro Effect" on Trade. Edinburgh School of Economics Focus Paper Series.

### Link:

[Link to publication record in Edinburgh Research Explorer](#)

### Document Version:

Publisher's PDF, also known as Version of record

### General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

### Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact [openaccess@ed.ac.uk](mailto:openaccess@ed.ac.uk) providing details, and we will remove access to the work immediately and investigate your claim.



# School of Economics

# FOCUS PAPER

## Friends Without Benefits?

### New EMU Members and the “Euro Effect” on Trade

by Robert Zymek and Alina Mika

Despite the euro’s recent woes, Eurozone membership has expanded considerably since 2007, with seven new members joining the currency union. The Eurozone’s eastward expansion is expected to continue, and encompass at least seven more countries.

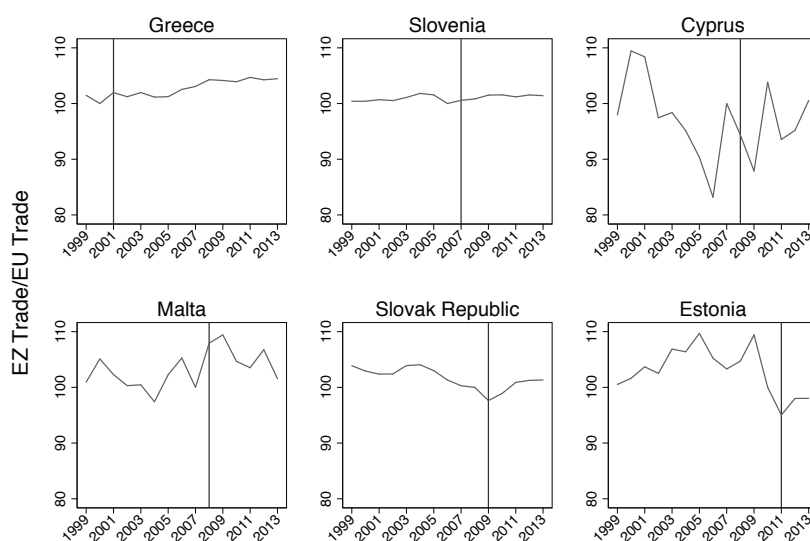
It is easy to see how a common currency area could encourage trade between countries. The elimination of trade costs and exchange rate uncertainty are frequently argued to spur greater trade integration. Has the Eurozone brought about increases in trade volumes among its members? We will use this column to answer this question based on findings from our recent working paper.

#### Some context

Early empirical studies on the so-called “euro effect” suggest that there is a significant trade benefit to being a member of the Eurozone. A number of widely cited analyses, based on pre-2002 data, suggested that the euro had boosted trade between Eurozone members by 5-15% on average. (Micco et al., 2003; Baldwin and Taglioni, 2007)

Were these initial estimates of the euro effect a good predictor of the trade gains reaped by later additions to the Eurozone? The answer appears to be no. Using a dataset of bilateral trade flows between

**Increased trade integration is considered one of the economic benefits of joining European Monetary Union (EMU). The analysis of trade effects of currency unions peaked around the time of the introduction of the euro in the early 2000s. For this reason, we revisited the evidence on the effect of the euro on trade, focusing on countries which joined the currency area in recent years. While there may be an array of benefits stemming from Eurozone membership, our findings suggest that Eurozone accession is not likely to bring about a significant trade boost.**



EZ/EU refers to euro/EU members as of 1999. Year prior to euro accession (vertical line) used as base.

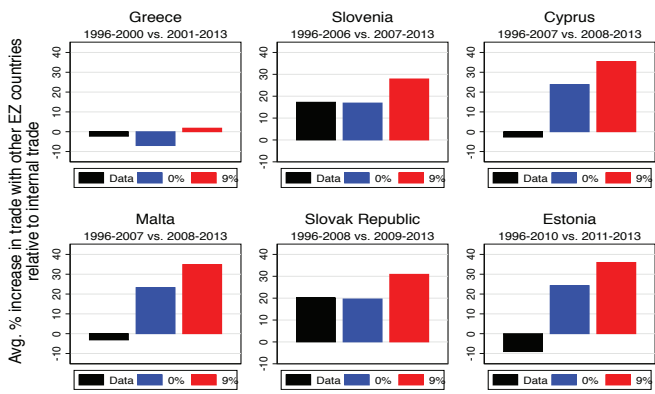
FIGURE 1 (trade post euro introduction)

153 countries in the years 1992 and 2013, we re-estimated the euro effect for both early and late euro joiners. We concluded that there is no statistically significant benefit of Eurozone membership on bilateral trade for either group.

#### Does trade increase as a result of Eurozone membership?

Figure 1 provides a graphical preview of our results. For all countries which joined the euro between 2002 and 2013, we plotted the value of trade with the original euro members as a share of the value of trade with all EU countries. The year prior to their accession is used as the base year, and their





EZ refers to euro members as of 1999.

FIGURE 2 (forecasts)

accession year is marked with a vertical line. Estimates from earlier studies would lead us to expect an increase in trade flows of 5-15% with euro countries upon accession, holding everything else constant. In the figure, there is no systematic evidence of such a rise in countries' trade flows with the core Eurozone – relative to the wider EU – following their adoption of the euro.

Estimates from an appropriately specified and estimated gravity equation formally confirm the conclusions of this graphical exercise. In fact, we find that there is no statistically significant euro effect for members of the original euro club (e.g. Germany, France), or for late Eurozone joiners (e.g. Cyprus, Slovenia). We suggest that earlier estimates appear to have been upward-biased largely because they were derived from log-linearised gravity equations estimated by Ordinary Least Squares. (Santos Silva and Tenreyro, 2006)

### How can we predict future joiners' trade following Eurozone accession?

When performing pseudo-out-of-sample forecasts, we found that the assumption of no-euro-effect is a good predictor of trade flows in the wake of euro adoption. This assumption more accurately predicts post-accession trade of late Eurozone joiners than the assumption of a statistically significant and positive effect of 9%, mid-way in the range of earlier estimates.

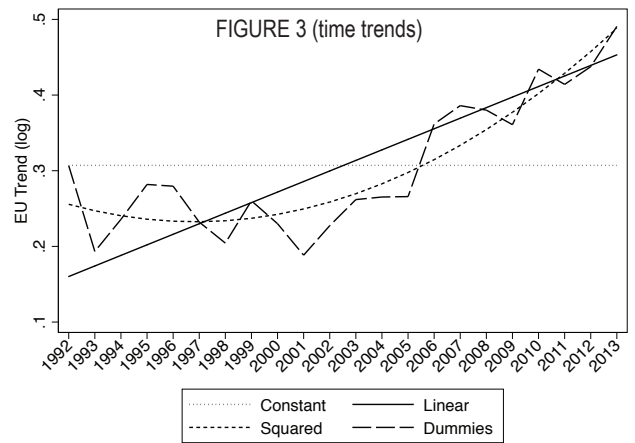
Figure 2 shows the average change in trade flows relative to internal trade, for each of the six recent euro adopters with the ten early euro adopters. The black bar shows trade as in the data, the blue bar is the forecast under the assumption of no-euro-effect, and the red bar is the forecast under the assumption of a 9% euro effect.

It is easy to see from the figure that the expectation of no-euro-effect results in a more accurate forecast of the average change in trade flows, than the expectation of a significant and positive effect. From a policy perspective this is important, as it implies that countries on course to joining the Eurozone should not expect large trade gains from the introduction of the euro, based on the experience of their predecessors.

### Increases in intra-EU trade flows rose more than global average 2002-2013

This does not mean that our findings spell only doom and gloom for the European integration project. Overall, we find that the effect of European integration efforts on trade has been positive and marked over time.

Linear, quadratic and dummy specifications of time effects of European integration in our gravity regressions all point towards a large increase in intra-EU trade flows of 27-30% relative to the global average, between 1992 and 2013. The quadratic and dummy specifications suggest that this



increase only manifested itself in the latter third of this period, with no – or negative – EU-specific trade growth between 1992 and the early 2000s. The four different EU trends implied by the four different specifications are plotted in Figure 3.

### Conclusions and policy relevance

The debate on the economic costs and benefits of euro adoption is alive and well in both current and prospective members of the euro club. There may be a host of political and economic reasons why any one of these countries may wish to join the euro. In fact, there are trade benefits to being a member of the European project, manifested by the high rate of growth of trade among European Union countries over time. However, based on the best evidence available to date, we do not believe that increased trade integration with the Eurozone should be considered one of the likely benefits of joining EMU.

### References

Baldwin, R. and Taglioni, D. (2007). "Trade effects of the euro: a comparison of estimators," *Journal of Economic Integration*, 22:780–818.

Micco, A., Stein, E., Ordoñez, G., Midelfart, K. H., and Viaene, J.-M. (2003). "The currency union effect on trade: early evidence from EMU," *Economic Policy*, 18(37):315–356.

Mika, A., and Zymek, R. (2016), "Friends without benefits? New EMU members and the 'euro effect' on trade," ESE Discussion Paper 269, University of Edinburgh.

Santos Silva, J. and Tenreyro, S. (2006). "The log of gravity," *The Review of Economics and Statistics*, 88(4):641–658.