

Felbermayr, Gabriel and Marina Steininger (2019), “Revisiting the Euro’s Trade Cost and Welfare Effects”, *Journal of Economics and Statistics* 239 (5–6): 917-956.

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The article by Felbermayr and Steininger analyses the effects the EMU (and thus the Euro) had not only on trade in the EU, but also on real per capita income (described as ‘welfare effects’ in the title). Using sectoral trade data for 34 goods and service sectors from 1995 to 2014, and applying a structural gravity model, the authors were able to reveal that internal trade in goods increased, on average, by eight percent in the EU as a result of the economic and monetary union. While the effects on trade in goods were significant, they were much less pronounced for trade in services. What is common among all countries, however, is that the economic and monetary union has led to higher real income across the board, in all EMU countries. Unsurprisingly, there is a pronounced difference among the member states. What is surprising, however, is, that, on a per capita basis, it is not Germany that has benefitted the most from the economic and monetary union – as often proclaimed by Eurosceptics – but countries like Luxembourg. While real income rose by 0.6 percent in Germany due to the EMU, this figure was 3.5 times higher in Luxembourg, showing an impressive growth of 2.1 percent. In terms of real income growth, Germany is not only far behind smaller centrally located EU countries such as Luxembourg, Belgium (+1.43% real income) and the Netherlands (+1.16), but is below average, with only six of the remaining 18 Eurozone member states having experienced smaller growth figures. Even peripheral countries that have suffered tremendously from the Eurozone crisis, such as Portugal, reveal a higher real income growth than Germany.

Similarly, Germany also does not take the lead in real GDP growth attributable to the single currency. Felbermayr and Steininger’s data suggest that real GDP would have been 0.6 percent lower in Germany in 2014 had it not joined the EMU. Similar to the aforementioned real wage increases, this is significantly lower than in Belgium or Luxembourg, where EMU membership increased real GDP by 1.4 and 2.1 percent, respectively.

While differences in real GDP growth due to the currency union exist, it should be highlighted that all EMU members experienced both a rise in real GDP and in real income that can be attributed to EMU membership. Much of these gains come from lower transaction costs and an increase in trade volume among the member states, partially from trade diversion with non-EU states, and partially from an increase in existing intra-EU trade. Yet, despite the aforementioned trade diversion from non-EMU countries, even EU members that did not join the Eurozone could see some welfare gains, albeit on a much lower level.

The second surprising finding of the study was that while trade-related transaction costs, on average, decreased significantly, this was not true to the same

extent for outward and inward trade costs. The authors discuss this at the example of Germany, where “outward trade costs of Germany have fallen quite substantially” while inward trade costs did not decrease significantly.

The third unexpected result of the study was that the increase in trade levels did not only vary significantly among the EMU countries, but that there were strong disparities in trade growth among the ‘old’ EMU countries (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain) and the ‘new’ ones (Greece, Slovenia, Malta, Cyprus, Slovakia, Estonia, Latvia, Lithuania). Even accounting for the fact that the Euro was introduced much later in the ‘new’ EMU countries, a factor that limited trade growth as compared to the ‘old’ EMU countries, the differences are stark. In several cases, trade between old and new EMU states even *decreased* significantly between 1995 and 2014. This can be highlighted at the example of Germany, Europe’s biggest trading nation. While German trade with old Eurozone members increased by 13.8 percent in goods and by 7.2 percent in services due to the EMU, it decreased by double-digit figures with the new EMU member states both in goods (manufacturing sector) and services (by -11.5% and 10.5%, respectively). In other words, while German trade with old EMU member states show a statistically significant increase in both goods and services, trade with Germany’s eastern neighbors using the Euro decreased due to the currency union. This is not only true for German exports, but also for imports from the new EMU member states. According to the authors’ model, this is because transaction costs in trade between Germany and the new EMU members did not decrease, as well as because trade diversion to the old EMU member states had taken place before countries in Eastern Europe joined the Euro.

Felbermayr and Steininger’s paper is highly interesting in many respects and the authors reveal several counter-intuitive findings, as presented above. While the Euro is mostly portrayed as having enhanced trade among the Eurozone members in many academic papers and official publications by the European Commission, Felbermayr and Steininger’s account is more balanced, highlighting not only that not all countries benefitted equally from their Eurozone membership, but also that only a handful of industries experienced a rise in trade, while numerous others – not only the service industry, but also most non-manufacturing industries – did not experience a significant increase in trade, at least not in the case of Germany.

The fact that trade between numerous old EMU member states and the new Eurozone members did not increase for several countries, however, does not mean that the new members of the currency union did not benefit from it. This is highlighted by the authors, who argue that the “formation of EMU strengthened the region in terms of purchasing power, which led to an increase of imports from the non-EMU members”. They also show that especially the Baltic states, in particular Estonia, experienced a considerable increase in real income through the Euro – although Estonia had only been a Eurozone member for three years in 2014.

Despite its generally solid research design, the study has a major shortcoming: the time period analysed in the paper. Looking at bilateral sectoral trade data from 1995 to 2014, the results do not take into account most of the developments after the Euro

was introduced in several new EMU states. Latvia and Lithuania, for example, only introduced the EURO in 2014 and 2015, respectively. This late timing renders it hard to adequately reflect the effects the introduction of the Euro had on trade with other currency union members. Such different timing in regard to the Euro introduction, which spans from 1999 (when Austria, Belgium, Finland, France, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain joined the Eurozone) and 2015, when Lithuania became the last EMU member, distorts the effects the EMU had on trade in the EU. While the authors take the different timing of EMU accession into account through dummy variables “accounting for membership in the EU, the Schengen Area or other regional trade agreements”, it would have been advisable to extend the time period analysed in this paper as to better reflect the actual changes in trade after the EMU accession of the Baltic states.

Another point that could be improved is the grouping of the EMU member states, especially in regard to Greece, which was classified as ‘new’ EMU state. While Greece could not move to Stage Three (the irrevocable fixing of the exchange rate between national currencies and the Euro) in 1999 for not meeting the convergence criteria, it joined the Euro area only two years later, in 2001, and introduced the Euro as actual currency on 1 January 2002, together with 11 other EU15 members. Considering that Greece became a member of Stage One and Stage Two together with all other 14 EU15 countries, and only had Stage Three delayed by two years, it would make more sense to group Greece into the old EMU countries rather than considering it a new EMU country, where some countries only joined the Eurozone 14 years after Greece.

Lastly, it would have been desirable to have more information on why trade among many old and new EMU countries decreased. While the authors point out that, for example, trade between Germany and the new Eurozone member states significantly decreased (-11.5% in manufacturing sectors, and -10.5% in services sectors), the reasons are not expressed clearly. The reader is thus left in the dark whether this was due to trade diversion towards old EMU countries or non-EMU states, or whether there are other explanations. It is also unclear why trade in manufacturing between Germany and the new EMU members decreased in some areas but not in others.

Despite these shortcomings, Felbermayr and Steininger’s paper is highly interesting – in some respect, even eye-opening – and methodologically convincing. Rather than focusing on the monetary effects of the Euro and its macroeconomic consequences, it provides a much-needed analysis of how the currency union has increased real GDP in its member states. Contrasting the observed baseline from 2014 with a counterfactual situation without the Euro, they were able to prove that all EMU member states – even those who joined later and those who suffered the most during the Eurozone crisis – benefitted from the Euro in terms of higher real per capita income and GDP, showing the “‘real’ effects of the common currency”, so the authors.

Even with the heterogeneity between different sectors and countries, the finding that all EMU member states (no matter whether old or new, small or big), benefitted from the Euro in terms of welfare effects, is highly important as it contradicts two major

claims that have been on the rise since the Eurozone crisis. Firstly, it provides evidence that also countries in the South, such as Greece, Spain, Portugal or Italy, which experienced a significant decline in GDP during the Eurozone crisis, overall had their welfare (real per capita income) increased through the single currency. Second, it denounces claims that the Euro predominantly benefitted Germany, often at the expense of smaller EU member states, as the data clearly highlight the opposite, revealing that Germany's gains in terms of real GDP and real income were below average, below those of most smaller EMU nations in central or eastern Europe.

The data the authors generate through their structural gravity modeling plays a major role in helping citizens, politicians and academics discuss the Euro from a more balanced perspective and could be used to remind everyone, especially the Eurosceptics, that the EMU has increased people's average purchasing power in all member states, thereby strengthening the region and often improving peoples' lives. It is a much-needed paper in current times, where both the EU and the Eurozone has been assessed increasingly negatively in light of its assumed 'failures' and can provide impetus for analysis on how to further decrease transaction costs in intra-EMU trade.