



RESEARCH BULLETIN NO. 48

Fiscal transfers without moral hazard?

11 July 2018

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We present a euro area central stabilisation scheme that is relatively free from adverse incentives (moral hazard), because transfer payments to Member States are based on changes in world trade in the various economic sectors. Indeed, these changes are largely driven by external forces and therefore not directly controlled by individual governments or countries. The transfers generated by our scheme tend to be temporary, countercyclical and larger when economies are less diversified. Finally, the scheme is quite robust to revisions in the underlying export data.

Central bankers and other interested parties are continually monitoring the performance of the European Economic and Monetary Union (EMU) and looking for ways to improve its functioning. Recently, proposals for reform have focused on ways to help compensate for sudden and drastic declines in economic activity that a euro area country might suffer. The need for such a “central stabilisation capacity” was already highlighted in the “Five Presidents’ Report” (Juncker et al., 2015). Indeed, a concrete, but very limited, stabilisation plan was proposed earlier this year by the European Commission (2018). A central stabilisation capacity would help cushion country-specific economic shocks, especially during periods of economic stress, when automatic stabilisation of the economy through the national public budget is insufficient and private-sector channels for sharing risks with other countries break down.

A central stabilisation capacity for the EMU based on world trade

We will describe here our own proposed plan for a stabilisation capacity. The plan was first detailed in a recent ECB working paper (Beetsma et al., 2018). Our proposal is a novel “export-based stabilisation capacity” (ESC) for the EMU. To the best of our knowledge, it is the first to propose cross-border transfer payments in response to changes in world market conditions in the various export sectors. These changes are largely driven by external forces and therefore not directly controlled by individual governments or countries. Our ESC works in a very simple and intuitive way: if world trade in a specific sector falls, as reflected in total euro area exports in that sector, then euro area members for which this sector is relatively large receive a transfer from the members for which this sector is smaller.

The way in which the scheme would work can be illustrated with a simple example. Suppose that there are only two countries – let’s say, country A and country B – with shares of total euro area exports of, respectively, 90% and 10%. Additionally, suppose that only one sector, such as tourism (i.e. hotels and restaurants), is hit by a *negative* shock at the worldwide level, and that country B is relatively more specialised in that sector than country A (e.g. with a share of 20% of total euro area exports for that sector). Then, given that country B is relatively more exposed to that sector, it would receive a one-off transfer from country A following the negative shock to that sector. Conversely, if a *positive* shock to the tourism sector occurs, country B would pay a transfer to country A. At the same time, if a negative shock were to hit another sector (say, the automotive industry), in which country A is relatively more specialised, that country would receive a one-off transfer from country B.

The proposed ESC has a number of desirable features that are not all present in other proposals. First, and most importantly, the transfers generated by the scheme respond to exogenous developments in world trade. As such, the scheme is relatively free from what economists call “moral hazard,” because it

would not weaken the incentives of governments to run virtuous fiscal policies and implement reforms that improve the functioning of the markets. This, in turn, should help reduce political resistance to the introduction of the scheme. Second, since it is based on *changes* in world trade in individual sectors, there can be no permanent transfers to or from an individual country: a new transfer can be obtained only in response to a further decline in world trade, while an expansion in the same sector leads to a transfer into the opposite direction. There is a natural bound to the accumulation of transfers, because world trade in a specific sector cannot fall below zero. Third, the scheme does not rely on a long-run process of convergence of economic structures that would, for example, equalise structural unemployment in the euro area before it can be implemented. Fourth, the scheme is designed such that in each period all the cross-border transfers add up to zero, avoiding the need to issue bonds to finance the scheme.

Simulations for the euro area for the years 1996-2014

So, how well might our proposed scheme work? Would it stabilise the EU economy? In short, yes – albeit a qualified yes.

To answer those questions, we performed a simulation of the ESC using OECD sectoral export data for all 19 euro area countries for the years 1996-2014. Figure 1 depicts the simulated annual transfer for each year as a share of GDP for the same year (solid blue line, left-hand scale). In addition, the figure plots the cumulative transfers (dashed grey line, right-hand scale). For the sake of space, here we report only the results for a subset of euro area countries: the “big-5^[2]” plus the countries that – in addition to Spain – received financial assistance during the recent global crisis: Greece, Portugal, Ireland and Cyprus.^[3]

Figure 1 shows that annual transfers are generally “countercyclical,” meaning that they increase when the economy underperforms and decline when the economy outperforms. This is the case, for example, for Germany, which is a big receiver of transfers in 2008-09. These years were characterised by large and negative shocks in those sectors, such as motor vehicles and machinery, in which Germany is relatively more specialised. However, in most years Germany would have been a net contributor to the transfer scheme, which explains why cumulatively transfers are around zero for Germany at the end of the sample. Countries less exposed to those sectors, notably France and the Netherlands, would have needed to contribute to the scheme in the early years of the crisis.

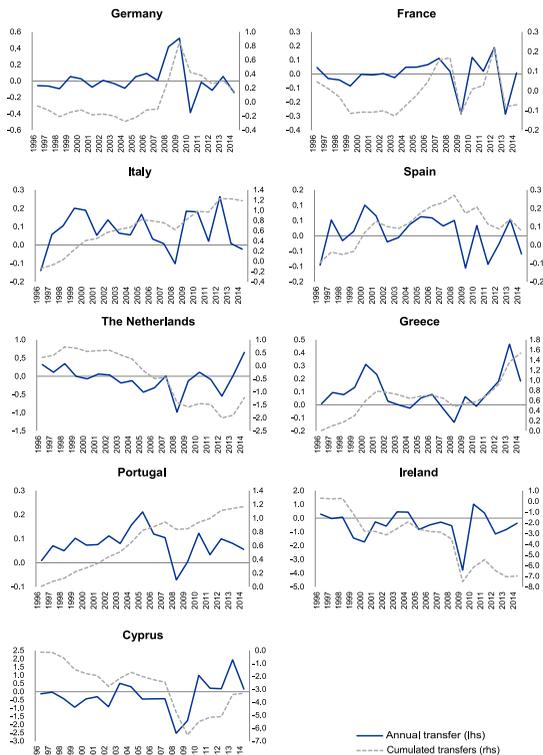
Although transfers are generally countercyclical, they are not always so. Sometimes they are procyclical.^[4] The procyclicality of the scheme in some years and for a few countries is a direct consequence of the fact that the transfers to all the individual countries add up to zero in each year. Accordingly, those countries that are relatively less exposed to the negative sectoral shock would need to contribute to the scheme even if their economy is in recession.^[5]

Annual transfers are on average small, amounting in most cases to less than 0.2% of GDP. However, for the smaller, less diversified economies they can be substantial from time to time and political feasibility may require a cap on them. Further, transfers generally revert to zero or go from positive to negative after one or two years. This is a direct consequence of the design of the transfer scheme, where transfers depend on the *changes* in exports for a given sector relative to other sectors, which cannot be permanently positive or negative. However, in some cases, cumulated transfers show a tendency to increase (or decline) over time. This is linked to the relative sectoral specialisation of each country. For instance, Italy, Portugal and Greece were relatively less specialised in sectors that grew strongly over the sample, such as “Motor vehicles, trailers and semi-trailers”. Therefore, they would have received transfers from countries more specialised in this and other sectors that benefitted from positive trade developments at the worldwide level. The export performance of the “Finance and insurance” sector boomed in many years, so Ireland would have been a net contributor to the scheme in several years in our sample. However, these transfers are by definition temporary, as a sector cannot grow or decline forever: consequently, at some point the pattern of transfers would reverse. This is clearly visible, for example, in the case of the Netherlands.^[6]

In sum, our ESC, as we set it up in our simulation, would work fairly well, as it would do quite a bit to stabilise the economy.^[7] What if we changed, however, certain details of our simulation? For example, what if we put an annual cap on transfers? Or what if not all income loss from adverse shocks is compensated, but only the labour income loss or only losses from tax revenues associated with income loss? What if transfers are based only on deviations from an existing trend in sectoral export growth? Would the scheme still work as well? We find that it still would.^[8] Furthermore, because in practice transfers would need to be based on preliminary export figures, we also simulate the scheme under the

assumption that these figures may undergo subsequent revision. Again, the pattern of transfers turns out to be generally the same.

Figure 1: Annual and cumulated net transfers implied by the baseline scheme, in percent of the country's GDP



Note: The figure plots the annual (solid blue line, left-hand scale) and cumulated (dashed grey line, right-hand scale) transfers generated by the scheme. Transfers are calculated using data from the OECD TiVA database. Positive numbers mean that a country receives a payment from the scheme; negative numbers mean that a country contributes to the scheme.

Taking stock and practical implementation

Of course, describing a transfer scheme is one thing, actually implementing it is another. Our scheme is no exception. The biggest practical obstacle to implementing it is the timely availability of the data that serve as input for the calculation of the transfers. This is in particular the case for data on sectoral exports. However, once governments and statistical agencies become sufficiently convinced of the practical need for more timely availability of such data, they may actually invest more resources in making those data available. Another issue, not addressed here, concerns how transfers received by governments should be put to best use. For example, it could be politically appealing to earmark them for relief and training programs for individuals who are badly affected by external shocks, thereby helping economies transition towards activities with a more prosperous future.

References

Beetsma, R., Cima, S. and Cimadomo, J. (2018), "> A minimal moral hazard central stabilisation capacity for the EMU based on world trade", *Working Paper Series*, No 2137, ECB, Frankfurt am Main, March.

European Commission (2018), "A Modern Budget for a Union that Protects, Empowers and Defends: The Multiannual Financial Framework for 2021-2027", Brussels, 2 May, COM(2018) 321 final.

Juncker, J.C., Tusk, D., Dijsselbloem, J., Draghi, M and Schultz, M. (2015), "Completing Europe's Economic and Monetary Union", European Commission, Brussels, 22 June.

[1] Disclaimer: This article was written by Roel Beetsma (University of Amsterdam and European Fiscal Board), Simone Cima (Central Bank of Ireland) and Jacopo Cimadomo (Principal Economist, Directorate General Economic Developments, European Central Bank). It is based on a paper entitled "A minimal moral hazard central stabilisation capacity for the EMU based on world trade", by R. Beetsma, S. Cima and J. Cimadomo. The authors gratefully acknowledge the comments of Agostino Consolo, Paul Dudenhefer, Michael Ehrmann, Sebastian Hauptmeier, Christophe Kamps, Geoff Kenny, Silvia Margiocco and Zoë Sprokel. The views expressed here are those of the authors and do not necessarily represent the views of the European Central Bank, the Eurosystem, the European Fiscal Board or any other institution they are affiliated with.

[2] Germany, Spain, France, Italy and the Netherlands.

[3] The full set of results for all 19 euro area countries is presented in Beetsma et al. (2018).

[4] In general, procyclicality is detrimental because it implies an exacerbation of business cycle fluctuations, i.e. a country would receive transfers in periods of strong growth and would pay transfers in periods of low or negative growth.

[5] The procyclical feature of the scheme in some years could be addressed by topping-up the baseline scheme with a borrowing facility that would make it possible to raise (and distribute) funds at the euro area level when an aggregate shock hits all countries. Moreover, there could be a rule that countries do not contribute to the scheme when their GDP growth is negative, for example. Of course, however, these variants of the scheme encounter other obstacles. For instance, complementing the scheme with a borrowing facility at the euro area level could be politically difficult.

[6] In Beetsma et al. (2018), we also propose a variation on the baseline scheme which takes into account long-term trends in the various export sectors, thus obviating the potential concerns related to the fact that some sectors may exhibit stronger growth than other sectors for several years in a row.

[7] Table 2 in Beetsma et al. (2018) shows that the scheme is strongly countercyclical. In particular, a panel regression model is used to test the relationship between the transfers generated by the scheme and the output gap: it turns out that transfers tend to be positive (negative) in periods of negative (positive) output gap.

[8] Results for these specific cases are available in Beetsma et al. (2018).

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