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A Transfer Mechanism as a Stabilization Tool in the EMU

by Kerstin Bernoth and Philipp Engler

With the crisis in the euro area, the issue of the institutional structure of the monetary union has gained in significance. One problem with regard to the longer-term stability of the euro area is the absence of mechanisms to adequately absorb asymmetric cyclical shocks in the individual member states. Such an instrument is essential in order to be able to implement a single monetary policy suitable for all countries. Consequently, the European Monetary Union should be equipped with an economic transfer mechanism—for instance, in the form of common unemployment insurance. This is not an instrument to solve the current crisis but rather to provide more stability to the European Monetary Union in the medium and long term.

In historical terms, the European Monetary Union (EMU) is a unique currency area. The member states have committed to a common monetary policy, while fiscal policy remains the responsibility of the individual governments. As a result, monetary and exchange rate policy cannot be used as a stabilizing tool in the event of asymmetric shocks in the individual member states. Only national fiscal policy remains as a tool for stabilizing economic fluctuations.¹ The experience of recent years shows that national fiscal policy does not fulfill this function sufficiently. A lack of fiscal discipline and high levels of public debt since the banking crisis of 2008/09 or the bursting of the housing bubble have resulted in governments pursuing pro-cyclical fiscal policies that amplify rather than dampen business cycles at national level.²

Another consequence of the common currency is that business cycle divergences among the various economies within the EMU are exacerbated.³ If, for example, an individual member state is faced with a demand-side economic slump, the common Central Bank will respond by cutting interest rates. But, since these are oriented to average inflation and economic development in the currency area, the interest rate change is lower than in the case of a nationally oriented monetary policy. As a result, the monetary policy is too restrictive for a country in economic downturn, but too expansi-

¹ According to Mundell's (1961) theory of optimal currency areas, asymmetric economic shocks can also be counterbalanced by open international labor markets and flexible pricing and wage policies, see R.A. Mundell, "A Theory of Optimum Currency Areas," *The American Economic Review*, 51(4), (1961): 657-665.

² Bernoth et al., (2008) demonstrate that another reason for pro-cyclical fiscal policy is that policy-makers receive false information about the economic situation when making decisions, see K. Bernoth, A. Hughes Hallett, and J. Lewis, "Did Fiscal Policy makers know what they were doing? Reassessing fiscal policy with real-time data," CEPR Working Paper, no. 6758 (2008).

³ While countries like Germany, the Netherlands, or Finland achieved relatively strong economic growth in the last two years, countries on the European periphery such as Greece, Spain, and Portugal are in recession. However, precisely the opposite was the case immediately after the introduction of the euro.

ve for other member states where the economic situation has not changed. From a national perspective, a uniform monetary policy is less than optimal for asymmetric economic developments; it will in fact exacerbate both the volatility and the divergence of the business cycles.

Economic Compensation Payments Can Stabilize a Currency Union

Various economic policy measures could promote greater synchronization of business cycles in a monetary union, with the aim of facilitating a single monetary policy. Fiscal policies play an important role here. Greater fiscal coordination among the euro area countries ought to make an important contribution to converging their business cycles. Even stricter fiscal discipline, as is the aim of the Fiscal Pact and the debt ceiling, plays a major part in giving national fiscal policy more scope for intertemporal measures aimed at stabilizing business cycles.

Consequently, in order for fiscal policy to assume an even greater role as an economic stabilizer, the introduction of an international transfer system, which serves as insurance against asymmetric cyclical income fluctuations, should be considered.⁴ If we look at the various successful monetary unions within federal states—such as the US and Germany—they all have, in various forms, not only intertemporal but also cross-regional fiscal instruments for balancing out regional asymmetric shocks.⁵ This kind of mechanism is lacking in the EMU's current structure.

The basic idea is to introduce financial transfers from booming countries to those that are in recession. If a country is in a favorable economic situation compared to the average for the euro area, that country is a net contributor which means it receives fewer payments than it pays into the compensation system. However, if a country has an unfavorable economic climate, compared to the other member states, then it is a net recipient, meaning it receives more transfer payments than it pays

into the system. As a result, in the former case, the economy is dampened, and in the latter case, it is stimulated. Economic development in both countries is therefore stabilized.

It should be emphasized that the goal of these types of compensation payments is to balance out business cycles, not to achieve a balance of income and general living standards among the individual countries. In the latter case, individual member states would become long-term donor or recipient countries, and the incentive for implementing necessary structural reforms would be severely impaired. Assuming that country-specific shocks, which can cause production levels to fluctuate, are random and not systematically distributed among the countries,⁶ in a purely cyclical transfer mechanism, each country would be both recipient and donor over the entire business cycle, so that over time payments made and payments received would eventually be balanced out.

It should be noted that the increased convergence of business cycles reinforced by a cyclical transfer system could lead to an amplification of these cycles, particularly in countries where they are normally very stable. International fiscal policy transfers do not necessarily represent a direct Pareto solution for all countries. The long-term stability of the currency area, however, ought to outweigh these drawbacks for individual countries.

Engler and Voigts analyzed how such a compensation instrument would affect an economy using a dynamic stochastic general equilibrium (DSGE) model.⁷ The model consists of two countries, a small country (domestic) and a large country (foreign), practicing a moderate level of trade with one another. The degree of real economic integration of these countries is therefore still relatively low. Taking into account the macroeconomic interaction of goods, labor, and capital markets, we can analyze how a decline in aggregate domestic demand below its long-term level affects the two economies.⁸ Four different scenarios are considered. In scenario 1, both countries pursue an independent monetary policy and have flexible exchange rates. In scenario 2, both countries form a monetary union. Scenario 3 describes the adjustment assuming that the two economies have become more integrated in real economic terms. Scenario

⁴ The idea that fiscal transfers between member states of a monetary union should take the place of shock absorption through exchange rate adjustments was first suggested by Kenen (1969). See P. Kenen "The Theory of Optimum Currency Areas: An Eclectic View," in *Monetary Problems in the International Economy* eds. Mundell and Swoboda (University of Chicago, 1969). The need for such a mechanism in the euro area was emphasized 25 years ago by Delors (1989). See J. Delors, "Regional Implications of Economic and Monetary Integration," in *Report on Economic and Monetary Union in the European Community* ed. Committee for the Study of Economic and Monetary Union (Luxembourg: Office for Official Publications of the EC, 1989). A detailed overview of this issue was provided by J. Hagen and C. Wyplosz, "EMU's Decentralized System of Fiscal Policy," *European Economy, Economic Papers* 306 (European Commission, 2008).

⁵ M.D. Bordo, A. Markiewicz, and L. Jonung, "A fiscal union for the euro: Some lessons from history," NBER Working Paper, no. 17380 (2011).

⁶ Expressed statistically, the country-specific shocks should be independently and identically distributed and have an expected value of zero.

⁷ P. Engler and S. Voigts, "A Transfer Mechanism for a Monetary Union" (2012) (unpublished manuscript).

⁸ The demand shock is modeled as a transient increase in consumer demand over its long-term level. The results of a productivity shock are also available, see P. Engler and S. Voigts.

4 introduces a compensation payment system between the two countries (see box).

The model demonstrates that in a monetary union economic shocks are much more effectively absorbed and business cycles are much more synchronized when the countries have introduced a cyclical transfer system compared to the scenario in which the countries operate a purely national fiscal policy. The transfer payments would, at least in the model, stabilize the economy almost as well as if the country were still pursuing a national monetary policy. A similar effect would be achieved if the countries forming a monetary union were closely integrated in real economic terms.⁹ The aim should therefore be to increase integration, especially among the euro area countries. However, since the measures needed to achieve this take a long time to come into effect, a high degree of integration has to be regarded more as a long-term goal. Until then, economic compensation payments could be an important element in stabilizing the EMU.

This kind of cyclical transfer system could therefore partially replace the missing stabilization functions of national monetary policy. This would be particularly relevant in times when national fiscal policies are unable to provide further economic stimuli due to high public debt coupled with high interest premiums on government bonds.

Structuring a Compensatory Payment Mechanism

There are already transfer payments between member states in the EU financed from the EU budget. At one percent of GDP, the EU budget is relatively small, however,¹⁰ and the current transfer payment structure between the EU member states focuses not so much on balancing out economic fluctuations but primarily on

compensating for long-term income disparities.¹¹ Nevertheless, along with the Common Agricultural Policy, regional policy is one of the EU's major expenditures. Around 35 percent of the total budget is invested in different structural funds which are used to support regions and countries with weaker economies. This means that some member states are always net contributors to the EU budget, while others are net recipients.

The transfers discussed here, not intended to serve to equalize income levels but rather to insure against asymmetric shocks and economic fluctuations, must fulfill the following characteristics:

- a. Payments should be transferred quickly and on time: excessive delays in payments could lead to transfers failing to serve their stabilizing and synchronizing purposes and may then have a destabilizing effect on business cycles.
- b. The payment mechanism should be governed by rules: the resultant automatism should increase the transparency of this compensatory tool and prevent arbitrary political decisions about transfer payments.
- c. The compensatory mechanism should be oriented to cyclical fluctuations: over a longer period of time, member states will therefore be both donor and recipient countries.
- d. The transfer mechanism should be accompanied by strong fiscal rules: such a system cannot and should not replace a sound economic and budgetary policy. Previous experience with debt crises in fiscal unions has shown that a credible no-bailout clause is crucial to the success of regional fiscal equalization systems within federal states.¹²
- e. Participation in a compensation system should be subject to conditions such as structural reforms through economy policy.

Such a transfer mechanism could be implemented in different ways in the euro area. This could involve, for instance, direct fiscal transfer payments or indirect transfers by establishing a European social security and unemployment insurance system. In the first case, countries would pay some of their tax revenue, which is closely linked to the business cycle, such as revenue from VAT, into a joint European fund. These payments would then be redistributed to the individual member states in relation to per-capita potential growth. If a country's pro-

⁹ In contrast to predictions made by Krugman, it is assumed here that increased integration does not result in stronger idiosyncratic shocks arising from more specialization by individual countries, but only to increased cross-border trade, see P. Krugman, "Lessons from Massachusetts for EMU," in *Adjustment and Growth in the European Monetary Union*, eds. F. Torres and F. Giavazzi (London: CEPR, 1993). With the creation of a single market, the liberalization of capital and payment transactions, the free movement of people and of goods and services, the pre-requisites for EU economic integration are largely in place, but the current level of integration still has room for improvement. Although the percentage of imports from euro partner countries to GDP increased in most countries up to 2008, this figure was less than 15 percent in a number of countries.

¹⁰ In 2010, the federal budgets in the US and Germany were around 15 and 13 percent of GDP, respectively.

¹¹ The EU member states and the European Parliament passed a resolution that a maximum of 1.23 percent of the Community's gross national income should be available to the EU. With a budget of around one percent, the EU's current multi-year financial framework for the period 2008–2013 remains below this threshold. It is largely made up of shares in VAT collected by the member states, national contributions, based on GDP, and customs duties.

¹² Bordo et al., "A fiscal union."

Box

Scenarios for the Effects of a Negative Demand Shock in a Two-Country Model

Scenario 1: Independent Fiscal and Monetary Policy with Flexible Exchange Rates¹:

A negative demand shock causes domestic consumption and production to fall temporarily below their long-term levels, leading to deflationary pressure. As a result, the Central Bank lowers interest rates which, due to the system of flexible exchange rates assumed here, devalues its currency vis-à-vis its trading partners. Lower interest rates and devaluation dampen the economic downturn.

An appreciation of the local currency abroad has the overall effect of cooling its economy in the form of lower demand for export goods and lower import prices. The latter, on the one hand, depresses demand due to a substitution effect away from goods produced abroad while the deflationary pressure has a positive impact on demand, since this implies the Central Bank has scope to lower interest rates and thus stimulate aggregate demand. Upon a return to equilibrium, the domestic currency appreciates again, and so net exports fall and the increase in production slows. The opposite happens abroad.

¹ For a more detailed description of the model used and the results, see P. Engler and S. Voigts: "A Transfer Mechanism for a Monetary Union" (2012) (unpublished manuscript).

Consequently, the business cycles of both countries are highly synchronized and only consumption develops differently in the two countries. The impacts of national monetary policy and the flexible exchange rate act as buffers against the effects of asymmetric shocks, on the one hand, and prevent a divergence of the national business cycles, on the other hand.

Scenario 2: Monetary Union without Compensatory Payment System

After a monetary union has been formed and the exchange rate fixed and each country has given up their independent monetary policies, the fall in domestic inflation induced by the demand shock only affects the average inflation rate of the EU to a small extent. Therefore, the cut in domestic interest rates subsequently implemented by the common Central Bank is lower than in Scenario 1. It is impossible to adjust the exchange rate. The negative effect of the shock on the domestic economy and consumption is more pronounced as a result. Abroad, however, consumption grows faster than it would with flexible exchange rates, and also production rises instead of falling. This is because there is no decrease in exports due to a nominal revaluation. Moreover, the common monetary policy within the monetary union means that only interest rates fall slightly compared to the flexible exchange rate abroad. Hence, real incomes increase due to rising employment.

duction in relation to potential production, i.e., its *output gap*, is lower than the average output gap in the euro area, the country is a net transfer recipient. If it is higher, then it is a net transfer contributor. The more synchronous the economic cycles of the individual member states are, the fewer transfer payments are made.¹³

The advantage of such a mechanism is that it supports a counter-cyclical fiscal policy in accordance with the Stability and Growth Pact. Countries experiencing an economic downturn and hence net recipients of compensatory payments can thereby increase their public spending without burdening their national budgets. While the effect of stimulating the economy purely through

¹³ For a detailed description of such a mechanism, see von Hagen and Wyplosz, "EMU's Decentralized System."

national fiscal policy is curtailed because consumers expect an increase in public spending in the present to be financed by tax increases or cuts in public spending in the future (Ricardian Equivalence),¹⁴ such dampening effects would not occur if international a transfer mechanism could be used to stimulate economies.

One problem with this direct version of a fiscal transfer mechanism is, however, that figures for the output gap and potential production are normally very inaccurate and they are often revised over time. Transfer payments could therefore fail to serve their stabilizing

¹⁴ However, empirical studies conclude that only some of the private sector take a long-term perspective. Many key players actually increase their spending after a tax cut.

As a result, business cycles and consumption in both countries become significantly more volatile and more asynchronous in the monetary union. A recession in one country cannot be weakened by an expansive monetary policy there and a depreciation in exchange rate, nor, conversely, can a boom be moderated.

Scenario 3: Monetary Union with Stronger Integration in Real Economic Terms

It is often argued that when a monetary union is formed, the asymmetry in the business cycle of the individual member states weakens due to increased integration in real economic terms.² If stronger integration in real economic terms is established in the present model by increasing the share of imported goods to consumption, the sub-regions of the monetary union are similarly affected by asymmetric shocks. A domestic demand shock is then evenly distributed to domestic and foreign goods, leading to more similar business cycles in both countries than if integration were weaker.

² Frankel, Rose, "The Endogeneity of the Optimum Currency Area Criteria," *The Economic Journal*, 108 (449) (1998): 1009-1025; and Frankel, Rose, "An Estimate of the Effect of Common Currencies on Trade and Income," *Quarterly Journal of Economics*, 117 (2) (2002): 437-466. For an opposing position, see Krugman, "Lessons from Massachusetts."

Scenario 4: Monetary Union with Compensatory Payment System

Alternatively, both countries could introduce a compensatory payment system in order to produce similar economic results in the event of an asymmetric shock, as in the scenario with integration in real economic terms. In our model, this is represented by a payment from the country with relatively strong economic growth to the country with relatively weaker growth. The compensatory payments are intended to directly affect aggregate demand for goods. In the period following the shock-induced decline in demand, the domestic economy receives a payment,³ which means there is a counter-cyclical increase in aggregate demand and the decline of consumption and production is tempered.

Abroad, on the other hand, expansion of the economy is curtailed by the compensatory payments. It is apparent that the decline in domestic demand and production is thus alleviated considerably and the foreign economic stimulus is slowed down and can even be reversed through a decline in production. This in turn leads to a dampening of volatility and a convergence of economic and consumption trends.

³ In the simulations, a transfer is modeled as a payment between private households. The model can, however, also be adjusted so that transfers are made between governments. Comparable simulation results can be achieved with both models.

and synchronizing purposes, or policy-makers might abuse the system.

One alternative would be the introduction of a European social and unemployment insurance scheme parallel to the national insurance systems. Assuming that unemployment is closely correlated to the economic situation of a country, a European insurance system of this kind would result in transfer payments between the member states of the monetary union, similar to a direct fiscal transfer system, only in this case it would not be governments that receive the transfers, but private households.¹⁵

¹⁵ See the contribution by Dullien and Fichtner in this DIW Economic Bulletin on the specific advantages and disadvantages of such a European unemployment insurance scheme.

Compared to a direct fiscal transfer system, a European social and unemployment insurance scheme would have the advantage that the factors determining the transfers are set quickly and more or less automatically. They would not have to be first calculated and negotiated, leaving less scope for arbitrary political decisions. Moreover, the effectiveness of an economic transfer mechanism as a tool for stabilizing business cycles depends on how fast aggregate demand is affected. Private households and governments could simply increase their savings rate when they receive net transfer payments. However, this is less probable in the event of a European unemployment and social security insurance scheme.

It should be emphasized that a compensatory payment mechanism in a monetary union cannot replace a sound

economic and budgetary policy in the member states. Since the transfer system is not intended to redistribute the tax revenue or debt burden but to absorb asymmetric cyclical shocks, fiscal discipline and a sufficient level of international competitiveness continue to be of crucial importance for the stability of the euro area. Implementation of major labor market reforms or compliance with fiscal policy rules could be made a prerequisite for participation in the compensatory mechanism. As a result, a country's participation in the compensatory mechanism could be linked to the simultaneous inclusion of a debt brake in its constitution, or its adherence to the Stability and Growth Pact.

Conclusion and Policy Implications

In a monetary union without fully integrated markets, where both monetary and exchange rate policy are not available as stabilizing tools, a system of compensatory payments between the member states could play an important role in stabilizing and synchronizing economic fluctuations in the individual countries. To date, however, policy-makers have not been willing to surrender some of their fiscal sovereignty to allow a transfer mechanism to be introduced. In view of the current debate on the institutional restructuring of the EMU, the time now seems ripe to also consider introducing a fiscal compensatory system. The higher the compensatory payments are, the more reservations governments and the people will have about the introduction of such a mechanism. One challenge for the political debate is therefore to strike an optimal balance between stabilizing effect and the size of transfers.

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