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EUROZONE NEEDS A MORE FLEXIBLE
MONETARY POLICY

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IN THE ABSENCE OF FISCAL UNION, THE EUROZONE NEEDS A MORE FLEXIBLE MONETARY POLICY

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Abstract

This paper makes three points. The first is that inter-member external imbalances are a relevant objective for the performance of a monetary union. The second is that policy should aim at reducing inter-member external disequilibria, by setting targets on current-account imbalances applied symmetrically to both deficit and surplus countries. The correction of external imbalances needs to be taken as seriously as that of fiscal imbalances and debt-to-GDP ratios. The third is that, while the principle of the unified supranational monetary policy should remain the core of the monetary union, the heterogeneity in economic performances and current-account imbalances of member states calls for a more flexible common monetary policy. Our specific proposal is that National Central Banks should add a risk premium cost to official interest rates on banks that accumulate “excessive” borrowings or deposits to compensate, respectively, for outflows and inflows of the monetary base due to the effect of external imbalances.

JEL classification: E42, E52, E58.

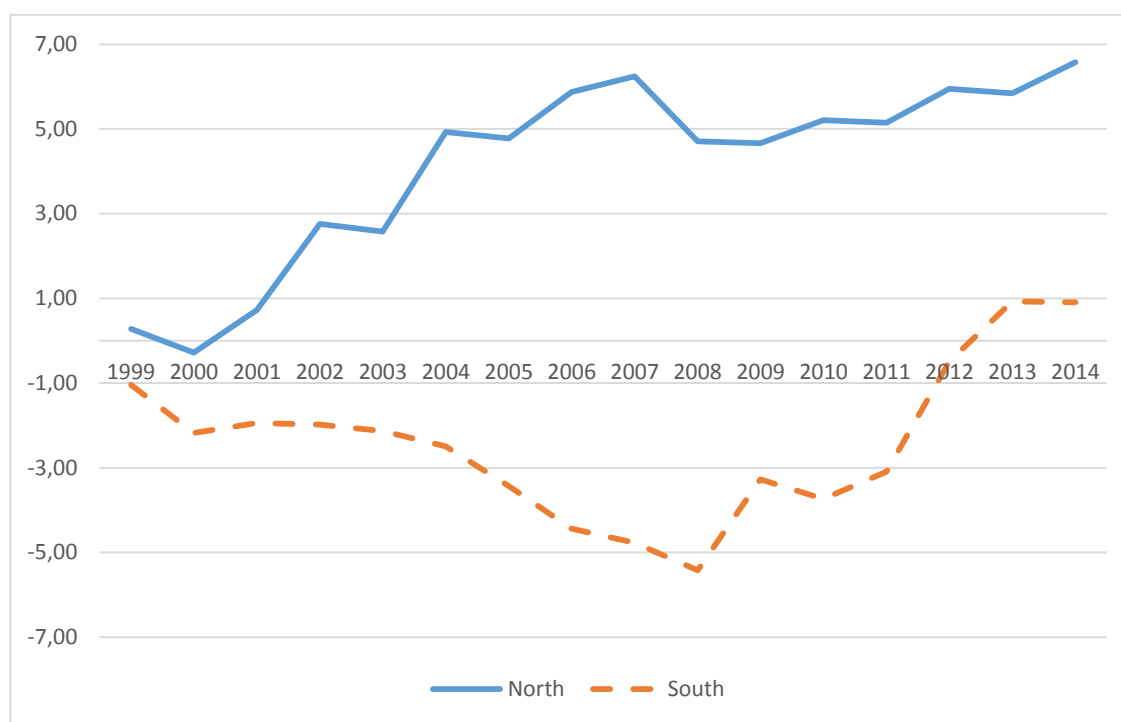
Key words: Eurozone, external imbalances, adjustment mechanism, sterilisation.

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I. Introduction

Global macroeconomic imbalances have contributed to the global recession; this has been true for the Eurozone (EZ) as well. Figure 1 highlights the sharp heterogeneity in the EZ in terms of current-account imbalances, measured as a percent of GDP. The Southern countries of the Eurozone (Greece, Italy, Portugal and Spain), as a group, have experienced deficits consistently up to 2012. The Northern countries (Austria, Belgium, Finland, Germany, and the Netherlands), instead, have enjoyed large and rising current-account surpluses all the way up to 2014.

Figure 1: Current-account balance as a per cent of GDP, North vs. South of the Eurozone, 1999-2014



Notes and sources: The North consists of Austria, Belgium, Finland, Germany, and the Netherlands; the South of Greece, Italy, Portugal and Spain. The source is the WEO database of April, 2015.

So long as credit was easily available, the South found it easy to finance its deficit with private capital provided mainly by the North.² This “chronic” situation was considered consistent with growth convergence in the EZ. But the evidence has shown otherwise. One explanation for lack of convergence is that capital flows were not directed to the financing of productive investment in the South (Blanchard and Giavazzi 2002), with the result that variations in prices and productivity have brought about a misalignment in the internal real exchange rates and ultimately have induced a balance-of-payment crisis.

Alessandrini et al. (2014) examine two explanations of the European sovereign debt crisis, a fiscal and an external imbalance. With the exception of Ireland, badly affected by the sub-prime financial crisis, the North has benefited from below median inflation (real exchange rate depreciations relative to the South), whereas the South has suffered from above median inflation rates (real exchange rate appreciation relative to the North). These data are consistent with the hypothesis that the asymmetries in the external imbalances of EZ countries were emphasized by real exchange rate misalignments. The empirical analysis of the determinants of government bond yield spreads relative to Germany suggests that both views provide useful insights into the roots of the current sovereign crisis. However, differences in growth and competitiveness and capital flows between North and South have assumed a much more dominant role since the onset of the global crisis.³

This paper makes three points. The first is that inter-member external imbalances are relevant for the performance of a monetary union, when it is not backed by a strong political commitment, and a solid political framework does not exist. EZ policymakers, historically, have ignored these inter-member imbalances and have concentrated instead on union-wide imbalances, so much so that statistical data on the former phenomenon remain still largely incomplete. On the other hand, there

² Deficits and surpluses refer to each country’s position in relation to the rest of the world and not to the inter-EMU current-account balance, whose statistical record is still largely incomplete. The former is used as a proxy of the latter with the justification that Eurozone countries trade a great deal with one another.

³ On the relative importance of macroeconomic fundamentals and pure financial markets’ panic in determining interest rates’ spread see De Grauwe and Ji (2013) as well as Alessandrini et al. (2014).

are signs that a correction is in the making, primarily by having recognized the qualitative relevance of the issue, which we hope would lead to a comprehensive quantitative knowledge of intra-EMU imbalances; more on this in paragraph V below. The second is to design specific policies directed at reducing inter-member external disequilibria, for example by fixing targets on current-account imbalances applied symmetrically to both deficit and surplus countries. It is striking the contrast between the keen attention of the EZ on national fiscal imbalances and the belated and lukewarm attention given to external imbalances. The third is to propose a more flexible monetary policy aimed at controlling the distribution of liquidity among member countries resulting from inter-member external imbalances.

II. Monetary union without fiscal union

In a canonical fixed exchange rate system, cross-border monetary transactions would be settled with flows of international reserves IR. In a sovereign country, that is in a country that enjoys both a monetary and fiscal union, a current-account imbalance of one region vis-à-vis other regions of the country poses no direct problem to the stability of the monetary union.

But in the EZ this is not the case because of the absence of a centralized budget that can absorb idiosyncratic shocks to individual member countries (Kenen 1969). The call for a sizable centralized fiscal budget in an Economic and Monetary Union goes back to 1970s (Commission of the European Communities 1977), a point reiterated in the late 1980s by the Delors Report (1989: 89) and more recently by the President of the European Council (2012:5).

The conclusion of this literature is that a monetary union, in the absence of a fiscal union, needs to have current-account equilibrium in the medium run. Capital-flow adjustments to current-account imbalances are not fully reliable because of the risk of sudden stops and flow reversals. Monetary adjustments to current-account imbalances cannot be trusted because of a risk of a speculative attack against individual members of the monetary union (Garber 1999).

Define the balance of payments of an EZ member country as:

$$(1) \text{ BP} = \text{CA} + \text{CM} = e \Delta \text{IR} + \Delta \text{T2} = \text{BP}_{\text{OUT}} + \text{BP}_{\text{IN}},$$

where CA = current-account balance, CM = financial-account balance, e = nominal exchange rate (e.g. euro/\$), IR = international reserves, T2 = TARGET2 balance, $\text{BP}_{\text{OUT}} = e \Delta \text{IR}$ = external “monetary” balance vis-a-vis non-EZ countries, $\text{BP}_{\text{IN}} = \Delta \text{T2}$ = external “monetary” balance vis-à-vis EZ countries.⁴ In the EZ, inter-member monetary transactions are settled through the real-time payment system TARGET2, which is expected to guarantee unlimited credits to each national central bank (NCB). If this guarantee is in doubt because a strong-currency NCB (one with consistent current-account surpluses) may refuse to provide unlimited money to a weak-currency NCB, the market may conclude that a default on the deficit country’s bonds or a bank run is a possibility, with the attendant consequences on the stability of the common money.⁵

In sum, a monetary union in the absence of a fiscal union must pay attention to members’ external imbalances, a point that was largely ignored by the founding fathers of the EZ who focused almost exclusively on fiscal stability, by setting explicit numerical targets as well as monitoring and setting corrective mechanisms. This omission explains to a large extent the depth of the sovereign debt crisis.

III. Adjustment mechanisms

Define the balance sheet of a NCB as:

$$(2) \quad (\text{B} + \text{Lf}) + (e \text{ IR} + \text{T2}) = \text{K} + (\text{BR} + \text{Df} + \text{C}) + \text{PA},$$

⁴ It should be pointed out that there is no change in T2 balances if intra-EMU current account change is financed with capital flows between non-EZ and EZ countries, as in the case of Germany exporting merchandise to Italy financed by a US based bank.

⁵ This is the essence of Peter Garber’s (1999) argument; for a fuller development, see Alessandrini et al (2014). A referee has correctly pointed out that the possibility of a bank run depends that the ECB not being a lender of last resort with respect to public debt.

where B = bonds (collateralized main refinancing operations and long term loans, and direct open market purchases), L_f = marginal loan facilities, IR = international reserves, $T2$ = TARGET2 balance, K = capital, BR = bank reserves = required reserves + excess reserves, D_f = marginal deposit facilities, C = currency, PA = governments' account. Setting the capital account as fixed in the medium term, the flow creation of the monetary base is the sum of its foreign component ($\Delta MB_F = \Delta(e IR) + \Delta T2$), domestic component ($\Delta MB_D = \Delta B + \Delta L_f$), and government component ($-PA$); the flow uses of the monetary base is the sum of the changes in bank reserves, bank deposit facility with the NCB and currency. Compactly, flow sources and uses of the monetary base are given by equation (3):

$$(3) \quad \Delta MB_F + \Delta MB_D - \Delta PA = \Delta MB = \Delta(BR + D_f + C).$$

Given that $\Delta(e IR) + \Delta T2 = BP_{OUT} + BP_{IN}$ by identity (1); and that the exchange rate e is flexible, making flows of international reserves denominated in euros virtually zero, we obtain a strict link between the external balance vis-à-vis EZ countries and changes in Target2 balances:

$$(4) \quad BP_{IN} = \Delta T2 = \Delta MB_F$$

NCBs of surplus (deficit) member countries accumulate credit (debit) TARGET2 balances. For the system as a whole, naturally, TARGET2 balances sum to zero. These monetary flows from deficit countries to surplus countries unleash, in the absence of sterilization policies by the NCBs, an adjustment mechanism that is similar to the price-specie flow mechanism originally described by David Hume (1752) for the gold standard: the correction of external imbalances works by raising prices and wages in surplus countries in relation to prices and wages in deficit countries.

The alternative mechanism to Hume's price-specie flow is the Keynesian income adjustment mechanism (Mundell 1968:chs. 13 and 20): deficit countries contract aggregate spending relative to surplus countries to reduce imports and hence current-account deficits. To avoid undue asymmetric burdens, the Keynesian mechanism calls for a cooperative solution. In times of inflation and excess utilization of resources, it falls on deficit countries that most of the brunt of the adjustment (by

contracting). In times of deflation and underutilization of resources, the burden of adjustment should fall primarily on the surplus countries that have to expand spending relative to deficit countries. In modern economies income (unemployment) moves faster than prices and wages. In line with this experience, we would expect that also in this instance the Keynesian adjustment will occur first and the Humean mechanism after.

In fact, the adjustment in the Eurozone has been asymmetric through a generalized imposition of fiscal austerity that has caused the South to bear a more severe economic slowdown than the North. The relative slowdown of the South in relation to the North, in turn, has triggered a correction in the current-account deficits of the South while leaving unchanged the high and rising trend of current-account surpluses of the North: cf. the imbalances in the period 2011-2014 shown in Figure 1.⁶ Eventually, according to the Humean process, the South will have to experience a real exchange rate depreciation, with smaller price and wage increases than in the North. But for this to occur money and credit within the EZ will have to be reallocated against the South and in favor of the North. In sum, the convergence of external imbalances, so far, has taken place almost exclusively from the side of the South. The North continues to enjoy high and rising current-account surpluses.

III.1 Internal adjustment in the Eurozone has not worked

We now advance two reasons why internal adjustment in the EZ, through changes in real exchange rates, has not generated the desired convergence outcome. The first is the fragility of compensatory private capital flows. The second is institutional sterilization.

A by-product of a monetary union is to raise the degree of integration of capital markets. Integrated capital markets imply high capital mobility that equalizes, net of credit risk, interest rates in the unified monetary area. In the case of fully compensatory capital flows, $CA + CM = 0$, there is no net redistribution of monetary base among EZ member countries; yet, CA imbalances remain.

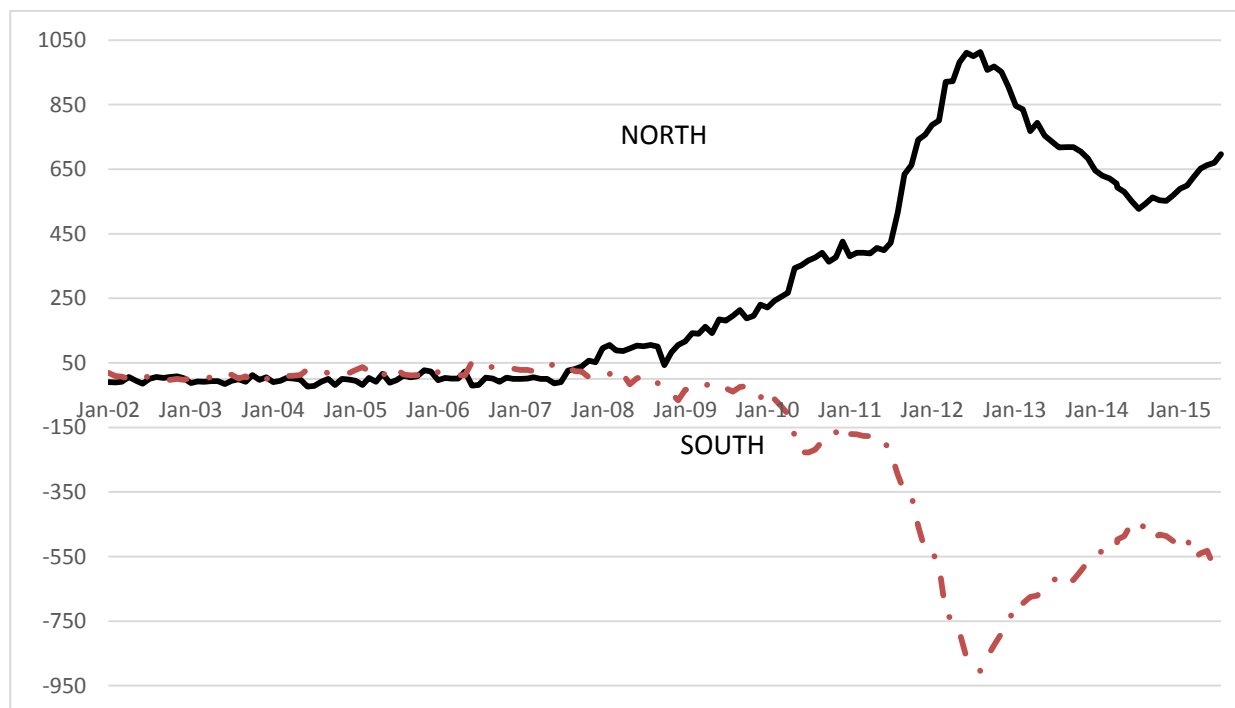
⁶ While both exports and imports relative to GDP have been falling in the South, income-sensitive of imports have been declining faster than exports; hence, the improvement in the trade imbalance.

For a deficit country, capital inflows add to the stock of foreign debt that needs to be financed. The cost of financing this debt adds to the deficit of the current account. Furthermore, flows of capital are not completely dependable as a source of current-account financing. Changes in market sentiment can trigger sudden stops and flow reversals, which can force the indebted country to quick and painful adjustments in income and relative prices, with income moving faster than relative prices (Wyplosz 2013). For example, Greece, which had benefited from large capital inflows since 2002, faced a capital flow reversal between March and June of 2008, followed by a second between October 2008 and January of 2009 and a third in April through July 2010; the other three Southern countries—Italy, Portugal and Spain—were hit by a reversal at the end of 2011 (Merler and Pisani-Ferry 2012).

Monetary financing, through $\Delta T2 (= BP_{IN})$, occurs if net capital flows do not fully compensate the CA imbalance. Monetary base flows from deficit to surplus countries; that, in turn, trigger the Keynes-Hume adjustment. Under ordinary circumstances, capital mobility in a monetary union provides the bulk of the financing and the residual changes in T2 balances are typically small. Compensatory movements come to a halt during crises. Figure 2 shows the level of T2 balances in billions of euros of the Northern countries (Austria, Finland, Germany, Luxembourg, and the Netherlands) and of the four Southern countries.⁷ The surplus of the North and the deficits of the South are very close to the zero line all the way through 2008. Then they start diverging, increasingly up to the peak value of August 2012. There is a decline in the gap until mid 2014 and then a rise again up to July 2015. In sum, according to the T2 balance evolution, the monetary base should have shifted from the deficit South to the surplus North from 2009 to August 2012. But, as it happened during the pre-WWI gold standard and even more during the interwar gold-exchange standard, the self-equilibrating mechanism of the price-specie flow was not allowed to operate in full because of central bank sterilisation practices, which is the theme of the next sub-section.

⁷ The definition of the North here changes with the previous definition in that we drop Belgium and add Luxembourg.

Figure 2: TARGET2 balances, North vs. South of the Eurozone, € billions, 2000-July 2015



Notes and source: The North consists of Austria, Finland, Germany, Luxembourg, and the Netherlands; the South consists of Greece, Italy, Portugal and Spain. The source is Ornabruueck University, Institute of Empirical Economic Research, Euro Crisis Monitor, Web: <http://www.eurocrisismonitor.com/Data.htm>

IV. Institutional sterilisation

In the Eurosystem, there is an endogenous channel of monetary base creation: banks can buy liquidity from their NCBs by submitting eligible securities; the liquidity is added to bank reserves. After the October, 2008 Lehman default, the ECB has set no limits to this type of base creation. So, given a flow amount of eligible collateral, there is a potential for banks to activate an equivalent flow creation of domestic monetary base. A deficit country that loses monetary base through the TARGET2 mechanism can replenish part or all of the lost monetary base by buying liquidity from its NCB, provided of course that it has an adequate amount of eligible collateral. This is what we call institutional sterilization. Sterilisation is complete when the deficit country replenishes in full

the liquidity shortage of a negative BP_{IN} with more buyings from the Eurosystem, that is $\Delta MB_F + \Delta MB_D = 0$. Sterilisation may also work for the surplus country: the increase in the foreign component of the monetary base can be compensated in part or in full by banks in the surplus country either selling liquidity to the NCBs, in change of collateralized bonds B, or depositing excess reserves in the deposit facility Df, also with NCBs. In terms of equation (3), the former implies a reduction of the source component of the monetary base MB, whereas the latter implies a change in the composition of the uses side of the base. In fact, inasmuch as banks move part of BR to Df, the stock of MB remains the same. However, liquidity that would have normally been employed in the money market (e.g. in the interbank market) is withdrawn, with the result of weakening the transmission mechanism of the monetary policy to the economy.

Institutional sterilisation contradicts the rules of the game of a fixed exchange rate system.

Monetary policy in the Eurozone is decided by the ECB Board. NCBs operate as local branches of a federal system, with the same goal, the same instruments, the same official rates agreed at the supranational ECB level. There cannot be monetary sovereignty at the national level. Yet, within a member state banks are allowed to use ECB facilities at their own discretion to manage liquidity needs. There is a contradiction between a common monetary policy and the ability of banks, within a member state, to fully endogeneise the creation of monetary base so as to achieve national sterilization!

V. Consequences of inadequate adjustment

In conclusion, the ECB Board decides on a common monetary policy by setting official rates that are the same in the entire Eurozone, but it has lost control not only of the total amount of liquidity issued, but also of its distribution across member countries. The combined impact of compensatory capital flows and institutional sterilisation acts in delaying the Hume-Keynes adjustment. There is some evidence that the price-specie flow mechanism has worked in a perverse way, at least up to 2009. In fact the South, in addition to experiencing current-account deficits, has had a consistently

higher inflation rate than Germany, the centre country of the Eurozone (Alessandrini et al. 2014: Table 2). Yet, as Table 1 shows, the growth of M3 and bank credit in the South for the period 2003-2009 has been higher than that in the North. Only between 2010 and 2012 has M3 growth in the South fallen below that in the North, but not the growth of bank credit, which has remained considerably higher than the North's. A similar finding has been reported for Greece in relation to Germany by Dellas and Tavlas (2013: Table 2).

Table 1: Comparison of M3, bank loans and bank credit between the North and the South, monthly data, period average of annual percentage changes.

Period	M3 average % change	Bank loans	Bank credit
North, 2003-2009	6.8%	3.3%	4.3%
South, 2003-2009	7.8%	7.8%	8.1%
North, 2010-9/2012	3.9%	1.3%	0.6%
South, 2010-9/2012	-2.1%	3.6%	5.8%

Notes and source: The North consists of Austria, Belgium, Finland, Germany and the Netherlands; the South consists of Greece, Italy and Portugal; the data for Spain are not available; bank loans are those extended to the private sector. Source: ECB Statistical Data Warehouse.

In the long run, the lack of adjustment to permanent imbalances raise the specter of sustainability of a fixed exchange rates system. The experience of the breakdown of the Bretton Woods system is exemplary in this respect. The issue of sustainability that the Euro area has been facing since 2010 confirms the basic principle that a monetary union, without a fiscal union that acts as a transfer union against idiosyncratic shocks, is fragile. A faltering adjustment mechanism to inter-member external imbalances leads to growing disparities between the stock of foreign credit of surplus countries and foreign debt of deficit countries, which accentuates the fragility of the Eurozone. There is a lack of real and nominal convergence between the North and the South, in part reflecting

long-standing heterogeneities. The prescription of fiscal austerity and the burden imposed on the South resulting from a highly asymmetric adjustment process have failed to generate sufficient economic growth to reduce ratios of government debt to GDP. In many dimensions, the outcomes have been perverse if measured against the stated objectives.

For a long time little or no attention was paid to external imbalances, an attitude that stood in sharp contrast with the enormous political capital that has been spent instead in containing government budget deficits and public debt. The first generic reference by the European Union to the necessity of addressing external imbalances goes back to the end of 2011 (European Union 2011), when member states were invited to implement symmetric adjustment policies and the Commission was charged with monitoring the existence of excessive balances:

“Given vulnerabilities and the magnitude of the adjustment required, the need for policy action is particularly pressing in Member States showing persistently large current-account deficits and competitiveness losses. Furthermore, in Member States that accumulate large current-account surpluses, policies should aim to identify and implement measures that help strengthen their domestic demand and growth potential. (L 306/26 paragraph 17)

(...) The Commission may undertake enhanced surveillance missions for Member States which are the subject of a recommendation as to the existence of an excessive imbalance position under Article 7(2) for the purposes of on-site monitoring.” (L 306/31 paragraph 2)

In 2012, the European Commission published target guidelines for current-account imbalance and the net investment international position both measured relative to GDP, as well as changes in real effective exchange rates. For the current-account imbalance, adjustment is recommended to kick in when a deficit exceeds 4 percent and a surplus exceeds 6 percent; for the net external position, adjustment is contemplated only for net debtor member countries when it is equal to or higher than 35 percent.⁸ Finally, for changes in the real effective exchange rate the tolerance band is comprised between -5 and + 5 percent. For all three target variables, the relevant measurement refers to the

⁸ The need of correcting external imbalances is analysed by John Williamson (2012) and by Andrew Hughes-Hallett and Juan Carlos Martinez Oliva (2012). Williamson indicates a target of 3% of GDP for current-account imbalance and 40% of GDP for foreign debt.

country's position vis-à-vis the rest of the world. There is no reference or guidelines concerning inter-member imbalances and inter-member changes in the real exchange rate, an omission of fundamental importance in light of our discussion above.

Only in a recent authoritative report written by EU President Jean-Claude Juncker, in close cooperation with Donald Tusk, Jeroen Dijsselbloem, Mario Draghi and Martin Schulz (2015), the objectives of the so-called Macroeconomic Imbalance Procedure and the burden of adjustment between current-account deficit and surplus member countries are clearly spelled out:

“The procedure should also better capture imbalances for the euro area as a whole, not just for each individual country. For this, it needs to continue to focus on correcting harmful external deficits, given the risk they pose to the smooth functioning of the euro area (for example, in the form of ‘sudden stops’ of capital flows). At the same time, the Macroeconomic Imbalance Procedure (MIP) should also foster adequate reforms in countries accumulating large and sustained current account surpluses if these are driven by, for example, insufficient domestic demand and/or low growth potential, as this is also relevant for ensuring effective rebalancing within the Monetary Union.” (p.8).

In a note for discussion of 21 April 2015, the Sherpas on the Report⁹ remarked that:

“Some contributions note that the Macroeconomic Imbalances Procedure remains underutilised as a means to correcting harmful imbalances (...) Proposals to streamline the procedure and refocus it on a smaller number of indicators (e.g. only on current account imbalances and competitiveness) have also been put forward. Finally, a number of contributions stress the need for a more symmetric framework, capable to correct not only harmful external deficits but also excessive surpluses as this would facilitate intra-Euro Area adjustment. The current framework is seen as relying excessively on regaining price competitiveness.” (p.3).

There are also inadequacies with policy instruments. While national fiscal instruments have been constrained by fiscal austerity, the absence of a fiscal union has emasculated the European Union in exercising any sort of centralised fiscal policy. Consequently, the entire responsibility to

⁹ European Commission (2015).

manage the crisis has fallen on the ECB. There are at least two reasons why we ask too much from the ECB and the NCBs. The first is that monetary policy misses an essential companion, European-level fiscal policy. The second is that we have evidenced above a pitfall in the execution of the common monetary policy: NCBs have been given a sterilisation instrument that delays or stops altogether the operation of the Hume-Keynes adjustment mechanism by offsetting redistributions of the monetary base between large creditors and debtors of TARGET2 balances.

VI. Policy proposals

This section suggests some changes in policies to correct the deficiencies underscored in the paper. We start with the assumption that a fiscal union cannot be realized in the short run. It will take a long process of convergence before a fiscal union can be realized. In the meantime, some important steps could be taken to strengthen the stability of the Eurozone. To begin with, policy makers must possess statistical knowledge of intra-EMU current-account and financial-account imbalances. The two institutions that are best positioned to collect and disseminate these data are Eurostat and/or the ECB. The reason for this serious statistical delay may well be based on the notion that if a monetary union has no significant external imbalance vis-à-vis the rest of the world, there is no reason to worry about the inter-member external imbalances. But this notion rests on the assumption that member countries have a high degree of homogeneity, which does not correspond to reality. Regional current-account imbalances matter a great deal when there is no centralized fiscal authority that is capable and committed to act as a buffer against idiosyncratic shocks, which is the case of the Eurozone.

Secondly, targets on current-account imbalances need to be set and taken as seriously as fiscal imbalances and debt-to-GDP ratios. Thirdly, economic policies have to address the correction of the critical factors underlying external imbalances. Two types of corrections come to mind: supply-side corrections aimed at reducing relative prices and costs for deficit countries; and coordination of national aggregate spending in the monetary union, using the Keynesian principle of symmetric

burden sharing. The latter is achieved when, in the absence of a significant rate of inflation, the surplus countries ought to expand aggregate demand, whereas deficit countries ought to implement supply-side policies. If instead we live in an inflationary environment, the burden of adjustment falls primarily on deficit countries that need to contract aggregate spending. Finally, the ECB should assume a more active role, not only as a lender of last resort, but also in promoting the adjustment process to external imbalances. Monetary policy should be more flexible to compensate for the lack of a common fiscal policy that acts as a transfer agent against idiosyncratic shocks.

VI.1 The case for a more flexible monetary policy

The Eurozone was built on the foundation of a common monetary policy and differentiated national fiscal policies subject to upper limits on budget deficits. Strict restrictions on these deficits were introduced following the sub-prime crisis. The first principle of our monetary policy package is that the unified supranational monetary policy should remain the core of the monetary union.

The noted heterogeneity of member states, which manifests itself with differences in economic performances and current-account imbalances, calls for a managed flexibility of the common monetary policy. On the surface, there could be a contradiction between a common monetary policy and the introduction of some flexibility. These two objectives, however, can be reconciled as follows. The ECB, as a supranational entity, monitors the evolution of the inter-member external imbalances (BP_{IN}) and the flow-stock divergences between deficit-debtor countries (DDC) and surplus-creditor countries (SCC). TARGET2 balances defined as BP_{IN} would be “booked” in a clearing account, a sort of Euro Clearing System, under the jurisdiction of the ECB. The Euro Clearing System would operate according to multilateral settlements of T2 debits and credits. The multilateral settlement norm would reduce the “exposure” and consequently problems of confidence for highly indebted NCBs. The ECB would allow institutional sterilisation, but would condition it on not being inconsistent with the goals of the common monetary policy and the long-run working of the Hume-Keynes adjustment mechanism; in other words, institutional sterilisation would

continue and be justified as a short-run smoothing process. The ECB would retain direct control on institutional sterilisation through two mechanisms. The first is a discretionary quantitative control. The second is to add a risk premium cost to official interest rates on “excessive” borrowings from the NBCs, that is those borrowings that compensate inflows and outflows of monetary base due to the evolution of T2 balances. In sympathy with the principle of shared burden of adjustment, the risk premium is applied on both DDCs and SCCs. The first mechanism is identical to that envisioned by Keynes in his original reform of the international monetary system (Keynes 1943); the interest-rate penalty option is discussed in Alessandrini and Fratianni (2009). In the Keynes Plan, the size of monetary financing, through the overdraft facility, is constrained. Bancor balances, the equivalent of T2 balances, that deviate from the quotas are not permitted. Alternatively, the accumulation of T2 balances can be made progressively more expensive through a variable interest rate charge applicable to both surplus and deficit countries. It should be emphasized that this scheme of managed flexibility is not in contrast with the principle of a unified monetary policy: the basic official rates of interest remain the same for all EZ countries under conventional monetary policy. The cost supplement on top of the official rates apply only to “excessive” borrowings from NBCs.

Finally, the ECB has no responsibility on the adjustment of inter-member external imbalances. But, in its monitoring role the ECB can signal to the European Commission the existence of structural CA imbalances that need to be corrected through coordinated economic policies. It is the European Commission the appropriate institution to direct policy coordination among member countries. The guiding principle of coordination, to repeat, is that when the European economy is in depression the adjustment burden should be primarily fall on SCCs’ governments, while DDCs’ governments implement supply-side adjustments to reduce their competitive gap and readjust their real exchange rates.

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