EUROPEAN PARLIAMENT

DIRECTORATE GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT A: ECONOMIC AND SCIENTIFIC POLICY

Competitiveness and Excessive Imbalances: A Balance Sheet Approach

NOTE

Abstract

This note argues that some imbalances in the euro Area are actually a sign of successful economic integration and should not be repressed. The mechanisms of monetary union will hold the Euro Area together as long as the ECB assures banks of the necessary liquidity.

Imposing limits on TARGET balances between national central banks would end monetary union.

The real issue is competitiveness, which is measured by shifts in trade shares and unit labour cost *levels*. A new indicator for wage developments is presented, which allows assessing when labour costs are under- or overvalued.

9 concrete policy proposals are made.

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CONTENTS

EXECUTIVE SUMMARY

The Excessive Imbalance Procedure (EIP) is progress for the Euro's governance, but its implementation suffers from national bias. The biggest imbalance in the Euro Area is the imbalance between the economic and political logic of policy making. A bias toward national statistics and concepts familiar from international economics without considering the functional mechanisms of European monetary union will disrupt the Euro-economy. The procedures proposed by the European authorities make too many concessions to the political logic of Member States and do not serve the collective interests and common concerns of European citizens in an internal market with a single currency.

The note argues that in Europe's internal market with its single currency, some imbalances are actually a sign of successful economic integration and economic efficiency. They should not be repressed. By focussing on current accounts which have lost their significance in monetary union, Europe's policy debate has generated an intellectual "excessive imbalance". Instead of using out-dated balance of payment statistics, policy makers should work with "flow of funds" statistics provided by the Eurosystem.

The public debate about appropriate policies often does not understand how monetary union works. A currency area is not a fixed exchange rate system, but a payment union. This makes balance of payment issues and the distinction between tradable and non-tradable sectors irrelevant in EMU. The Euro-crisis is not the consequence of a "sudden stop" of international capital flows, but of a credit crunch resulting from a banking crisis and the freezing of the interbank market, which has also caused TARGET2 balances to increase in recent years. The payment mechanisms of monetary union will hold the Euro Area together as long as the ECB assures banks of the necessary liquidity. Imposing limits on TARGET2 balances between National Central Banks would kill the monetary union.

New evidence presented here shows that in the long run, adjustment of competitive distortions will be achieved by a redistribution of money balances in the Euro Area, which generate rotating symmetric slumps and booms. The welfare costs could be high.

The real issue is competitiveness. This note presents evidence for competitive advantages in the EU measured by shifts in trade shares. A new indicator for wage developments is presented, which allows assessing more clearly when labour costs are under- or overvalued in the Euro Area. It is then argued that stronger cross-border coordination of wage bargaining could help correcting welfare losses.

9 concrete policy proposals are made.

1. INTRODUCTION

When a man loses the balance on his bicycle, he falls over. Jacques Delors once compared the process of European integration with a bicycle ride: unless Europe keeps moving forward, it will fail. In the recent debt crisis, a new reason for the bicycle to fall over has occurred: macroeconomic imbalances between Member States are unequally distributing the gains and losses from European integration. European institutions have been swift to respond to the challenge by generating a new *Excessive Imbalance Procedure* (EIP), which has already produced its first Alert Mechanism Report (European Commission, 2012). This new governance tool should be welcomed, as it fills an important gap in the instruments of macroeconomic policy in the Euro Area. However, the new instrument must be used wisely and carefully otherwise it could do more harm than good.

Unfortunately, the first Alert Mechanism Report contains a fundamental category mistake, which could lead to very erroneous policy applications. It focuses on current account imbalances of Member States, without due consideration of the fact that these imbalances have become an irrelevant category in monetary union; a more appropriate policy approach would monitor cost developments and comparative advantages directly. In this note, I will first explain, why current account imbalances are not the right policy variable for judging imbalances in the Euro Area. I will then show that a monetary union is a payment union and how current account imbalances are financed. I will finally refocus on competitiveness as the real issue behind European imbalances and draw some conclusions.

2. WHY CURRENT ACCOUNT IMBALANCES ARE THE WRONG POLICY VARIABLE FOR JUDGING IMBALANCES IN THE EURO AREA

2.1. The transformation of the European economy

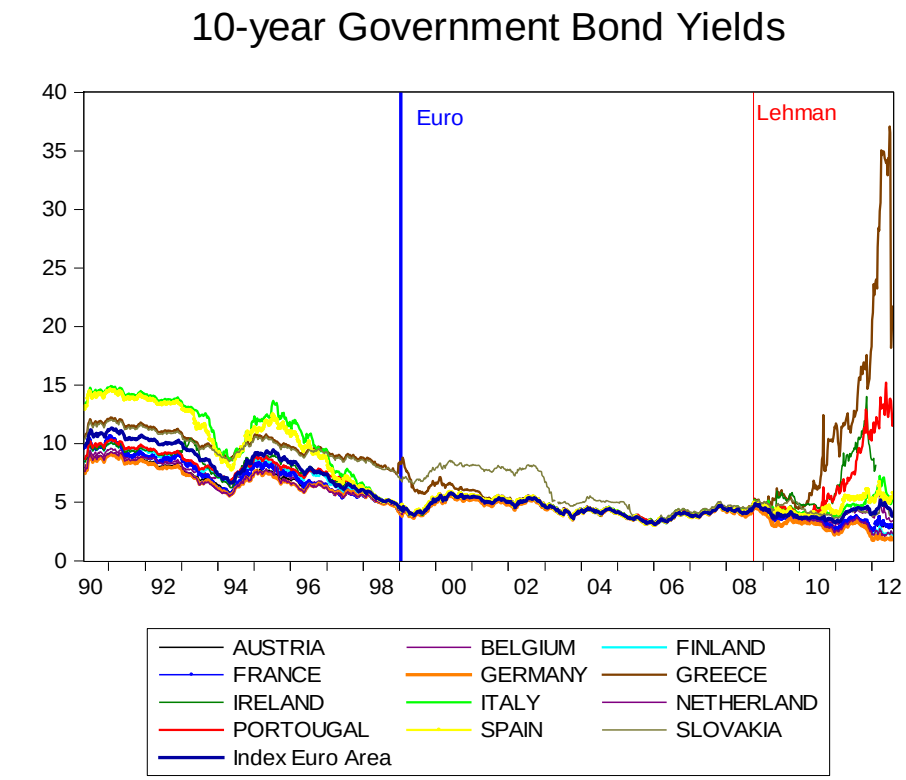
The economic integration of the European Union has a clear purpose: achieving and preserving the four fundamental freedoms: free movement of goods, services, capital and persons in order to generate welfare gains for everyone. The creation of the internal market was a first step, which needed to be followed and completed by monetary union. For without a single currency, the free movement of goods and services would be constantly distorted by volatile exchange rates or by unfairly biased costs of capital. Under those circumstances a competitive welfare enhancing market equilibrium is impossible (Padoa-Schioppa, 1987).

The existence of the single market with the single currency has opened vast opportunities for trade, investment and work opportunities. The single currency area has not only generated monetary stability and reduced uncertainty, but it has also removed the foreign exchange constraint for traditional deficit countries which had to attract capital inflows by high interest rates. In a competitive market economy, firms and workers have seized these opportunities to source their purchases according to comparative advantages and invest their funds where they yield the most favorable returns at given risk considerations. Policy makers have praised the gains from integration in their Sunday speeches, but few have thought through the consequences that have followed for the macroeconomics of the Euro Area. For non-Euro Member States the issues are less urgent, for the existence of a potential exchange risk between currency areas remains an important obstacle to full integration and according to all evidence it has handicapped their trade (see below).

The most dramatic change resulting from monetary union can be seen when one looks at the narrowing spreads of European interest rates for they reflect a fundamental convergence in the cost of capital across the Euro Area. Figure 1 shows the 10-year government bond yield spreads over the Euro-average. It is apparent that prior to the creation of monetary union, interest rates were higher in most Southern Member States than in the North. As monetary union became more likely in the mid 1990s and capital was allowed to move freely, interest rates in the South started to converge to those prevailing in the North under German leadership.

In this note, we will define "South" as the group of Member States, where interest rates have converged down, and "North" where interest rates were previously below average. The distinction is useful as the South largely coincides with the group of Member States which experienced debt problems recently, while the North had to come to their recue. There are two exceptions: Finland and Ireland. Finland went through a radical adjustment process in the early 1990s and then behaved largely like a Northern country; in Ireland interest rates were below the Euro-average, although above Germany. Both countries benefitted from hugely undervalued exchange rates in the 1990s that were partially lost after 2002. Because Finland's performance is atypical, we will include only five member states in the Northern group: Germany, Austria, and the Benelux countries; the Southern group consists also of five members: Greece, Italy, Spain, Portugal and Ireland. We include Ireland because of its loose monetary policy conditions. France is another special case, as it had aligned its monetary policy to Germany in the 1990s at the price of very high real interest rates; its performance is often half way between the North and the South.

Figure 1.



The convergence of interest rates had far-reaching consequences for the European economy. First of all, it has modified the incentives for investment and savings, so that lower interest rates caused investment in Southern Europe to be higher and savings lower, while little has changed in the North. According to textbooks of international economics, the difference between domestic savings and investment is filled by foreign savings that finance

the gap between domestic resources and demand. Hence, one would expect an increase in Southern Europe's current account deficits as a consequence of lower interest rates.

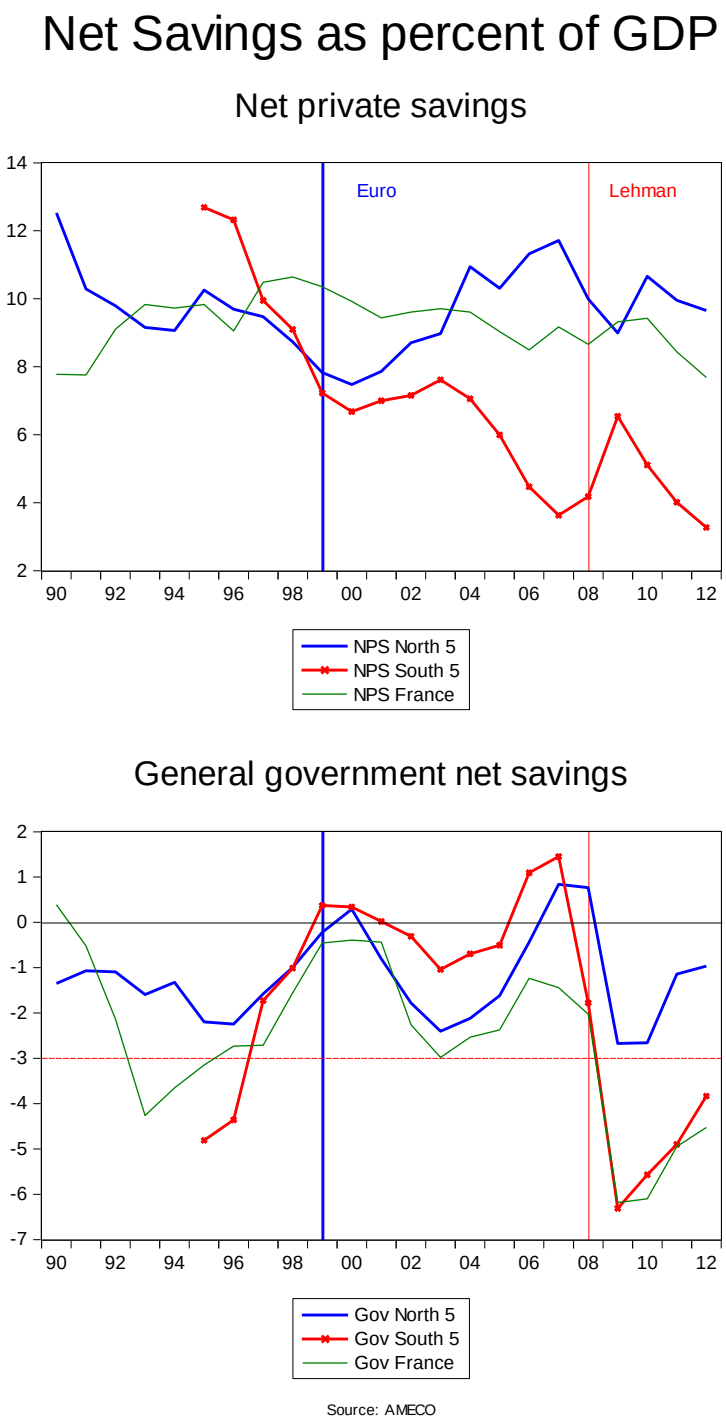
Secondly, this rise in deficits has been supported by the free flow of money and capital in the single currency area. Given that many economies in the South are either less developed or small in size, the lifting of the foreign exchange constraint has unleashed the reallocation of purchases in the South to more advantageous suppliers in the North. This diversification was financed by banks that would no longer need to consider the country risk based on exchange rates, but only the risk exposure to individual borrowers.

Thirdly, the lower interest rates have shifted relative factor prices. As capital became cheaper relative to labour in the South, firms were using more capital and less labour to produce given output. Hence, due to diminishing returns, capital productivity has fallen in the South, but labour productivity has increased. These tendencies are sometimes overwritten by shifts in total factor productivity, but this development is determined by other factors, which we do not fully understand.[1]

Evidence supports these claims. Figure 2 shows the diverging trends in private and public savings between North and South. In the first decade of the euro, net private savings increased in the North, but dropped in the South. This picture is consistent with lower interest rates in the South. Interestingly, we observe the opposite trend in public savings, where northern governments borrowed more than the South.

[1] Total Factor Productivity (TFP) is the portion of output not explained by the amount of inputs used in production. It is often derived from Robert Solow's growth model and also called the Solow-residual. Economic research has identified factors such as skills, education, technology etc, as an explanation for long term growth of TFP, but our state of knowledge is generally not very satisfactory. As Helpman (2004) wrote, "more than two hundred years [after Adam Smith], the mystery of economic growth has not been solved."

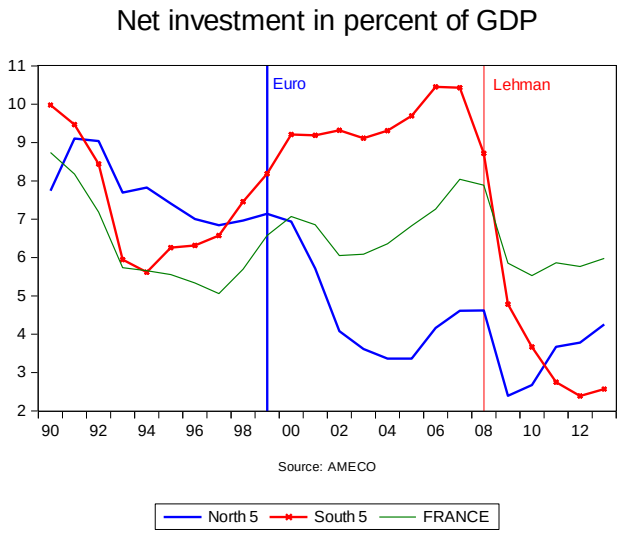
Figure 2



Note: *North:* Germany, Austria, Netherlands, Belgium, Luxembourg
South: Greece, Italy, Spain, Portugal, Ireland. See Section 2.1 for a description of the selection criteria.

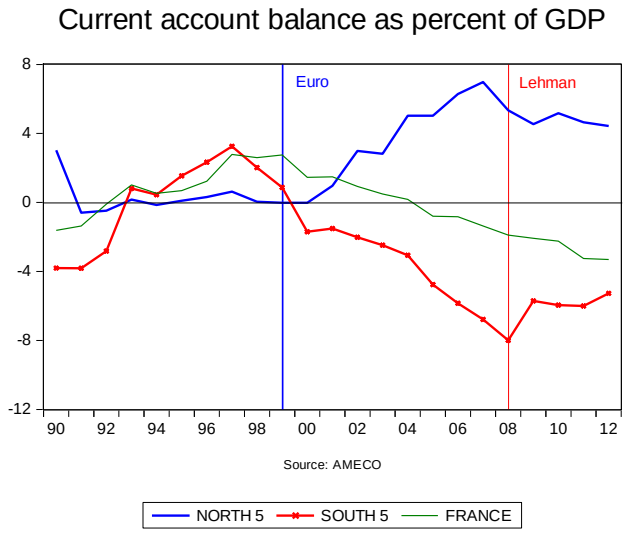
Similarly, lower interest rates are expected to stimulate investment in the South, which is what we see in Figure 3.

Figure 3



Not surprisingly, current account deficits in the South widened significantly, and because the North was the privileged supplier in the stable currency area, northern current account surpluses rose (see Figure 4).

Figure 4



Note: *North:* Germany, Austria, Netherlands, Belgium, Luxembourg
South: Greece, Italy, Spain, Portugal, Ireland. See Section 2.1 for a description of the selection criteria.

The Global Financial Crisis after the collapse of Lehman Brothers has inverted some of these trends. Investment in the South has been hit harder than in the North and savings rates have moved in opposite directions. Current account imbalances started to correct, as investment fell and savings rose in the South, thereby depriving the North of the booming demand in the South.

Thus, the completion of the internal market and the installation of the single currency has transformed the realities of the European Economy. The economic logic pushes investors, entrepreneurs and job seekers increasingly to behave as if they lived in a large continental economy, similar to the United States or Canada. Current account imbalances within the

Euro Area are a sign that markets work efficiently, because producers and consumers exploit comparative advantages. Unfortunately, policy makers, academics and journalists ignore this reality and often recommend policies as if the Euro Area were a fixed exchange rate area, that binds autonomous states together (Merler and Pisani-Ferry, 2012). This imbalance between the economics and politics of the euro is in fact the biggest danger for the survival of the euro and the European Union.

2.2. A category mistake

The existence of large current account deficits in the Euro Area is often seen as a problem. Some analysts even talk of an "internal balance of payment crisis" in the Euro Area.[2] The Commission's Alert Mechanism Report[3] opens with the statement:

"*Large and persistent macroeconomic imbalances - reflected in large and persistent external deficits and surpluses, sustained losses in competitiveness, the buildup of indebtedness and housing market bubbles – accumulated over the past decade and were part of the root causes of the current economic crisis. They not only caused macroeconomic difficulties for the Member States concerned, but also serious spillovers which contribute to the threats facing the euro area.*"

This statement mixes correct observations (losses in competitiveness and asset bubbles) with important errors, namely the claim that external deficits and surpluses were part of the root causes of the crisis.

A related argument focuses on "external debt" of European Member States. Holinski et al. (2010: 10) go as far as claiming that the persistent trade deficits in the South feed the accumulation of foreign debt and "*this process is unsustainable and will eventually lead to exploding foreign debt levels*". This is wrong. Member States of the Euro Area are not accumulating foreign debt, because they accumulate euro debt, which is domestic. Some economists have disputed this claim. In an influential article, De Grauwe (2011) has argued that Member States of the Euro Area effectively issue debt in a foreign currency, because they cease to have control over the currency in which their debt is issued and can no longer force the central bank to buy their debt. However, when one looks at Europe's problems in this way, the issue is not whether the euro is domestic or foreign currency, but simply that the central bank is independent and money supply exogenous to any other policy maker. In other words, De Grauwe (2011) challenges the idea that an independent ECB determines the hard domestic budget constraint in the Euro Area. In reality, however, the independent ECB has acted in several instances against the preferences of powerful Member States and it has done more to save the Euro Area and sustain the single currency in the recent crisis than all national governments together. Although intuitively convincing, the statements about current accounts and external debt misunderstand what is the essence of a currency area. Contrary to the new conventional wisdom, I will argue that a properly working monetary union is robust and can sustain current account imbalances.

European monetary union is not a fixed exchange rate system among independent countries as some analysts believe (see for example, Merler and Pisani-Ferry (2012) and Sinn and Wollmershaeuser (2011)). A currency area is defined as the territory where credit contracts can be enforced and extinguished by paying the legally defined and generally accepted currency. This currency, i.e. base money, is issued by the central bank. To be precise, it is created when the central bank gives a credit against collateral to a commercial bank or buys outright financial assets, such as foreign assets. Banks hold this money either

[2] See Merler and Pisani-Ferry (2012), and the references there.
[3] http://ec.europa.eu/economy_finance/economic_governance/documents/alert_mechanism_report_2012_en.pdf

as liquid deposits on their central bank account, or they exchange deposits against bank notes which they supply to their clients. Hence, the liability of the central bank is money proper.

Banks and holders of bank notes use this central bank liability as the ultimate settlement asset when they make payments. In fact, a payment is nowadays defined as the transfer of the central bank liability which is "legal tender". In early economies, "specie" (gold and silver) was the settlement asset, but soon merchants understood that they could make payments without having to hand over metal. Nowadays, the ultimate settlement asset is always the liquidity commercial banks get from the central bank. We call this liquidity base money (M0 in the UK or M1 in the Euro Area) and the deposits used for settlement of the broader public are called "broad money" (M3).

If we focus on the *payment* aspect of economic transactions, then money is the distinguishing category between economies.[4] *What is "foreign"* is determined by the fact that foreign currency is not accepted as domestic means of payment. Thus, foreign debt is defined by foreign currency, and the debt issued by a Greek importer to a German supplier is not "foreign". It is a category mistake to mix the economic functions of the means of payment with the political functions of government. For the economic analysis of a functioning market economy, the monetary aspect should dominate. For policy-related interferences by governments and regulators in the economy, one may have to refer to jurisdictions. The category mistake is induced by the fact that national accounts aggregate individual transactions into Member State statistics. It is easy and familiar language to say "Greece has borrowed money", when in reality the borrowers are firms and households and governments that are arbitrarily defined by jurisdictional borders and not by economic functions. "Countries" do not borrow, and states are more than governments; only natural and legal persons can act and the logic behind their actions are not necessarily uniform.

The payment function of money assigns a clear role to the balance of payments, which records payments for goods, services and financial assets that need to be converted from domestic into *foreign* currencies. Imbalances in trade and payments between regions and Member States of the European Monetary Union should not be confused and amalgamated with payments in foreign currency. However, this is precisely what the European Commission is doing in the first *Alert Mechanism Report*, which uses national (!) current accounts and Member States' *net international investment position* (NIIP) vis-à-vis the rest of the world as key indicators for evaluating macroeconomic imbalances in the Euro Area. As a consequence of this mistake, policy recommendations to reduce current account imbalances could suppress the comparative advantages on which economic efficiency in Europe is built. In addition, investors are observing the national bias in the discourses of public authorities and, because they are seeking to protect their assets, they respond quite rationally in ways that turn the category mistake into a self-fulfilling prophesy (see Collignon et al. 2011)

The proper method for assessing macroeconomic imbalances requires distinguishing three forms of payments: (1) local payments within the same state; (2) intra-Euro Area cross-border payments between Member States and (3) external payments in foreign currency. The critical issue is how to clarify intra EU payments. Ingram (1973:10) correctly wrote "*Intracommunity payments become analogous to interregional payments within a single country"* and European authorities have accepted this view until economists have returned to their familiar views of "*Nationalökonomie*" during the recent crisis. When one is short of explanation, old ideas become attractive again. However, the developments of the Euro

[4] Keynes (1930) famously defined money as a means of payment which is "the ultimate asset that extinguishes debt contracts".

crisis do not vindicate the revisionist approach, but are actual proof that European monetary union has kept the single market functioning despite mistaken national policies. The earlier view that balance of payments have become as irrelevant within the Euro Area as among regions within a country is still correct, because the main distinction of what is "internal" and "external", including what is external debt, must be derived from the domestic and foreign functions of money and not from familiar conventions about statistical reporting. Unfortunately, European statistics do not provide data in accordance with these categories. National accounts record "external" transactions indiscriminately of whether they are within the Euro Area or the rest of the world. Important information is lost in this amalgam. This leads to my first policy recommendation:

Policy recommendation 1*:* Restructure Eurostat's reporting of macroeconomic accounts in such a way that a clear distinction is made between intra and extra Euro Area payments, assets and liabilities.

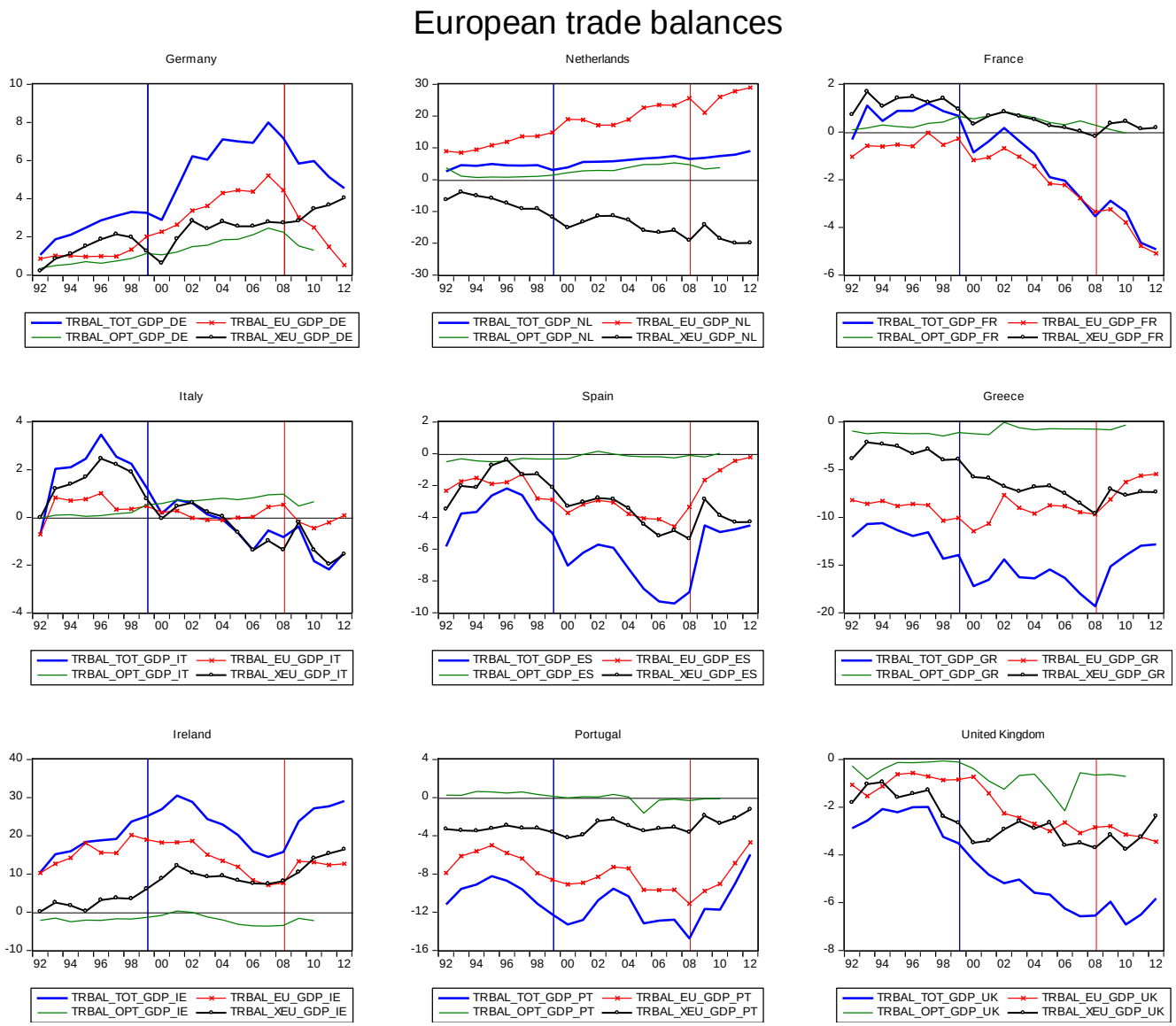
2.3. Current accounts and trade imbalances

A more differentiated picture of regional imbalances emerges, when one uses the distinction between intra and extra Euro Area for trade, where it is possible to reconstruct integrated data. Figure 5 shows the trade balances as a percent of GDP for some selected EU Member States. The blue line gives the overall trade balance, the red line trade within the EU, the thin green line with non-Euro Area Member States and the black line trade with the non-EU rest of the world.

Only Germany has trade surpluses in each market section. The Netherlands have massive surpluses within the EU, but deficits with the rest of the world. France has external trade balanced, but a growing deficit within the EU, in Italy it is the opposite. In Italy, Spain and Greece one observes a trend of deteriorating deficits with the rest of the world, but not within the Euro Area. Trade balances with non-euro Member States are moderately important (larger than 2%) only in Ireland, the Netherlands and Germany, but hardly for the others.

Within monetary union, there is a mirror effect between surpluses and deficits in trade balances; they rise and fall together. E*xternal surpluses*, like those of Germany, Ireland and France, earn foreign currency for the Euro Area and these foreign exchange reserves are spent by *external deficit* countries like Spain, Greece or the Netherlands on net imports from outside the Euro Area. By contrast, intra-Euro Area deficits in the South are financed by surpluses in the North. This is particularly clear after the financial crisis in 2008, when the recession in most Member States cut European import demand for German products which had the effect of reducing Germany's intra-EU trade surpluses (but not those with the rest of the world).

Figure 5



Source: Ameco and Comtex

However, the big difference between intra currency union and external trade is that within the Euro Area, there is no need to earn foreign currency to pay for imports, as all payments are made in domestic euros. The internal imbalances add to zero and the deficits are financed though the banking system which reallocates the savings from surplus countries. Hence, within the Euro Area the better performance of the North necessarily implies a worse performance in the South; inversely, an improvement in the southern position will deteriorate northern trade balances.

International economic theory says that countries can run current account deficits as long as capital inflows are sufficient to finance it. However, capital flows reflect their own logic, i.e. they do not directly determine trade flows. A "sudden stop" of capital flows would deprive a country of the necessary foreign reserves to sustain the current account deficit and causes balance of payment crises and devaluations. This is why excessive external debt and high current account deficits must be of concern for policy makers in different currency areas.

However, this is no longer true in monetary union for payments with the same currency. Credit is given by the banking system and the necessary liquidity reserves are provided by the central bank. A bank in monetary union can therefore not run out of liquidity (provided it is solvent). While a "sudden stop" of credit would reflect a credit crunch, there is no risk of currency depreciation and, therefore, there is no "country risk". Each debtor must be assessed on his or her creditworthiness individually and not holistically. This does not mean that national policies are irrelevant for the credit ratings of resident borrowers, but simply that we cannot speak of "a country" or Member State running out of credit.

Nevertheless, some writers have found evidence for "sudden stops" in the Euro Area's South.[5] However, there is a subtle, but real problem with this evidence: it is derived from national balance of payment statistics and not from an integrated Euro Area approach. In a single currency area, national balance of payment statistics have lost their traditional significance. They simply signal the change in the net financial worth due to transactions[6] of the aggregate of national residents. Rather than referring to balance of payment statistics, one should use the flow of funds recorded by national accounts. Net financial worth is the difference between financial assets and liabilities, which consist of money balances, short and long term securities, shares and equities and other securities. Changes in the net financial asset position are also called net lending or borrowing if the balance is respectively positive or negative.

I am advocating, therefore, a switch from analysing macroeconomic imbalances from balance of payments to flow of funds statistics. The advantage of using flows of funds is that they record changes in financial net worth not only with the outside world, but also between domestic sectors, especially the corporate sector, which borrows to invest, households, which save and lend, and the government. Other than by changes in asset values, which have become important in bursting bubbles in Spain and Ireland, these changes in net assets are caused by differences in the available resources and uses of an economy and recorded in the capital account, which record the difference between net saving plus net capital transfers from the rest of the world minus net domestic investment. Hence, an economy's resource balance depends on internally and externally generated funds. Within monetary union, these funds flow freely, while they are subject to the foreign reserve constraint between economies with different currencies.

The change in net financial worth depends on four sectors of the economy. Traditional textbook economics assumes that the corporate sector borrows from households, while government's budgets and the current accounts should be balanced. In reality, this is rarely the case. If household savings out of disposable income are stable, but the corporate sector and the government wish to borrow more, they need to find the additional funds abroad. Thus, current accounts are the residual adjustment variable for domestic decisions, but foreign exchange reserves are the hard budget constraint.

Within monetary union, the hard budget constraint is the supply of money and credit. The distribution of savings and investment across the currency area depends on households' propensity to save, firms' incentives to invest and budget policies by governments. Capital flows are simply a balancing item of these decisions. For example, if as Figure 2 shows, the North is saving more than the South, this can be a consequence of northern households saving more, or because the corporate sector is paying back debt. The current account balance adjusts to this, but the macroeconomic effect of such corporate behaviour is low investment and economic stagnation. The incentives for this behaviour, however, are determined by domestic, i.e. Euro Area policies, such as monetary and fiscal policies, and by competitive conditions.

[5] The most sophisticated analysis was done by Merler and Pisani Ferry, 2012.
[6] We ignore here value changes.

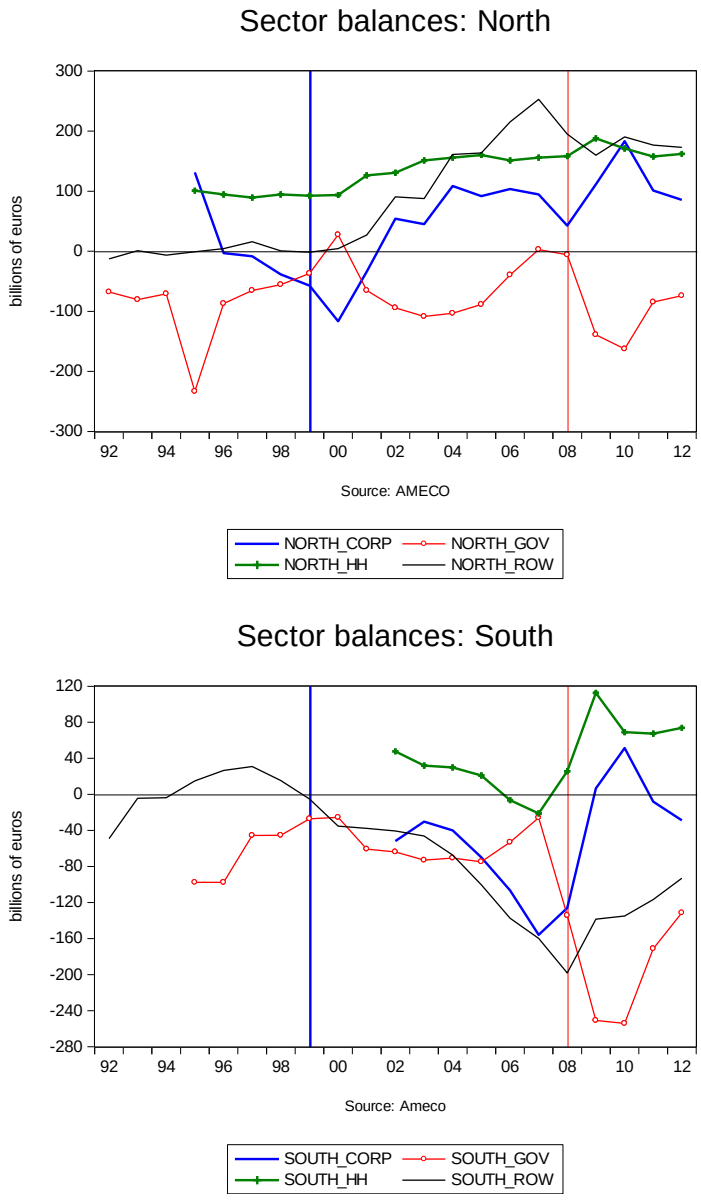
Figure 6 shows the evolution of these sector balances for our Northern[7] and Southern aggregates.[8] We find that household savings are largely in line with the private sector savings in Figure 2: stable in the North and first falling, then rising in the South. However, the corporate sector's behavior is unusual: before the financial crisis in 2009, the corporate sector in the South borrowed money, presumably to invest. This is what standard theory would expect. However, households also borrowed heavily, presumably to consume and invest in real estate. In the North, on the other hand, *the corporate sector moved into a net lender position* from 2002 on. In other words, companies heavily deleveraged and paid back debt. This would explain why investment fell in the North (see Figure 3) and possibly also why German growth stagnated for nearly a decade. We observe a similar, though less pronounced, net corporate lending effect in the South in 2009-2010. When the corporate sector is in a net lending position, it means that it reduces its liabilities. Why did companies in the North pay back their debt, rather than borrow and invest in new production capacities? This is one of the unsolved mysteries of the European economy. Koo (2002) has found that deleveraging was the corporate response to balance sheet problems in the Japanese banking sector after the bubble burst in the 1990s. No doubt, the European financial and non-financial corporate sector also started to pay back debt after 2007 when tensions in the interbank market appeared, but this does not explain why Northern companies used their cash flow to reduce outstanding liabilities already from 2002 on. Furthermore, this behavior also proves that government borrowing did not crowd out corporate borrowing and private investment. It is, however, interesting to see that *corporate lending was particularly high in Germany and the Netherlands, two of the most competitive economies in the Euro Area* (see below). A hypothesis worth further exploration is, therefore, that in Europe (and contrary to, say, China or Asia) low local demand and focus on exports did not lead to major investment into capacity, but rather to higher capacity utilization in face of weak local demand. In fact, this hypothesis is supported by the evidence of high Southern borrowing from the rest of the world:[9] high cash flow from competitive and profitable firms in the North is easily used to grant trade credit to clients in the South of the Euro Area.

This analysis reveals a more comprehensive and more complex picture of European imbalances than the chauvinistic focus on national balance of payments.[10] In Europe's internal market, firms and financial corporations are the driver and their decisions generate financial and real flows of goods and services, which are then recorded in national statistics. Macroeconomic policy in the Euro Area should focus on these decisions and in particular how saving and investment decisions by firms, households and governments interact within Member States and across borders. Interpreting these statistics according to off the shelf economic textbooks without consideration of how European Monetary Union works can only lead to mistaken policy advice.

***Policy recommendation 2**:* Drop all undifferentiated references to current accounts and *net international investment position* (NIIP) from the scoreboard of the *Alert Mechanism Report*, as it is creating a distortive bias to the monitoring of intra-Euro Area imbalances and competitive advantages. Use instead flow of fund statistics, differentiated between euro and foreign currency, to monitor the lending and borrowing behavior of firms, households and governments.

[7] Because data for Luxemburg are incomplete, the South consists of Germany, Austria, Belgium and the Netherlands.
[8] The data shown here for the flow of funds are from AMECO.
[9] To fully grasp this effect, we would need better accounts. See Policy recommendation 1.
[10] Ravenscroft, 2005, has defined chauvinism as "a bias in favour of the familiar".

Figure 6


Sector balances: North
billions of euros
300
200
100
0
-100
-200
-300
92
94
96
98
00
02
04
06
08
10
12
Source: AMECO
NORTH_CORP
NORTH_GOV
NORTH_HH
NORTH_ROW
Sector balances: South
billions of euros
120
80
40
0
-40
-80
-120
-160
-200
-240
-280
92
94
96
98
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04
06
08
10
12
Source: Ameco
SOUTH_CORP
SOUTH_GOV
SOUTH_HH
SOUTH_ROW

3. FINANCING INTRA-EURO AREA IMBALANCES

Because monetary union is a payment union, it is robust as long as trans-border payments are guaranteed. Unfortunately, even this principle is now put into question by the nationalist policy bias and analytical category mistakes. Potentially the most destructive debate centres on the so-called TARGET2 imbalances. We must now clarify how payments operate in monetary union.

3.1. On debt, foreign and domestic

National accounts of the flow of funds record the net resources available to different sectors of the economy. The payments for current transactions plus the net capital transfers increase or reduce the net asset position vis-à-vis the rest of the world for the residents aggregated by a jurisdiction. In principle it does not matter whether the aggregation is a village, a region or a country. For payments within the same currency area, and ignoring the extra-Euro Area transactions for now, this implies that an increase of the national net asset position represents a claim on the rest of the Euro Area Member States, and a decrease reflects higher liabilities. The changes in the financial net worth of a "country" in the Euro Area, i.e. of the aggregated residents (including the government) recorded in the national statistics, reflect of course changes in their wealth, but because there is no currency risk, rising liabilities are not the same as "exploding foreign debt levels". This is a fundamental distinction between current account deficits generated within monetary union and those outside. When a country runs out of foreign reserves in international economics, it becomes illiquid because it can no longer pay foreign creditors, even if individual debtors are solvent. The country's exchange rate is devalued and this affects the asset and liability values of all residents, irrespective of whether they are individually sound or not.

In monetary union, "a member state" cannot run out of liquidity, because local banks can always get the necessary supply of money from the central bank. Keeping the "discount window" open, i.e. guaranteeing banks access to unlimited short run liquidity, is one of the most important principles of modern central banking. Of course, individual debtors can default; to assess the likelihood of defaults is the business of banks. If important debtors like governments fail, defaults can have systemic spillover implications with dramatic consequences. However, this is an argument for financial bailouts of such debtors in the public interest, but it is not an issue of "exploding foreign debt levels".[11] Committing a category mistake and confusing foreign debt with liabilities against other residents in the Euro Area can then lead to major policy mistakes, either by administratively repressing the four freedoms in the internal market and depriving Europe of the efficiency of competitive resource allocation, or, even worse, by recommending that a Member State should leave the Euro Area. The first mistake is implicit in the Commission's *Alert Mechanism Report*; the second has been heard with respect to Greece. Both policies would damage Greece and the European Union, although the disintegration of the Euro Area would obviously cause much deeper welfare losses.

The argument we have just developed may seem intuitively strange, as one could conclude that debt does not matter. This is wrong. Debt matters in EMU, but differently from international economics. Debt denominated in foreign currency needs to be repaid in foreign currency. This *foreign currency can only be obtained by running future current account surpluses*. This is the intertemporal budget constraint: today's debt must be equal to the discounted sum of future income and this income must be in foreign currency.

Within the Euro Area, the intertemporal budget constraint also exists, but *euro-debt must be repaid by euro income*. It does not matter, where this income is generated. As a

[11] For a formal model of bailouts and financial market perceptions, see Collignon et al. 2011

consequence the traditional distinction between tradable and non-tradable goods loses its significance in monetary union. For example, it is perfectly possible that a firm producing non-tradable goods, say a hairdresser, buys input from another Euro-region on credit and then repays the credit from the income made locally (see Annex 2). What matters is only whether the hairdresser is profitable and can pay back his liability. This is precisely how a fully integrated internal market should function. It follows that there is no need for Member States in the Euro Area to generate current account surpluses to repay debt to lenders in other member states.[12]

Policy recommendation 3. Stop talking about "foreign" debt when it is effectively debt to other residents in the Euro Area and forget about the need of shifting incentives from non-tradable to tradable sectors.

3.2. Money flows in monetary union

However, the capacity to borrow is not infinite. Liabilities need to be repaid in euros. Hence, a region with highly indebted residents will record significant payments for interests and reimbursement in addition to net purchases of goods, services and securities. If these payments are going into another region of the currency area, they are equivalent to an outflow of money. The reduction in money balances held in the deficit region will depress local prices and economic activity. Profitability will fall, further credit will be restricted by banks, and foreign investors will turn away. This will ultimately limit the increase of debt and even invert the rise in current account deficits. At the same time, money balances will increase in surplus countries, where they will push prices up and ultimately undermine local competitiveness. This adjustment mechanism is similar to the old classical specie-flow mechanism of the gold standard, except that today not gold but central bank liabilities are the means of payment. And while old mercantilists needed trade balance surpluses to earn gold, today the means of payment are provided by central bank credit and do not need a "domestic current account surplus". The logic is exactly the same as in any other currency area: no one cares about current accounts between the 16th and 19th arrondissement in Paris, or between Berlin and Brandenburg or between New York and California.

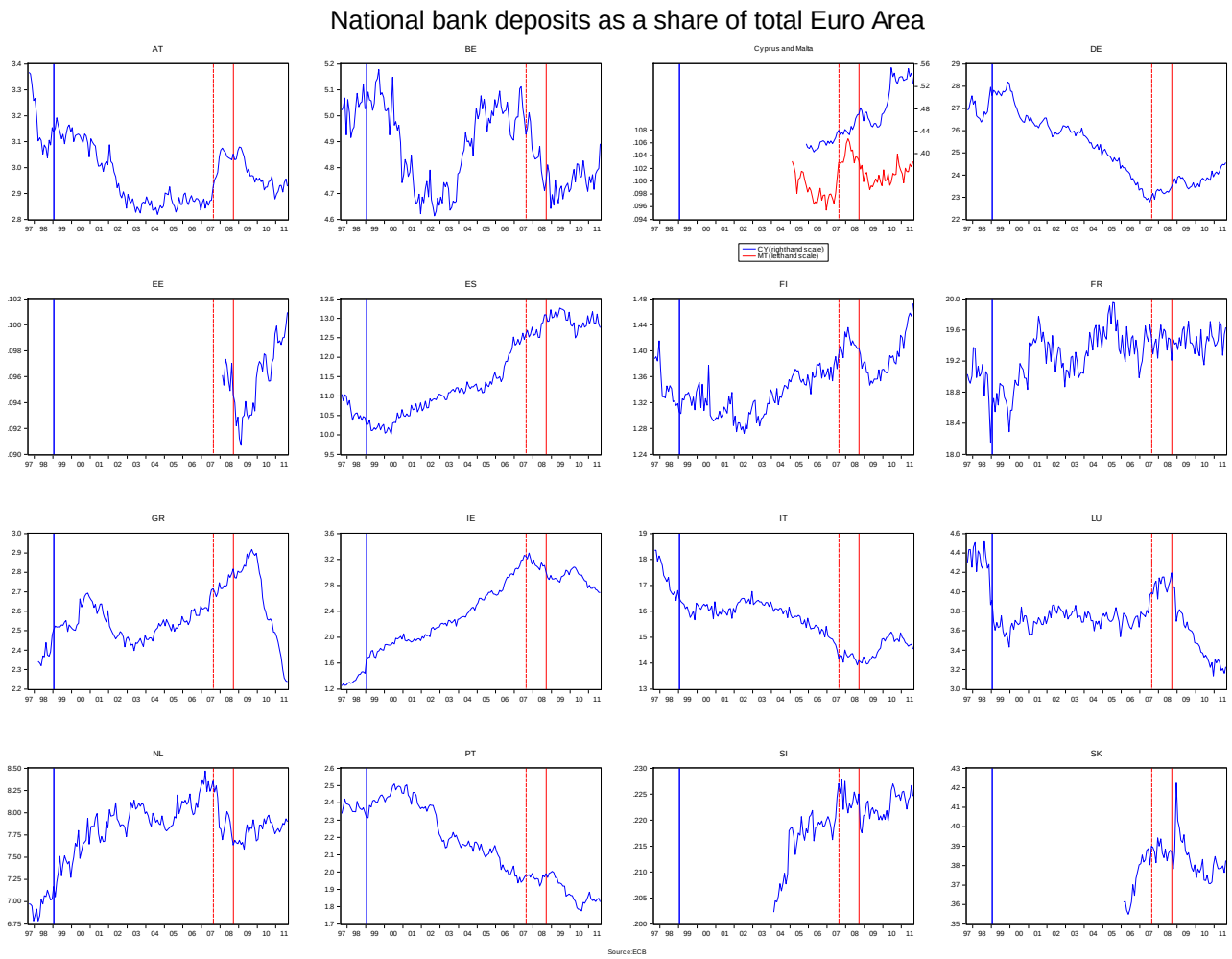
There is strong empirical evidence that money flows are an important adjustment variable in the Euro Area. Figure 7 shows the share of deposits by residents in the national banking system as a percentage of the Euro Area's total. Given that cash is only a small portion of the M3 aggregate (contrary to M1), these shares are a good proxy for shifts in the distribution of money balances, even if we have no data for banknotes.

No uniform pattern can be observed from Figure 7. The red pointed vertical line in August 2007 signals the beginning of troubles in the interbank market that were reinforced by the Lehman bankruptcy in September 2008 (the thick red vertical line). Germany has increased its share, confirming its status as a safe heaven. The Netherlands seem to have played a similar role after Lehman, but Luxemburg has not. Of the large Southern Member States, Italy and Spain do not seem to be affected by substantial outflows of money. By contrast, Ireland was immediately affected by the liquidity crisis in 2007. Portugal has seen a continuous decline in its bank deposits that mirrors the huge current account deficits. But Greece has benefitted from monetary inflows even after the financial crisis started and this has only changed when the Papandreou government revealed the truth about Greek public debt in 2009. Since then, the capital flight from Greece has drained out liquidity. Note, however, that these changes in money balances have two sources: capital flows as

[12] For example, the European Commission has recommended that adjustment in "countries characterized by protracted recessions or stagnation (e.g. Greece, Spain, Portugal) would imply recovery via net exports and a correction of current account deficits accumulated in the past" (European Commission, 2011:85).

recorded in the balance of payments, but also credit creation by the local banking system. By taking an integrated balance sheet approach and looking at the flow of funds between macro-sectors, we get a more comprehensive picture of economic (im)balances in the Euro Area.

Figure 7



The shifts in the distribution of money have real economy consequences. To test whether our hypothesis of depressing outflows and stimulating inflows holds in monetary union, we estimate *a simple quantity equation for the deviations of the share of national deposit holdings in the Euro Area's total*. We assume that there is a long run equilibrium relation between a member state's price level, money balances M3 (measured by deposits), GDP and a constant which reflects changes in the velocity of money circulation, all relative to the Euro Area, and we estimate an error correction model for a panel of 16 Euro Member States. The results are shown in Annex 1. The estimates are statistically significant and confirm the assumption that an outflow of money will dampen inflation and economic growth in Euro Member States.

Policy recommendation 4. Policy makers should be aware that in a currency union money flows are a tool that keeps the union functioning and at the same time corrects imbalances automatically in the long run. From an economic point, there is no need for fiscal transfers (a Transfer Union) to make monetary union sustainable, although it is crucial to ensure that banks have unrestricted access to central bank liquidity. Otherwise, the currency union would collapse. These considerations should be kept in mind when discussing the nature and quality of collateral for monetary policy operations.

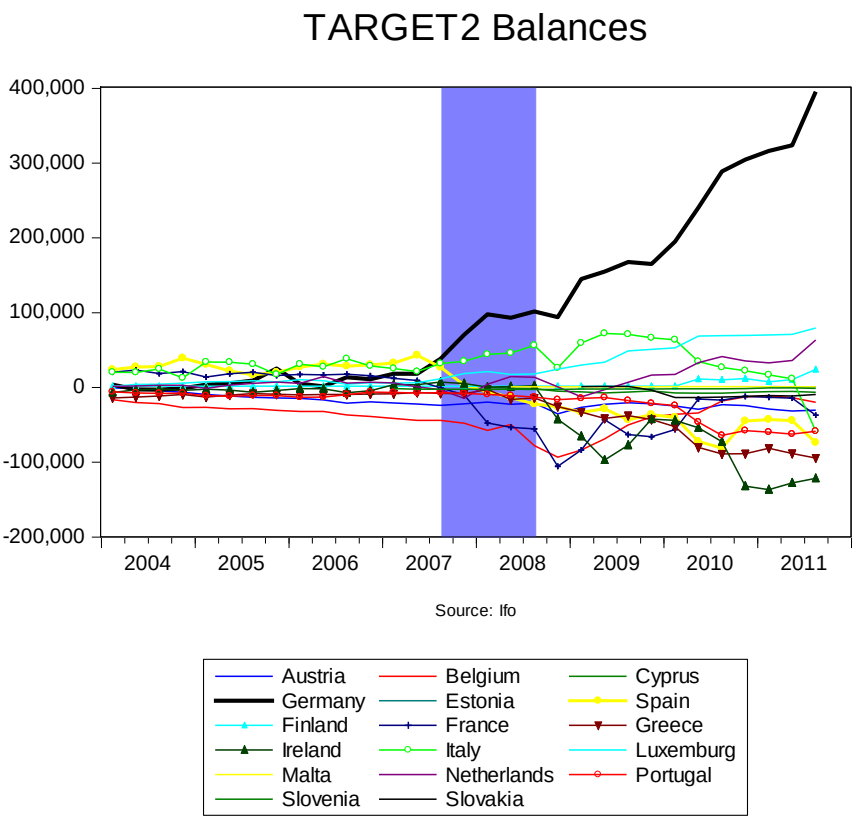
3.3. The crazy TARGET2 debate

In the context of discussing regional imbalances within the Euro Area, a new argument has been advanced by Hans-Werner Sinn at the Ifo-Institute in Munich.[13] It refers to credit and debit positions in the balance sheets of national central banks. Recently, large imbalances have emerged within the ECB's payment system, called TARGET2, and they are thought to represent a risk for National Central Banks (NCBs). TARGET2 is an acronym for the second generation Trans-European Automated Real-time Gross-Settlement Express Transfer System through which payments by both public and private market participants are recorded, cleared and settled in the Euro Area. The system is operated by the ECB. While the net balances of other systems are settled daily or even in an intra-day fashion, Euro Area National Central Banks can build up gross and net claims and liabilities vis-à-vis TARGET2 over time, in principle without limit. In other words, Euro Area NCBs can borrow from or lend to other Euro Area NCBs through TARGET2 and they offer this service to commercial banks. This arrangement is a constitutive feature of European Monetary Union. It is a necessary instrument for the conduct of monetary policy, although the TARGET2 balances between NCBs do not affect monetary policy.

In recent years, a sharp and sustained rise in target imbalances has been observed. Figure 8 shows that until 2007, these balances had exhibited alternating signs and remained within fairly narrow bounds (Deutsche Bundesbank, 2011). In August 2007, the US subprime crisis spread to Europe and severe tensions emerged in the Euro interbank market (De Socio, 2011); after the Lehman crisis in September 2008 these tensions sharpened and the European interbank market effectively froze. Commercial banks lost trust and confidence and stopped borrowing from each other; they turned to the Eurosystem for liquidity instead. Since then the Deutsche Bundesbank has accumulated huge TARGET2 credits, while all other NCBs with the exception of Luxemburg, the Netherlands and Finland have gone into debt. The Banca d'Italia used to be a lender as well, until Italy came under pressure from financial markets in late 2011.

[13] See Sinn and Wollmershaeuser, 2011.

Figure 8



Sinn argues that TARGET2 balances are a measure of cumulated payment imbalances made by the banking system and claims that they reflect a Member State's record of current account deficits "with other Eurozone nations" (!) that have not been financed by inflows of private or public capital but rather by the National Central Bank's money creation. He then concludes that the TARGET2 payments system has been operating as a "hidden bailout" whereby the Bundesbank has lent money to the crisis-stricken Euro Area members via the Target system and proposes that TARGET balances are similar to Eurobonds.

Sinn's argument has been thoroughly questioned. The Deutsche Bundesbank (2011:34) has clarified that TARGET balances are, on the one hand, "*affected by credit institutions' operations on the money and capital markets and, on the other, by transactions carried out by the non-banking sector, which generates payments via the banking system. (…) For the purposes of the balance of payments, an increase in TARGET2 claims is considered to be a net capital export*".

Similarly, Buiter et al. (2011:13) have concluded at the end of a thorough analytic paper that TARGET2 net balances of NCBs: (1) cannot be automatically linked to current account deficits; (2) do not automatically reduce central bank credit to commercial banks in other Member States (and any reduction of central bank credit should not be interpreted negatively, as implying reduced funding for banks and their customers); (3) should not be interpreted as a measure of the risk exposures of the NCBs of TARGET2 creditor countries; (4) cannot be directly capped without putting into question the basic functioning of the Euro Area currency union.

Finally, Jobst (2011) has taken into account the circulation of bank notes and found that (1) large imbalances can (and do) arise even without current-account deficits (Sinn) or banking crises (his critics) just because of the normal functioning of the Euro Area; (2) banknotes have to be included in the analysis and may change the nature of the imbalance; (3) the Bundesbank had considerable debts within the Eurosystem before 2007;

(4) therefore Sinn's and Wollmershäuser's recommendation to limit TARGET2 imbalances are not only impractical but are incompatible with a monetary union.

Collignon (2012) has shown that the emergence of TARGET2 imbalances are the consequence of disturbances in the European interbank money market. Annex 2 reproduces the argument. In the present crisis, banks distrust each other and prefer to deal with the Eurosystem rather than borrowing or lending liquidity to other banks. Because making a payment is the same as transferring a liability, transborder payments in the Euro Area show up as a liability transferred to National Central Banks and from there to commercial banks, which are the "banks of local banks". If the money market would work correctly, these balances would show up in commercial banks' balance sheets; but with the interbank market frozen, the ECB/Eurosystem had to step in and that is reflected in the balances shown in Figure 8. Hence, the Eurosystem must be seen as an integrated whole and not as a fixed exchange rate system where National Central Banks operate for their own account. *Artificially limiting or suppressing these TARGET balances would destroy the mechanism which holds European monetary union together, because it would limit payments rather than credit in the Euro Area.*

Policy recommendation 5. The Eurosystem should explain once and for all that TARGET2 imbalances are a sign of strength of the currency area, as they compensate malfunctioning in the private interbank market. Providing liquidity to commercial banks and guaranteeing that payments are made under all circumstances is the *conditio sine qua non* of European Monetary Union. TARGET2 balances will normalize when the interbank market works again correctly.

4. COST COMPETITIVENESS: THE REAL ISSUE BEHIND MACROECONOMIC IMBALANCES

Even if monetary union provides mechanisms by which persistent macroeconomic imbalances are sustainable, disequilibria are not without welfare costs in different regions of the Euro Area. The redistribution of liquidity can become the cause of rotating symmetric regional slumps and booms, because the deficit region will lose money and the surplus region will be stimulated by the inflow. Although this automatic adjustment mechanism will correct imbalances in the long run, it may take a very long time. For many observers these imbalances are therefore cause of concern and require corrective policies.

Once we drop the obsession with current accounts, we discover that macroeconomic imbalances take many forms: as inflation differentials, diverging cost levels, increasing income gaps between regions, unemployment clustering, and social inequalities. The welfare gains from European integration are not equally distributed; the transformation of the European economy described above has created winners and losers. There are two ways for dealing with these imbalances: redistribute resources through transfer policies. To a small degree this is what European regional and agricultural policies seek to achieve. Alternatively, one can modify the incentives and let markets rebalance disequilibria. Reducing imbalances would then require removing competitive distortions.

4.1. Shifts in market shares

Competitiveness is a complex concept, which cannot be discussed here. However, one indicator for assessing the competitiveness of economies is whether they are gaining shares in world or regional trade. Constant market share analysis decomposes such shifts in trade according to four effects.

- The *product effect* describes the part of demand attributed to the commodity composition of the country's exports. It is positive, if exports are concentrated in sectors for which demand in the EU is growing above average.
- The market effect is the part of the variation attributed to the regional composition of the country's exports, net of the product effect. It is positive, if demand in export markets is higher than what is expected given the product compensation.
- The *competitiveness effect* in a narrow sense is the residual, which captures the difference between the actual gain of market share and the growth that would have occurred, had the export shares in regions and products remained constant. This effect catches therefore a wide range of supply side effects, from relative cost and price developments to environmental conditionings as measured by the Global Competitiveness Report.
- Finally, there is a multiplicative term of interaction (called *mix* in the charts), which only matter when there are fast changes in exports.

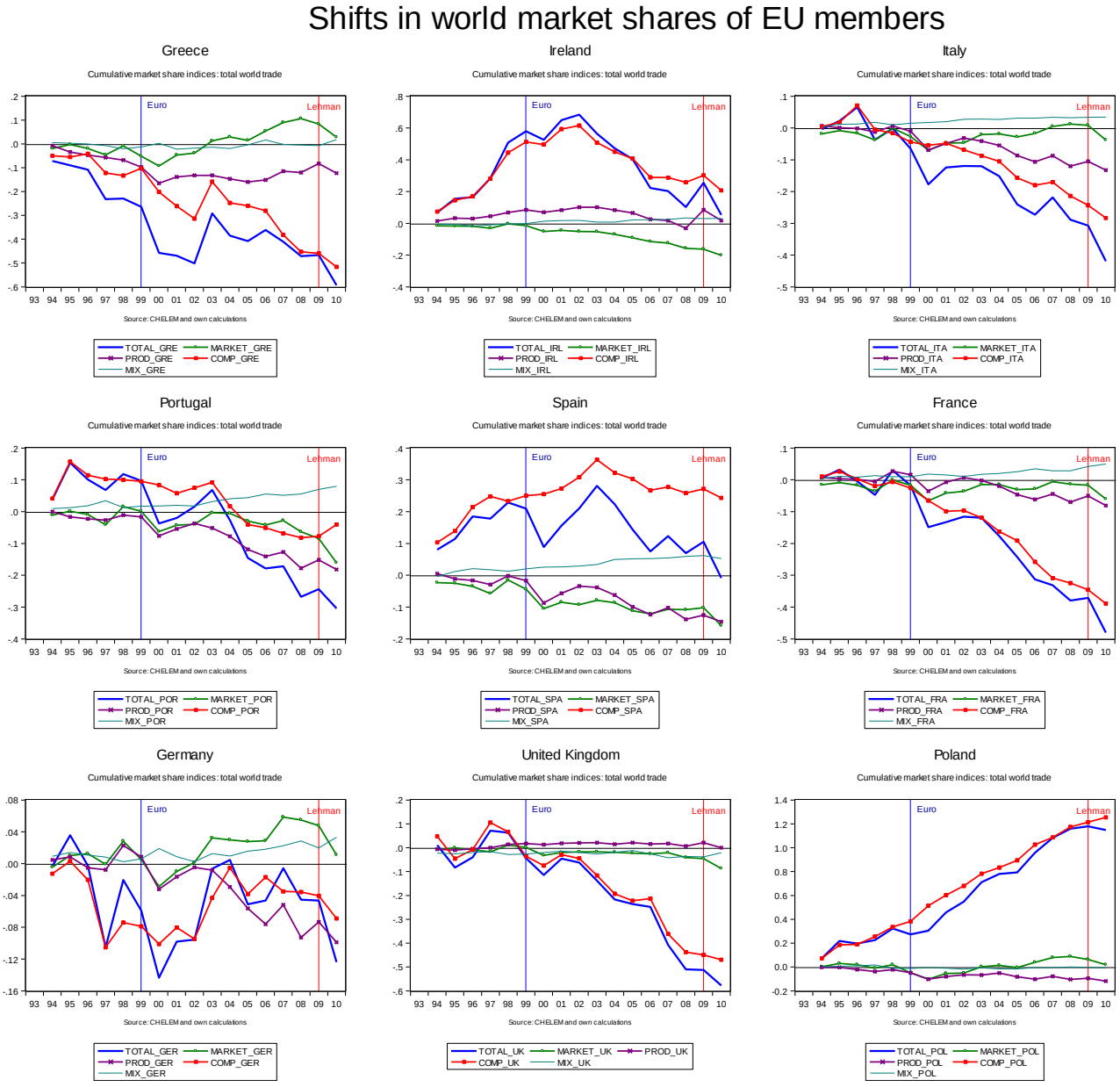
Based on these concepts, one can construct indices that show the cumulative evolution of the four components of shifts in market share. A positive value represents an increase in competitiveness. In general, the picture is that transition economies in Europe and Asia have taken over market shares from the established old and newly industrialised countries, essentially by greatly improved supply side conditions.[14]

Figure 9 shows the evolution of market shares in world trade for some prominent Member States of the European Union. The thick blue line is the overall change in market share, the pointed red line the supply-side effects of competitiveness and the stared and green lines

[14] For details see Collignon 2012.

the product and market effects respectively. All major Euro Area economies have been losing out in world trade. Exceptions were Ireland before the euro and Poland in recent years. The German performance is volatile and the UK's is worst in Europe.

Figure 9



Source: Centro Europa RicercheThe trade performance within the European Single Market deserves a separate analysis. We have argued that the removal of trade barriers has facilitated the allocation of capital and labour to more efficient use, while the creation of EMU has removed the foreign exchange constraint on trade. As a consequence, trade shares have shifted substantially since monetary union started in 1999. We find within Europe a similar dynamic as in world trade: transition economies have been able to achieve comparative advantages and have taken market share from advanced industrialised economies. However, in addition we find that our Southern bloc has been losing competitiveness and the North has had a tendency to gain market shares. This needs to be explained.

Table 1 shows the shifts of market share in Intra-EU-trade relative to GDP in 2010. Ireland is the biggest loser with a cumulative loss of 12.5% of 2010 GDP. Portugal, Italy, Spain and

Greece, all have lost market share, mostly due to weak supply-side competitiveness. The biggest winners are Slovakia and the Netherlands, mainly due to improved supply conditions. Relative to the size of its economy, Germany's export performance is disappointing. The small advances are due to better cost competitiveness, while demand for products and from destination markets cancels out. This fact seems to contradict the superior performance revealed by the enormous German export surpluses, but it is easily explained when one considers that a trade *surplus* implies low demand for *imports*. Hence, our data support the claim that Germany "is saving too much", which is also confirmed by the flow of funds statistics behind Figure 6.[15]

Among the non-Euro Member States, the advanced industrialised economies of the UK and Scandinavia are not doing well. They are losing market shares due to supply side effects and bad market orientation, while the transition economies in Eastern Europe are all super performers.

Table 1. Shifts of market share within the European Union: 1999-2010

in % of 2010 GDP all products

	Competitiveness	Product	Market	Mix	Total effect
Ireland	-11.7	1.8	-2.8	0.2	-12.5
Finland	-4.6	-0.7	0.2	-0.5	-5.6
France	-3.5	0.5	-0.3	0.1	-3.3
Portugal	-0.6	-1.1	-1.3	0.5	-2.5
Italy	-1.9	-0.6	0.1	-0.1	-2.5
Spain	0.2	-0.5	-0.4	0.2	-0.7
Greece	-0.9	0.2	0.3	-0.1	-0.5
Belgium+Lux	-1.7	2.6	-1.5	0.3	-0.3
Austria	-0.5	-0.9	1.6	0.4	0.5
Germany	1.1	-0.4	0.4	-0.1	1.0
Estonia	0.2	1.8	1.0	0.2	3.1
Slovenia	6.6	-1.5	1.7	-0.1	6.6
Netherlands	14.0	0.0	-0.6	-0.3	13.2
Slovakia	23.3	-0.6	5.1	-0.0	27.8
UK	-4.2	0.3	-0.4	-0.2	-4.5
Denmark	-4.3	1.2	-0.2	0.4	-3.0
Sweden	-4.2	1.8	-0.4	0.2	-2.6
Latvia	0.2	2.5	0.5	2.6	5.9
Romania	10.3	-1.3	0.2	-0.0	9.2
Bulgaria	10.7	-0.5	0.2	0.0	10.4
Poland	10.9	-0.2	0.9	-0.1	11.6
Hungary	12.7	-1.3	3.6	0.1	15.2
Lithuania	12.2	2.1	1.8	-0.1	15.9
Czech Rep.	20.9	-2.3	4.1	0.7	23.4

Source: CHELEM and own calculation by Centro Europa Ricerche

[15] Between 2002 and 2010, German households have saved EUR 1216.2 billion, the corporate sector EUR 391.3 billion and the government has borrowed EUR-544.0 billion. This behavior generated EUR 1063.4 billion savings lent to the rest of the world, much of it into the Euro Area. Germany's trade surplus with the Euro Area was EUR 434.9 billion.

4.2. Explaining competitiveness in the Euro Area

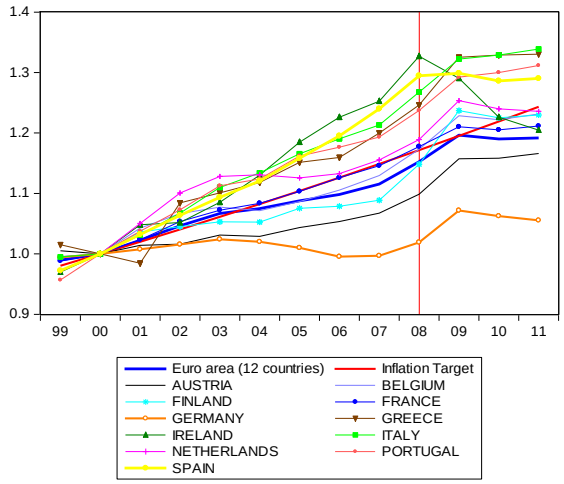
Ultimately, competitiveness is about capital being able to earn a decent return. It therefore depends on prices and costs. Labour costs per unit of output are certainly the most important cost factor, but the cost of capital must matter as well. We will first look at labour costs.

Nominal wages should reflect differences in productivity, and if wages grow at the same rate as labour productivity, unit labour costs (ULC) will remain stable and this will support price stability. The famous "*Golden Rule*" or distribution-neutral wage formula recommends that nominal wages should increase not more than the rate of labour productivity growth plus inflation, or rather the inflation target of the ECB. This rule ensures that the wage share stays constant in the long run and that the ECB can realise its primary objective of maintaining price stability. This is why it has been frequently reiterated by Europe's social partners and European authorities in the Macroeconomic Dialogue (European Commission, 2005; Koll, 2005).

Figure 10 indicates that ULC have met this target in aggregate, but until 2009 only three out of 12 Member States have remained below the ECB target. Since then, the crisis with rising unemployment has dampened wage increases, but for most of the Euro-era it was the large weight and negative deviation by Germany that has kept the average for the Euro Area as a whole below target. Especially the southern economies (Italy, Greece, Portugal, Spain) have consistently overshot the 2% without any correction. This means that German wage restraint has helped the ECB to meet its inflation target. At the same time, falling real wages have improved German cost competitiveness and also restrained domestic consumption and imports. Thus, a correction of intra-European imbalances would require a coordinated approach to wage setting in the Euro Area*: if wages are to increase faster in Germany, they will have to slow down in Europe's South much more than in the past*. Otherwise inflation will pick up and the ECB will have to tighten monetary policy.

Figure 10

Nominal unit labour cost indices and inflation target



Source: Ameco

Policy recommendation 6. Rebalancing wage costs in Europe required higher wages in the North, but lower wage increases in the South. Otherwise price stability would be threatened and the ECB would be forced to pursue tighter monetary policies.

However, these unit labour cost indicators, which are also used in the *Alert Mechanism Report*, are not a good measure for competitiveness, because they start at an arbitrary

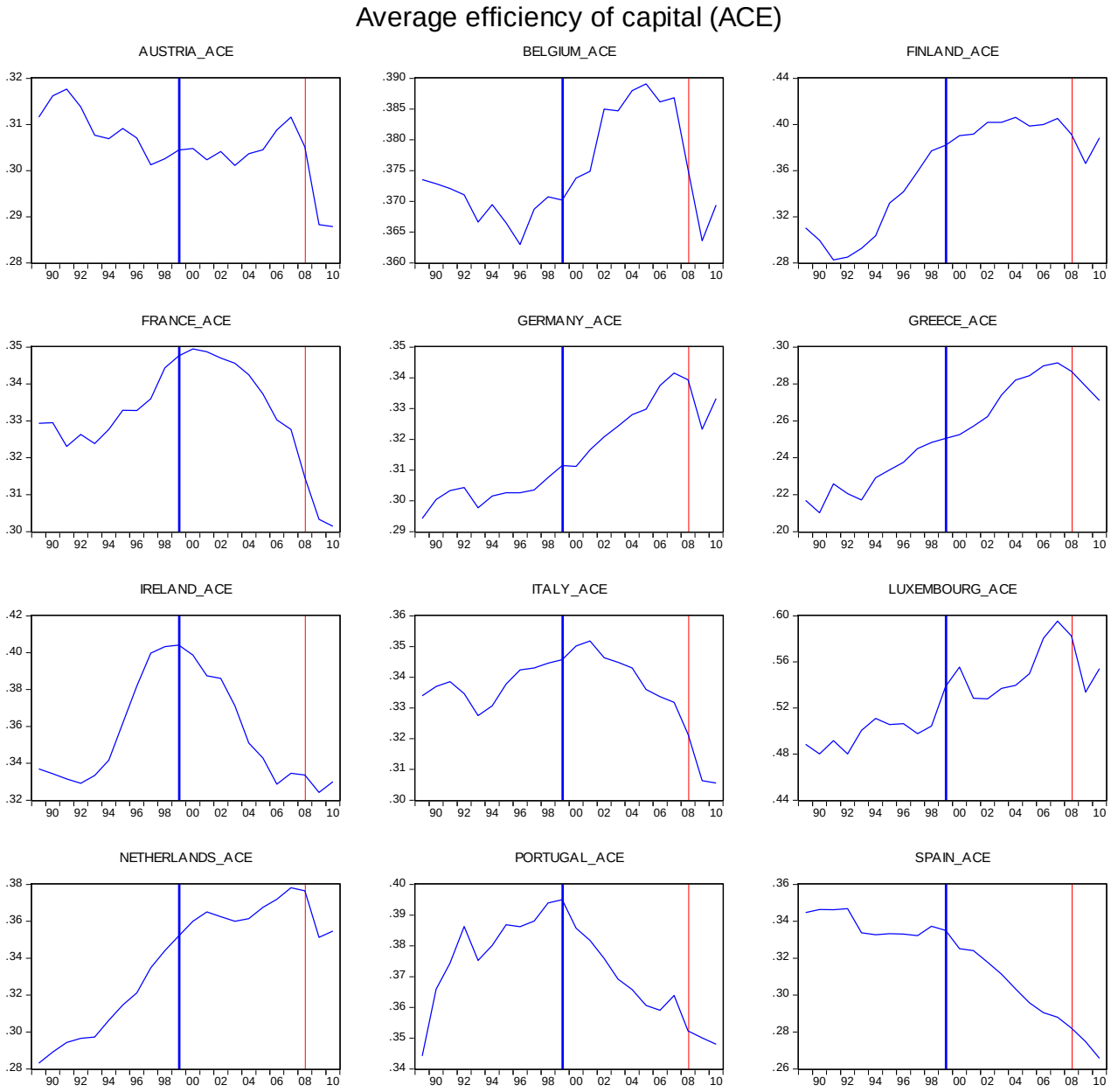
base year and only show cumulative variations. Yet, what matters for competitiveness are relative cost levels. It may be less damaging for ULC to increase rapidly if they start from an undervalued position. In other words, one needs to establish a benchmark for relative unit labour cost *levels* and not for rates of change. The rate of return on capital is such a reference.

Thus, we now turn to the cost of capital. We have mentioned above that the convergence of nominal interest rates in monetary union has had implications for the productivity of labour and capital. As the cost of capital has come down, a substitution effect from labour to capital and a scale effect from diminishing returns have lowered the productivity of capital. This is supported by the evidence.

Figure 11 gives a two decades overview over the average efficiency of the capital stock (ACE) of major Member States of the Euro Area.[16] Over the last decade, capital productivity has risen in the North, but – surprisingly – also in Greece; it had a tendency to decline in the South and in France. Nevertheless, we observe that capital productivity was negatively affected by the financial crisis in all Euro Member States. At this point it is too early to say what effect the European debt crisis with large yield spreads will have for the allocation of capital in the Euro Area.

[16] ACE is calculated as the ratio of GDP to the value of capital stock. If the GDP deflator and the capital goods deflator move at the same speed, ACE is the same as capital productivity.

Figure 11



Source: Ameco

These developments have consequences for competitiveness and wage bargaining. *Ceteris paribus*, higher capital productivity would reduce the cost of capital and higher labour productivity would lower wage costs per unit of output.

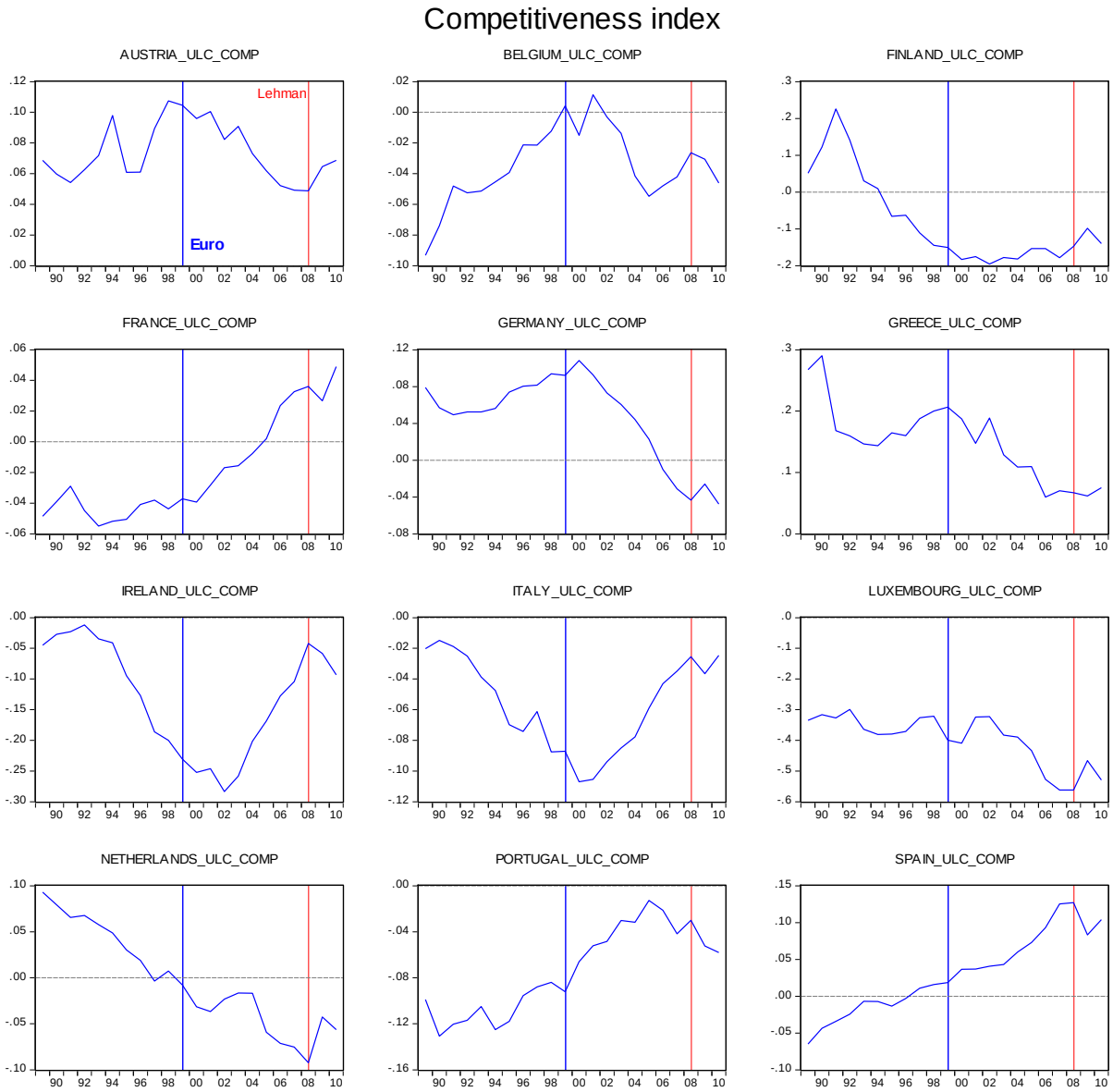
If one takes the Euro Area as a benchmark, the relative return on capital in different regions of monetary union would indicate, whether labour costs in a given Member State are overvalued or undervalued relative to the average. *Equilibrium is defined as the unit labour costs, which would ensure equal rates of return on the national and the average Euro Area capital stock*. Competitiveness can then be measured as the difference between actual and equilibrium unit labour costs. Figure 12 shows the so constructed *CER Competitive Index.*[17] The zero line indicates that the return on the capital stock in a given Member State is equal to the Euro Area. An index number above the zero line represents

[17] The index was first published and its methodology explained in the *Report on Europe* by CER 2011.

an overvaluation. For example, 0.1 means that the ULC of a Member State are 10% above equilibrium. An *increase* in the index is equivalent to a loss of competitiveness.

Over the last two decades, persistent overvaluations for Austria, Spain and Greece, and undervaluations for Belgium, Finland, Ireland, Italy, Luxemburg, Netherlands and Portugal can be observed. These absolute positions are relatively stable, although France and Germany have traded places: France has moved from undervaluation to overvaluation and Germany did the opposite. Remarkable changes have occurred for many other economies, even if they kept their relative position to equilibrium: most dramatically, in Ireland the index rose from an undervaluation close to -30% in 2002 to -5% in 2007 and has now dropped again in the crisis. In the Netherlands, huge competitive gains were made when the index went from zero to -10% and in Germany from +10 to -5%. On the other hand, Greece has also improved from +21% in 2000 to +7% in 2007, but this was not enough to eliminate the overvaluation. Italy has continually lost competitiveness from -11% to -2.5%, and is now close to equilibrium. The same is true for Portugal, although a correction occurred around 2005. Finland has reduced its advantage from -20 to -10%, and Spain has increased its disadvantage from 2% to 12%. France is maybe the saddest story of all: the advantages of competitive disinflation of the 1990s have been lost with a swing of 8 percentage points that has pushed the economy into overvaluation.

Figure 12



Source: Centro Europa Ricerche

The evolution of these indices is a combination of price and wage developments, and labour and capital productivity. It is consistent with the change in relative factor prices observed since the start of monetary union. Econometric tests have also shown that the CER Competitiveness Index is able to explain the performance of changes in market shares or trade balances or current accounts better than the usual indicators used by the European Commission or other international institutions such as the IMF.[18]

Policy recommendation 7. The European Commission should start publishing regularly a competitive indicator using the CER methodology and base its evaluations in the Alert Mechanism Report on these level data, rather than using indicators which can only reflect rates of change, but not competitiveness levels.

4.3. Imbalances and wage bargaining

[18] For evidence of these tests, see CER 2012.

We have now identified the key variables for determining relative advantages in the Euro Area. On the cost side, these are unit labour costs and capital productivity. These two variables interact. The convergence of interest rates has lowered the cost of capital, but also caused a reduction in capital productivity and a simultaneous increase in labour productivity. But if wage bargaining seeks to stabilise the wage share, it will increase wages at the same rate as labour productivity plus inflation target (the so-called *Golden Rule*) and given that capital productivity has gone down, this will lower the return on capital. The South is then experiencing a loss of competitive advantage, which will contribute to macro-imbalances in the Euro Area.

How should policy makers react to these developments? One could let markets correct these distortions, but the adjustment process is likely to take a long time and create economic stagnation and possibly persistent regional peripherization. Macroeconomic management could help to accelerate the corrections and thereby reduce social welfare losses. Thus, it is clear that successful macro management must not focus on correcting current account deficits, which have lost their significance, as these deficits may reflect markets' capacity to exploit comparative advantages.

The smoothest way of correcting imbalances is by better coordination of wage bargaining behaviour. Although this was the intention of the Macroeconomic Dialogue between social partners, it has failed – most probably because of its confidential nature which has prevented wage bargainers to take its messages into public consideration. In the Euro Area, wage bargaining institutions remain highly diversified and rather decentralised. A unified wage setting authority is hardly compatible with today's political environment and may not even be desirable. What is needed is greater transparency of the debates and arguments behind wage settlements. The major difference between wage setting in Europe's South and North lies in the fact that in the North, wage bargaining in the tradable sector takes the lead over public and non-tradable sectors. In the South, wage bargaining is led by the public sector which is shielded from competition. This may explain why the South has persistently lost competitive advantages over the last decade.

Policy recommendation 8. National wage bargaining systems should systematically assign leadership in wage bargaining to the tradable sector. More transparency of national wage bargaining and its European externalities must be achieved. The Macroeconomic Dialogue should be integrated into the European Parliament's consultations prior to the auditioning of the ECB President.

However, this is not enough. While the *Golden Rule* can support the ECB in achieving price stability, it does not guarantee the avoidance of excessive imbalances. For if competitiveness is about achieving a decent return on capital, the cost of capital and therefore the average efficiency of the capital stock has to be taken into account. This means that the Golden Rule of wage bargaining should be amended to reflect comparative distortions. When capital productivity rises faster than on the Euro average, as it did in the North, unit labour costs should increase faster than the inflation target of the ECB. However, when capital efficiency falls because of high rates of investment, as it did in the South, unit labour costs must be brought down as well, which requires wage restraint below the sum of labour productivity plus ECB inflation target.

Policy recommendation 9*.* The Golden Rule of productivity oriented wage increases must take into consideration not only labour productivity, but also capital productivity. The return on capital could be stabilised if a *New Golden Rule* would stipulate:

Wage increases = labour productivity increases + inflation target + increases in the average efficiency of capital

5. CONCLUSION

The biggest imbalance the Euro Area is suffering from is the imbalance between the economic and political logic off policy making. A bias toward national statistics and concepts familiar from international economics without considering the functional mechanisms of European Monetary Union will disrupt the Euro economy. Although the *Excessive Imbalance Procedure* is progress for the euro's economic governance, the procedures proposed by the European Commission are halfhearted and in several respects inappropriate because they make too many concessions to the political logic of Member States and do not serve the collective interests and common concerns of European citizens in an internal market with a single currency. Moreover, we have seen that the public debate about appropriate policies often does not even understand how monetary union works. There is no need to tackle current account deficits within the Euro Area. Assessing macroeconomic imbalances should not be done by using balance of payment statistics, but flow of fund accounts. The proper policy variable for improving welfare in the Euro Area is wage setting and competitiveness. The European Parliament should therefore engage in a much more aggressive debate about a proper European Economic Government.

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ANNEX 1

To check for evidence for the effects of regional money flows in monetary union, we estimate a quantity equation for the regional distribution of money (deposit) stocks. The quantity equation says

$$PY = MV$$

Where P the price level, Y output, M money balances and V the velocity of circulation. Taking the first difference of logs, assuming constant velocity and reformulating the equation yields:

$$\Delta p_i = \Delta m_i - \Delta y_i + c_i$$

Where $_i$ is an index for each Euro Area Member State. We estimate a Panel Error Correction Model for the Relation between Hicp (Δp_i), M3 (Δm_i) and GDP (Δy_i). The countries in the sample are those of the Euro Area 16 (for Estonia the sample was too small). The variables are:

relative $M3=logM3^{i}-logM3^{ea}$ i=AT, BE, ……, SK;

relative $HICP=logHICP^{i}-logHICP^{ea}$

relative $GDP=logGDP^{i}-logGDP^{ea}$

The cointegration vector is estimated trough dynamic OLS with 4 lags and leads + fixed effects, year and quarter dummies and country specific trends. This is done in order to control for cross sectional dependency. (See Mark and Sul, 2003).

For the short run part we tried 4 different ECM: with and without time (year and quarters) dummies (column 2 and 4) and with the lagged dependent variable (columns 3 and 4, it is an IV estimate).

Data are from ECB and Bloomberg; calculations by Centro Europa Ricerche.

Cointegration vector				
Estimation method Dynamic OLS (4 lags and 4 leads)				
Dependent variable *Relative HICP*				
Relative M3	0.130**			
	[0.053]			
Relative GDP	-0.049*			
	[0.027]			
Constant	0.191			
	[0.201]			
Short run dynamics				
	OLS-FE	OLS-FE	IV-FE	IV-FE
Error correction $_{t-1}$	-0.063**	-0.060**	-0.075**	-0.065**
	[0.026]	[0.025]	[0.032]	[0.031]
Δ*(Relative HICP)*$_{t-1}$			0.220	0.084
			[0.415]	[0.350]
Δ*(Relative M3)*$_{t}$	0.055**	0.053**	0.062**	0.056**
	[0.019]	[0.016]	[0.021]	[0.019]
Δ*(Relative M3)*$_{t-1}$	-0.015	-0.012	-0.026	-0.016
	[0.016]	[0.015]	[0.026]	[0.022]
Δ*(Relative GDP)*$_{t}$	-0.002	-0.001	-0.005	-0.001
	[0.011]	[0.009]	[0.011]	[0.008]
Δ*(Relative GDP)*$_{t-1}$	0.005	0.005	0.005	0.005
	[0.009]	[0.008]	[0.008]	[0.007]
Constant	0.014**	0.014**		
	[0.006]	[0.005]		
Time dummies	No	Yes	No	Yes
R^2	0.068	0.126	-0.072	0.085
N	609	609	609	609
Under identification[1]			21.903***	28.297***
Weak identification[2]			17.892***	21.418***

Note: Standard errors in brackets; * significant at 10% level, ** significant at 5% level, *** significant at 1% level. [1] Kleibergen-Paap rk LM statistic; [2] Kleibergen-Paap rk Wald F statistic;

ANNEX 2. HOW A PAYMENT UNION WORKS[19]

1. To explain how a payment union works, we first look at an example of purely local transactions. Let us assume a hairdresser in Thessaloniki takes out a credit from Alpha Bank to refurbish her shop and pay some local workers. This is transaction in non-tradable goods. After the completion of the work, she re-opens the shop, hopefully more people will be attracted and the hairdresser will pay back her loan out of the additional income. Alpha Bank's balance sheet has been extended by giving a credit and the bank loan has increased bank deposits in Greece; M3 has grown, and, because there will be more business, GDP as well. Banks need to hold a fractional minimum reserve of liquid cash in relation to their deposits. Alpha Bank will therefore need to borrow the necessary liquidity. Assume, this is done by borrowing from the Bank of Greece (BoG), which is an integral part of the Eurosystem.[20] Thus, ceteris paribus, M1 is growing in the Euro Area as well. In conclusion, the Greek economy has grown in the non-tradable sector; narrow (M1) and broad (M3) money supply has increased, but there is no change in the trade balance or in the price level.

2. Next we look at a transaction between Greece and Germany. Our hairdresser now buys news dryers, produced in Germany. In the process, the German exporter sends the equipment and a bill to Greece. The trade balance now turns negative in Greece and positive in Germany. The Greek balance of payment records a capital inflow, because the German supplier has extended credit to the Greek client. GDP grows in Germany, because of an export boom. Germans get richer. In Greece, income remains unchanged, because the bank loan granted by the hairdresser's bank will be spent on German goods. Our hairdresser is making net investment, i.e. she is increasing the Greek capital stock, but this may only increase Greek GDP in the future, not in the present. Thus, Greek capital productivity will first drop, but hopefully increase in the future. While the Greek capital stock increases, the German exporter obtains a claim on the hairdresser's assets for the same amount. Hence, the hairdresser's assets and liabilities both increase, but her wealth (net worth = assets - liabilities) is unchanged. National statistics, however, record a "foreign" liability, which reduces the net international investment position (NIIP) because our hairdresser has no claim on German assets.

3. How does the hairdresser pay her German supplier? The easiest way is to pay cash directly. However, it is more likely she will ask Alpha Bank to make the payment on her behalf. Her bank credit has generated a liability to her bank, but also cash (an asset) in her bank account. The subsequent payment to Germany will reduce her liquid assets again and extinguish her liability to the exporter. She ends up with a real asset (the hairdryer) and a liability to her Greek bank (the loan). However, Alpha Bank has now a liability to the German supplier. As a mirror image, the German exporter's balance sheet becomes more liquid after receiving the payment as his claim on the Greek hairdresser (receivables) is replaced by cash in the German bank.

4. How does the hairdresser reimburse the loan to her bank? As there is no extra income in Greece (*ceteris paribus*), she has to service the loan from profits resulting from higher productivity. This is an important difference to the non-tradable case. If the hairdresser were not able to improve productivity, she would have to reduce her consumption and save more in order to service her debt. If her reduced consumption generated a negative externality via the accelerator, it could slow down growth.[21] Either way, the hairdresser's debt can be serviced by income generated within the non-tradable sector and does not necessarily require a future current account surplus.

[19] This Annex is taken from Collignon, 2012.
[20] Alpha Bank could also borrow in the interbank market. This is discussed below.
[21] Given that the capital stock has increased, but output has not, and the average efficiency of the capital stock would have declined. The effect is the is the same as an increase of interest rates.

5. Who will pay the "Greek" debt to the German supplier? It is no longer the hairdresser, because she has transferred her liability to Alpha Bank. The exporter still has a claim that will only be extinguished when the money has arrived in his German bank account. The Greek current account deficit is Germany's surplus, which is identical with a German financial claim on Greece, and *this claim is settled not by goods, but by domestic money, i.e. euros*.[22] Money being the liability of the Eurosystem, represents claims on the European economy.[23] What was a specific claim on the hairdresser's assets, has been turned into a generalized claim on the assets of Euroland, because euros can be used anywhere for purchases. German exporters are happy to hold money; they do not need haircuts or feta cheese when they sell hairdryers or cars. If they get more money than they wish to hold, they may lend it to Irish property developers or their banks will return it to the ECB.

6. By asking her bank to make a payment, the Greek hairdresser is shifting her liability to Alpha Bank, which now needs to make the payment. There are several ways, how the bank can settle this liability and extinguish the Greek debt. None of them are comparable to foreign exchange transactions. To show how this mechanism works, we can distinguish three cases.

Cash transfers

7. The hairdresser herself or Alpha Bank could take cash and send it by currier to Germany. This would reduce the hairdresser's liquid assets and the bank's liabilities, because the hairdresser has less money in her bank account. Money supply (M1 and M3) in Greece would be reduced and in Germany increased, the overall balance for the Eurosystem remains unchanged. Given that more than 80 percent of the Eurosystem's liquidity consists in banknotes, this form of payment may actually be less quaint than it appears. We do not have data on the circulation of bank notes, but European central bankers have always been aware that there is a very likely net flow of bank notes from the North to the South due to the payment habits of tourists.

Transfers within the same bank

8. Alternatively, the hairdresser may ask her bank to make the payment by transfer. Remember that a payment flow is a change in the stocks of assets and liabilities. The original credit by Alpha Bank to the hairdresser has increased the bank's assets (a claim on the hairdresser) and liabilities (the hairdresser's deposit account). To make the payment, the bank now debits the hairdresser's account (whereby it reduces broad money M3 held in Greece) and transfers it to Germany, where it will ultimately increase German deposits and M3. Hence, the transfer only shifts money balances, but does not affect the aggregate money supply which is relevant for monetary policy.

9. However, in practical terms, making a payment is a rather complex operation. In the simplest case the German supplier would have a bank account with the German branch of Alpha Bank. The Greek branch would then debit the hairdresser's account and credit the supplier's account in Germany. Thus, it would simply switch liabilities between clients within its own balance sheet.

Transfers financed by the Eurosystem

10. It is more likely, however, that Alpha Bank makes the payment to another German bank, say Deutsche Bank. It must therefore shift the liability it has against the hairdresser to a German bank. Let Assume Alpha Bank uses the ECB's TARGET2 payment system. Alpha Bank keeps an account with the Bank of Greece (BoG) and Deutsche Bank with the Bundesbank. The cash balances held by the two banks with the central bank are part of the

[22] The transaction is somewhat similar to payments in specie of gold or silver in the old days.
[23] To be precise on the assets held in the balance sheet of the ECB.

Eurosystems's money supply (M1). They are an asset for the commercial bank and a liability of the Eurosystem. When Alpha asks the BoG to make a transfer to Deutsche Bank, it effectively requests the Eurosystem to debit Alpha's account and to credit Deutsche's. This reduces the BoG's liability to the Greek banking system and simultaneously Alpha Bank's liquid assets; Alpha Bank has a less liquid claim (the loan it granted to the hairdresser). On the other hand, the credit increases liquidity for Deutsche Bank. This is how M1 is transferred from Greece to Germany.

11. For technical reasons, the two banks have their accounts in two separate central banks, which are, however, integral parts of the Eurosystem. For book-keeping reasons, the money must therefore be shifted from the BoG to the Bundesbank. Both central banks have an account with the ECB's TARGET2 system. The BoG will ask the ECB to debit its TARGET account and to credit the Bundesbank's account. This means, the liability it had toward Alpha has now been shifted to the TARGET2 system. The Bundesbank will in return credit Deutsche Bank, which will then credit the exporter's account. Hence, the Bundesbank has a positive and the BoG a negative TARGET2 balance. The balancing item for the Bundesbank is a liability to Deutsche Bank (M1). By definition, this liability is Deutsche's asset balance with the Eurosystem, which is balanced by the bank's deposit liability (M3) to the exporter.

12. In order to be able to contract a liability to the BoG, Alpha Bank must provide adequate collateral. If it were to default, the ECB would seize the collateral and if the collateral would also default, the loss would go to the ECB's shareholders. Hence there is a risk to the Eurosystem, which does not exist if the trans-border payment is made in cash or within the same bank.

13. To summarize: By granting a loan to the Greek hairdresser, Alpha Bank has initiated a process, which ends with increased money balances and higher income in Germany. Within the Eurosystem, a TARGET2 liability has arisen for the Bank of Greece, and a TARGET2 claim for the Bundesbank. The increase in Bundesbank liabilities to German banks is not matched by central bank loans to the banking system, but by the TARGET2 balance in the Bundesbank's balance sheet. Thus, as one would expect in monetary union, national central banks no longer hold exclusive claims on residents of national economies; because they are now part of the Eurosystem, they hold directly or indirectly (via TARGET2) claims against the Euroland economy. In other words, money supply in Germany is no longer a Bundesbank decision, but it is the market-induced outcome of payments for goods, services and financial transactions.

Transfers financed by the banking system

14. Contrary to the bank deposits by the hairdresser, Alpha Bank's liability to the BoG does not come without costs. A profit oriented bank will seek to minimise these costs. As an alternative to borrowing from the central bank, Alpha could borrow at the interbank market, which means in our simplified model it borrows from Deutsche Bank. In this case, the payment from the Greek hairdresser to the German supplier via TARGET2 is similar to our previous case, although this time Alpha obtains the required liquidity not by borrowing from the BoG but by obtaining a credit from Deutsche Bank. Deutsche Bank has excess liquidity, which it will lend to Alpha, provided Alpha is solvent and trustworthy.

15. Lending to Alpha is in effect the same thing as buying a security from Alpha. The payment process is therefore an analogue to the hairdresser buying dryers, only it works in the opposite direction. Deutsche Bank uses the liquidity it holds in its account with the Bundesbank and makes a payment against a security to Alpha. The Bundesbank will debit the ECB TARGET2 account and the ECB credits BoG, which credits Alpha. This operation will simultaneously reduce the Bundesbank's TARGET2 claim and the BoG TARGET2 liability. M1 has been reduced in Germany and by the same amount increased in Greece. As in the cash transfer, total M1 is unchanged.

16. Next, Alpha takes this money to make the payment for the hairdresser to the German supplier, and this transaction proceeds back in the same ways as under point 9 and 10. As a consequence, *we have two opposite movements on the TARGET2 system, which partly compensate each other*. It may seem strange that borrowing in the interbank market to pay for Greek net imports implies such complicated operations, but whether banks choose the central bank or the interbank market depends on risk and return considerations. In normal times, the interbank market is the main source of finance, but in the recent crisis when the insolvency risk increased for banks all over Europe, the ECB had to assume financing the payment mechanism, without which a monetary union could not exist.

17. The logic of this example does not only apply to current account transactions, but also to payments for financial securities, which is what we call capital flows. However, given that granting a credit is always equivalent to buying a security, the effect on TARGET2 balances from financing the net imports into Greece are very different when Greek banks borrow on the interbank market rather than from the Eurosystem.