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Macroeconomic imbalances and competitiveness in the euro area

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Summary

This article challenges the new revisionist consensus, whereby current account imbalances have caused the euro crisis. In a monetary union, current accounts are not useful indicators for macroeconomic imbalances, because a currency area is not a fixed exchange rate system. It is a payment union and it is therefore more appropriate to analyse the flow of funds and payments between sectors and Member States. Applying the analysis, it turns out that excessive lending in the north has financed the borrowing in the south, thereby contributing to unequal development in the euro area. To remedy this situation, incentives for competitive investment need to be adjusted. The article describes an innovative approach for determining equilibrium unit labour costs as a benchmark for stable and fair wage setting. It then discusses policy implications and recommends better wage coordination between European trade unions.

Résumé

Cet article remet en cause le nouveau consensus révisionniste, selon lequel des déséquilibres de la balance courante ont causé la crise de l'euro. Dans une union monétaire, les balances courantes ne sont pas des indicateurs utiles des déséquilibres macroéconomiques, car une zone monétaire n'est pas un système à taux de change fixe. Il s'agit d'une union des paiements et il est par conséquent plus indiqué d'analyser le flux des fonds et des paiements entre les secteurs de l'économie et les Etats membres. Cette analyse permet de souligner que les prêts excessifs du nord ont financé les emprunts du sud, contribuant ainsi à un développement déséquilibré de la zone euro. Pour remédier à cette situation, des incitants à l'investissement concurrentiel doivent être adaptés. L'article décrit une approche novatrice de détermination de l'équilibre des coûts unitaires du travail comme un indicateur de référence pour la fixation des salaires stables et équitables. Il passe ensuite en revue les implications politiques et recommande une meilleure coordination des salaires entre les syndicats européens.

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Zusammenfassung

Dieser Beitrag stellt den neuen revisionistischen Konsens in Frage, wonach die Eurokrise durch das derzeitige Ungleichgewicht der Leistungsbilanz ausgelöst wurde. In einer Währungsunion stellt die Leistungsbilanz keinen brauchbaren Indikator für makroökonomische Ungleichgewichte dar, da ein Währungsraum und ein System mit festen Wechselkursen sich grundlegend voneinander unterscheiden. Die WWU ist eine Zahlungsunion und somit ist es sinnvoller, die Finanz- und Zahlungsströme zwischen Sektoren und Mitgliedstaaten zu untersuchen. Aus dieser Analyse geht hervor, dass übermäßige Darlehen aus den nördlichen Ländern Anleihen der südlichen Länder finanziert und so zur ungleichen Entwicklung im Euroraum beigetragen haben. Um daran etwas zu ändern, müssten die Anreize für wettbewerbsfähige Investitionen angepasst werden. Der Beitrag beschreibt einen innovativen Ansatz für die Bestimmung von Gleichgewichts-Lohnstückkosten als Benchmark für eine stabile und gerechte Lohnbildung. Anschließend werden die Auswirkungen auf die Politik diskutiert und Empfehlungen für eine bessere Lohnkoordinierung zwischen europäischen Gewerkschaften formuliert.

Introduction

Among the different explanations for the recent euro crisis, the argument that macroeconomic imbalances have generated unsustainable debt levels has gained increasing prominence. The European Commission has responded by inventing a new Excessive Imbalances Procedure, which seeks to eliminate 'excessive' current account deficits (European Commission, 2012a). In this article, I will argue that the unwarranted import of the current account concept from international economics into monetary union wrongly identifies a currency area with a fixed exchange rate area. This is a category mistake. It confuses economics with politics and misunderstands how monetary union works. The focus on current accounts justifies the imposition of austerity policies. It will cause economic depressions, push up unemployment, deepen the debt crisis and undermine the legitimacy of European integration. A better explanation of macroeconomic imbalances in the euro area takes into consideration the flow of funds between households, firms and governments across regions. These flows are induced by the incentives of relative prices, costs and returns on capital. In the second part of this article, I will therefore interpret competitiveness as an incentive problem that generates imbalances and present a novel approach for calculating equilibrium unit labour costs. With these analytical tools we can then draw some policy conclusions, notably for the coordination of wage bargaining.

Current accounts in a monetary union: a category mistake

The significance of current account balances

During the first decade of monetary union, European authorities have treated current account imbalances with benign neglect. Neither the Maastricht Treaty not the convergence criteria for joining the euro took current accounts into consideration. The reason was clearly formulated by

Ingram (1973: 10): '*Intracommunity payments become analogous to interregional payments within a single country*'. Blanchard and Giavazzi (2002: 148) looked at rising current account deficits in Greece and Portugal in the early years of monetary union and found 'a natural explanation' for them: 'They are exactly what theory suggests can and should happen when countries become more closely linked in goods and financial markets'.

However, since the financial crisis started in 2008, these perfectly sensible observations have been crowded out by arguments from the debate on global imbalances. Jaumotte and Sodsriwiboon (2010: 4) found that the deficits of most southern countries exceed acceptable norms, and argue that they threaten the economy and therefore matter, even in a currency union. Holinski et al. (2010: 10) claimed 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'.[2] Thus, policy intervention to rebalance current accounts is required to preserve the euro.

The revisionist literature refers to the book keeping identity which states that current account deficits increase foreign debt. Persistent deficits would then generate ever-increasing debt levels and the question of whether the deficits are 'too high' and foreign debt unsustainable must be of policy concern. Nevertheless, the literature has discussed a variety of cases where current account deficits are acceptable to different degrees. Blanchard (2007) has set the benchmark model by showing that, given rational expectations and assuming that deficits reflect private saving and investment decisions, there is no reason for government intervention (the 'Lawson doctrine'). Alternatively, if nominal rigidities (such as fixed exchange rates) and different distortions in goods, labour, or financial markets (such as inappropriate wage levels) are introduced, deficits may become 'too large' and government interference is desirable (the 'prudential IMF view').

The question is then, what is 'too large'? Foreign borrowing may be justified by taking an inter-temporal consumption smoothing approach when accelerated catch-up growth in Europe's southern periphery generates productivity gains out of which the debt is serviced. Yet, contrary to earlier papers (Blanchard and Giavazzi, 2002; Buiter and Gourinchas, 2002) most authors have now found that southern deficits have been 'excessive' (Giavazzi and Spaventa, 2010; Belke and Dreger, 2011; Holinsky et al., 2012; Dullien, 2010). Hence, excessive imbalances need to be avoided and the euro area needs new policy instruments (European Commission, 2012a).

Policy recommendations for balancing current accounts are derived from the accounting identity used in open economy textbooks (Whelan, 2012):

$$Y = C + I + G + X - M \tag{2}$$

where national income (Y) can be expressed as the sum of consumption (C), investment (I) and spending by government (G) plus the difference between exports (X) and imports (M).[3] National income also equals total consumption plus savings (S) plus taxes (T) paid to the government, so that the identity linking private and public savings takes the form:

$$(T - G) + (S - I) = X - M$$

Given this relation, it is clear that if an open economy wishes to reduce a current account deficit or even generate a surplus, the public sector must consolidate and the private sector must increase savings or reduce investment. Hence, policies focusing on reducing current account deficits in the euro area will lead to country-specific austerity policies. Yet, such austerity policies can have disastrous consequences. For as long as the economy does not fully use its productive capacities and

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2   In Holinski et al. 2012, these authors have changed their story from trade to net factor income imbalances.
3   We take here the trade balance (X-M) as a proxy for the current account balance.

has a negative output gap, the correction of the current account deficit will restrain growth. The European Commission (2012b: 36) is surprisingly lucid about the consequences of the policy it prescribes: 'In general, rebalancing processes featuring strong deleveraging in the private sector and fiscal consolidation weigh on growth. Since economic agents are forced to increase savings and cut investment, domestic demand in deficit countries is constrained and thus limits output expansion.' However, repressed growth in already highly indebted regions will exacerbate debt problems, restrain private investment and increase unemployment.

Figure 1 shows the evolution of the current account positions. While overall the euro area has remained close to balance, there is a wide divergence between surpluses in the north and deficits in the south that seems to have started with monetary union in 1999. The main drivers of regional surpluses are Germany, the Netherlands and Austria; deficits rise substantially in Spain, Ireland, Greece and Portugal. Since the global crisis following the Lehman bankruptcy, a small correction of these divergences has taken place, but a clear structural difference remains between north and south.[4] The revisionist literature argues that this imbalance is unsustainable.

Is this true? Have these current account balances contributed to the rise in private or public debt in euro Member States? The evidence is not very convincing. Table 1 shows the levels and changes in private and public debt and in the current account balance for the pre-crisis (1999–2007) and post-crisis (2007–2012) EMU periods. Before the crisis, debt has often but not always fallen, while current account deficits have risen; after 2008, we find the opposite. More formally, neither private, nor public nor total debt changes are significantly correlated with changes in the current account position and the calculated correlation coefficients are small (see Table 2).

However, while it is true by definition that current account deficits reflect insufficient national savings, there is a causal link only with *foreign* debt, or more precisely with the net international investment position (NIIP). A positive NIIP indicates that the economic agents in a given economy have an aggregate net financial claim on other economies. Current account surpluses, therefore, increase the financial wealth of an economy. The opposite is true for deficits. Hence, the net international investment position says something about the ownership of national wealth: current account surpluses make some domestic individuals wealthy by giving them property rights over foreign resources, while deficits shift wealth to non-residents. However, one must not forget that the economic mobilization of real assets in a given region may contribute to growth and job creation, irrespective of who owns them. This is why foreign investment is usually welcomed as an improvement of welfare. Yet, it is also true that financial assets give a title to capital income, so that a positive NIIP will transfer regional income (GDP) from deficit to surplus regions. The north has therefore become richer in monetary union because of the payments it has received from the south. These are inevitable monetary transfers resulting from economic integration.

It has been argued that these payments are unsustainable because persistent current account deficits would generate larger and larger net international investment positions (European Commission, 2012a; Jaumotte and Sodsriwiboon, 2010; Darvas, 2012). This would be true if and only if a region's current account deficits would become so large that it could no longer service its liabilities out of its local income. But Europe is far from being unable to service its payment obligations. Table 3 shows the transfers for property income. There is a huge difference between corporate liabilities and household claims, because companies borrow money and households are the ultimate owners of capital.

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4   In this aggregation, I count Germany, the Netherlands, Austria, Belgium and Finland as north, Italy, Spain, Greece, Portugal and Ireland as south. France is a separate case.
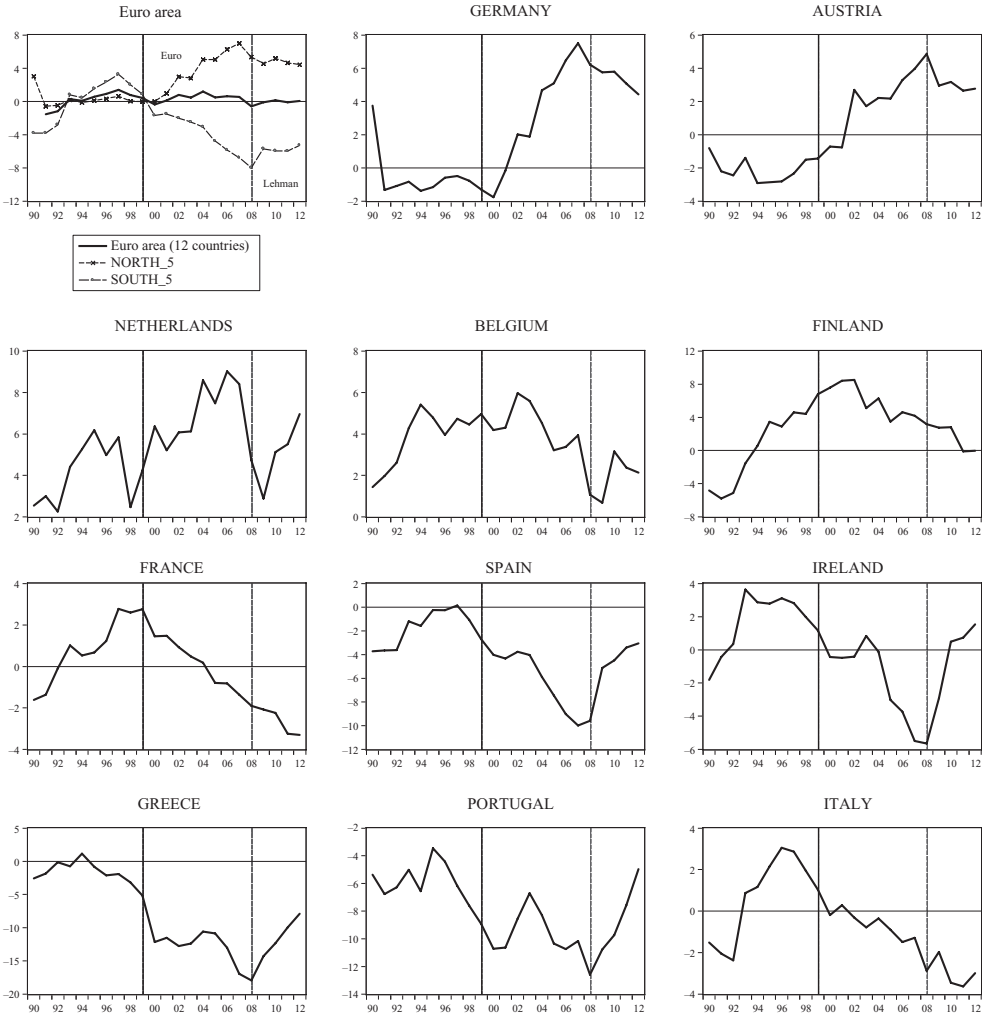
Figure 1. Current account positions in euro area Member States.
Source: AMECO.

The risk of defaulting on payment obligations is, however, significantly higher for economies with separate currencies than in a monetary union. For if payments depend on foreign exchange reserves, even a solvent debtor would become unable to service liabilities if the monetary authorities of the deficit country run out of foreign exchange reserves. If the exchange rate were devalued, servicing external debt may become excessively expensive, as many South-east Asian countries discovered during the Asian financial crisis. A liquidity crisis of foreign exchange may then turn into domestic insolvencies. However, the point is that in an open economy with different currencies, the risk of losses from asset depreciations or defaults is collective and not debtor specific because it depends on the exchange rate. In a single currency area, by contrast, each liability and the risk of loss is specific to a debtor and it is the job of financial intermediaries to ensure that money is only invested in projects that will remain solvent over time. The intertemporal budget

Table 1. Change in private and public debt and current accounts.

| | Debt level as % of GDP | | | | Change %-points of GDP; annual average | | | |
	Public debt	Private debt	Total		Public debt	Private debt	Total	Current accounts
Ireland				**Ireland**				
2007	24.8	231.2	256.1	2001-2007	−1.5	15.5	14.0	−0.880
2012	116.1	332.0	448.1	2007-2012	18.2	20.2	38.4	2.147
Portugal				**Portugal**				
2007	68.3	214.2	282.5	1999-2007	2.7	8.6	11.3	−0.651
2012	113.9	247.9	361.8	2007-2012	9.1	6.7	15.9	0.062
Belgium				**Belgium**				
2007	84.1	200.0	284.1	1999-2007	−4.2	7.2	3.0	0.226
2012	100.5	238.4	338.9	2007-2012	3.3	7.7	11.0	0.081
Austria				**Austria**				
2007	60.2	148.0	208.2	1999-2007	−0.9	4.3	3.4	0.150
2012	74.2	161.9	236.1	2007-2012	2.8	2.8	5.6	0.392
Spain				**Spain**				
2007	36.2	210.6	246.8	1999-2007	−3.7	16.3	12.5	−0.869
2012	80.9	214.2	295.1	2007-2012	8.9	0.7	9.7	0.978
Malta				**Malta**				
2007	62.3	193.2	255.4	1999-2007	0.7	NA	NA	−0.425
2012	74.8	212.3	287.1	2007-2012	2.5	3.8	6.3	0.128
Greece				**Greece**				
2007	107.4	102.9	210.3	1999-2007	1.8	7.7	9.4	−1.130
2012	160.6	124.6	285.2	2007-2012	10.6	4.3	15.0	0.285
Italy				**Italy**				
2007	103.1	111.3	214.3	1999-2007	−1.4	5.6	4.2	0.212
2012	123.5	126.0	249.5	2007-2012	4.1	3.0	7.0	−1.170
France				**France**				
2007	64.2	140.6	204.8	1999-2007	0.8	4.7	5.5	0.243
2012	90.5	141.1	231.6	2007-2012	5.3	0.1	5.4	−1.313
Finland				**Finland**				
2007	35.2	148.9	184.0	1999-2007	−1.5	5.8	4.3	0.528
2012	50.5	179.9	230.4	2007-2012	3.1	6.2	9.3	−1.062
Germany				**Germany**				
2007	65.2	123.0	188.1	1999-2007	0.6	−0.2	0.3	0.385
2012	82.2	128.3	210.5	2007-2012	3.4	1.1	4.5	0.337
Slovenia				**Slovenia**				
2007	23.1	99.9	122.9	2001-2007	−0.5	5.9	5.4	−0.598
2012	54.7	130.3	185.0	2007-2012	6.3	6.1	12.4	1.267
Estonia				**Estonia**				
2007	3.7	139.2	142.9	1999-2007	−0.4	12.1	11.7	−2.156
2012	10.4	141.0	151.4	2007-2012	1.3	0.4	1.7	4.692
Slovakia				**Slovakia**				
2007	29.6	62.2	91.8	1999-2007	−2.6	0.3	−2.3	−0.553
2012	49.7	74.8	124.5	2007-2012	4.0	2.5	6.5	0.804

Source: AMECO and own calculations.

constraint imposes that each debtor will generate future cash flows with a present value equal to or larger than the contracted liability. Because the cash flow from profits is in domestic currency, there is no need to close the deficit by shifting the incentives from non-tradable goods to tradables, as long as yields are sufficient to service the debt. Thus, in monetary union solvency requires profits, not foreign currency. But profits depend on prices, wages and productivity. If supply-side

Table 2. Correlation between current accounts and debt changes; euro area (1999–2007, 2007–2012).

Covariance Analysis: Ordinary
Sample: 1 28
Included observations: 27
Balanced sample (listwise missing value deletion)

Correlation t-Statistic Probability	CURRENT ACCOUNTS	PRIVATE DEBT	PUBLIC DEBT	TOTAL
CURRENT_ACCOUNTS	1.000000 ——— ———			
PRIVATE_DEBT	−0.173213 −0.879359 0.3876	1.000000 ——— ———		
PUBLIC_DEBT	0.315070 1.659891 0.1094	0.124957 0.629719 0.5346	1.000000 ——— ———	
TOTAL	0.087196 0.437647 0.6654	0.763023 5.902352 0.0000	0.736650 5.446393 0.0000	1.000000 ——— ———

conditions deteriorate, rising costs may wipe out profits; if effective demand is constrained and prices and productivity fall, some debtors may no longer earn enough income to be able to service their debt and will default. Hence, regional macroeconomic conditions are a crucial factor in sustaining the solvency of debtors within regions of a given currency area and this is why the excessive austerity policies presently imposed in Europe's south reinforce the risk of debt crises. This becomes clear when we recall how monetary union works.

The nature of monetary union

Many economists wrongly assume that 'domestic' economies are identical with autonomous jurisdictions (countries) and that the euro area consists of sovereign states, which have 'permanently fixed their exchange rates'. Logically this view implies that euro Member States must either still have their own currencies, which are exchanged at fixed parity, or that the euro is a foreign currency over which Member States have lost control.[5] In the latter case, monetary union is effectively interpreted as a currency board and economic relations are defined by the need to earn foreign currency in order to make payments to foreigners. Either way, current accounts are crucial for maintaining a fixed exchange rate peg. As long as deficits are balanced by capital inflows, the currency

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5   This statement should not be confused with Paul De Grauwe's (2011) influential article, whereby 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. Here, the issue is not whether the euro is domestic or foreign currency, i.e. *whether the central bank has control over issuing money*, but *whether the central bank is dependent on governments* and could be forced to finance governments and monetize sovereign debt. These are two separate issues.

Table 3. Property income and NIIP as a percentage of GDP.

	Corporations		Households		Total		NIIP	
	1999	2009	1999	2009	1999	2009	1999	2009
Germany	-10.2	-10.3	11.7	14.2	1.5	3.8	4.50	35.10
Italy	-11.7	-9.2	17.2	12.5	5.5	3.3	-5.00	-25.30
France	-2.8	-4.3	6.3	6.7	3.5	2.4	-8.00	-9.40
Euro area (17 MS)	-7.6	-7.4	10.1	8.9	2.5	1.5	NA	NA
Euro area (12 MS)	NA	-7.7	NA	9.1	NA	1.4	NA	-15.60
Belgium	-3.6	-7.7	10.8	8.8	7.2	1.2	NA	57.10
Greece	-4.8	-6.0	7.2	6.8	2.4	0.9	-32.60	-86.10
Austria	-7.0	-5.6	7.0	5.9	0.1	0.2	-26.20	-8.00
Finland	-5.1	-5.4	3.9	3.9	-1.2	-1.5	-175.40	0.00
Slovenia	0.0	-2.9	1.1	1.3	1.1	-1.5	-11.60	-39.60
Spain	-3.6	-5.5	4.6	3.7	0.9	-1.8	-32.10	-93.70
Cyprus	-9.1	-7.5	7.4	5.6	-1.7	-1.9	NA	-30.40
Netherlands	-4.2	-6.9	8.3	4.5	4.1	-2.4	-8.20	22.00
Portugal	-5.7	-8.5	6.3	6.0	0.6	-2.6	-31.50	-110.30
Slovakia	-5.6	-5.7	5.4	1.8	-0.2	-3.9	-16.30	-66.70
Estonia	-2.7	-7.8	1.0	1.4	-1.8	-6.4	-51.70	-81.50
Luxembourg	NA	-15.5	NA	1.4	NA	-14.0	NA	99.20
Ireland	NA	-16.9	NA	0.3	NA	-16.6	50.00	-103.10
European Union (27 MS)	-7.2	-6.8	9.6	8.2	2.4	1.3	NA	NA
European Union (15 MS)	NA	-7.0	NA	8.7	NA	1.6	NA	NA
Latvia	-11.1	-0.6	9.6	5.2	-1.5	4.5	-24.90	-82.70
United Kingdom	-8.6	-5.4	10.3	8.4	1.7	2.9	-20.20	-21.00
Lithuania	-12.1	-12.2	10.4	14.3	-1.6	2.1	-33.90	-58.60
Denmark	0.1	1.8	1.0	0.0	1.0	1.8	-13.40	4.40
Sweden	-2.3	-3.2	2.9	4.0	0.6	0.8	-34.30	-11.40
Romania	-6.2	-2.1	8.5	0.7	2.3	-1.3	-22.90	-62.20
Hungary	-6.6	-6.4	5.9	3.6	-0.7	-2.8	-75.1	-117.9
Poland	-3.7	-6.5	5.1	3.3	1.4	-3.2	-30.60	-58.80
Bulgaria	-0.3	-4.4	0.1	0.0	-0.2	-4.4	-39.60	-101.80
Czech Republic	-6.0	-9.9	4.4	3.5	-1.6	-6.4	-5.20	-46.20
Norway	-7.2	-10.3	1.6	1.4	-5.6	-8.9	NA	NA
Switzerland	-2.9	-4.5	11.4	9.8	8.5	5.3	NA	135.70
USA	NA	NA	6.9	6.1	NA	NA	NA	-17.20
Japan	-5.4	-1.3	3.3	4.4	-2.1	3.1	NA	56.50

Sources: AMECO; Eurostat.

board would be sustainable, but when these flows come to a 'sudden stop', the system risks breaking up (Merler and Pisani-Ferry, 2012; Gros, 2012). Hence, revisionist economists often interpret the present euro crisis as a crisis of a fixed exchange rate regime, such as Bretton Woods, Argentina or the Asian crisis (Eichengreen et al., 2005; Sinn and Wollmershaeuser, 2011). Unfortunately, this view reflects a category mistake. In a currency union, regional capital outflows can be compensated by domestic credit; in a currency board, this is not possible. This makes a monetary union much more robust than a fixed exchange rate regime.

A monetary union is not a fixed exchange rate area; it is a payment union. This means that a currency area is the territory where credit contracts can be enforced and extinguished by transferring the

legally defined and generally accepted currency. Because credit contracts are in nominal terms, the convenient asset that extinguishes debt (that is, money) must fulfil three requirements: (1) it must have *liquidity*, i.e. it can be used for immediate settlement; (2) it must not carry a *market risk*, i.e. its nominal value will always remain constant; (3) it does not entail *credit risk*, i.e. it is a safe asset. These three conditions ensure that money functions as a means of payment that extinguishes nominal debt. Of course, value risks due to inflation also exist and they determine the quality of money as a store of value. This is why central banks must pursue the objective of maintaining price stability.

The euro area functions exactly as any other payment union, such as Switzerland, Canada or the United States. When European Monetary Union started on 1 January 1999, the euro became legal tender in those participating Member States (Article 3(4) TEU) and previously existing monetary laws were abrogated in the Member States. Legal tender, i.e. base money, is now issued by the European Central Bank (ECB) and no longer by national central banks. Commercial banks and holders of banknotes use this European central bank liability as the ultimate settlement asset when they make payments. Because the central bank is the bank of banks, money is created by the European Central Bank granting credit to commercial banks, which hold reserve balances with the national central banks of the Eurosystem.[6] The reserve balances held at the Eurosystem represent, of course, an asset for commercial banks, and *a liability for the central bank*. The domestic budget constraint is the central bank's (i.e. Eurosystem's) liability, and it is set by the amount of base money reserves made available by the European Central Bank in the long run. However, in the short run, it is an indispensable and defining requirement of monetary union that commercial banks from any Member State have equal and unrestricted access to central bank credit as long as they are solvent.

A fixed exchange rate regime functions very differently, because the hard budget constraint is foreign exchange reserves. In such a regime, different economies must 'exchange' domestic against foreign currency at a fixed price, in order to make a payment. This requires access not to credit from the central bank, but to foreign currency. Foreign currency is obtained by selling assets (goods or securities) to foreigners or by using the foreign reserves of the central bank. Hence, the international budget constraint is set by the amount of foreign exchange reserves accumulated by the central bank. These foreign reserves are, however, recorded as an *asset* in the central bank's balance sheet and not, as domestic money, as a *liability*. It is, therefore, a category mistake to mix up the domestic banking reserves, which guarantee that the banking system remains liquid, and the foreign exchange reserves, which ensure the convertibility of the domestic currency into any other. As a consequence, one must also distinguish the two separate processes, by which domestic and foreign reserves are generated: the first is dependent on lending and borrowing within the currency area, the second on balance of payment flows. Hence, a monetary union does not operate as a fixed exchange rate regime in an open economy; payment flows within the currency area are a closed system.[7] Even if one considers Member States in the euro area as 'foreign', the problem of *foreign reserves* only exists with respect to the outside world. Current account statistics in the euro area have, therefore, lost the important function of signalling whether 'a country' is able to pay back its foreign debt. Focusing on them leads to erroneous interpretations of the crisis and generates welfare reducing policies, because it deprives Member States of the

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6 The Eurosystem consists of the European Central Bank (ECB), which decides the monetary policy, and the central banks of the Member States that belong to the euro area and apply the monetary policy decided by the ECB.

7 For an in-depth analysis, see Stützel, 1958.

comparative advantages which would result from the efficient allocation of resources in the internal market and imposes counterproductive austerity policies.

Nevertheless, would persistent current account imbalances not generate unsustainable debt levels? The answer is no, because payment transfers kick off an automatic adjustment mechanism, which makes currency unions fundamentally robust, as long as the payment system functions smoothly[8] and individual debt defaults do not cause systemic problems for the banking system as a whole.[9] The system is robust, because current account or payment imbalances in a closed system simply redistribute financial and real assets. However, this redistribution process poses serious problems for social justice and generates political tensions. The mechanism is as follows.

When a region spends more money on goods, services and securities than it receives, the outflow of money will reduce demand, income and profits, and this will reduce southern economic agents' capacity to borrow or the appetite to lend. *This process will quickly restore payment balance, although the new equilibrium may correspond to lower income levels*. A simple example may clarify the mechanism. Assume a southerner in the non-tradable sector, say a hairdresser in Greece, borrows from her local bank in order to import goods from Germany. When the Greek bank grants credit to the hairdresser, it creates money. Hence, the euro area's money supply has increased in the south. Also, because the money is spent on net imports, the Greek current accounts record a deficit and 'the south' now has a 'foreign' debt to 'Germany'. Balance of payment statistics record this debt as a 'capital inflow'. However, when the southern importer pays the supplier and transfers money to Germany, this debt is extinguished and the payment is recorded as a capital outflow. On balance, the current account deficit was not financed by an international capital flow, but by the creation of money in Greece. However, the money does not stay there. To make things simple, let us assume that the payment is made in cash. It implies that money holdings in the south shrink, and money supply in Germany increases.[10] Thus, there is a money outflow which corresponds to the trade deficit, and an equivalent money inflow in the surplus economy. Yet, because the claim by the German exporter has been paid and settled, there is no longer a 'foreign' debt from the south to the north, although there is a still a 'domestic' debt by the hairdresser to her local bank. Next, assume the hairdresser attracts lots of clients; her new income allows her to pay back the credit. This reduces the bank's assets, and the hairdresser's liabilities. In the end, financial wealth (in the form of currency) has shrunk in the south, but real assets (in the form of imported goods) have increased. The opposite is the case in Germany, where financial wealth (money balances) has risen, but real assets have fallen. Hence, the allocation of individuals' wealth between net financial claims and real assets will change because of the current account imbalance in the currency union, but there is no loss of wealth due to devaluations as in the exchange regime.

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8 While this may seem obvious, Sinn and Wollmershaeuser (2011) have even put this requirement into question. For reasons of space, I cannot deal with the issue here. See, however: Collignon, 2012a.

9 The G10 (2001) defined *systemic financial risk* as 'the risk that an event will trigger a loss of economic value or confidence in, and attendant increases in uncertainly about, a substantial portion of the financial system that is serious enough to quite probably have significant adverse effects on the real economy. Systemic risk events can be sudden and unexpected, or the likelihood of their occurrence can build up through time in the absence of appropriate policy responses. The adverse real economic effects from systemic problems are generally seen as arising from disruptions to the payment system, to credit flows, and from the destruction of asset values.'

10 Whether this increase in money supply is consistent with price stability depends on the ECB's assessment. If it is excess liquidity, it will be sterilized by appropriate measures. Otherwise, it may fuel a demand boom in Germany.

It is, however, true that the story changes if our hairdresser does not find new clients. She may then go bankrupt. Banks must therefore lend only prudently. Because of asymmetric information and risk averseness, banks often have a home bias in their asset portfolios, so that large defaults can cause contagion and financial panics and even bank runs (Jacklin and Bhattacharya, 1988). This is why proper monitoring of lending behaviour through financial supervisory authorities and even a 'banking union' are crucial for the stability of monetary union. However, this has nothing to do with current accounts. Ireland and Spain are not in a crisis because of high current account deficits, but because nothing was done to dampen the property and assets bubble.

The important insight from this discussion is that in monetary union *regional imbalances are sustainable as long as local income and GDP grow at a rate sufficient to service the outstanding local debt*. If economic growth falls significantly short of this requirement, a debt crisis will occur. No doubt, fiscal profligacy could also cause debt problems, but this has not been Europe's problem over the last decade (Collignon, 2012c). European policies must focus on sustaining balanced growth, if they wish to sustain monetary union.

Flow of funds analysis

If it is not about current accounts, what is the proper sense of 'avoiding macroeconomic imbalances' in monetary union? As we have seen, within a currency area payment flows reflect transactions in a closed system. The positive balance in one sector must necessarily reflect a deficit elsewhere. To overcome the limitations of the partial analysis of current accounts, it is useful to broaden the analytical framework to a full flow-of-funds analysis. Flow-of-funds statistics capture balance sheet positions and all financial transactions according to their type and between the four main sectors in the economy, namely between households, corporations, government and the rest of the world (Duc and Le Breton, 2009).[11]

In a classical textbook situation, households are net savers and lend their surplus to the corporate sector, which borrows and invests in the accumulation of capital goods. Investment is the driver of growth, for if the savings are not invested, income will fall, unemployment will rise and growth will be held back in the short and in the long run. Government and the rest of the world are assumed to be in balance, although in reality this is rarely the case. Because a domestic economy is defined by making payments in the same currency, the net lending balances of households, corporations and government must add up to zero. The balance with the rest of the world shows the change in assets and liabilities denominated in foreign currency. This framework allows the correct assessment of imbalances in the euro area.

The first panel in Figure 2 (below) gives the overview over the net asset changes due to real transactions in the five sectors (we distinguish between the financial and non-financial corporate sector); the subsequent five panels show the variations of assets and liabilities for each sector as well as the net change due to 'other' factors, essentially debt stock adjustments and changes in asset values (the bar-series are identical to the respective lines in the first panel).

Given the economic uncertainty following the 2000 dot.com crash in internet technology assets, households reacted by increasing their savings and net lending to other sectors, but after the 11 September 2001 shock interest rates were cut everywhere in the world and households' willingness to save evaporated. However, with the global financial crisis, precautionary savings by households started again on a large scale. Non-financial corporations, on the other hand, have borrowed less in

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11   Duc and Le Breton (2009).
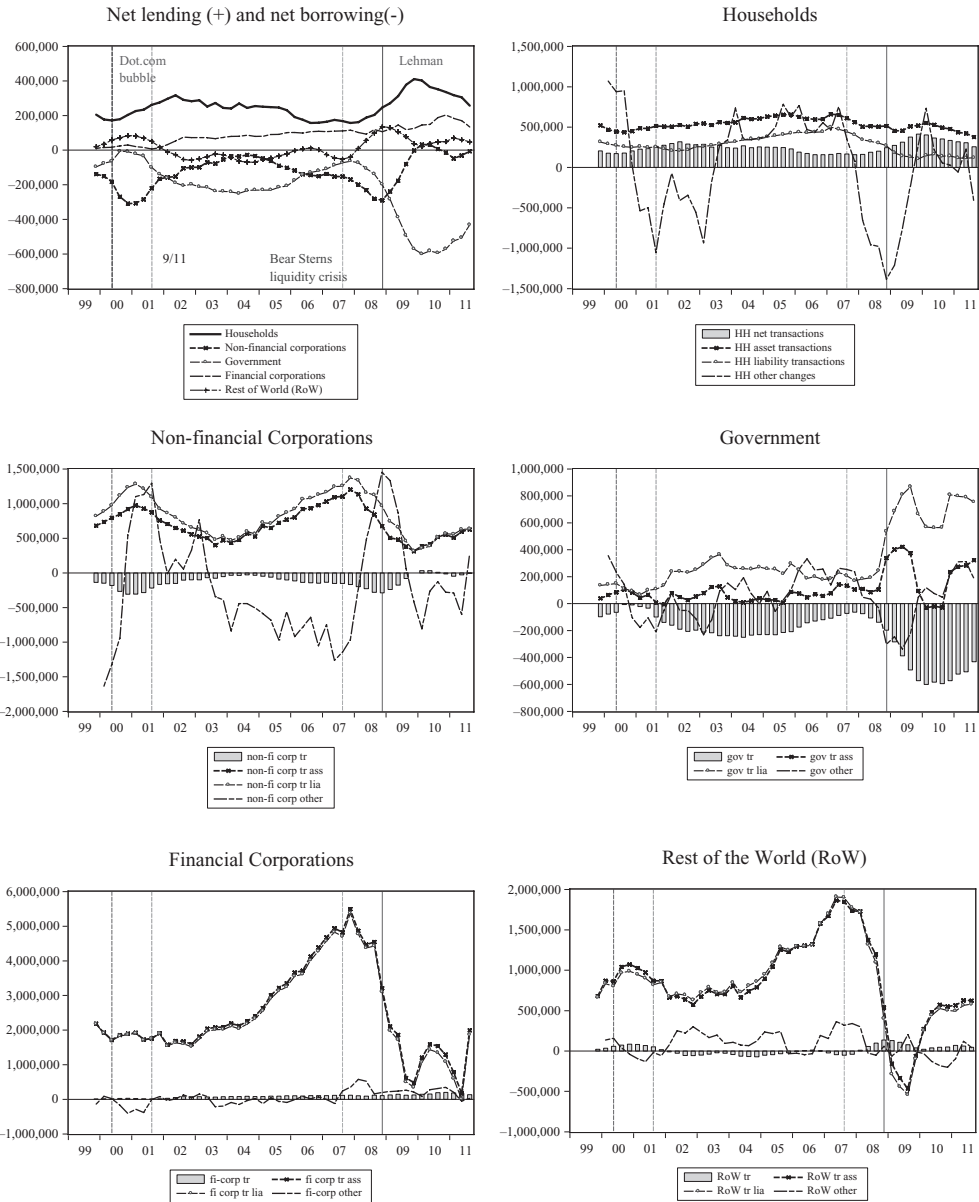
Figure 2. Flow of funds: euro area (billion euro; four-quarter cumulated sum).
Source: ECB.

the first half of the 2000s, when they had to correct the balance sheet effect from the dot.com crash. During the boom years before 2007, corporate liabilities and leverage grew much faster again, but after the financial crisis this high leverage became unsustainable. Companies started to cut back on investment and borrowing in order to improve their balance sheets (European Commission, 2012a: 37). In 2010 the corporate sector even became a net lender, meaning that instead of using

their cash flow for investment, companies started to repay debt, as the dramatic reduction in assets and liabilities of financial intermediaries shows. With higher savings from households and debt repayments by companies, only governments were able to absorb these excess savings, because the rest of the world remained close to balance.

The behaviour of the corporate sector, unusual as it may appear from a textbook perspective, was perfectly rational. Because the financial crisis has reduced asset values and weakened banks' and corporations' balance sheets, companies are deleveraging and paying back debt in order to restore creditworthiness. This effect is not unique to Europe. Koo (2002) has argued that it has contributed to a 'balance sheet recession' in Japan after the asset bubble burst there in the late 1990s. Only the massive borrowing by the Japanese government was able to prevent a catastrophic depression.

The flow-of-funds statistics for the euro area, published by the ECB, are the aggregation of national statistics. This means that within the euro area the total balance of household, corporate and government lending sums to zero, because the claim by one sector is necessarily the liability of another. Only financial transactions with the rest of the world build up net *foreign* claims. We can, therefore, take the three main domestic sectors, which interact as a closed system, and split them into two regions, north and south. A disaggregated picture of net lending (+) and borrowing (-) then looks like this:

$$H_N + H_S + C_N + C_S + G_N + G_S = 0 \tag{3}$$

where H stands for households net lending, C for the corporate sector lending or borrowing and G for the public sector and the subscripts N and S stand for north and south. Textbooks usually assume that H is positive (lending) and C is negative (borrowing), while G should be close to zero. However, it is now also clear that north and south are complementary:

$$H_N + C_N + G_N = (H_S + C_S + G_S) \tag{4}$$

For example, a budget deficit ($GS < 0$) or a financing gap (saving-investment gap: $CS < 0$) in the south could be financed by households in the south (H_S) or north (H_N), or by net lending from the corporate sector (C_N) or governments in the north (G_N) or south (G_S). A priori and as long as debtors remain solvent, there is nothing wrong in households in one region lending money to corporations in other regions, because in doing so they increase their financial net worth. In fact, efficiency in the single market would require exactly that. Thus, the idea that Member States should all finance their investment out of local savings is wrong. As Feldstein and Horioka (1980) have argued long ago, if there is perfect capital mobility, the correlation between domestic investment and savings should be low, and nowhere would this condition be more likely to be met than in a monetary union (Buiter and Gourinchas, 2002). However, if the corporate sector in one region cuts investment and lends its surplus to households or governments in different regions, substantial macroeconomic imbalances may arise, because the growth rates will diverge and could cause regional default waves.

Figure 3 shows that during most of the European monetary union era, households and companies in the north have been net lenders and not borrowers. Some of northern corporate net lending has financed the budget deficits in the north, although in the second half of the 2000s governments also cut back their debt, so that net savings could only be lent to the south. Indeed, in the south, corporations have been borrowing and households have reduced their lending and even borrowed during the boom peak. Hence, the south has absorbed the northern surplus and only the massive borrowing by the southern corporate sector and households has prevented a major depression in the euro area. In other words and contrary to textbook claims, northern corporations have used their

Sector balances: north

Sector balances: south
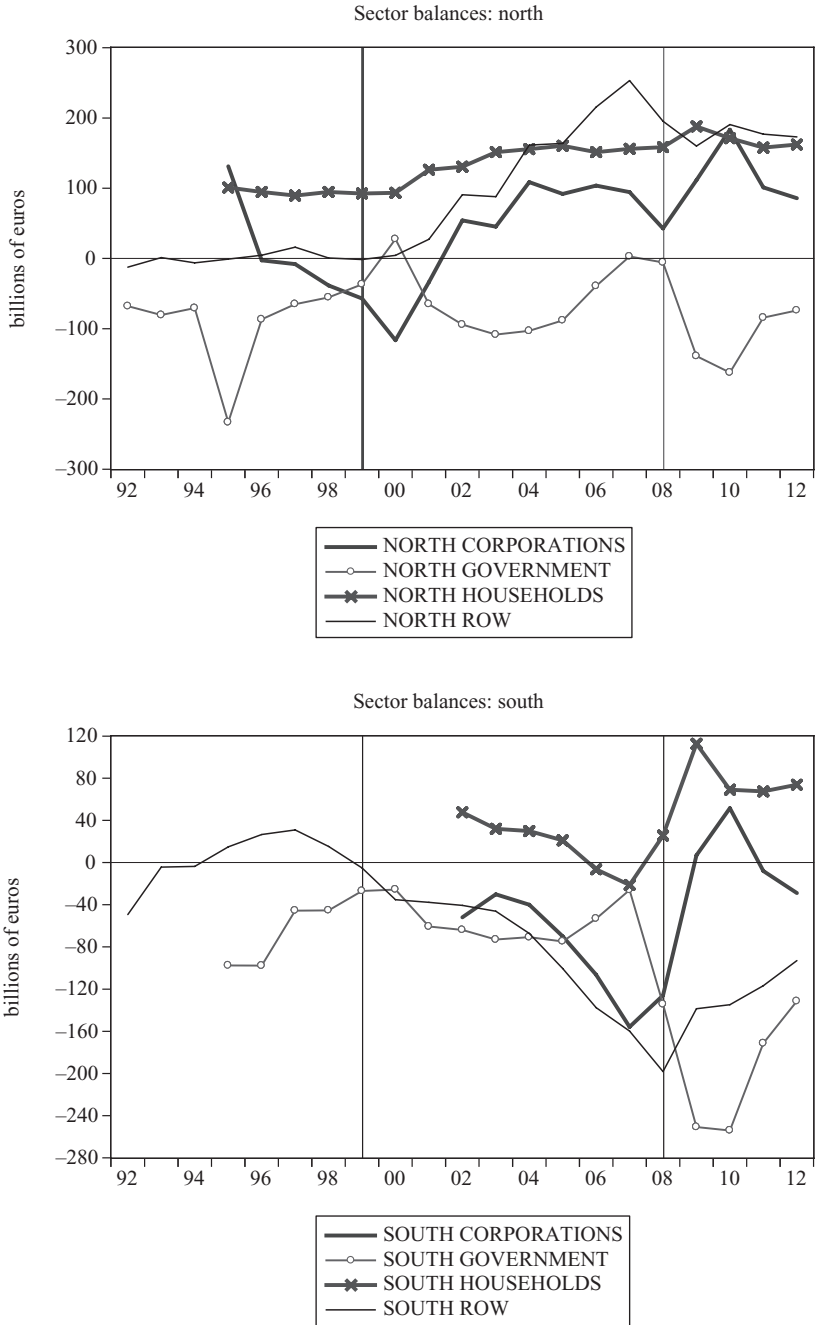
Figure 3. Sector balances: north and south.
Source: AMECO.
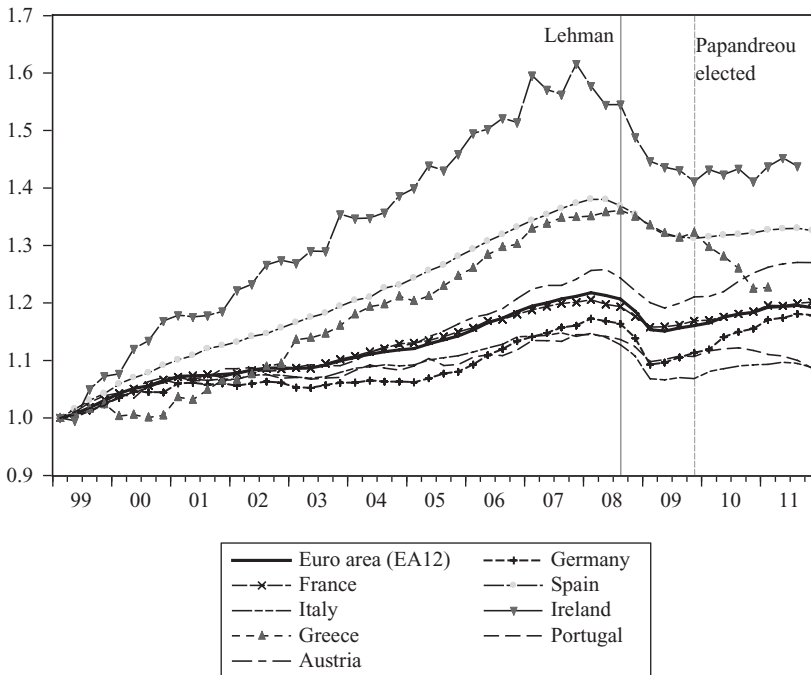
Figure 4. GDP growth index.
Source: AMECO.

cash flow only to buy financial assets and/or reduce their liabilities instead of investing in real assets, while in the south investment and consumption boomed. The north became financially rich, but real wealth and economic growth stagnated. At the same time, the south accelerated growth, but accumulated debt. When the boom finally collapsed, southern corporations also deleveraged and households started to save again. This higher net lending was absorbed by increased government borrowing when fiscal stimulus sought to avoid an economic depression.

These divergent trends in lending and borrowing between the north and the south may explain the very different growth performances by euro Member States since 1999. As Figure 4 shows, until very recently the north was lagging behind the average euro area growth. Germany in particular was the red lantern on the euro train. The opposite is true for the south, with the exception of Portugal and Italy. The performances were spectacular in Ireland, Spain and Greece before the financial crisis, and, despite the severe euro crisis, GDP is still at a higher level than what would have been achieved by average euro area growth. Thus we find a reasonable correspondence between regional net lending/borrowing and growth differentials.

This begs the question why the south was able to attract such important amounts of funds. It is easy to blame real estate bubbles in Ireland and Spain today for the dramatic adjustment that took place after the Lehman crisis in 2008, but these excesses could not have happened without the north lending its savings to the south. Proper European financial supervision should have prevented these excesses. However, the excessive borrowing in the south was a rational response to the fall in interest rates, which followed the unification of monetary policy and price stability. The asset boom, which was set off by the convergence of previously high interest rates in the south

to the low levels in the north pulled in net lending from the north into the south. As a consequence, the north was cash constrained and demand was stagnant. However, the north avoided a depression by reducing labour costs; the increased profits were then lent to the booming south, which used the funds to buy goods from the north. As we have seen, this was natural and desirable in a single market. However, once the asset bubble had crashed after the Lehman crisis, depression became a reality in the south, while the north was now able to profit from the previously accumulated competitive advantage by attracting funds for high yielding investment. This explains the acceleration of growth in Figure 4, although it is relatively slow, presumably because austerity policies also reduce government borrowing.

In conclusion, the macroeconomic imbalances in the euro area must be analysed as an integral system, because every borrowing decision is matched by a lending decision. This fact has important policy implications. First, it is impossible for all Member States to follow the 'example' of another Member State. While 'best practices' may be copied at the micro level, this is not possible for macro-aggregates. Thus, to take a prominent example, Germany's virtue is the south's vice and if the south were to turn to virtue, it would have to push the north into vice. Secondly, the simplistic demand that the south must save more and Germany should reduce its surplus by increasing wages and consumption misses the fact that the German corporate sector has not been a net borrower for years. In fact northern corporations have been lending to companies in the south. Even if we do not fully understand the reasons for this deleveraging, it is likely that the lack of investment in the north has made it easier for southern households to borrow. Thirdly, the economic imbalances within a currency area are not systematically unsustainable, because cross-border and cross-sector lending and borrowing complement each other. However, they could potentially become so uncomfortable that the political will to stick with the otherwise robust euro system would become unsustainable. This political danger could arise in the north, when governments, households and companies are no longer willing to finance the deficits of the south, or in the south, when people are no longer willing to endure the depression. Both these dangers can only be kept at bay by better and smarter policy coordination.

In the final instance, the euro crisis is a consequence of uncoordinated decisions in the private and public sectors in different Member States and of the absence of regulation in the flow of funds that could have prevented social excesses. Of course, one may argue that markets are the best mechanism for coordinating decentralized decision-makers. However, in the classic model of market economies, economic agents are subject to uniform legislation. By contrast, (semi-)sovereign states with governments which are defending only partial interests in the euro area, are persistently distorting market incentives and slowing down adjustment. Hence, it is the lack of a unified jurisdiction for the integrated euro space that makes macroeconomic imbalances persistent. Wage bargaining institutions play a particular role in generating persistent distortions. We will now look at how better wage coordination may reduce the social cost in European monetary union.

Competitiveness within the euro area

The purpose of an integrated anti-crisis policy within the euro area must be to shift the incentives for investment in favour of low-growth regions. In other words, it must deal with relative returns of capital and cost competitiveness, rather than with current account imbalances. In this section, I will first discuss how to measure competitiveness and then what can be done about it. As a caveat I must add that structural improvements in competitiveness are not sufficient to deal with the serious confidence crisis in monetary union that has shaken financial markets since the Greek confidence
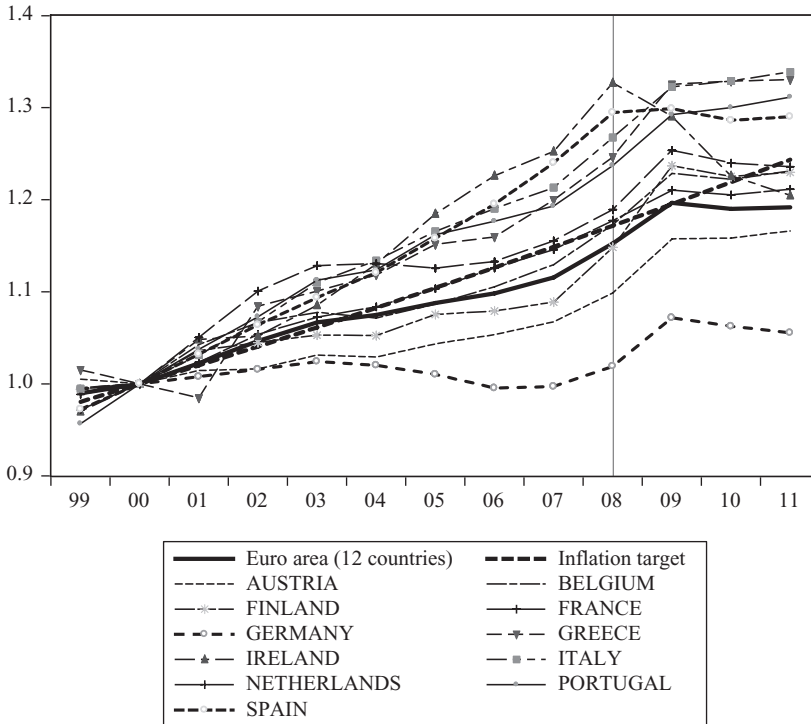
Figure 5. Nominal unit labour cost developments in the euro area.
Source: AMECO.

shock occurred in 2009 (see Collignon et al., 2011). These problems are not part of this article, which deals more with structural adjustment mechanisms and the basic structure of a currency area.

It is fashionable to blame lack of competitiveness for having caused the euro crisis (Zemanek et al., 2009). Yet, competitiveness is difficult to measure. The most commonly used indicators measure relative unit labour costs (ULC), i.e. they show the cost of labour compensation, including taxes and social security, per unit of output growth over time. However, we need to keep in mind that cost competitiveness is more than wages and labour productivity. I will present now a more efficient indicator, which also takes into account capital productivity.

Unit labour costs dynamics

Unit labour costs will increase when nominal wages grow faster than labour productivity. Because labour costs are an important component of total costs and therefore of prices, policy-makers in the euro area have often stressed the 'golden rule' whereby ULC should not increase faster than the ECB inflation target of 2 per cent. This rule would also be distributionally neutral and deviations would lead to competitiveness distortions.

Figure 5 shows the evolution for Member States in the euro area. It indicates that ULC have remained below the ECB target (the straight line) in four out of 11 Member States, but because

of the large weight of the German economy, its underperformance has kept the euro area aggregate (thick line) below the ECB target. Thus, German wage restraint has helped the ECB to meet its inflation target, but at the same time it has enabled the south to ignore the 'golden rule' and to cumulate losses of competitiveness. In particular, Italy, Greece, Portugal, and Spain have consistently overshot the 2 per cent target without any substantial correction before 2009. Only the financial crisis has changed wage-setting habits – most dramatically in Ireland.

It is sometimes argued that rebalancing the euro area would require higher wages in Germany and even the German Finance Minister Schäuble has now rallied to this argument.[12] However, if wages are to increase faster in Germany, they will have to slow down in Europe's south. Otherwise inflation will pick up and the ECB will tighten monetary policy. Hence, a coordinated approach to wage setting in the euro area should be part of the policies for avoiding excessive macroeconomic imbalances.

Calculating equilibrium unit labour cost levels

Nevertheless, cost indices as in Figure 5 are not a good measure for competitiveness, because they only show cumulative variations and say nothing about differences in relative costs in the base year. Yet, it is less damaging for ULC to increase rapidly, if the economy starts from an undervalued position. To judge whether this is the case, one needs to establish a benchmark for relative unit labour cost *levels* and not use rates of *change*.

The rate of return on capital is such a benchmark. I have argued above that the return on capital determines the attractiveness of production locations for regional investment. The concept of competitiveness must therefore describe the conditions under which the return on capital is able to attract new investment. If one takes the euro area as a benchmark, the relative return on capital in different Member States would indicate whether labour costs are overvalued when the return of capital in one country is below that of the euro area average or undervalued if it is above this average.

We can derive equilibrium unit labour costs from assuming that the return on capital is equal to the euro area average, where the return on capital is calculated as the operating surplus, defined as the difference between GDP and the total wage bill, relative to the stock of capital.[13] In other words, the return on capital is the profit margin (operating surplus divided by GDP) multiplied by average capital efficiency (ACE, i.e. GDP divided by the aggregate capital stock of the economy). The operating surplus depends on prices (i.e. GDP deflator) and on unit labour costs, which are determined by nominal wages and labour productivity. For a given level of unit labour costs, higher prices imply higher profit margins, hence larger operating surpluses and *ceteris paribus* higher returns on capital. This would imply that ULCs could rise until they reach the equilibrium of equal return on capital. From a neoclassical point of view, it may seem strange to see higher prices linked to higher competitiveness, but this is consistent with oligopolistic mark-up pricing and the fact that high profitability is considered a sign of high competitiveness.[14] However, the overall return on capital depends also on the productivity of the aggregate capital stock (ACE) and

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12   http://www.ft.com/intl/cms/s/0/54aa8246-9772-11e1-83f3-00144feabdc0.html#axzz1x1NLuHMx
13   For a detailed explanation of how to calculate equilibrium unit labour costs, see Collignon, 2012.
14   The distinction is based on the fact that our model assumes equilibrium as given by *perfect competition in capital markets,* while unit labour costs are set by labour markets and prices are set as a mark-up. By contrast, the neoclassical model assumes *perfect competition in product markets* and therefore takes prices as given.
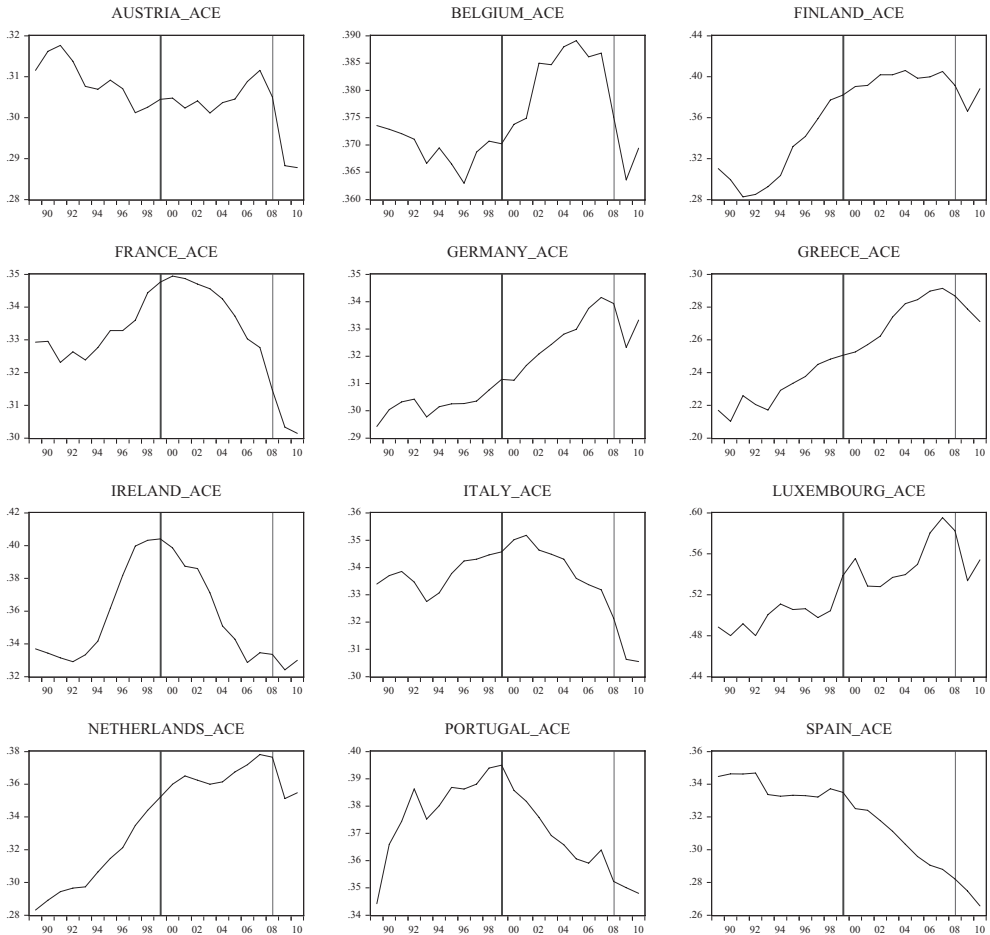
Figure 6. Average efficiency of capital (ACE).
Source: AMECO.

therefore, as pointed out above, on relative factor prices. Given this analytical framework, we can compare an individual Member State's return on capital to the aggregate return for the euro area and derive the implicit unit labour costs. Thus, our competitiveness measure is determined by the development of prices, unit labour costs and average capital efficiency.

In the context of monetary integration, capital productivity is particularly interesting, because the convergence of interest rates to low German levels should have generated high capital accumulation and a substitution effect from labour to capital. As a consequence, southern Europe should have seen an increase in labour productivity and a fall in capital productivity.

Figure 6 gives an overview of the average efficiency of the capital stock (ACE) of major euro Member States. The levels of average efficiency vary substantially. Northern Europe performs often, but not always, better during the first euro decade. Capital productivity has remained stable with a tendency to rise in the north but also, surprisingly, in Greece; it had a tendency to decline in France, Ireland, Italy, Portugal and Spain. Thus, with the exception of

Greece, capital productivity has developed as one would expect: when interest rates came down in the south, the resultant over-accumulation of capital generated diminishing returns on capital. Nevertheless, 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, but it is likely to increase ACE in the south again.

Figure 7 shows the levels of *equilibrium unit labour costs*, calculated under the assumption that the return on capital in a given Member State is equal to the euro area average (punctured lines), and it compares them to the actual values (black lines). We note that the equilibrium level of unit labour costs is neither constant nor necessarily close to parity (the horizontal line).[15] The reason is that capital productivity has changed and/or inflation differentials have modified profit margins and these factors influence profitability and the rate of return on capital.

Over the last two decades, unit labour costs have persistently stood above equilibrium in Austria, Spain and Greece. Undervaluations occurred in Belgium, Finland, Ireland, Italy, Luxemburg, the Netherlands and Portugal. France and Germany are exceptions: France has moved from undervaluation to overvaluation and Germany did the opposite.

A quick way to see changes in the positions of competitiveness levels is by taking the difference between the actual and equilibrium unit labour costs relative to the euro area for a particular country. Figure 8 (below) summarizes this information into a single Competitiveness index.[16] The zero line indicates that the average return on the capital stock in a given Member State is equal to the euro area. An *index number* above the zero line represents an overvaluation. For example, 0.1 means that the ULCs of a Member State are 10 per cent above equilibrium. An *increase* in the index is equivalent to a *loss* of competitiveness.

These movements shown in the Competitiveness index reveal the trends implicit in Figure 7. Remarkable changes have occurred: most dramatically in Ireland where the index rose from an undervaluation close to –30 per cent in 2002 to –5 per cent in 2007. In the Netherlands, it went from zero to –10 per cent and in Germany from +10 to –5 per cent. Greece has improved from +21 per cent in 2000 to +7 per cent in 2007, but this was not enough to eliminate the wage overvaluation. Italy has continually lost competitiveness from –11 per cent to – 2.5 per cent, although it is still weakly competitive. The same is true for Portugal, where a correction started already in 2005, i.e. even before the financial crisis. Finland has reduced its advantage from –20 to –10 per cent, and Spain has increased its disadvantage from 2 per cent to 12 per cent. France is also a sad story: the advantages achieved by competitive disinflation in the 1990s have been lost with a swing of 8 percentage points that has pushed the economy into overvaluation.

Our index of competitiveness synthesizes the information contained in our concept of equilibrium unit labour costs, which takes equal returns on capital as the benchmark. Hence, it should be a good indicator of the relative incentives for investment and growth. As such it would be a more useful tool for policy-makers than the Commission's focus on excessive deficits.

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15 Parity means that the labour compensation per unit of output in a given state is equal to the euro area average. Many economists take this as a measure for competitiveness, but this approach misses the impact of capital productivity.

16 The index was first published by CER *Rapporto Europa* 2011. See also my website: www.stefancollignon.eu
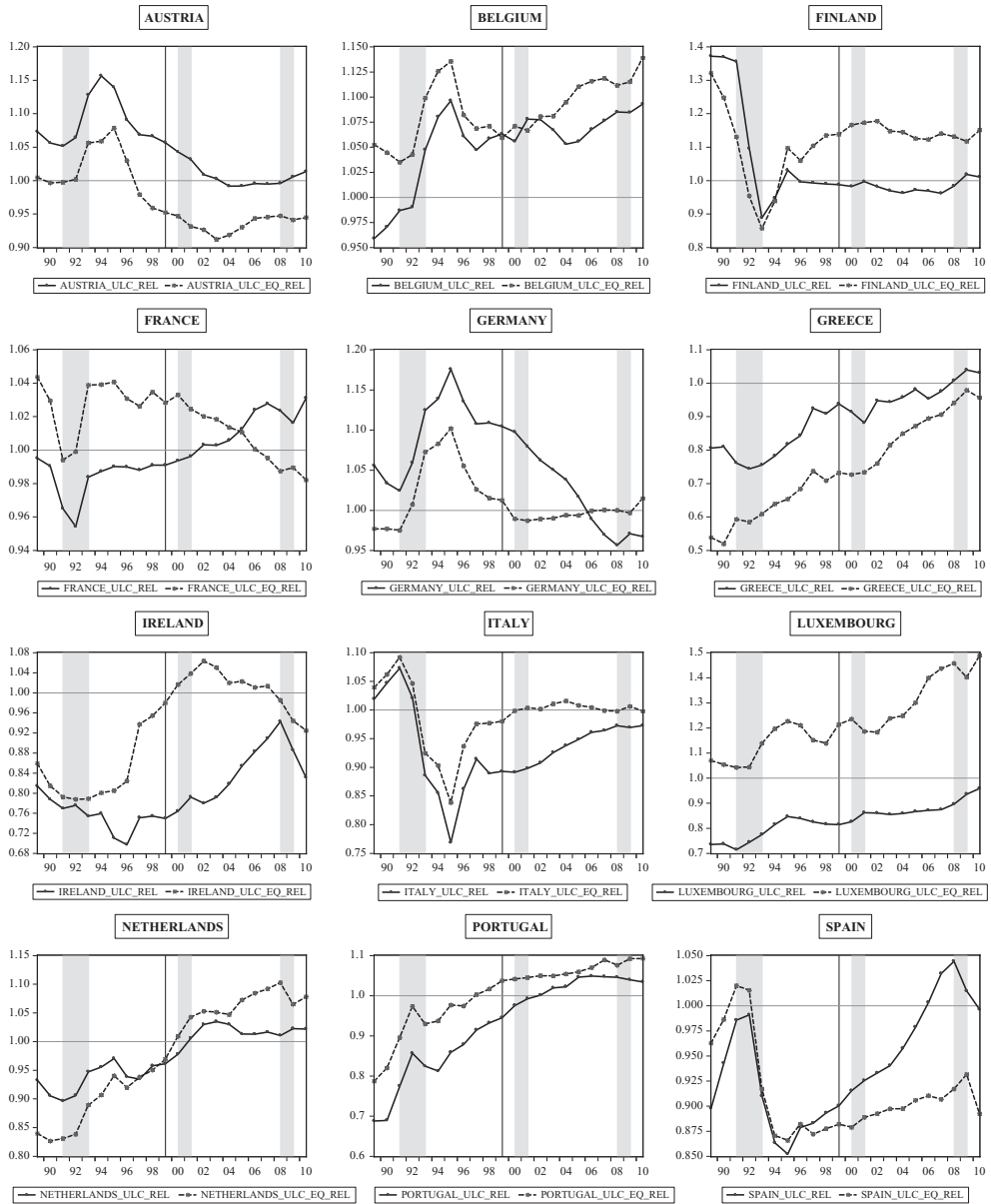
(shaded bars indicate growth slow-downs or recession)

Figure 7. ULC relative to euro area: actual and equilibrium.
Source: Centro Europa Ricerche (CER).

Policy implications

Our discussion has shown that the revisionist consensus of reducing current account imbalances in the euro area could actually worsen the crisis rather than resolve it, because it represses demand and economic growth in those regions which need it most. However, the conclusion must not be to neglect imbalances, but to focus on the sectoral payment interactions between economic sectors and regions. In a market economy that requires getting the incentives right and that means focusing on relative costs and returns on capital.

Our data show a significant variation of unit labour costs. Hence, wage bargaining is key for avoiding excessive imbalances and minimizing rotating slumps and booms. The problem is that Europe has no tools for coordinating wage policies. The European labour market is neither so atomized that each worker receives a wage equal to his marginal contribution, nor is it so centralized that macroeconomic externalities will be properly internalized. The only available tool has so far been the Macroeconomic Dialogue between social partners, finance ministers and the ECB, but it has failed – and not only because of insufficient compliance. In fact, the 'golden rule' of wage setting, which was propagated by the Dialogue and states that wages should not increase by more than the sum of average productivity growth plus the ECB inflation target, may support the ECB's primary objective of price stability, but it does not prevent competitive distortions and regional imbalances, because it does not take capital productivity into account. It could therefore destabilize the euro area.

Indeed, if we measure competitiveness by the relative returns on capital, the profit margin should be adjusted downward and wages upward when the average capital efficiency improves: wages should increase by more than the 'golden rule', if ACE improves – as it did in the north. Inversely, if ACE slows down, as it did in the south, wage increases must remain below the sum of labour productivity plus the inflation target. This does not mean that real wages must not grow at all, because labour productivity will improve when interest rates come down; but in a competitive environment, the margin of wage increases is constrained by capital *and* labour productivity. *Hence, the 'golden rule' gives the wrong policy recommendation to wage bargainers in the euro area.*

Unfortunately, free market dynamics are unable to prevent competitive distortions and macroeconomic imbalances, because of the institutional rigidities of independent national legislatures. Wages are determined in a predominantly national framework. If capital and labour productivities respond to relative factor prices, capital efficiency will slow down when interest rates come down and *despite an increase in labour productivity more wage restraint might be required to remain competitive. But this is unlikely to be the wage bargainers' response*, because the accommodating monetary policy will contribute to faster growth, higher employment and therefore a tightening in the labour market. This development will exert pressure for wages to go up.[17] If the labour market is split into independent national units, persistent distortions are unavoidable. Thus, the long-run trend of lower interest rates, which used to prevail in the south, is likely to have caused the lasting deterioration of relative cost competitiveness. On the other hand, wage restraint in the north has shifted incentives in favour of labour accumulation, so that labour productivity and wage increases have slowed down there while capital productivity has increased. Thus, competitive positions have improved dramatically in Germany and the Netherlands, and to a lesser degree in Austria and Belgium.

In order to prevent and rebalance macroeconomic disequilibria, a more integrated approach to wage bargaining would be required. More efficient coordination of wage bargaining could be

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17 European labour markets generally respond to the Phillips curve dynamic. See European Commission, 2011.
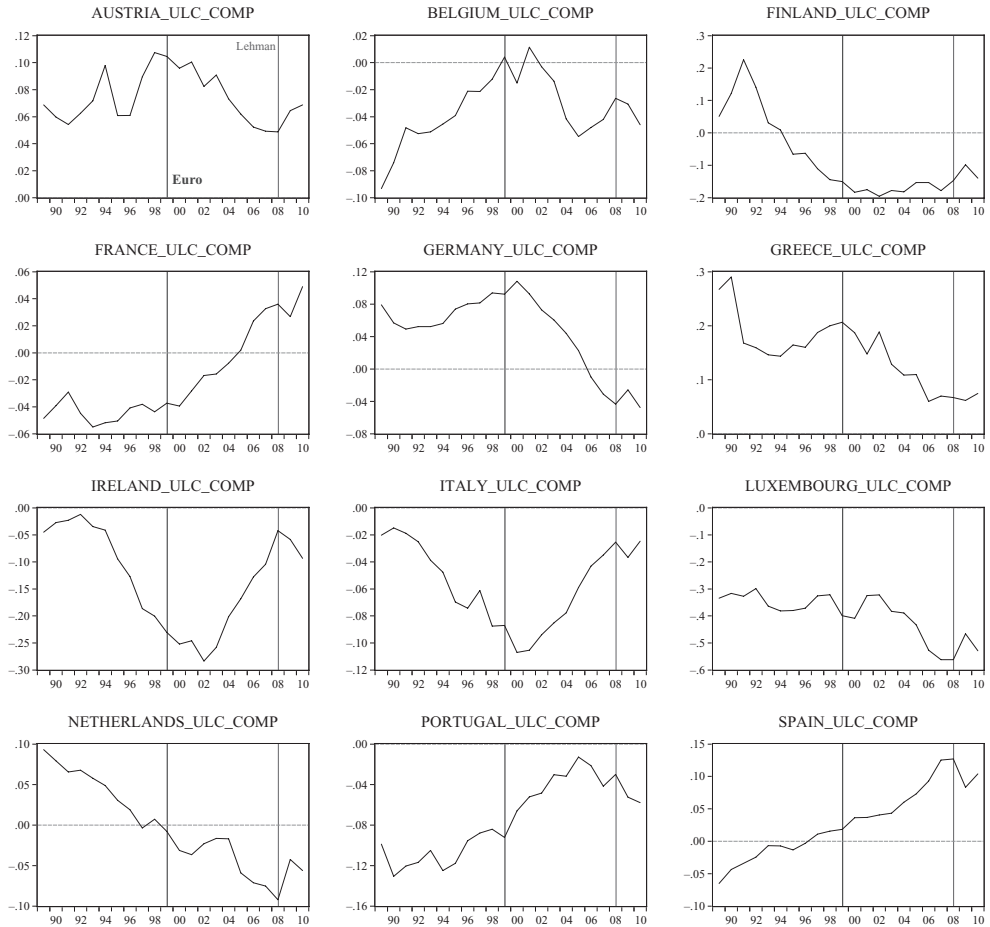
Figure 8. Competitiveness index.
Source: Centro Europa Ricerche (CER).

achieved by increasing cooperation between trade unions across the euro area, rather than pursuing the hierarchical model of the national and European social dialogues. The purpose of such cooperation must be to set a collective wage standard in line with labour and capital productivity. This would open the way for a more efficient and socially acceptable governance of the euro area.

Conclusion

This article has produced some unconventional results. It shows that the adjustment by peripheral countries to the stability standards of European Monetary Union has long-term consequences that are ignored by policy-makers. Orthodox policy recommendations of fiscal consolidation and balancing current accounts will actually accentuate debt problems and social tensions. It is the paradox of our time that monetary union was supposed to create a 'stability union', but the ignorant policies pursued by Member States have effectively destabilized the euro area. New and

unconventional approaches are instead needed in order to make the transition to a stable long-run equilibrium in the euro area politically acceptable. Unfortunately, the Alert Mechanism Report by the European Commission (2012a) is falling short of this challenge. The answer to Europe's problems is either some form of solidarity in a transfer union, or implementing ambitious programmes for increasing productivity and restraining wage rises in countries which suffer from overvalued unit labour costs. Most important, however, is better coordination of wage setting among European trade unions.

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