

STUDIEN

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THE SYSTEMIC CRISIS OF THE EURO - TRUE CAUSES AND EFFECTIVE THERAPIES

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IMPRINT

STUDIEN is published by Rosa-Luxemburg-Stiftung

Responsible: Sabine Nuss

Franz-Mehring-Platz 1 · 10243 Berlin, Germany · www.rosalux.de

ISSN 2194-2242 · Editorial deadline: May 2013

Proofreading: Linguatransfair, Berlin

Layout/Production: MediaService GmbH Druck und Kommunikation

Printed on Circleoffset Premium White, 100% Recycling

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CHAPTER I: THE RATIONALE OF A MONETARY UNION AND THE DETERMINANTS OF INFLATION

1. WHY MONETARY UNION?

The European Economic and Monetary Union (EMU) is in deep crisis, and an increasing number of observers question the ability of EMU to survive this crisis. What has gone wrong? Are the diagnoses commonly offered valid? Why do the medicines that have been prescribed not work? Could it really be possible that European politics at the highest level fails to understand the cause of the crisis and to address it with a consistent plan?

In order to find persuasive answers to these questions it is necessary to go back to the origins of monetary union and to identify the constructional defects that have burdened its existence from the very beginning up to the point of make or break that it reached after the big financial crisis and the great recession of 2008 and 2009.

Was monetary union a bad idea from the outset and does its possible failure reflect a lack of good economic reasoning behind the politically motivated decision to accelerate European integration, as most of its critics allege? On the other hand: could the launching of EMU not be considered as the final step on the way towards lasting exchange rate stability after many years during which the members of the European Monetary System (EMS) had practised systems of managed exchange rates? And what about the vagaries of the financial markets which motivated European authorities back in the 1970s to reject a system of fully flexible exchange rates for currency relations within the region? Moreover, after 30 years of free floating among the major currencies, is there convincing evidence that supports the belief in the efficiency of markets in finding the fair value of a currency without friction?

Monetary cooperation in Europe – as described in the history of European monetary cooperation in the Annex of this paper – started in the early 1970s, when the global monetary system of Bretton Woods broke down. For most European countries, in particular the smaller ones, there was no alternative to monetary cooperation. These countries refused, much more strongly than Germany, to opt for a system of floating exchange rates because they did not believe that monetary independence would be to their advantage. They understood that for small open economies tying one's hands can be the optimal solution in monetary affairs.

All the academic attempts since the 1960s to define the criteria for optimum currency areas (OCA) have been in vain. The case that the OCA theory makes is valid only if there is a viable alternative for small open economies in the form of free floating. But in reality there is no such alternative. Monetary autonomy, the promise of free floating, is a theoretical fiction and that was well understood by many countries in Europe. Market-determined exchange rates tend to over- and undershoot the fair – or equilibrium – values, as deter-

mined by purchasing power parity (PPP) or uncovered interest parity (UIP). Even worse, market-determined exchange rates often move in the wrong direction for extended periods of time (UNCTAD TDR, 2010) as a result of currency speculation, the so-called “carry trade”. Countries with relatively high rates of inflation and, concomitantly, relatively high interest rates tend to be swamped by inflows of short-term funds which drive up the exchange rate of their currencies in real terms. This destroys absolute and comparative advantages in international trade and distorts the production structure between tradable and non-tradable goods. If this happens, formal monetary autonomy becomes an empty shell.

In the presence of extremely volatile exchange rates, small and open economies do not have monetary autonomy, because their monetary authorities have to react to the vagaries of the currency market. Under a system of floating exchange rates, the formal freedom of a central bank (no obligation to intervene) has no material basis.¹ Obviously, countries unwilling to leave the determination of the exchange rate to the market have to cooperate with other countries to achieve greater exchange rate stability. The valuation of currencies is too important for international trade relations to be left to the decisions of a single central bank to intervene in the currency market or not. Moreover, without cooperation conflict is unavoidable as a change in one country's exchange rate always affects another country. For n countries in the world as a whole there are $n-1$ exchange rates. Consequently, the crucial question is not so much whether there is a need for international monetary cooperation, which is obvious, but what form it should take. As shown in the Annex, European monetary cooperation evolved in rather small steps over a period of 30 years before culminating in full monetary union in 1999. Some observers have argued that the process of increasingly binding forms of monetary cooperation could have been stopped before reaching the stage of monetary union, but this argument is unconvincing.

All traditional forms of international monetary cooperation – other than a full monetary union – require that the currency of one of these countries serve as an anchor for the system, so that the other countries become dependent on the country with the anchor currency. Monetary cooperation aimed at enlarging the room for manoeuvre (the “policy space”) for economic policy in the region as a whole has to include at least one country that can act as lender of last resort in times of crisis. This is because of the asymmetry in the relations between countries whose currencies are un-

¹ Still, in one way or another most academic literature builds on the OCA theory.

der threat of depreciation and those whose currencies are under pressure to appreciate. Countries trying to avoid currency depreciation (or to stop depreciation at a certain point) have to intervene in the currency market. This means their central banks have to increase demand for their own money by selling international reserves. Since such reserves are always limited, countries are vulnerable to speculative attacks on their currency. The only way to fend off such an attack is cooperation with the other side, in other words the country with the appreciating currency, which is able to intervene by selling its own currency that is available in infinite amounts.

In Europe, Germany was the obvious candidate to become the anchor in regional monetary cooperation. Over several decades Germany was the champion of price stability, as witnessed, in particular, by the smooth absorption of the inflationary consequences of the two oil price shocks. As a result of lower inflation, the German currency never came under depreciation pressure but always tended to appreciate. Hence, Germany assumed the role of the European monetary anchor for good reason. Some smaller countries were able to copy German inflation performance and to maintain exchange rate stability without a loss of overall competitiveness. Austria was the most impressive case in this respect. Most of the larger European economies, however, time and again had to accept depreciation against the German currency to compensate for their inflationary bouts. This is especially true for France and Italy, at least up to the mid-1980s. Anchoring proved to be successful in terms of the effective pressure on domestic inflation as long as exchange rate adjustments were an option to restore competitive positions.

During the vagaries of the European Monetary System that preceded the EMU another, political, argument gained ground that was more simple. It was argued that in Europe fixed exchange rates and, ultimately, a unified currency were indispensable for the creation of a single European market. There was yet another powerful argument in the political debate, which, however, was never adopted by the academic mainstream. Germany, with its good economic performance and strong dogmatic stance on inflation, convinced its neighbouring countries over time that internal stability of the value of money, in other words stability of the domestic price level, had been an integral, indeed central, part of Germany's success. Indeed, after the shock of the big crisis of 1992 the German argument that stability of the price level in all member countries of the common market was crucial for this core element of European integration could no longer be rejected. The political will to adhere to economic policies and a monetary model similar to those pursued by Germany shaped the European debate to a very large extent.

By contrast, the crucial economic argument for crowning regional monetary cooperation by creating

a monetary union did not permeate the political arena and its decision-making process. In a multi-currency system with one anchor currency, agreement in principle on the general policy approach is not tantamount to an optimal solution for all member states. The anchor country's policy, even if it were perfect under the circumstances prevailing in that country itself, would not necessarily be the perfect policy for the whole group, even if consensus existed about the inflation target among the countries participating in the cooperation effort. This was the main problem with the Bretton Woods system in the 1950s and 1960s, when the US dollar served as the anchor currency of the global exchange rate system with fixed but adjustable rates. Decision-making in the US Federal Reserve System (then the *de facto* global central bank) only took into account the economic environment in the United States, rather than the requirements of the system as a whole. Similarly, Germany accepted its role as the anchor of the European Monetary System, but decision-making on monetary policy, including the setting of interest rates, was never conducted in view of the requirements of the monetary system as a whole. Such a policy approach is inadequate.

Thus, the only stringent long-term policy option for regional monetary stability is monetary union. Only in a genuinely multilateral monetary system can all countries fully participate in the decision-making process on a monetary policy that takes into account the economic conditions of the whole area. Nothing short of monetary union can help avoid systemic mismanagement of monetary policy in any region where countries have formed a consensus that the stability of both the internal and the external value of money is crucial for their common prosperity. Hence, in Europe the step to create EMU was much more than just the result of an attempt by the French government to prevent German political domination, as many have argued. This step was fully justified from an economic point of view, given that Germany as the anchor of the EMS could not create the conditions for a true European non-inflationary environment alone.

For very small, extremely open economies, the anchor approach can work for quite some time even if the anchor country's economic policy takes the existence of the satellites in the system with benign neglect, as long as it follows reasonable principles. For any larger group and for countries of similar size and economic power, the anchor approach should be considered merely as a transitional stage on the way to full monetary union. The only way to ensure consistent conduct in monetary policy for the group as a whole is through a common central bank. However, the transitional phase may last for a very long time: it took Europe 30 years after its first steps toward monetary cooperation to accomplish this logical and consequential idea.

From a global perspective, the measures that followed towards monetary union supported by strong political will gave Europe an enormous degree of in-

dependence *vis-à-vis* the rest of the world, the international financial markets and international financial organisations. With an anchor strong and stable enough to weather even big international storms the group was able to prevent strong external shocks; no single country had to call upon the IMF to overcome problems of exchange rate misalignment and/or lack of international liquidity.

2. WHAT A MONETARY UNION NEEDS

A number of criteria is laid down in the Maastricht Treaty to allow countries to enter the EMU as a full member. The Stability and Growth Pact complements the Treaty and further refines the conditions for membership of the club. This Pact was shaped by the views about inflation, and economic stability more generally, at the time the Treaty was designed. For the purpose of a critical review of the developments that led to the current crisis it would be unhelpful, however, to refer to these views and conditions, which were shaped from a political perspective. We have to look at the underlying economic mechanisms from a non-partisan point of view. Indeed, the fact that at the beginning of the 1990s many policy makers considered harmonisation and low public budget deficits to be crucial for the success of EMU is irrelevant for the events that threaten the existence of EMU today.

A monetary union is first and foremost a union of countries willing to give up their own national currency for the creation of a common currency. Giving up a national currency means waiving the right of national authorities to print and use national paper money (fiat money) and to delegate any decision in this respect to an independent supranational institution. In the decision-making organs of that institution no single country has a majority influence. National central banks still exist within EMU, but the power to determine monetary policy and all related decisions is exclusively with the European Central Bank (ECB) and its executive board.

Entering a monetary union also means giving up national inflation targets and agreeing on a common inflation target for the union as a whole. This implies that all the factors that influence the inflation rate are directly affected by the decision to join a monetary union. In mainstream monetary theory (mainly monetarism, the theory that is based on the so-called quantity theory of money and that originated from the writings of Milton Friedman and others), the capacity of the common central bank to steer monetary volumes is considered sufficient to determine the inflation rate. Applied to a monetary union, this theory means that the common central bank can contain inflation in the entire union and that there will be no inflation differentials among the member countries. This came to be the theoretical basis of EMU as the Deutsche Bundesbank, the anchor of the EMS (see Annex), had established monetarism as the leading doctrine in the years prior to the start of EMU.

It is worth noting that even in this view, public budget deficits, which turned out to be the most heeded topic

in the economic policy debate, do not influence the inflation performance of the union, as there is no systematic relationship between the size of these deficits and the rate of inflation. According to monetarist theory, no matter how large a budget deficit, monetary policy can always attain its inflation target by strictly adhering to the “objective” rules governing the expansion of the money supply.

However, monetarist theory was based on weak empirical evidence from the very beginning. Since the 1930s the monetarist dogma mainly relied on a kind of *post-hoc ergo propter-hoc* fallacy. Monetarists used to insist that without more money inflationary acceleration would not be possible. While it is true that without acceleration of money supply an inflationary acceleration is impossible, which means the first is a *necessary condition* for the latter, it does not follow that any monetary acceleration would ignite an inflationary acceleration. In other words, while money is necessary to inflate an economy, it is by no means sufficient to expand money supply or “to print more money” to inflate an economy.

In the beginning of the 1990s there was a lot of debate on the criteria that countries had to fulfil to qualify for EMU membership and on how to measure the performance of candidates, but the key issue, the capacity of the common central bank to control inflation, was not subject to critical analysis. Notwithstanding some controversy about the necessary degree of independence of the common central bank, virtually everybody was confident that its control over the monetary supply would be sufficient to control inflation and to replicate what was considered the splendid performance of the Bundesbank in the twenty years before.

As time went by, however, the academic discussion, in many ways influenced by the achievements of the US Federal Reserve System, turned a cold shoulder to monetarism and took a new approach to central banking. This was not without influence on the ECB, a much more open and multicultural system than the Bundesbank. With failure to provide convincing evidence for a strong relationship between the traditional measures of money supply – known as the second pillar – the ECB gradually deviated from the doctrine inherited from the Bundesbank and turned towards a monetary model in which the central bank acts by setting the short-term interest rate in light of macroeconomic developments. In that approach the central bank operating regime builds on several channels through which the stimuli that it provides permeate through the system so that it can eventually reach its final objective.

In principle, such an approach is more open to evidence beyond the traditional money supply channel. In practice, however, it was blocked by other doctrines that proved to be too strong to be overcome quickly. Both, the ECB and the European Commission were dominated by neoliberal and neoclassical thinking up to 2008. It is mainly for this reason that the ECB, as well as the other institutions founded to govern and to pro-

tect EMU, failed when the global financial crisis gave international investors a wake-up call concerning the ability of EMU members on the periphery to pay back the debt that they had accumulated over the first ten years of EMU.

3. UNIT LABOUR COSTS DETERMINE INFLATION

In the theory that dominated the years of preparation for EMU and the first ten years of EMU, neoclassical labour market theory was the second important pillar of the doctrinal framework, which the European Commission and the ECB considered to be constitutive for the functioning of the common market and the EU as a whole. In the so-called Lisbon Process, as well as in many other decisions made by the European Council the obvious adherence to neoliberal thinking (which is regularly based on neoclassical theory) guided most of the political decisions. "Flexibility of the labour market" and "improved competitiveness" were (and still are) the mantras of the European institutions, in particular the Commission, in their attempt to create a common market that is more efficient than the rest of the world and to speed up internal growth and job creation.

However, there is no empirical evidence to justify the belief in the importance of money and an independent central bank for price stability. Nor is there a basis for the belief that a flexible labour market would automatically provide enough jobs for all who are willing to work. These beliefs arise from the liberal doctrine that conquered Brussels and Frankfurt just "as the Holy Inquisition conquered Spain", to use the words of J. M. Keynes. If a few of pieces of striking evidence had been acknowledged, it would have been easy to prevent EMU and the EU becoming victims of the financial

markets and entering the dead-end road in which they are trapped today. The most important evidence is the high and stable correlation between the growth of unit labour costs (ULC) and the inflation rate.

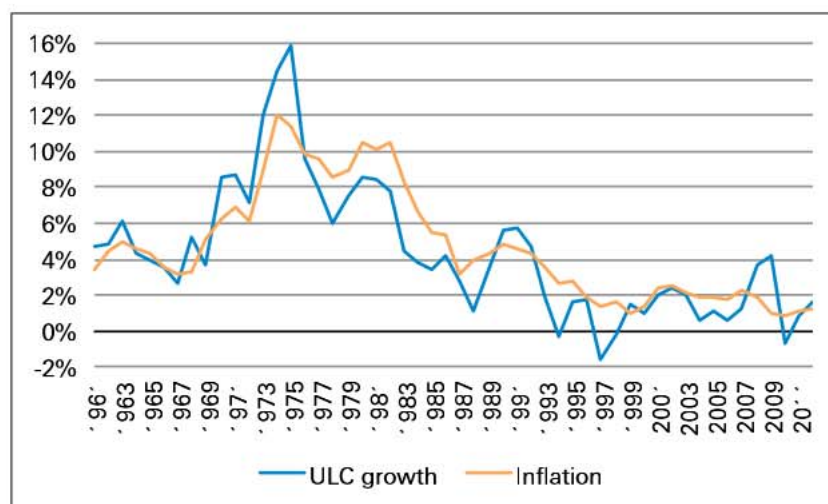
Unit labour costs are crucial for overall price movements in a national economy. The cost of labour clearly is the most important component of the total cost of production in the economy as a whole, because in a vertically integrated production process not only the final consumer goods but also intermediate goods and capital goods are produced by employing labour. Unit labour costs can be regarded as a perfect instrument to forecast and control inflation (Figure 1). If nominal wage growth overshoots or undershoots national productivity growth and the common inflation target, this normally causes a deviation from that target rate.

The doctrinaire approach regarding the substance of macroeconomic policies in EMU was due to an ideological blindness that led too many people to ignore the importance of wages, and respectively ULC, as the determining factor of inflation in EMU as a whole and in the most important national entities, despite the undeniable evidence for this relationship. Once the key importance of wages for inflation is acknowledged, the decision to give the central bank an enormous degree of independence and to limit public deficits and public debt has very little influence on the convergence of inflation among the member states, the main requirement for a monetary union to function.

A huge body of evidence and literature has shown in the past that a system of fixed exchange rates can only work properly if unit labour costs converge and eliminate the need to have exchange rate flexibility. In a system of fixed exchange rates and currency union, differences between the domestic cost level (which essentially means the wage level) and the international cost level cannot be corrected by a change in the value of the domestic currency compared to foreign currencies. In a currency union the proper adjustment of wages and prices in each member country is even more important because there is no easy exit or emergency option as there is in a system of fixed but adjustable rates, such as the Bretton Woods system and the EMS. In these systems, national currencies were devalued time and again without major disruptions to national economies and international trade.

The ECB defined the common inflation target for the EMU at a rate close to 2%. Therefore, the rule for wage growth in each economy appears straightforward

Figure 1: ULC¹ growth rates and inflation for EMU²



Notes:

1 ULC defined as gross income per capita in ECU/euro of dependent employees divided by real GDP per total number of people in employment.

2 12 countries: Belgium, Germany, Finland, France, Greece, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal and Spain.

Source: AMECO database (Accessed: November 2012); own calculations.

ward: nominal wages should not rise more than the national growth rate of productivity in each member country plus this common inflation target. Over the medium-term and the long-term, this rule implies that ULC and national inflation rates converge towards the inflation target and large discrepancies across member countries with regard to increases in ULC cannot occur. This would also exclude significant divergences in terms of national competitiveness. Real wages, according to this rule, would expand along the line of national productivity, denying member economies the use of the most important neoclassical instrument to fight unemployment, namely cutting real wages or forcing real wages to lag behind progress in productivity.

4. WAGE GROWTH DETERMINES THE GROWTH PATH OF DOMESTIC DEMAND

A wage path as described above as a requirement for stabilizing price levels and achieving convergence of inflation rates also has the merit of stabilizing domestic demand in all EMU member states. Since real wage growth is the most important determinant of domestic consumption growth, systematic adjustments of nominal wages at a rate equivalent to national productivity growth and the inflation target are crucial if domestic demand is to expand sufficiently in each country and the union as a whole and compensate for the negative effect of new technology on the number of jobs. Thus, in a theoretical setting based on modern (Keynesian) monetary theory the currency union can function perfectly well – in a theoretical setting based on monetarism cum neoclassical employment theory it cannot.

In order to smooth the impact of unexpected and unforeseeable cyclical movements of productivity it is preferable to adjust nominal wages (for one year or two) to the trend growth of productivity. Taking into account the inflation *target* (rather than the actual rate of inflation) also contributes to stabilizing wage and demand growth as it helps prevent short-term and one-off price shocks (like sharp increases in the price of oil or other essential primary commodities) from having a lasting inflationary impact. If such shocks were reflected in the wage adjustment, as in the case of backward-looking indexation mechanisms (like the *scala mobile* practised in Italy in the 1970s), the nominal wage increase would cause a rise in both ULC and the inflation rate, and eventually command monetary tightening, in other words higher interest rates, which discourage real investment.

With systematic wage adjustments following the described rule, both national economies within the EMU and the economy of the union as a whole can move along a stable path, led by a rather stable growth in private consumption based on stable and positive income expectations of households (at least as long as productivity growth can be expected to be on a growth trajectory). Under these circumstances external trade will also be balanced, because ULC moving in tandem with

the inflation target in all countries irrespective of their national productivity paths also implies stability of the real exchange rate and of competitiveness.

Again it is important to note that stability of real wage growth in line with productivity growth is in sharp contrast to the proposition of super-flexible and readily adjustable wages as envisaged in the neoclassical doctrine. According to that doctrine, high and rising unemployment (idiosyncratic shocks) cannot be cured if wages are not flexible enough to lag behind productivity for an extended period of time. By contrast, there is conclusive evidence that stable growth in domestic income (ensured by the adjustment of real wage growth to productivity growth), combined with the absence of external shocks due to a fall in competitiveness, means that there is no need at all to cut real wages.

5. IS THERE A PROBLEM WITH WAGE LEVELS?

Many people argue that countries with very different levels of wealth should not form a monetary union. Poorer countries are considered by many observers to be unable to compete with richer nations and should abstain from entering into a race for competitiveness with them. Apart from the fact that nowadays the argument is very often turned around (richer nations are threatened by poorer and more competitive nations where labour costs are much lower), the argument is unconvincing. In all countries, all groups of agents have to respect budget restriction in their claims against the overall income that is produced in that country. No country can consume more than it produces in the long-term. That is why, in a normally functioning economy, the claims of different groups, including workers, are balanced against the claims of other groups at a given level of total income.

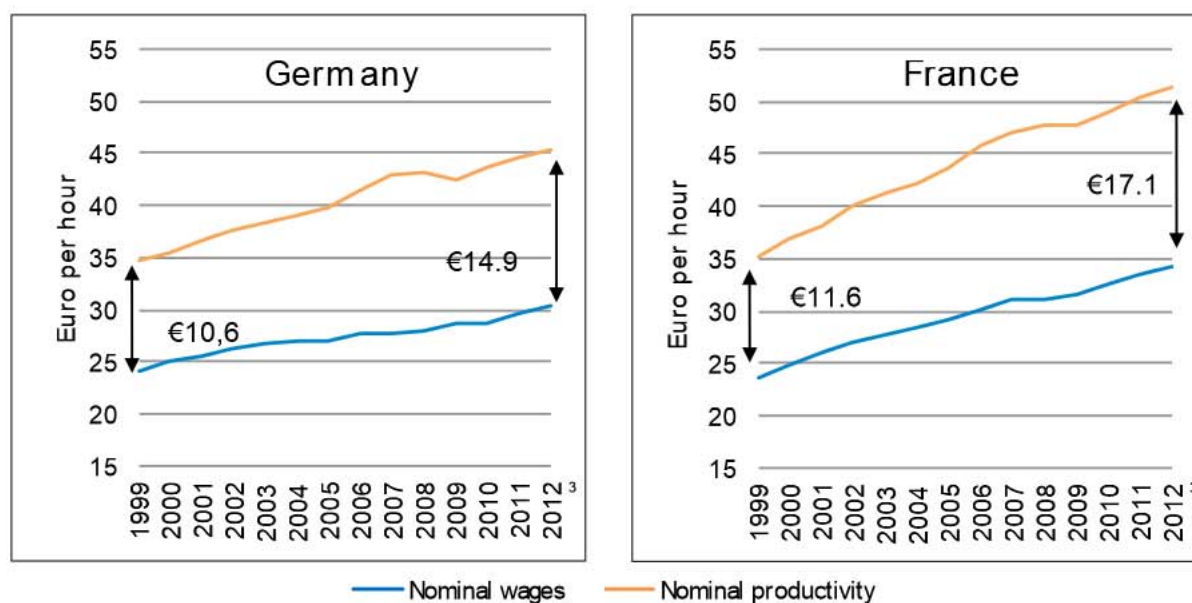
In an economy in which this balancing exercise no longer functions, conflict over income distribution would end in inflationary bouts and spirals. If this is avoided, the levels of wages and profits exactly reflect the level of wealth or welfare in that economy, and the wage level reflects national productivity: low wages in the poorer countries reflect low productivity and *vice versa* in rich countries. The level of unit labour costs would be the same in a poor and in a rich country, provided that in both countries a major conflict about income distribution and inflation can be avoided. Hence, there is no risk of large trade imbalances occurring as a result of different levels of wealth as long as minimum requirements regarding the structure of trade and the structure of products available to both countries are met, which means an overlapping structure of the goods produced in both countries. This is clearly the case for trade among the European countries, which had long and open trade relations before entering monetary union. Overall, there is no reason why it should not be possible – for poor as well as for rich countries – to manage ULC growth in the economy as

a whole in a way that is in line with the relevant inflation target. While the data for such a comparison are not available for many countries, the case of France and Germany reveals the underlying logic (Figure 2). Both countries entered into EMU with more or less the same levels of wages and productivity (for the sake of making productivity in absolute terms comparable to absolute nominal wages it is calculated here as a productivity based on nominal GDP). Furthermore, the movement of wages in relation to productivity did not constitute a problem in either country. However, as both nominal

wages and nominal productivity expanded more rapidly in France than in Germany, a gap in competitiveness emerged.

There can be no doubt that the logic of a monetary union asks member countries strictly to respect the common target for inflation in nominal terms to preserve external equilibrium at any time. In real terms, this implies that each country has to adjust its own productivity path and its economic potential; this excludes both a country that “lives above its means” as well as a country that “lives below its means”.

Figure 2: Nominal wages¹ and nominal productivity²



Notes.

1 Defined as the total nominal compensation of dependent employees divided by the working hours of dependent employees times the number of dependent employees.

2 Defined as nominal GDP divided by the working hours of the total number of people in employment times the number of employed people.

3 2012 values for working hours of the total number of employees and dependent employees. Based on data from Destatis and AMECO.

Source. AMECO database (Accessed: November 2012), Eurostat, own calculations.

CHAPTER II: WHAT WENT WRONG WITH EMU?

1. INFLATION AS A MONETARY PHENOMENON AND OBSESSION WITH FISCAL TARGETS

Instead of discussing the implications of monetary union in detail and creating the institutions necessary to run such a union successfully, the political process before 1997, the year in which the criteria had to be fulfilled, focused on fiscal policy. Particular emphasis was put on the limitation of public sector deficits at 3% of GDP, whereas the need to avoid inflation differentials and the ability of member states to stick to the common inflation target over a long time were regarded as much less important for the smooth functioning of EMU. Clearly, the obsession with fiscal targets was the direct result of the big struggle between governments and markets that had dominated much of the ideological debate in the 30 years following the end of the Bretton Woods regime.

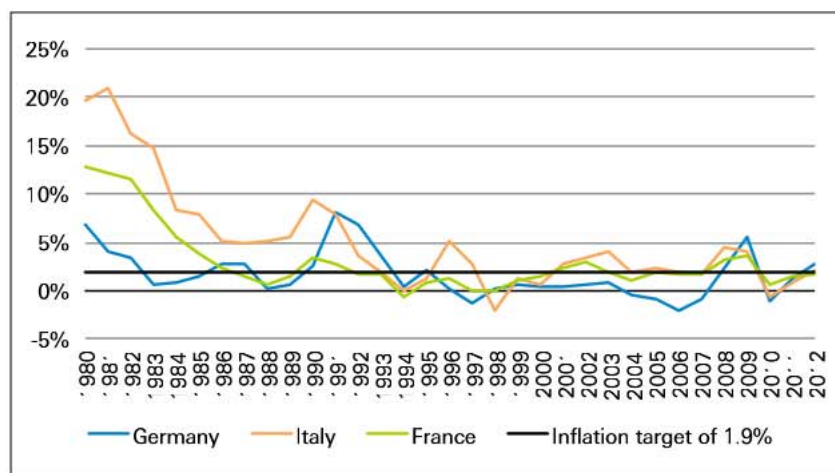
However, there is no direct relationship between fiscal targets and the inflation target, and the indirect links one may imagine are very weak. Neither the current budget deficit nor the size of public debt has an impact on the inflationary performance of an economy. If any link can be thought of, it is – in line with an old prejudice – the way a highly indebted government may use inflation as a tool to reduce the real value of its debt. Japan in the last twenty years is a case in point. With a public debt equivalent of more than 200% of GDP, Japan has the highest level of public debt of all industrialized countries. Yet, the country has not been able to get out of its deflationary trap. Japanese policy makers dream of reaching a sustainable level of inflation; their nightmare is deflation.

In the heated debate in Germany about the dangers of inflationary acceleration in the run-up to EMU, wages or unit labour costs were not even mentioned. Labour costs were considered as reflecting the market price for labour. The “flexibility doctrine” was the broadly accepted (OECD, 1994) view in politics as well as in economics. Consequently, since the start of monetary union in 1999, Germany, the biggest country and the European stronghold of external stability for several decades, decided to try out a new way of combating its high level of unemployment. The government started putting political pressure on the labour unions in an attempt to restrict the growth of nominal and real wages.

To be sure, Germany’s vigorous attempt to tackle its persistent high unemployment rate was not to target EMU but was grounded in the neoclassical conviction that lower wages would result in a more labour-intensive mode of production. After work-time reduction schemes had failed to deliver the expected result, labour union leaders agreed in a tripartite agreement in 1999 to abandon the formula that had been used hitherto to determine wage growth. This formula had ensured equal participation of workers in productivity growth; but now, the unions agreed instead to “reserve productivity growth for employment” (Flassbeck, 1997; Flassbeck and Spiecker, 2005).

Implicitly, this agreement also meant a fundamental break with the German tradition of targeting a low and stable inflation rate. Historically, Germany has been characterized by moderate wage increases. But these increases normally ensured that real wages (nominal wages adjusted for inflation) would rise in line with productivity (GDP divided by the number of hours worked). In other words unit labour costs (nominal wages divided by GDP), as a rule, rose in line with an inflation target of roughly 2%. However, as monetarism had become the widely accepted doctrine to explain inflation, the deflationary aspect of the new arrangement went unquestioned.

Figure 3: Adjustment of ULC¹ growth rates over thirty years



Note: ULC defined as the gross income per capita in ECU/euro of dependent employees divided by the real GDP per total workforce.

Source: AMECO database (Accessed: November 2012); own calculations.

2. A HUGE GAP IN COMPETITIVENESS EMERGES

The new German labour market approach coincided with the beginning of the currency union and contributed to the emergence of a huge divergence in the movements of unit labour costs among the members of the new currency union. Since the start of EMU, German unit labour costs, the most important determinant

of prices and competitiveness, have remained flat (Figure 4).

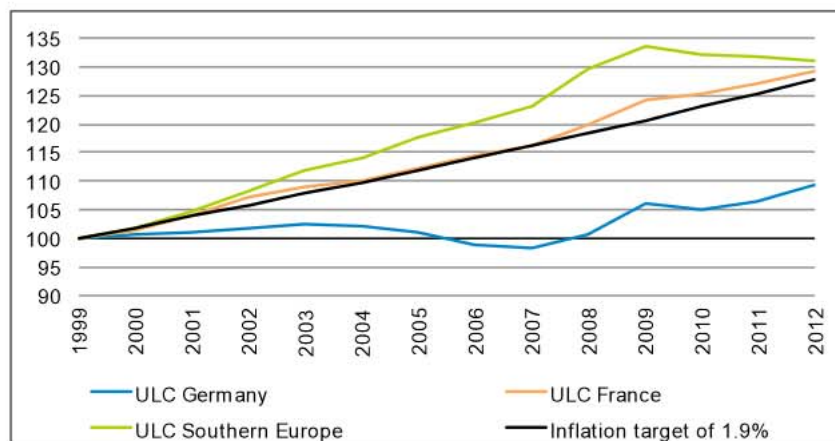
By contrast, in most of the countries in southern Europe nominal wage growth exceeded national productivity growth and the commonly agreed inflation target of 2% by a small but rather stable margin. France was the only country to exactly meet the agreed path for nominal wage growth: it was in line with national productivity performance and the ECB's inflation target of 2%.

Although the annual divergence of growth in ULC was relatively small, the dynamics of such a "small" annual divergence yield huge gaps over time. At the end of the first decade of EMU the cost and price gap between Germany and southern Europe amounted to some 25%, and 15% between Germany and France. In other words, although national currencies no longer existed, Germany's real exchange rate had depreciated quite significantly. The diverging growth of unit labour costs was reflected in similar price divergences. Whereas the union as a whole achieved its inflation target of 2% nearly perfectly, national differences were remarkable. Again, France was by far the best performer by aligning its inflation rate perfectly to the European target. Germany undershot and countries in southern Europe overshot the target by a margin big enough to result in a huge gap in competitiveness.

As a result of the accumulated gaps Germany has gained an absolute advantage in international trade, whereas the other countries have experienced an absolute disadvantage. To illustrate this effect: a comparable product, which in 1999 had been sold at the same price in all EMU member countries, could be sold by Germany in 2010 at a price that was 25% lower, on average, than in other EMU countries, without any change in the profit margin of the German producers.

In view of this scale, the conclusion about wrongdoers and misbehaviour is obvious: given the strong and stable relationship of unit labour costs, a 2% inflation target is only compatible with a 2% increase in unit labour costs; as such, an increase of 2.7% as in the case of Greece implies that this

Figure 4: ULC¹ in Germany, France and southern Europe² (1999 = 100)



Notes:

1 ULC defined as gross income per capita in ECU/euro of dependent employees divided by real GDP per total number of people in employment.

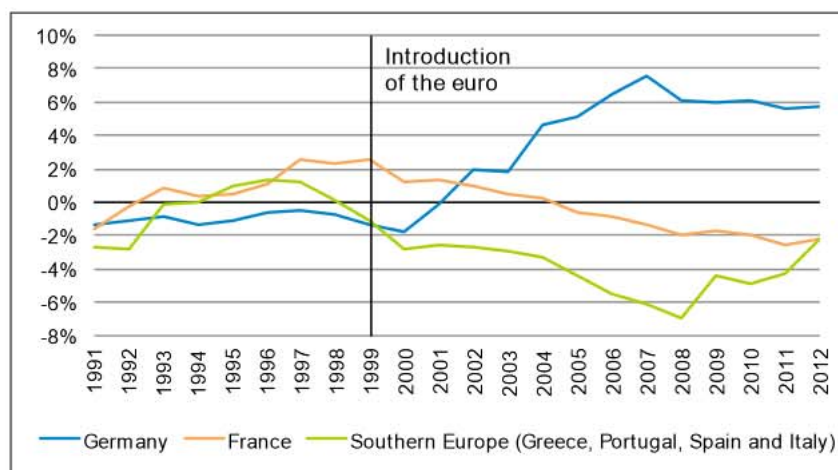
2 Spain, Italy, Greece and Portugal.

Source: AMECO database (Accessed: November 2012); own calculations.

economy has been living "above its means". However, Greece has violated the rule to a much lesser degree quantitatively than Germany, which, with a rate of ULC growth of just 0.4%, has been living "below its means". Paradoxically, Germany had explicitly agreed to the target of close to 2% because this had been its own inflation target prior to EMU. Given this target and the overriding importance of unit labour costs for inflation, Germany headed towards a clear violation of the common target once its government started putting enormous pressure on wage negotiations to improve the country's international competitiveness, inside and outside EMU.

The accumulation of the huge gap in unit labour costs and prices had an enormous impact on trade flows. With German unit labour costs undercutting those in the other countries by an increasing margin,

Figure 5: Growing trade imbalances mark the beginning of EMU – current-account balances as a percentage of GDP



Note: Negative values represent a current-account deficit.

Source: AMECO database (Accessed: November 2012); own calculations.

its exports flourished and its imports slowed down. Countries in southern Europe and France registered widening trade and current-account deficits (Figure 5). While trade had been rather balanced at the beginning of currency union and during the many years before it, the start of EMU marked the beginning of a period of rising imbalances. Even after the shock of the financial crisis and its devastating effects on global trade, which are clearly visible on the German balance, the trend has continued unchanged. Germany's current account continued to rise after 2010 again and reached a record high in 2012.

On the other hand, deep recession and fiscal austerity in the deficit countries tends to reduce the visible deficits. However, without a fundamental improvement in their competitiveness a quick recovery is quite unlikely and an eventual revival of domestic demand would bring deficits in the current account quickly back to the fore.

Absolute and accumulating advantages of one country or a group of countries against a similar country or group of countries are clearly unsustainable. A huge gap in competitiveness and the resulting current-account deficit have to be removed at some point, because otherwise the country or region will face a situation where it cannot credibly convince its lenders that it will be able to pay back its debt at some point in the future. As the final repayment of any international debt has to be a payment in kind, it requires a current-account surplus in the debtor country and a deficit on the creditor's side (Keynes, 1929). An indebted country can only service and repay its debt if the surplus country allows the deficit country to become a surplus country sooner or later by means of changes in competitiveness through price adjustments resulting from wage adjustments and/or changes in the exchange rate.

Unlike companies, countries do not go bankrupt or disappear. They have to find ways to cope with a situation in which nearly all of their companies have absolute disadvantages compared to their competitors abroad. The simplest way to deal with excessively high unit labour costs (in international currency) is to reduce wages. If it is possible to reduce nominal wages exclusively in those parts of the economy that are exposed to international competition, many negative side effects can be avoided. Currency depreciation does exactly that: it reduces nominal wages expressed in international currency, but not across the board in all sectors of the economy. In this way real wages fall, but imports become more expensive and tend to be replaced by domestically produced products, while exports become cheaper for international clients and tend to grow.

3. COMPETITION BETWEEN NATIONS?

One of the most intriguing discussions over the last few decades has been the debate about competition between nations or the battle of nations on the field of trade. The age of globalization, more than any other

before, has been interpreted as compelling nations to compete in similar ways to companies. The wealth of nations was considered to be dependent on the ability of nations to effectively adjust to the challenges that are created by open markets for goods and for capital. Nations with high standards in their capital endowment were expected to come under competitive pressure from trading partners with low wages and labour standards. In particular it was presumed that the emergence of a huge pool of idle labour in large developing economies such as China and India would fundamentally change the global capital/labour ratio as a whole in favour of capital and lead to a new global wage equilibrium.

Reality seems to have confirmed this expectation: wages in many high-wage countries in the North have come under pressure and labour is no longer able to appropriate the same share of productivity growth as capital – although it had been able to do so during many decades before. Wage shares have fallen and trust in the ability of market economies to ensure full participation of all people in the progress of society has begun to fade. However, the fact that wage shares have been on the decline need not imply that the forces driving this move are those referred to in the neoclassical model of the labour market – the basis for the idea that pressure from emerging markets inevitably leads to lower wages in many industrialized economies.

A closer look reveals the limits and weaknesses of this model. It assumes that competition among entire economies functions in the same way as competition between companies. But this analogy is out of place: the model describing competition among companies does not apply to countries, and especially not to countries with independent currencies. In the dynamic setting of a market economy companies compete through the differentiation of productivity. Supply side conditions, in particular the prices for intermediate goods, labour and capital, are normally alike and given for all companies within a country. Consequently, an individual company's success or failure is determined by the specific value that is added at the company level to the generally traded goods and services. Companies as price takers have to honour the going prices of labour for different qualifications, in the same way as they have to honour the price of capital. Companies able to generate higher productivity through innovation and new products operate with lower unit labour costs than their competitors; this enables them to offer their goods at lower prices or make higher profits at given prices. The former means gaining market share, the latter may mean strategic long-term advantages through higher investment ratios. As long as the prices of labour and intermediary products are given, competitors adjust by implementing the same or a similar technology or by leaving the market because their production is no longer economically viable.

This mechanism does not apply at the level of countries because wage rates are normally set at the nation-

al level. Be it through labour mobility within the country or through wage negotiations in a national context, countries, unlike companies, are wage setters not wage takers. If wages are centrally negotiated at the national level or if labour is geographically mobile, the so-called law of one price, equal pay for equal work, has to be applied, which means that all firms, no matter their profitability or efficiency, have to pay the same wage. Consequently, stronger growth of productivity at the level of an entire national economy does not increase the competitiveness of all companies compared to the rest of the world. Economy-wide productivity progress is normally reflected in higher nominal wages (and real wages) and unchanged unit labour cost growth.

But even if this mechanism, for whatever reason, did not work at all, a country with rather high productivity but extremely low wages and very low unit labour costs would not automatically increase its international competitiveness, and consequently the competitiveness of all its enterprises. Expressed in international currency, the prices in a country consistently using wage-dumping policies to improve its international competitiveness would not necessarily be lower than in the rest of the world. In a world of national currencies and national monetary policy, a country supplying its goods at much lower prices would gain market shares and accumulate huge trade and current-account surpluses. But at the same time political pressure to adjust wages and prices in international currency would mount and sooner or later the country would be forced to adjust its wages, measured in international currency, through a revaluation of its currency.

Nations can open their borders for trade and capital flows if their companies have a fair chance in the global division of labour and they are not in danger of permanently losing out against the rest of the world. This is the simple proposition underlying all international trade arrangements at the WTO and elsewhere. If, at the level of the national economy, the nominal remuneration of the immobile factor, labour, exceeds the effectiveness of its use (labour productivity) consistently by a wider margin than in competing countries, a country will get into trouble because most of its companies are in trouble. They have to ask for higher prices and accept the permanent loss of market shares or accept lower profits to avoid the loss of market shares.

A situation like this, which is the result of an appreciation and overvaluation of the real exchange rate, is unsustainable and once the accumulated overvaluation reaches 20% or so a crisis is unavoidable. A deficit in the current-account balance is the most visible indicator of this pathological constellation but not its core. In Europe, Italy and the United Kingdom faced such a problem as members of the EMS in 1992; Italy opted to remain within the system, the United Kingdom opted out, but both devalued their currency. In systems of adjustable exchange rates, the way out of a balance-of-payments crisis is rather simple: the currency of the country in trouble has to devalue, thereby restoring

ing a competitive level of nominal wages and nominal unit labour costs measured in international currency. Indeed, devaluation leads to a relative fall in real wages but that is not an important aspect of the analysis.

4. DIDN'T GERMANY SUCCEED?

Despite the evidence presented above, many observers of the European scenario tend to conclude that the only country inside EMU that has got everything right is Germany. It is politically strong, its economic performance is impressive and, as the main creditor country, it dictates the terms at which the debtor countries receive financial assistance. From the point of view taken in this study, however, the judgement about wrongdoers and violators of the Maastricht Treaty is different. We have shown already that German wage moderation violated the commonly agreed inflation target. This conclusion is inevitable once the undeniable fact is acknowledged that unit labour costs, rather than monetary aggregates, are the main determinant of inflation inside countries and for monetary union as a whole.

But beyond this, when making a judgment about whether the German approach was really successful, it is also necessary to consider that Germany was able to take advantage of a historically unique situation and the naïveté of its partner countries for the first ten years of EMU. Why was it that wage moderation, with real wages lagging far behind productivity, could become such a powerful instrument? Is it the final proof of the validity of neoclassical labour market theory?

To answer these questions it is necessary to differentiate between the effect of wage moderation on export performance, on the one hand, and its effect on the domestic economy, on the other. This differentiation is necessary, because there can be no doubt that a big country with intense trade relations with its neighbours can gain extraordinarily if it "beggars" these neighbours for a long time by robbing them of significant market shares in regional and global trade. Indeed, Germany's share of exports in GDP, which had been rather stable at 30% of GDP for several decades before the creation of EMU, exploded in the rather short time span from 1999 to 2012 and culminated at more than 50%.

It is an integral part of Keynesian theory (referred to especially in the famous Chapter 19 of Keynes, 1936) that begging one's neighbours may be a successful strategy as long as the trading partners accept this economic imperialism and do not undertake retaliatory action. EMU, as an implicit part of the free trade arrangement in the EU, was unable to deal with this problem for two reasons. First, because its macroeconomic implications were ignored for the above mentioned doctrinal reasons, and second, because the other countries of the union could not retaliate against the aggressive German approach with trade policies due to the strict common market free trade agreements. It was only under these unique circumstances that the German strategy could be – temporarily – immensely successful on the external front.

On the domestic side, however, it was a complete failure. The wage moderation strategy aimed to stimulate the creation of a large number of new jobs through a change in relative factor prices and restructuring the production apparatus towards a more labour intensive method of production. This strategy, based on the neoclassical theory of the labour market, never worked because this theory has an Achilles heel: it excludes the time dimension and the fact that a wage cut, or a slowdown in wage growth, is followed in reality by a sequence of effects and not a return to equilibrium as in the neoclassical model (UNCTAD TDR, 2012; and Flassbeck *et al.*, 2013).

The flaws of the neoclassical nexus become obvious when real time and the sequence of events in the process are considered. Cutting wages immediately reduces demand among workers' households. This reduction may occur even before the exact date of the wage cut when the latter can be anticipated. With a synchronized fall in wages and demand among wage earners, firms are unwilling to invest. New investment, however, would be required to restructure the production apparatus in light of the new relative prices of labour and capital. With falling demand and falling capacity utilization of the existing capital, stock investment in fixed capital will also fall and weaken domestic demand further.

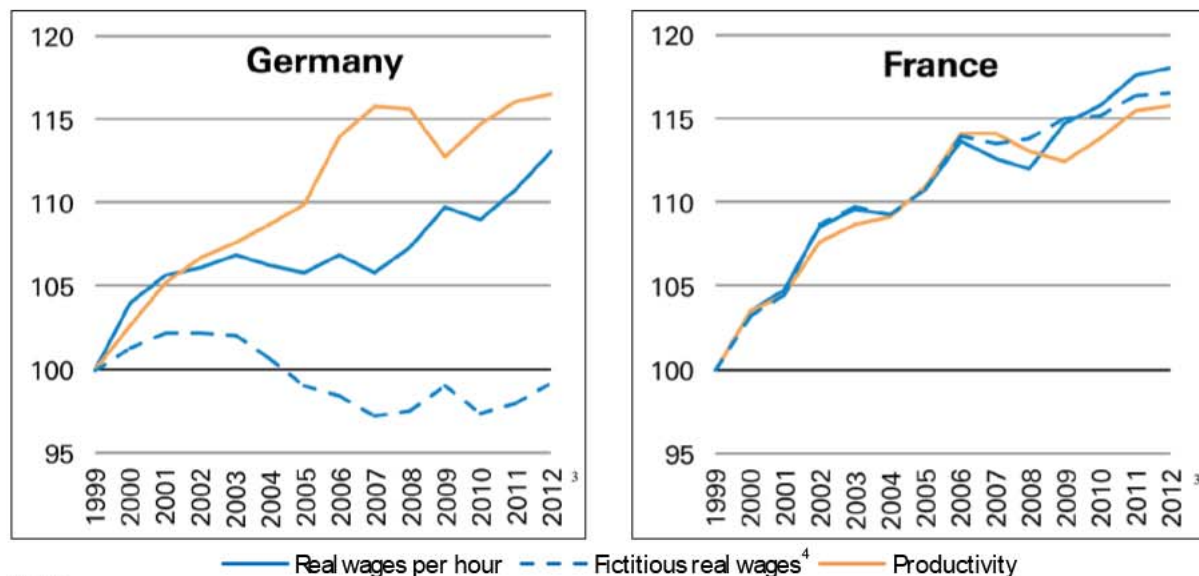
The neoclassical wage-employment nexus, according to which a wage reduction will induce a change in the production process, assumes that overall demand does not change after the wage reduction. In other

words, neoclassical theory assumes what cannot be assumed in the real world: independence of supply and demand on the labour market (Schumpeter, 1954, p. 99¹). In a closed economy or in an economy with a small external sector, a drop in the overall wage sum and, thus, a reduction in overall demand among workers' households, could only be avoided if employment were to increase exactly at the same rate as wages were to fall. Moreover, this would have to be accomplished instantaneously, in a "theoretical second". If there is any friction in the restructuring of the production process or any lag in the adjustment of employment, the wage-employment nexus suggested by neoclassical theory collapses.

In the German case this chain of events can be clearly observed. Wage moderation resulted in more or less constant real wages per worker over 10 to 15 years, while productivity increased steadily. Consequently, had the government not induced the labour unions to accept wage moderation, the normal growth of real wages would have been around 0.2%, ending in 2012 (with 1999 equal to 100) at a level of 117 instead of 113 (Figure 6). Assuming the inflation rate would have followed the inflation target throughout the period of EMU in all countries reveals the huge discrepancy between developments in Germany on the one hand and in France on the other, as shown in the fictitious curves in Figure 6.

Under the assumption of an unchanged savings ratio of workers' households the increase in real wages would have resulted in an increase of these house-

Figure 6: Real wages per hour¹ and productivity² (1999 = 100)



Notes:

1 Defined as the total real compensation of dependent employees divided by the working hours of dependent employees times the number of dependent employees.

2 Defined as real GDP divided by the working hours of the total number of people in employment times the number of people in employment.

3 2012 values are for the working hours of the total number of employees and dependent employees projected and are based on data from Destatis and AMECO.

4 Total nominal compensation of dependent employees is price adjusted by a constant inflation rate of 1.9% and divided by the working hours of dependent employees times the number of dependent employees.

Source: AMECO database (Accessed: November 2012), OECD database (Accessed: April 2013), own calculations.

holds' demand of around 1.7% annually and would have led to an expansion of German consumer demand at rates similar to those in comparable countries such as France. In reality, however, the increase was much less. Even if we include the households of the rest of society (whose incomes rose due to the induced export demand), the average annual increase of real private consumption in Germany since the mid-1990s grew much less than in France. Taking together slow growth of domestic demand and strong export growth, the question arises whether a balanced strategy would not have been superior for Germany, given the high weight of consumption in GDP at the outset. Considering the jitters of the euro-crisis, the political damage caused to Germany and the danger of a break-up of the euro-zone, the judgement can only be a negative one.

Many people are, nevertheless, impressed by the German experiment because the country benefitted tremendously from its beggar-thy-neighbour strategy during the years immediately before the financial crisis. Indeed, absolute advantages in competitiveness like those achieved by the German economy accumulate over time. The bigger the absolute advantage, the greater the gains in market shares in a fast growing global economy. The stupendous increase in Germany's export share and export surplus reflects an unprecedented and unrepeatable explosion of exports. For many observers, Germany's gain in political strength after the crisis is even more impressive than the economic performance itself. But this is due to the simple fact that during financial crises (when everybody is risk averse and flees risk) a debtor country, because of its dependence on foreign capital, is usually on the defensive and the creditor gains the upper hand.

There can be no doubt, however, that Germany's extraordinary success on the external front is due to the numbness of Germany's neighbours and the blindness of the institutions created to guide and to oversee the euro-zone's proper functioning, in particular the ECB and the European Commission. A more vigilant central bank or a more attentive Commission would have intervened early on, warning Germany about the risks of its strategy and alerting its neighbours. The failure to do so is the direct result of the ideological pillars on which EMU has been built. In the early 1980s the Commission adopted neoliberalism as its religion, which since then has guided most of its decisions and actions. Improving competitiveness was the declared target of the EU as a whole. How could, under these circumstances, the Commission hinder Germany from doing what everybody was expected to do?

The institutional failure is even more severe in the case of the ECB. With open eyes and without ideological barriers the ECB would have found early on that unit labour costs, not the money supply, are the main determinant of inflation for the union as a whole, as well as for its national entities. The ECB failed to address overall macroeconomic developments and the emergence of major disequilibria. It also failed to anticipate

the outcome – in terms of deflationary pressure – of a possible crisis. The ECB, as an independent institution, could have avoided much of the disaster by using its political influence or by issuing public warnings stating that the union was on a dangerous path.

5. ASYMMETRIC ADJUSTMENT IS A MUST

Even many of those observers who are sympathetic to the views expressed here would argue that for Germany the strategy to contain domestic wage growth was not motivated primarily by competition inside EMU but mainly by increasing industrial competition from emerging economies, in particular China. They would add that, as already mentioned, this strategy was fully in line with the general orientation the European Union had taken some years before, when it urged its members to improve their competitiveness.

Although these arguments are intuitively attractive for many, they are completely wrong, because they once again overlook the crucial importance of the strong and stable relationship between the growth rate of unit labour costs and the inflation rate. A monetary union trying to achieve an inflation rate of 2% must not allow one of its member countries (the biggest one in particular) to go its own way in terms of ULC development and inflation. Had Europe been convinced that there was a challenge from emerging markets which had to be addressed at the macroeconomic level, it could have chosen a lower inflation rate (or even deflation) as the target of common monetary policy. In this case, however, sooner or later the exchange rate of the euro against the Chinese yuan or the US dollar would have reflected the lower inflation in Europe and destroyed the advantage Europe had tried to obtain by pursuing a lower inflation target.

The message is simple: in a world of floating or adjustable exchange rates no country can gain a permanent advantage against another country that has the possibility to adjust its exchange rate in accordance with inflation differentials. This means that all attempts to improve competitiveness by cutting or moderating wages in the EMU as a whole is useless. But this is exactly the approach that has been chosen as the way forward since the crisis. This approach is misguided also because in most of the European debtor countries wage cuts will backfire badly as their domestic demand is more important than external demand. In economies with an export share in GDP far below 50%, wage moderation strategies are counterproductive if there is no perspective of achieving a huge current-account surplus over an extended period of time and of raising export share beyond the 50% mark without retaliation from trading partners. Under normal circumstances, it would therefore be impossible to successfully emulate the strategy followed by Germany during the first ten years of EMU.

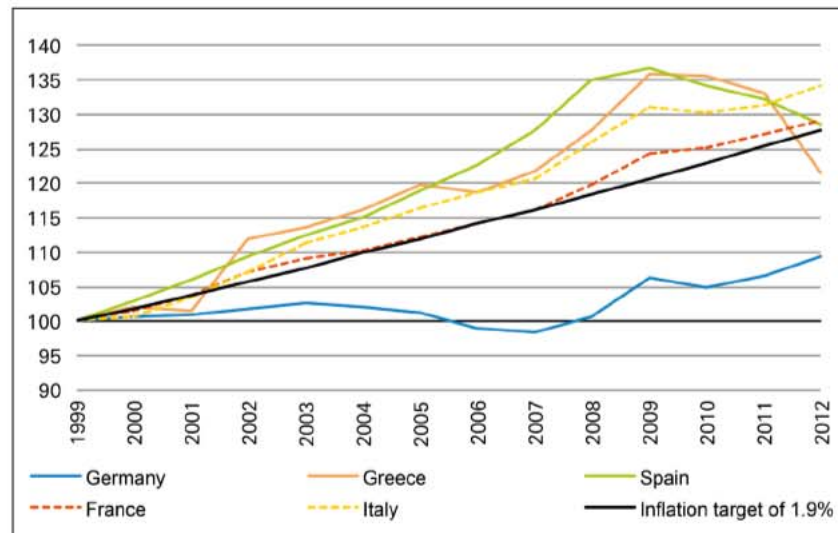
In a monetary union, a country with a low export share but a huge current-account deficit and financing

problems due to an implicitly overvalued currency becomes trapped. Downward adjustment of wages, sometimes erroneously called “internal devaluation”, is no way out as it destroys domestic demand and overall production before it can bring relief through rising exports. In particular, countries with a huge gap in competitiveness compared to Germany have to go through a period of catching-up in terms of price competitiveness. This process does not lead to rapid gains of international market shares or lasting improvements in the current-account position, because Germany’s absolute advantage will remain intact as long as the competitiveness gap is not overturned, in other words, turned into an absolute

advantage for the deficit countries. Figure 7 shows that countries will have to dive below the German UCL path for a long time to regain some of the losses they experienced in the first ten years of EMU.

The Achilles heel of the adjustment process is its length. A democratic country cannot possibly sustain five to ten years of falling living standards and rising unemployment, neither economically nor politically. The process would inevitably result in social upheaval and desperate attempts by people to use elections to prevent what in their eyes would be a frivolous attack on their well-being. This is why the adjustment process has to be symmetric at least. This means that

Figure 7: ULC¹ from 1999 to 2012 for selected EMU countries (1999 = 100)



Note: ULC defined as gross income per capita in ECU/euro of dependent employees divided by real GDP per total number of people in employment.

Source: AMECO database (Accessed: November 2012); own calculations.

the country that is implicitly undervalued has to undertake as strong an effort towards upward adjustment, and that means faster wage increases, as the other countries undertake in terms of downward adjustment. The most reliable yardstick of the success of the adjustment efforts on both sides is the inflation target. If the common inflation target is not questioned as such, restoring the deficit countries’ international competitiveness requires a rise in ULC and inflation in the surplus country up to the point where an external balance on both sides over the whole life of monetary union (the first ten years included) is achieved.

CHAPTER III: THE ROLE OF BANKING AND THE CENTRAL BANK

1. THE PROBLEMATIC FINANCIAL STRUCTURE OF EMU

A monetary union such as EMU, which aims to create both a common international currency, and a common domestic currency for its member states, places particular requirements on the institutions governing the financial system. Insofar as the common currency is to operate in international markets, the union must have a monetary authority that manages international reserves (including gold) and intervenes in the foreign exchange market if necessary. Insofar as the common currency is to operate domestically, the union must have a monetary authority that makes member states' inflation rates converge and that oversees the issue and circulation of legal tender. Both tasks require an effective and powerful central bank.

In national financial systems the regular operations of a central bank occur daily in the interbank market, providing liquidity and ensuring stable conditions for the short-term operations of commercial banks. Therefore, the most fundamental means of providing institutional support in terms of the functioning of EMU has been the construction of the European Central Bank, which operates in a homogeneous interbank market in which the commercial banks of member states can obtain liquidity on equal terms. The operation of both the ECB and the interbank market, however, reveal the contradictory nature of EMU and its inherent instability.

The ECB was set up as the most "private" of all major central banks, in the sense that it was not allowed to acquire the debt of member states in the primary and secondary markets. Preventing public debt from entering the balance sheet of the ECB is consistent with the guiding principle of EMU, namely that one member state should not take upon itself the liabilities of another. States should not be able to finance their deficits by selling debt to the ECB, nor should they be able to shift the credit risk attached to their debt onto the ECB, and thus ultimately onto other member states.

Thus, the ECB was originally designed to issue its liabilities with the aim of only acquiring private debt of the highest quality and under strict conditions of eligibility. It was also equipped with a huge gold reserve, the largest among the leading central banks. Its mandate was to ensure convergence of inflation rates toward the target rate of 2%. Unlike the US Federal Reserve System, the ECB never had an obligation to take into account the performance of the real sector, including growth and unemployment. The way in which the ECB operated played an important role in the unfolding of the crisis, which revealed the unstable nature of the union and to some extent led the ECB to change its practices.

The ECB was originally successful in establishing a homogeneous interbank market for EMU. The strin-

gent terms of collateral (private financial assets) required by the ECB created a common space for the commercial banks of member states both to obtain liquidity from the central bank and to trade liquidity among themselves. On this basis a common interest rate could emerge among member states and the functioning of the euro was to be supported both domestically and internationally.

Nonetheless, the homogeneous interbank market has been established on top of banking systems that have remained national. Thus, the behaviour of commercial banks trading liquidity is strongly shaped by national institutional characteristics. Furthermore, the institutional structure of the ECB itself reflects the persistence of national financial systems. National central banks continue to operate within the framework of the Eurosystem of central banks, and their role has become more important in the course of the crisis.

In short, while EMU is endowed with a central bank that operates in a homogeneous interbank market, it does not have a similarly homogeneous commercial banking system. This is a contradiction that lies at the heart of EMU and undermines the functioning of the union. Consider the following points.

In a national monetary system the provision of liquidity by the central bank is facilitated by the powers of oversight or supervision exercised over commercial banks. In EMU, however, the supervision of commercial banks has remained fundamentally national. Even more important, however, is the impact of national institutions on the solvency of commercial banks. The ability of commercial banks to obtain and trade liquidity in the interbank market ultimately depends on their creditworthiness, which depends on the quality of bank balance sheets, in particular of bank assets. In a national monetary system institutional benchmarks back up the creditworthiness of commercial banks, and thus support the normal functioning of interbank markets. EMU, by contrast, lacks corresponding institutional benchmarks, as has become apparent in the course of the crisis. Consequently, the provision of liquidity and with it the functioning of the euro as a currency union have been impaired.

More specifically, in a national monetary system commercial banks are typically supported by a system of insurance that protects deposits, which are the most important component of the bank liabilities. Equally, commercial banks have access to the spoken or unspoken guarantee of the state against the risk of bankruptcy. Public "resolution" mechanisms ultimately handle the credit risk taken by commercial banks on their balance sheets. In essence, these are different (implicit or explicit) ways of apportioning the burden of bank losses among taxpayers, shareholders and bondholders. These mechanisms comprise different meth-

ods with specific institutional features that typically vary from country to country.

The contrast with EMU is sharp. Banking in EMU lacks both a uniform deposit insurance system and a uniform resolution mechanism, since commercial banks remain resolutely national in both these respects. Thus, EMU banks obtain liquidity in a homogeneous interbank market that is inherently transnational, but support their creditworthiness through institutional mechanisms that are national and country-specific. This contradiction has shaped the course of the crisis, disrupting the functioning of the interbank market and thus of the EMU itself.

2. BANK INSOLVENCY AND LIQUIDITY SHORTAGES

Commercial banking in EMU was affected by the rapid growth of credit after 2000. The proximate cause of credit growth was the very factor that secured the homogeneity of the interbank market, namely the common interest rate managed by the ECB. Interest rates declined across EMU and the fall was particularly notable in peripheral countries. Inflation rates also converged, though not as decisively as interest rates. The result was that real interest rates in several peripheral countries collapsed, and even became negative. Consequently, domestic credit growth expanded rapidly.

Growth of domestic credit was an effective way of masking the negative results of the loss of competitiveness in peripheral economies. Credit helped to maintain consumption and supported investment in certain areas, particularly in real estate. Depending on the institutional background and the housing practices in each country, the result was to raise real estate prices in several countries, creating vast bubbles in the case of Ireland and Spain. Domestic banks were heavily involved and thus took the corresponding credit risk on their balance sheets.

Furthermore, low interest rates across EMU allowed countries to finance cheaply the current-account deficits that resulted from the loss of competitiveness. The rising international debt was provided by the banks of surplus countries, typically Germany and France.

For several years in the 2000s core country banks were happy to take credit risk onto their balance sheets by lending to both the sovereign and private enterprises on the periphery (Figure 8). The fundamental reason was that such debt was denominated in euro, giving rise to the false perception that it was similar to domestic debt. In the course of the crisis it has become clear that this debt is actually foreign as far as peripheral countries are concerned, even if denominated

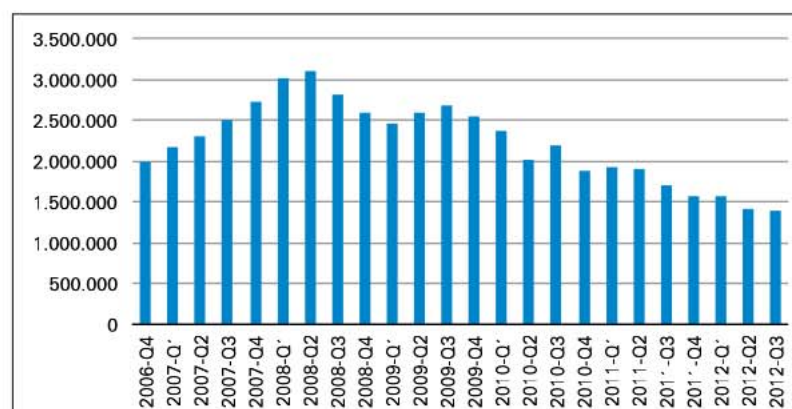
in euro. Thus, lenders found themselves exposed to sovereign and private debt in the periphery, which they probably would not have acquired had the monetary systems of peripheral countries remained national.

The euro-zone crisis is, in the first instance, a crisis relating to both sovereign and private debt. This is quite natural in view of the underlying loss of competitiveness in the peripheral countries, which inevitably meant accumulating foreign and domestic debt. As debt accumulated, sovereign borrowers found it difficult to obtain credit in international markets after 2009. The fundamental reason is that it became clear to lenders that not all euro-denominated debt was of the same quality: a euro of German public debt, for instance, had a much higher value than a euro of Greek public debt. Gradually market participants understood that the German state would not honour the debt of the debtor countries. Thus, more and more debtor countries and their governments were excluded from international markets.

The threat to sovereigns immediately translated into a threat to the banks that were exposed to those sovereigns. These were primarily banks of core countries that had financed peripheral public debt. Moreover, there was also a threat to banks that had supported the over-expansion of domestic private credit, often associated with real estate. These were domestic banks in the first instance, but also foreign banks that had either lent to domestic banks, or directly the over-expanded private sector. As the crisis deepened and fiscal austerity worsened the contraction of peripheral economies, banks began to face additional problems related to non-performing loans, mostly in the periphery but also at the core.

Thus, the euro-zone crisis from the beginning was a banking crisis: it was a crisis of bank solvency because it coincided with the global financial crisis. Nascent crises of bank solvency typically lead to loss of trust among banks and therefore first show up as shortages of liquidity in the interbank market. In such circumstances, the standard response by the central bank is to provide liquidity to commercial banks. The operations of the ECB

Figure 8: Core country bank lending to the periphery – gross claims core¹-periphery² (\$m)



Notes: Germany, the Netherlands and France. Spain, Portugal, Greece and Ireland.
Source: BIS; own calculations.

have consequently been fundamental to confronting the euro-zone crisis from the beginning. Provision of liquidity by the ECB, to both commercial banks and national central banks, has increased enormously, and the terms of collateral have been systematically loosened. ECB policy amounts to a large public subsidy to commercial banks since liquidity has been provided at very low interest rates for fixed periods of time.

Unlike the Federal Reserve and the Bank of England, since 2007 the ECB has not engaged in direct quantitative easing, that is, the practice of acquiring public bonds to boost bank reserves in the hope of expanding the supply of credit money. Nonetheless, the response of private banks to the ECB's provision of liquidity has been to increase substantially holdings of reserves with the Eurosystem (Figure 9). Commercial banks have been deeply concerned about the quality of their balance sheets for reasons discussed above, and have thus preferred to hoard liquidity provided by the ECB rather than engage in credit expansion (Figure 10).

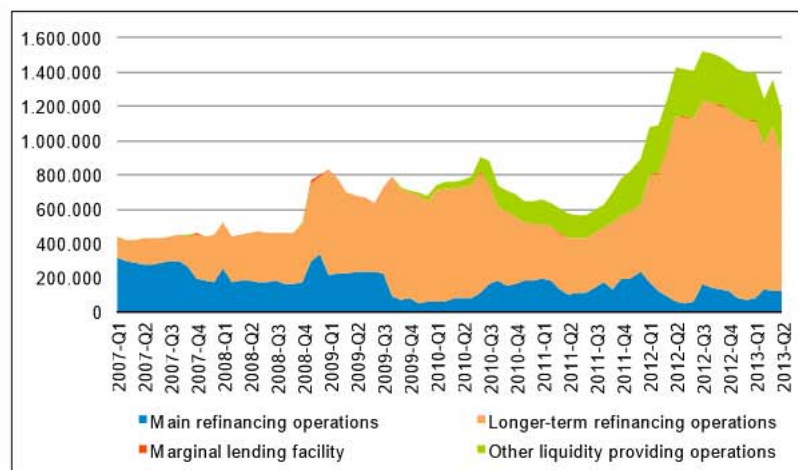
Provision of liquidity has also increased enormously among central banks resulting in the expansion of so-called TARGET2 accounts. These flows of liquidity have replaced a large part of the flows of private capital among EMU countries; they particularly replaced flows from core to peripheral countries as the crisis deepened. Liquidity provision by core central banks to peripheral central banks has enabled the latter to support their own banking systems and the private sector. Given the depth of insolvency problems of commercial banks, however, even the abundant provision of liquidity has been insufficient to lift the interbank markets out of crisis. As a consequence, the monetary authorities of the EMU had recourse to two further actions, both of which indicate the growing unravelling of the union.

The first has been the provision of liquidity by national central banks within the Eurosystem under the guise of Emergency Liquidity Assistance (ELA). Creating this form of liquidity requires the approval of the governing council of the ECB, but the liability is the responsibility of each national central bank. In effect, ELA amounts to the creation of euro under local conditions and partly has the character of national money, particularly since the terms of collateral are determined by the national central bank. ELA has been a vital feature of liquidity provision

in the periphery, typically accompanied by a significant loosening of the terms of collateral.

The second has been the change in the practices of the ECB with regard to public debt. The difficulty, or complete inability, of sovereigns to access funds in international financial markets and the corresponding decline in the quality of sovereign paper has been fundamental to the shortage of liquidity in the interbank market. Consequently, the ECB has been obliged to loosen its absolute refusal to buy sovereign paper. It actually started to make acquisitions of such paper in the secondary market in 2011. Even more important, however, was the declaration by the ECB in 2012 that it stood ready to buy the debt of countries in difficulty, provided that they implement austerity programmes. This announcement has not been tested in practice but it signified a sea change, nonetheless. It pacified financial markets because it signalled that the ECB was willing to take upon itself the credit risk of sovereign borrowing. For core countries, especially Germany, this was and is a potentially problematic move since it contradicts the logic on which the EMU was constructed.

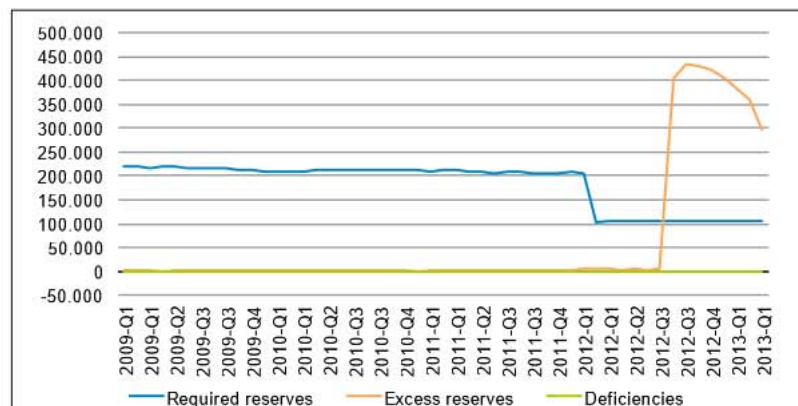
Figure 9: ECB liquidity provision¹ by instrument (m)



Note: Refers only to liquidity provision by the ECB (no absorption).

Source: ECB; own calculations.

Figure 10: Reserve Maintenance for EMU banks (m)



Source: ECB; own calculations.

3. CENTRIFUGAL TENDENCIES AMONG EMU BANKS

Provision of liquidity directly by the ECB, or via ELA, has been an important lever in attenuating conditions in financial markets. However, as has already been suggested, liquidity provision cannot resolve the fundamental issue facing banks in the euro-zone, namely potential insolvency due to problematic asset quality. It is in this regard that the absence of functional institutional mechanisms of deposit insurance, as well as resolution mechanisms and bank monitoring have exacerbated the disruption of the euro-zone. Dealing with insolvency problems typically requires imposing losses on shareholders and bondholders as well as providing banks with fresh capital, often from public resources. These mechanisms imply that one euro-zone country would have to commit public funds to rescuing the banks of another member country.

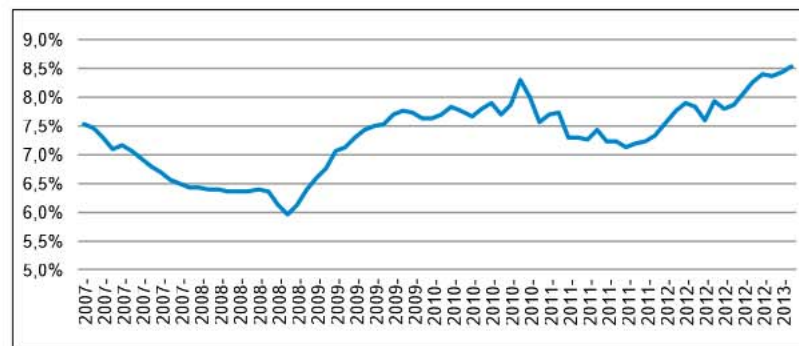
In effect the problem has emerged because the euro-zone has one central bank operating in a homogeneous money market, which has to deal with a constellation of banks that belong to seventeen different states. The health of each bank is affected by national financial practices, including the fiscal outlook of the state; moreover, the terms on which insolvency is managed have a national outlook. Given the precarious situation of public finances in several peripheral states, a number of commercial banks in the euro-zone are now confronted with the risk of insolvency; although this is due to national public finances, it cannot be effectively dealt with by their own national authorities.

The result has been higher borrowing costs for banks and, thus, higher lending rates in some member states compared to others. Enterprises with the same credit risk but located in different member states of the euro-zone are forced to operate with different interest rates. This is inherently disruptive of both the euro-zone and the EU itself, and yet another indication of the unravelling of the monetary union. Provision of liquidity by the ECB, including through ELA, may ameliorate these discrepancies

but it cannot eliminate them entirely since they arise from insolvency problems attached to both banks and states.

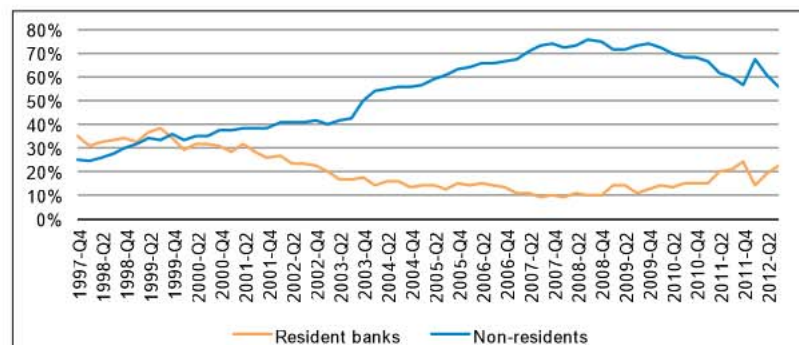
Even worse for the euro-zone is the fact that as the crisis has deepened, each member state has become more tightly bound up with its own banking system. This means that euro-zone banking has become even more strongly national. To put it differently, the crisis has loosened the links between member states and the

Figure 11: Government securities held by banks compared to total assets



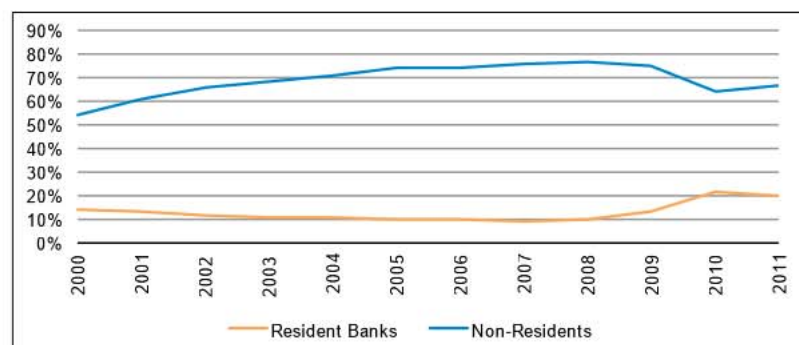
Source: ECB, own calculations.

Figure 12: Holdings of sovereign bonds by domestic banks and non-residents as a percentage of total MFI assets – Greece



Source: Brueghel database of sovereign bond holdings developed by Merler and Pisani-Ferry (2012).

Figure 13: Holdings of sovereign bonds by domestic banks and non-residents as a percentage of total MFI assets – Portugal



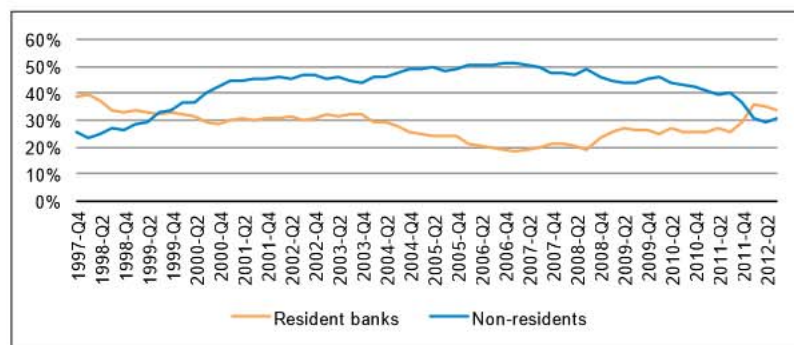
Source: Brueghel database of sovereign bond holdings developed by Merler and Pisani-Ferry (2012).

supranational financial mechanisms of the euro-zone. This trend has become evident as banks have increased their holdings of government bonds and simultaneously switched toward holding domestic bonds, even in the periphery (Figures 11–16).

There are three reasons for this trend, all of which are related to the contradictory nature of the financial institutions in the euro-zone. First, banks typically fa-

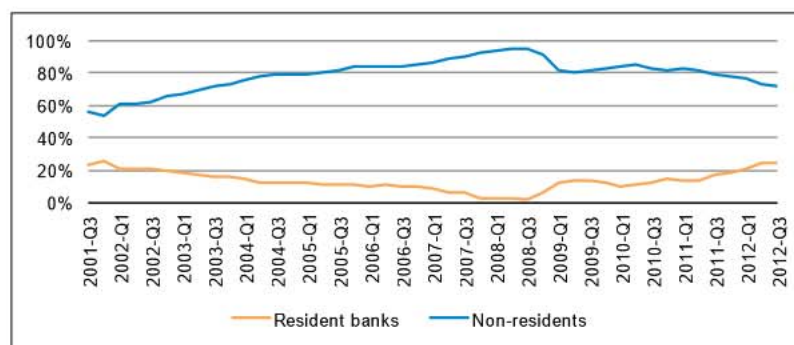
vour the debt of their own sovereign, since the latter is perceived as the collector of taxes and the ultimate guarantor of means of payment within the bank's original territory. Second, domestic banks have been subjected to a variety of pressures from the government to acquire bonds. Third, member states of the euro-zone have been forced to rely more heavily on their domestic banking systems as core banks have divested from the government bonds of weaker member states.

Figure 14: Holdings of sovereign bonds by domestic banks and non-residents as a percentage of total MFI assets – Spain



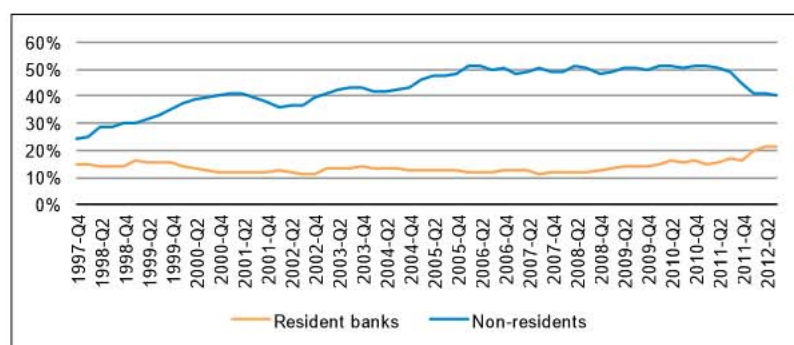
Source: Brueghel database of sovereign bond holdings developed by Merler and Pisani-Ferry (2012).

Figure 15: Holdings of sovereign bonds by domestic banks and non-residents as a percentage of total MFI assets – Ireland



Source: Brueghel database of sovereign bond holdings developed by Merler and Pisani-Ferry (2012).

Figure 16: Holdings of sovereign bonds by domestic banks and non-residents as a percentage of total MFI assets – Italy



Source: Brueghel database of sovereign bond holdings developed by Merler and Pisani-Ferry (2012).

In addition, governments and national central banks have supported their national banking systems in various ways. Governments have extended guarantees to national banks to enable them to post collateral for ECB liquidity. National central banks have supplied ELA against low-quality collateral. Governments have also guaranteed parts of the banks' asset and liability structures. These national mechanisms of support effectively amount to a subsidy for domestic banks reducing the cost of funds and allowing them to confront the risk of insolvency.

In sum, commercial banking within the euro-zone remains in a deeply troubled state due to the underlying problems of asset quality and therefore solvency. Liquidity provision by the euro-zone authorities has ameliorated these difficulties but cannot resolve them. The fundamental reason is the absence of effective mechanisms to confront bank crises across the euro-zone, which reflects the national composition of commercial banks, and the inability to avoid a deepening of the crisis. The tension between transnational provision of liquidity and the national resolution of banking solvency problems has become stronger in the course of the crisis as the national character of commercial banking has been strengthened. The tension further increased in 2013 in the course of dealing with the problems of the Cypriot banking system, since the euro-zone has imposed losses even on depositors. Trust in banking in the euro-zone will undoubtedly be affected badly, leading to further solvency problems. None of these developments augurs well for the future of the euro-zone.

CHAPTER IV: MISGUIDED ECONOMIC POLICIES – THE STOCK-FLOW DILEMMA AND THE CRUCIAL ROLE OF FISCAL POLICY

1. FLOWS ARE MORE IMPORTANT THAN STOCKS

A lot of political energy has been devoted in the euro-zone over the last few years to the problem of stocks, be it bad loans, apparently unsustainable government debt or savings deposits. Much less political enthusiasm has been invested in turning around flows, namely income (growth), investment and consumption. This is exactly the wrong tactic. Because future stocks are the result of today's flows, priority has to be given to restoring flows, even if this inflicts some pain on the holders of today's stocks.

In an economy characterized by unsustainable foreign debt that has been accumulated over many years due to a loss of competitiveness and falling market shares, the debt problem seems to be the most urgent one. If, for example, financing imports through the capital market is at risk, or becomes extremely costly, and international reserves are approaching depletion, a country needs emergency assistance because flows of exports and imports cannot be adjusted overnight. However, even the immediate financing of imports is an element in the restoration of flows rather than one of dealing with stocks. In former currency crises, such as those in Asia and Latin America, the IMF had to step in because countries were unable to stop the outflow of funds and the devaluation of their currencies. When the IMF stepped in – albeit with unnecessary and even useless conditionality – its actions mainly affected the short-term financing of imports. As competitiveness improved over time because of the devaluation of national currencies, a turnaround in the economy was brought about by increased exports and reduced imports. The latter was feasible as higher prices for imports induced the substitution of many imports by domestic goods, so that the need to finance imports was reduced. As the current account turned into surplus after some time, the financing needs disappeared and so did the need to rely on IMF assistance.

In EMU, financing for countries with current-account deficits should be much easier, whereas the switch from imports to domestic products and the stimulation of exports is much more difficult. In a fully functioning currency union there should be no difficulties for a country to finance its imports; as a matter of fact, such difficulties do not exist in the same form as in a system with floating currencies. In a currency union, markets sanction current-account deficits that appear to have become unsustainable mainly by requiring much higher interest rates on government bonds. This is the case even in situations where government debt itself is not the main problem, simply because the government is the only entity that can be clearly identified as being “national” and is therefore taken as re-

sponsible for the trouble the respective economy as a whole may face.

Moreover, although governments do not default like companies, in a world with national currencies the traditional sanction of the markets in a crisis situation is to “ask” for higher interest rates to compensate for the increasing risk of currency devaluation, the main risk of government bond holdings by foreigners. As interest rates on government debt also rose after the beginning of the crisis in the euro-zone, although in this case there was no risk of currency devaluation, many observers tended to confuse the situation of a country with the situation of its government. The consequent policy response was to tackle the problem of the public debt stock first and to ignore for a long time the country's flow problems.

Even under floating exchange rates there is often harsh conflict between stock and flow adjustments. Whenever people or institutions in a country under threat of devaluation hold positions or are indebted in foreign currency, the severity of the conflict can hardly be overestimated. In the run-up to the Argentinian crisis in 2001, for example, many ordinary people and the government were indebted in US dollars and the threat of a sharp devaluation of the peso (which had been fixed to the dollar at a rate of 1:1 for nearly ten years) led to an explosion of private and government debt expressed in national currency. Consequently, the government tried to defend the parity to the dollar by all means. But a country in deep recession and with an overvalued currency needs a demand stimulus and currency devaluation, whatever happens to stocks. In the event, the total breakdown of Argentina's “currency board” system (with a fixed exchange rate *vis-à-vis* the dollar) could not be avoided.

In EMU things are a bit more complicated, but the underlying logic is similar. When a country is forced into “internal devaluation”, in other words wage cuts to improve its international competitiveness, the deflationary effect of these wage cuts increases the real value of both domestic and foreign debt because the nominal value of that debt remains unchanged while all income flows are reduced. If a country were forced to leave the monetary union and to depreciate its new currency, the same logic as in the case of floating would apply. Surplus countries, on the other hand, have the benefit of lower interest rates on government debt, and in these countries the real value of all debts will fall, including those of the government if adjustment takes the form of “internal revaluation”, which means higher wages and unit labour costs, and higher inflation over time.

The need to deal with flows as a matter of priority becomes even more obvious from another perspective.

The problem of unsustainable debt cannot be solved by adjusting stocks without strengthening flows. In Greece, for example, the haircut applied to government debt in 2011 did not improve the overall economic situation at all. Nor did it significantly reduce government debt, because the economic situation actually deteriorated further. But even if it were possible to reduce government debt significantly by defaulting on government debt, it is essential to consider that the holders of government debt suffer wealth losses that exactly mirror the gains of the government, so that domestic demand is likely to suffer. In this situation, private spending cuts can only be contained (or an increase in private spending achieved) when the propensity to consume or to invest rises significantly. But even if the holders of government debt are mainly located in other countries it is hard to imagine that a government, after such a harsh measure, would be able to stimulate its own economy immediately and significantly by taking on higher deficits without being sanctioned by the financial markets again. In the Greek case the haircut mainly and badly affected Cypriot banks and triggered a new crisis there.

Most of the effects mentioned here are symmetric between the deficit and the surplus country, as well as between the depreciating and appreciating country. On the appreciation side stocks are valued higher, but flows suffer as exports become more expensive in international currency and imports become cheaper in national currency. A currency revaluation normally happens over a very short time span as the result of a forced and chaotic adjustment. In a monetary union the removal of a competitiveness gap, through higher wage increases in the surplus countries and smaller wage increases (or no wage increases at all) in the deficit countries, can be stretched over a longer period and would be much less harmful. If Germany were willing to adopt such a plan of coordinated wage policies, the structural change involved would not overstretch the ability of people and enterprises to adjust. Wage growth in Germany should be accelerated up to the point where real wages are moving in tandem with productivity and inflation is aligned with the common target. This would have a positive effect on real wages and improve the purchasing power of consumers, including for imports. Even stronger nominal wages increases (in other words higher than productive growth plus the common inflation target) would reduce the time needed for the European adjustment process. Prices in Germany would then rise faster than in the deficit countries, something that implies a real appreciation of Germany's economy.

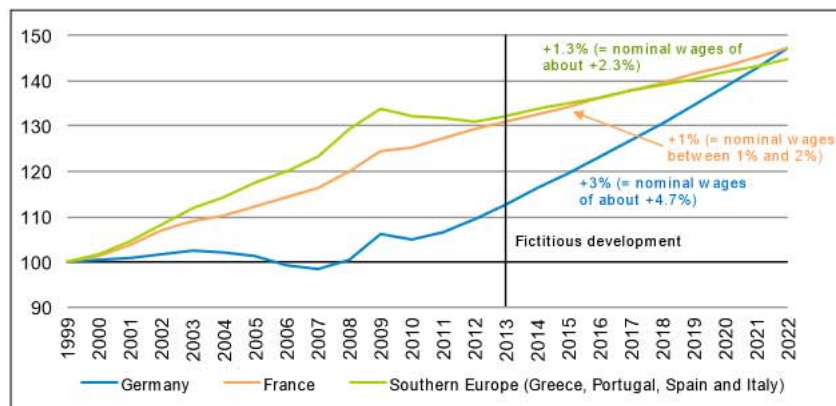
In both cases, a slow but steady solution to the competitiveness gap problem could be achieved, while rising German demand would fuel the other economies. No doubt, it would take such a solution considerable time to heal the split that has emerged over the first ten years of EMU. A period of between 10 and 20 years should be seen as the minimum to return to a pattern in which all countries are able to achieve an income growth that is based on their own strength and unimpeded by constraints to finance imports.

The crucial point is to be found in the very nature of a currency union. The unification of money in a system of fiat money rests on the pillar of trust in those institutions that introduced the paper money and promised to guarantee its value. However, trust cannot be split into regional entities with different levels of trust in a monetary union. Trust is everywhere or nowhere. The case of Cyprus has created a bad precedent for the future management of country-specific crises. In a monetary union, faith in the authorities of a monetary union should be grounded not only in their promise to stabilize the value of money. It also depends on their ability to prevent disequilibria among member countries that may result from losses or gains in competitiveness, as well as on the willingness and ability of these authorities to ensure stable growth and high employment, with each member economy "standing on its own feet".

2. OVERALL DEFLATION HAS BECOME A MAJOR THREAT FOR EMU

The process now underway in EMU as it is proposed and enforced by the "troika" (ECB, European Commission and IMF) goes exactly in the opposite direction. The troika starts from the assumption that Germany, the main creditor country, has pursued the right policies while the debtor countries have done everything wrong. But, as shown above, blaming the debtors and going easy on the creditor is clearly unjustified in the case of EMU. Asymmetric adjustment – wage cuts and deflation in deficit countries but unchanged policies in Germany – are bound to lead to disaster. Competitiveness is a relative concept, and if all countries were to

Figure 17: A scenario for convergence of ULC (1999 = 100)



Source: AMECO database (Accessed: November 2012); own calculations.

try to improve their competitiveness by cutting wages, the result would be a race to the bottom. In this race no country would improve its situation: all would lose out because domestic demand in the union as a whole would fall.

As stated above, the criterion for judging policies in the different member countries must be the common inflation target. If the authorities are determined to stick to the agreed inflation target of 2% for the union as whole, Germany will have to deviate from the target upwards, with wage increases exceeding its productivity path and a rise in unit labour costs exceeding the common inflation target, while the other countries will have to undercut the rate of ULC growth they have experienced in the past (Figure 17).

However, even in such a scenario EMU risks falling into a deflationary trap. If Germany, under the impression of recession and economic weakness does not manage to achieve wage increases clearly beyond 4% (and wage agreements concluded in the first half of 2003 are far below this mark), wages in the other countries, especially in France and Italy, will have to fall in absolute terms. This would, as shown above, badly hurt their economies, and it would be very difficult for governments to convince their electorate of the need for such wage cuts.

3. IN A CRISIS, COUNTERCYCLICAL FISCAL POLICIES ARE INDISPENSABLE

Since the start of EMU, fiscal retrenchment (efforts to reduce public deficits and public debt), under the label of “sound macroeconomic policies”, has been the mantra for a certain school of economics. This policy stance has been considered of primary importance in order to free the spirit of the market and entrepreneurship. In reality, it never had this importance. The market and the state can co-exist well. Even more, they have to complement each other for their mutual benefit. Moreover, fiscal targets are of secondary or tertiary importance for a monetary union. As elaborated above, inflation is mainly determined by the scale of nominal wage increases and the rise in unit labour costs, and by monetary policy dealing with the technical aspects of money markets and intermediary financial institutions. In normal times the role of public finances is, thus, mainly to allocate enough resources for the provision of public goods, to ensure fair and efficient taxation, and to productively employ the part of disposable capital that is not absorbed by the private sector. Public finances have no direct impact on inflation or on the external balance.

But times are rarely normal. With an unsettled economic outlook, high and rising unemployment, and economic policy doctrines focused on minimizing the role of government and the state in general, public budgets have increasingly become the hinge between the state and the market. They have an impact, for good or for bad, on the integration of national economies into the international concert.

In a seminal book, Richard Koo (2008) has shown that financial crises tend to end up in “balance sheet recessions”. In these situations it is indispensable for the government to intervene. If companies, and for that matter, private households, are keen to repair their balance sheets after a financial crisis, they will eagerly cut expenditure and will not respond to monetary stimuli in the normal and widely expected way with increased credit-financed expenditure. As private households are typically net savers, only countries that can rely on other countries as their main debtors (the German case, as shown above) are able to escape balance sheet recessions without sharply rising fiscal deficits. The government has to step in because savings deposited on bank accounts do not automatically transform into investment but tend to depress the whole economy and thereby to increase government deficits. The government then has to actively replace the missing borrowers and investors in the private sector.

The same is true for economies under the pressure of high unemployment and very unequal income distribution with stagnating wages and very high and rising profits. But before we can explain the crucial role of the government in more detail we have to remove some of the many theoretical misunderstandings that stand in the way of a reasonable treatment of the matter.

4. THE SAVINGS CONUNDRUM²

Despite decades of intensive research, the forces driving growth and structural change are still relatively mysterious (McKinnon, 2002). Only a few facts can be taken for granted. One is the central role of the accumulation of capital and improvements in technology. The close correlation between overall growth and investment growth is evident, along with the simple fact that no country has ever jumped from agriculture-driven growth to industry-driven growth without largely expanding innovation and investment. The jury is still out on the main determinants of investment, and the academic battlefronts are still far apart.

Much has been said on the preconditions that must be fulfilled to enable a significant increase in investment in manufacturing capacity. It is certainly true that in primitive societies nobody could invest (mainly in the form of raising cattle and storing current agricultural produce in order to ensure a supply of food and animal feed in the future) without reducing consumption of food and water beforehand. But does that mean that in more highly developed societies (where investment takes the form of increasing capacity in manufacturing and services) people have to become thrifty first to reduce expenditure for current consumption in order to allow for investment? And if so, why are some relatively thriftless societies prospering whereas others with a much lower propensity to save are lagging behind?

² This section draws on Appendix 1 of Chapter I of UNCTAD's Trade and Development Report 2006, which was written by Heiner Flassbeck.

Obviously, the gross domestic product of a closed economy (or the world) can be split into a part that is consumed immediately (in the same period in which it is produced) and a part that is saved to be consumed later. Hence, for a closed economy what is assumed is found, namely, that saving equals investment. For a single open economy with both domestic saving and foreign saving (with positive foreign savings being the logical correlate of a current-account deficit), the identity of saving and investment is fulfilled, with “national saving” defined as comprising domestic and foreign saving.

In more formal terms, the investment-saving theory is extremely simple. Let Y be the gross domestic product of a closed economy (or the world), then the whole product obviously can be split into a part (C) that is consumed immediately (in the period of production) and a part (S) which is saved to be consumed later or to be invested (I) in order to increase the product Y in a later period. The product can be written as:

$$Y = C + I \text{ or } Y = C + S,$$

which means to “find” for the closed economy what was assumed, namely, that:

$$S = I$$

For a single open economy, savings *ex post* consist of domestic savings (S_d) and foreign savings (S_f), where the latter is the correlate of the current-account deficit if its value is positive with:

$$S_d + S_f = I$$

The most recent academic debate did not try to improve our understanding of the dynamics and the causalities behind the identity, and as such the different determinants, of S and I . It has uncritically taken this identity as the axiomatic basis for macroeconomic analyses, repeating the error of the economic discussion in the twenties of the last century. The recent and current debate have ignored the fact that some 70 years ago, in his “fundamental equations” in the *Pure Theory of Money*, which forms the first volume of his *Treatise on Money*, Keynes clarified the inherent logic of this classical approach. The famous equality of saving and investment is valid from an *ex-post* point of view, or if the economy under consideration is in a state of perfect equilibrium. The latter describes a stationary economy, an economy where real income is constant and where there are no incentives for entrepreneurs to change the existing level of activity as the level of profits is exactly zero. In all other cases, it is not $S = I$ that rules the course of events but an equation like:

$$Q = I - S$$

where Q denotes the profits or losses of entrepreneurs (Keynes, 1930, p. 136). In this world, any act of individual saving, be it by governments, private households or the rest of the world, reduces profits and the saving of companies, because it decreases effective demand in the corporate sector as a whole.

The difference between the two models is remarkable and, unfortunately, very often inadequately reflected even in economic theory and economic policy. With

profits (Q) being the equilibrating force between saving and investment, the picture of the world changes fundamentally and in such a way that the traditional model of a perfect capital market can no longer describe it. To paraphrase Keynes: Euclidian geometry does not apply to a non-Euclidian world (Keynes, 1936, p. 16). Indeed, the problem with mainstream economic theory as applied in EMU today is quite similar to the one Keynes fought against in his time. In his *General Theory*, he concluded that classical theory is “faulty because it has failed to isolate correctly the independent variables of the system. Saving and investment are the determinates of the system, not the determinants” (p. 83).

The weakness of the orthodox approach becomes evident when it has to deal with concrete changes in the behaviour of economic agents in an economy that is subject to objective uncertainty. For example, if public sector savings suddenly rise under conditionality from the troika, companies faced with falling demand and falling profits, will react by reducing their investment. For companies, information is available only about the drop in demand but not about the systemic reasons behind this change.

In the situation described, the “rational expectations” branch of neoclassical theory assumes that companies can expect growth to accelerate as a result of the rise in savings. However, this reasoning involves circular logic. In a world where companies increased their investment expenditure *because* demand was falling, they would just switch the financing of the higher amount of investment from equity (cash flow, profits) to interest-bearing loans. The mechanism behind this remarkable transition in this theory is a fall in interest rates as a result of higher savings or lower government debt.

The implication of this approach is perplexing and absurd: after the increase of the government’s savings rate (or the reduction of debt through lower expenditure or higher taxes), companies are expected to acquire the same level of profit as in a situation of unchanged demand from the government. But companies have to raise their investment exactly by the amount that is now saved instead of being used for consumption expenditure. Companies are expected to do this although demand for their products has dropped. The implication is that they demand interest-bearing credit to exactly fill the profit gap opened by the decrease in consumption. In other words, the investing companies increase their borrowing from the capital market by exactly the same amount that they would have acquired “for nothing” if households were spending as much as before. Even if interest rates approach zero it is evident that the funds that companies need to protect their profit rate are now more expensive than before. Thus, the traditional theory assumes that companies invest more than before although they have to pile up unsold inventory or reduce their capacity utilization, and although financing of such investment has become more costly.

If the assumption of constant or zero profits would be accepted *a priori*, the system's dynamics could be explained in terms of private consumption smoothing over time. This means that companies passively adjust to any decision by households, without endangering the equilibrium values of the model or its inherent stability. Such an economy would be exclusively driven by autonomous consumer decisions as the model assumes totally reactive entrepreneurs who never take into account actual business conditions when deciding on investment. Instead, as a rule, the deterioration of their business in the present is taken as proof of a warranted (expected) improvement in the future. The whole idea is close to absurdity but it reflects exactly what the creditor countries in the euro-zone, led by Germany, are preaching (Schäuble, 2011).

Policy makers relying on this model fail to understand that it cannot capture the key factors shaping economic life in reality: the time factor and, closely related, the availability of information that affects the sequence of decisions taken by economic agents under objective uncertainty about the future. In a world of money and uncertainty, the decision to save more and consume less has grave repercussions on the goods market before it can impact on the capital market. But even considering the possible reaction of the capital market, the decision "not to have dinner today depresses the business of preparing dinner today without immediately stimulating any other business" (Keynes 1936, p. 210; Davidson 2013).

In a world of uncertainty and flexible profits, the intention of individuals or the government to save an absolutely higher sum than before may completely fail because the future income they realize at the end of the period may be lower than the income they expected at the beginning of the period. Even if households succeed in raising the *share* of savings in their actual income (the savings rate) or the government reduces the debt level, the *absolute* amount of income saved (and invested) may be lower, as the denominator of the savings rate, real income, may have fallen due to the decline in demand and profits, with an induced fall in investment.

The implications for economic policy of the difference between Keynesian and neoclassical theory are tremendous. If the level or the growth rate of real income is not given and constant, then the implications of globalization, the opening of markets and of policy interventions are of great importance. The neoclassical fixed-profits model does not require much room for manoeuvre for economic policy, and where it considers economic policy options they are the direct opposite of those put forward under the Keynesian flexible-profits model. For policy makers it is of vital interest to know on which model the policy recommendations that they receive are based. Frequently, the Washington-based international financial institutions that formed the so-called Washington Consensus argued that there is a rational choice between the two models and that economic policy can opt

for interest rate flexibility instead of flexibility of profits and real income: "In one view, saving is seen as resulting from a choice between present and future consumption. Individuals compare their rate of time preference to the interest rate, and smooth their consumption over time to maximize their utility. The interest rate is the key mechanism by which saving and investment are equilibrated. The other view sees a close link between current income and consumption, with the residual being saving. In this view, saving and investment are equilibrated mainly by movements in income, with the interest rate having a smaller effect" (IMF, 1995, p. 73).

It is important to bear in mind that "utility maximization" in the fixed-profits model describes an entirely different objective for the society under consideration than "income generation" in the flexible-profit model. Smoothing consumption may maximize utility in a very narrow and static sense in a world without entrepreneurial behaviour, that is, in an economy just moving along the consumption frontier or along a pre-defined growth path. Maximizing income in a dynamic setting is a totally different target. Allowing for temporary monopolies, new technological solutions and investment will shift the production frontier (and thereby the consumption frontier) outwards by increasing potential output, and in a monetary economy even beyond the financial resources provided by the planned saving of households.

The IMF approach suggests that movements of income are as good as movements in the interest rate to equilibrate saving and investment. This is only true in a world where economic policy has no means whatsoever of influencing the overall economic outcome. In reality, however, higher real income (or faster income growth) is the main objective of economic policy in all countries of the world, especially in poorer countries. The "instruments" of a change in real income and a change in the interest rate can be seen as alternatives only if it is assumed that the growth rate of real income is given (exogenous) and cannot be influenced by entrepreneurial activity or economic policy. But then the whole discussion becomes useless from the beginning.

Consequently, governments have to choose whether their economic policy approach shall rest on the idea of investment induced by "thrift-savings" or on the idea of investment induced by profit-savings. Obviously, depending on the model used by policy makers, the economic policy strategies will be totally different. In the orthodox fixed-profits model the adjustment of investment to savings is an automatic process that brings about the optimal result in terms of growth and jobs without government or central bank intervention. In the other model, in which profits are flexible, the economy is inherently unstable. In this case, government and/or central bank intervention is needed to stimulate investment, as interest rate flexibility may not be sufficient to stabilize the economy.

If income growth is the main goal of economic policy, then economic policy should clearly focus on a process

where investment plans regularly exceed saving plans due to the flexibility of profits. In such a world, even with the private incentive for “thrift” left unchanged, the economy as a whole may expand vigorously. The “savings” corresponding to increased investment are generated precisely through this investment, which is “financed” through liquidity created by bank credit based on expansionary monetary policy. Increased investment stimulates higher profits, as temporary monopoly rents arise in the corporate sector. These profits provide for the macroeconomic saving required from an *ex post* point of view to “finance” the additional investment. In the flexible-profit approach “the departure of profits from zero is the mainspring of change in the ... modern world ... It is by altering the rate of profits in particular directions that entrepreneurs can be induced to produce this rather than that, and it is by altering the rate of profits in general that they can be induced to modify the average of their offers of remuneration to the factors of production” (Keynes 1936, p. 40).

Hence, in a world of uncertainty and of permanent deviation from the fiction of perfect competition, shocks on the goods and the capital market lead to an adjustment of quantities and profits rather than price adjustments. In respect of the labour market, the right incentive for change requires high labour mobility or centralised wage negotiations. EMU with the flexibility approach imposed by the troika is heading exactly in the opposite direction. However, if the law of one price rules the labour market, and if wages of different skill groups are given for each single company, companies compete by differing productivity performances, as discussed in Section II.4 above. An innovation or a new product triggers a relative fall in unit labour costs for the innovating firm. The lower cost level may be passed on into lower prices, increasing the company’s market share, or, if prices remain unchanged, it may increase the company’s profits directly. In such a world, the flexible response of quantities and profits does not reflect a pathological “inflexibility” of prices and wages. Rather, it is the main ingredient of market systems in the real world, namely, the fight for absolute competitive advantage at the level of companies. In its inter-temporal dimension this fight is about achieving higher productivity at given wages. In its international dimension it is about the combination of lower wages with a given high productivity.

In a world of differing productivity performances in companies, prices are sticky but profits are flexible. Seen the other way round, if prices and wages reacted flexibly to changes in the performance of individual companies, profits would be sticky. In a dynamic setting, where prices and wages are given for an individual company, the flexibility of individual profits provides the steering wheel, and investment is the vehicle to drive the economy. In this world, the branch of industry, a particular region or a state are not the main actors, and any analysis focusing on these entities without leaving room for the role of profits and entrepreneur-

ship fails to capture the nature of the process of dynamic economic development.

Basically, the savings-based approach argues just the other way round. This model expects shocks from trade or technology to be buffered by a flexible reaction in prices and/or wages, whereas quantities react less and may even remain constant. Profits do not respond to shocks since the model of perfect competition – by assumption – functions in such way that changes in profits do not occur. In this approach, increasing imports of cheaper manufactures from developing countries, for example, force wages and unit labour costs in the North to fall and, thus, the prices of domestic products adjust to those of the cheaper imports. A rise in unemployment can only be avoided by stretching the wage structure between workers of different skills, as well as between those sectors and firms that are exposed to the new competition from abroad and those that are not. However, this model clearly has been refuted empirically by the rise in unemployment in the aftermath of the crisis of 2008.

In conclusion, if the growth rate of real income is not assumed as being given *a priori*, economic policy attempts at improving growth performance are useful. The savings-based approach favoured by mainstream economics and the troika is therefore misleading. If markets do not automatically deliver positive and stable growth rates of real income, then the dynamic view, highlighting the incentive of temporary monopoly rents for pioneering investors, is the only relevant model for the development of the system as a whole. The orthodox approach, putting primary focus on the decision of consumers to “smooth consumption over time” under conditions of perfect foresight, offers an elegant version of Leon Walras’ idea of market clearing, but does not capture the key features of modern economies.

Moreover, something that is very often forgotten in the theoretical dispute between the advocates of the two models is that the adjustment of saving to investment in the real world is overlaid by various kinds of exogenous shocks. For example, interest rates may not fall if monetary policy is fighting a higher price level stemming from a negative supply shock, as was the case during the oil price explosions in the industrialised world in the 1970s. Interest rates may be already extremely low without igniting sufficient amounts of investment, as is the case in the whole industrialized world at this moment in time; this means the interest rate channel cannot work to move additional savings to productive use in terms of investment. The negative effects of falling private demand on profits may be aggravated by pro-cyclical fiscal policy if “austerity” is erroneously seen as a solution. An overvaluation of the real exchange rate may disturb the adjustment process by forcing monetary policy to react pro-cyclically or by directly enforcing pro-cyclical monetary conditions.

Overall, in mainstream economic theory the search for variables “equating” saving and investment in

a smooth way ends up “solving” the problem by assuming it away. An assertion of the kind: “In equilibrium, however, the world interest rate equates global saving to global investment”, as made by Obstfeld and Rogoff (1996, p. 31), is simply wrong. As saving and investment are always identical *ex-post*, the notion of “equilibrium”, as well as the associated proposition that interest rates play an equilibrating role, are clearly misleading. Models dealing exclusively with economies that are growing under “steady state” conditions are useless. In these models the openness of the society that is reflected in objective uncertainty (Davidson, 2013) is defined away as economic agents are assumed to have perfect foresight about the future and complete information about their economic environment.

5. EXTERNAL IMBALANCES IN AN OPEN ECONOMY

According to the orthodox view that has dominated economic thinking during the last two decades, in an open economy, “if saving falls short of desired investment ... foreigners must take up the balance, acquiring, as a result, claims on domestic income or output” (Obstfeld and Rogoff 1996, p. 1734). Or, as Krugman (1992) put it once: “An external deficit *must* [italics in the original] have as its counterpart an excess of domestic investment over domestic savings, which makes it natural to look for sources of a deficit in an autonomous change in the national savings rate” (p. 5). However, suggesting that the identity implies causality and giving “saving” a specific, namely a leading role in the process, is unjustified, as shown above.

The fact that – from an *ex-post* point of view – a gap has emerged between saving and investment in one country does not hint at an “autonomous” decision of any economic agent in any of the involved countries. The plans of one group of actors cannot be realised without taking into account a highly complex interaction of these plans with those of other actors, as well as price and quantity changes under conditions of objective uncertainty about the future. In order to give the savings–investment identity informational content, it is necessary to identify the variables that determine the movements of each, saving, consumption and investment, and in consequence the national income of the country, along with the national incomes of all its trading partners. Moreover, the accounting identity of savings and investment does not give any indication about the efficiency of the process leading to *ex-post* equality of saving and investment, and thus cannot be treated as an equilibrium condition. The identity says nothing about the equilibrating factors and their role in the adjustment process.

In a non-stationary environment, any increase in expenditure (increase in a net debt position of one sector) raises profits and any increase in saving (net creditor position) reduces profits. Whether saving or investment change here or there, whether the bene-

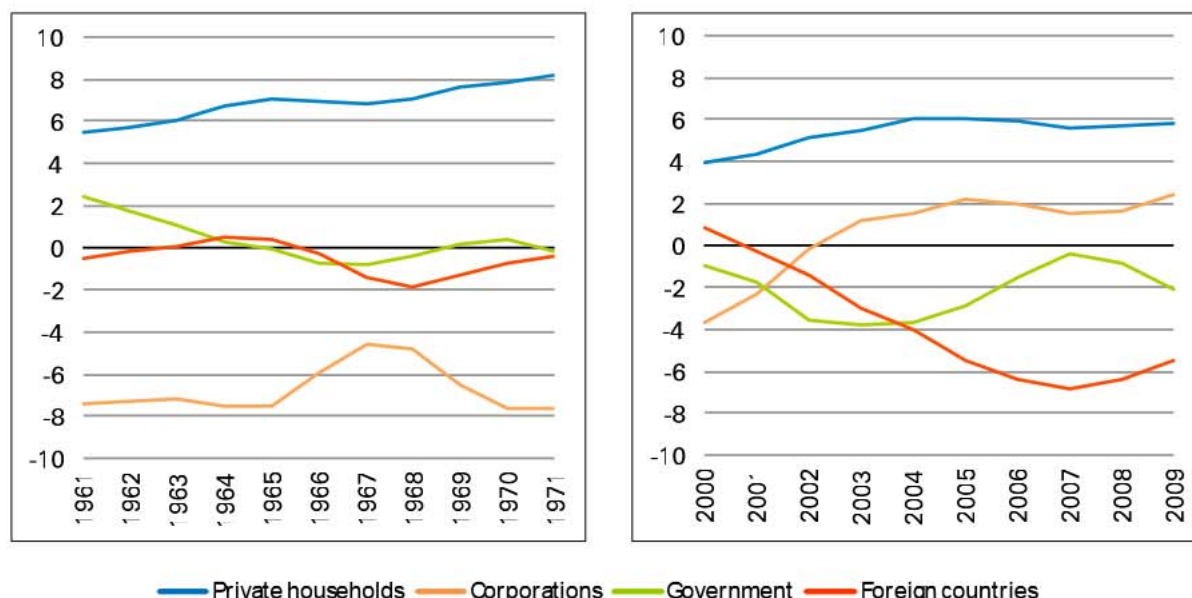
ficiaries (or losers) of the adjustment process are located in the country where the shock originated or in other countries, does not change the course of events. The decision of a certain group of economic agents (private or public, domestic or foreign) to spend less out of their current income diminishes profits. A drop in foreign savings can actually mean higher domestic profits and more investment instead of a drop in investment.

A current-account deficit, or a growing “inflow of foreign saving”, very often emerges in the wake of negative shocks on the goods market, for example falling terms of trade or a lasting real currency appreciation. A real appreciation directly diminishes the revenue of companies if market shares are protected by a pricing-to-market strategy. If companies try to defend their profit margins, a fall in market shares and, as a rule, a swing in the current-account towards deficit is unavoidable. Higher net inflows of foreign savings, which are logically associated with an increase of net imports (higher imports and/or lower exports), can by no means compensate for the fall in overall profits or even induce companies in the respective country to invest more than before. Under normal conditions, the process leading to a deterioration of the current account reduces real income of the economy under consideration (by reducing profits or other types of income with negative repercussions on profits). Hence, simply looking at capital flows in isolation does not mean comparing the situation before and after the swing. In most cases a higher net capital inflow indicates a negative shock and not, as neoclassical theory suggests, a positive one.

6. EXTERNAL BALANCES AND THE ROLE OF FISCAL POLICY – THE GERMAN CASE

The interplay of saving and investment can be analysed to a certain extent by looking at the net financial flow among the different sectors of the economy. Germany is an important case in this context, as it seems to have solved the problem of stimulating demand without sacrificing its fiscal thriftiness. Figure 18 depicts the pattern of net financial flows in Germany over the past 50 years.

In the 1960s the pattern of financial balances in Germany was such that net borrowing by the corporate sector was the main counterpart to net savings by households. In that period, neither the government nor foreign countries significantly contributed to the absorption of private savings. With the start of EMU the German corporate sector increasingly moved away from its traditional deficit position to assume a role as net saver from the middle of the first decade of this century. While at the beginning of the first decade of EMU the government was still in deficit, it decided to virtually stop current net borrowing in 2009 by introducing a “debt break” into the German constitution, which henceforth would allow only for very small amounts of annual net borrowing by the state.

Figure 18: Net financial flows¹ in Germany²

Notes.

1 Net debt position of a business sector in relation to gross national product, moving 3-year averages.

2 Western Germany until 1991, Germany starting 1991.

Source: German Federal Ministry of Finance, AMECO database (Accessed: May 2011), own calculations.

The counterpart of increased attempts on all sides of the German economy to become a net saver was the growing indebtedness of foreign countries *vis-à-vis* German lenders. The mechanism to achieve this is described in detail in Chapter II, namely a real depreciation via wage dumping, ignited by government pressure on the trade unions. The result for EMU has been disastrous, while the result for the German economy is an unsustainable growth trajectory and an enormous challenge for economic policy.

The challenge for Germany is to push its companies back into a situation where they earn much less but invest much more. Obviously, the incredible increase in German profits during the second half of the first decade of EMU was due to the tremendous success of German firms all around the world at the expense of their European neighbours. As we have shown already, without the export channel the German experiment in wage moderation would have been a complete failure as it served to slow growth in domestic demand. Nor would the accumulation of profits have been possible without export growth largely driven by the real depreciation. But with the export channel wide open, German companies specialized in tradable goods used the golden opportunity to expand their market shares and their profit shares at the same time. Secondary income distribution also moved in their favour, due not only to wage compression but also due to a significant cut in corporate taxes.

With most of the former importers of German goods now in dire straits and no longer willing to assume the role of debtor the model has to be changed radically. The mechanisms available to policy makers are

based on wages and taxes. A restructuring of aggregate demand towards more domestic and less foreign demand can only be achieved by turning wage moderation around and pushing for an extended period of wage growth exceeding the moderation path by a wide margin and even exceeding the line of productivity trend plus the inflation target. Strong government intervention will be crucial to achieve the required shift in the balance of power on the labour market in favour of labour. Higher wages would induce an increase in domestic demand that has been flat in Germany for more than a decade. At the same time, the government has to restore corporate tax rates at normal levels and to use the proceeds for infrastructure investments, thereby benefitting companies specialized in domestic investment and in satisfying domestic demand.

The task ahead for Germany is all the more challenging as the philosophy behind the whole edifice of its economic policy is based on achieving export surpluses. "Export orientation" is defended tooth and claw in politics and in the media and described as the only way for the economy to prosper and create jobs. German policy makers (and companies) now have to learn the lesson that other nations cannot be systematically used as debtors first and then dismissed as being "lax", "lazy" and insufficiently solid in their economic behaviour without questioning the foundations of the country's own economic model. This is particularly difficult when the process of giving economic policy a new orientation is not triggered by an external event like a currency appreciation. In the context of the currency union, this process has to be initiated internally,

by acknowledging that the model chosen by the vast majority has turned out to be unsustainable. Given the limited ability of human beings to admit personal error, it seems almost unreasonable to expect that such a process will take place.

We therefore tend to believe that a cooperative solution will be very difficult to achieve. It is either joint political pressure of the southern European countries, including France, that will move the German position, or the crumbling of the walls in one country after another

and/or a looming panic in many countries at the same time. Provided they recognize their individual weakness and their collective power, a coalition of the debtor countries threatening the end of EMU may be the best way to force Germany to change its economic model. Should EMU come to an end, the new (old) currencies of these countries would devalue significantly against the old euro and whatever would be the new German currency, destroying a huge part of the German export markets over night.

CHAPTER V: CONCLUSIONS

1. THE TRANSFER PROBLEM AND THE NEED FOR SUSTAINABLE EXTERNAL ACCOUNTS

An effective and prompt adjustment of currency valuations in line with the fundamentals in terms of prices or unit labor costs is crucial for a smooth flow of trade and capital and the prevention of unsustainable imbalances among countries. This is the conclusion that can be drawn from 40 years of experience with the different exchange rate regimes that have emerged since the end of the Bretton Woods system. Whether it is free floating, managed floating, dirty floating, pegging, or fixing forever: under all these systems huge and rising current-account deficits associated with a loss of competitiveness for economies as a whole are unsustainable. This is also true for currency unions among independent states. However, over- or undervaluation (appreciation or depreciation of real exchange rates) occurring in a currency union as a result of wage dumping in one country or other forms of competition among nations such as tax competition are much more difficult to deal with since the possibility of exchange rate adjustment does not exist.

There is a similar issue at the global level. In the years preceding the global financial crisis huge imbalances cropped up in the world economy, and it became clear that “the markets” would not be able to settle this problem. The outbreak of the financial crisis in 2008 – and its global ramifications since – propelled the Group of 20 developed and developing countries to center stage. The Group of 20 was designed to lead a coordinated international policy response to both the financial crisis and the global imbalances. G-20 finance ministers highlighted the need to assess the causes of the persistently large global imbalances and the prerequisites for rebalancing. Over time, concern has come to be focused increasingly on internal structural balances, fiscal policies and currency alignment, as parts of a common policy package to weather the next stage of the crisis.

The debate among the G-20 has opened new paths to address the problem of global economic governance. It has acknowledged that the mantra of “leaving currencies to the market” has lost its persuasive power. The contradiction between expecting market forces to do their job and hoping for a realignment of currencies according to fundamental determinants of competitiveness has become glaringly obvious. This was revealed yet again in recent years when a major emerging economy, Brazil, had to fend off huge capital inflows that were causing an unsustainable appreciation of its currency. But the contradiction should not come as a surprise; the world economy has been in similar situations before. In 1985, for example, the markets’ inability to resolve long-standing trade imbalances between Japan and the United States was finally resolved

by the historic Plaza Accord. After all other approaches had failed, coordinated intervention among the members of the G-5 finally achieved a 50% devaluation of the US dollar.

The renewed impetus for multilateral cooperation to solve the problem of persistent imbalances at the global level, and the fact that concrete proposals were tabled for mechanisms to reduce global monetary and financial volatility, should also serve as a wake-up call for EMU. The imbalances that have emerged inside the monetary union are part of a larger problem of misaligned exchange rates and eventually will have to be tackled globally.

Conclusions for the real world based on a mere accounting identity are generally questionable. There is no direct causal link between a current-account deficit and the behaviour of savings (“saving deficiency”) of certain sectors of an economy. According to general bookkeeping rules, no country can run a current-account deficit that is not financed by (the net “savings” of) other countries. “Savings deficiency” is the visible result of a macroeconomic process, but not necessarily the result of a lack of savings at the beginning of that process. The identity is totally silent on the economic mechanisms leading to such an outcome. The conjecture of neoclassical theory is that savings always lead macroeconomic adjustment processes and are followed by investment. This conjecture is, however, untenable. From the perspective of this theory it appears paradoxical that the current account of many developing countries nowadays is in surplus. Is that the result of a surplus of savings in the proper sense of the word? Or is it, rather, the result of policies designed to avoid the emergence of new current-account deficits after the painful experience of many developing countries faced with financial crisis and policy conditionality imposed by their creditors?

Current-account imbalances as such should not be the main focus of economic policy given the difficulties of quantifying an appropriate band for each country outside which an imbalance becomes truly unsustainable (the main issue affecting how such imbalances come into being). There are many good reasons why a current account may be in deficit or surplus at a certain point of time. One reason is that an economy is growing faster than that of its trade partners, causing imports to rise faster than exports (one example is the United States in the 1990s). Another is that a country may be a major importer of a primary commodity the price of which tends to rise, increasing the import bill without there being any compensation through rising export earnings (for example, the group of “low-income, food deficit countries”). Still another reason is that a country may serve as a hub for foreign firms to produce manufactures at a large scale, but may not yet have reached a per-capita income that is high enough

for the population to consume an amount of imported goods that would equilibrate exports (as in China, for example).

In all such cases, a short-term buffer of net capital inflows or outflows is needed to allow for a smooth functioning of the international trading system. In other words, imbalances in the current account are not by themselves indicative of a systemic problem that needs coordinated intervention. Moreover, what is important is not so much the current-account position of any one country – some commodity exporters can rely on maintaining their surpluses indefinitely (Saudi Arabia). What matters are current-account deficits that are caused by a loss of competitiveness of the entire manufacturing (and/or services) sector of a country, and current-account surpluses that are caused by gains in competitiveness in the aggregate. It is this type of current-account imbalance that is clearly unsustainable.

The fact that exchange rates play a pivotal role for external balances and, thus, domestic macroeconomic developments, is supported by empirical evidence. Analysing the factors influencing current-account reversals, UNCTAD's *Trade and Development Report 2008* showed that, rather than being driven by the autonomous savings and investment decisions of domestic and foreign agents, current-account reversals tend to be driven by external shocks emerging from both goods markets and financial markets. In particular, improvements in the current account were usually accompanied either by positive terms-of-trade shocks, by a real exchange rate depreciation, or by panic in the international capital markets followed by sudden stops in capital flows.

The deeper reason why current-account imbalances are unsustainable lies in a fallacy of composition. Countries becoming indebted against their trading partners over extended periods sooner or later get into a situation where questions arise regarding the sustainability of their accumulated external debt, in other words, their ability to service and repay this debt. However, a net debt repayment by a debtor country is only possible when it achieves a current-account surplus. This means that the creditor country must be willing to turn its surplus position into a deficit position. Individual firms or households may be able to reduce their outstanding debt by "tightening their belt" or by increasing their income streams; this has no repercussion on the current income of the creditor. However, this is not possible in most cases of creditor-debtor relations among countries. If a creditor country defends its current-account surplus by all means, it becomes very difficult or even impossible for the debtor country to turn a current account deficit into a surplus, as required for a net repayment of its external debt. This problem is known as the "transfer problem". It was analysed by Keynes (1929) in connection with the reparation payments imposed on Germany by the Treaty of Versailles after the First World War. He came to the striking conclusion that Germany, being forced to pay the repara-

tions in kind, would need to generate current-account surpluses over an extended period and would have to gain market shares at the expense of the allies, the beneficiaries of the reparations. If these countries refused to give Germany that room for manoeuvre, the payment of reparations would be impossible.

It is tragic that nowadays Germany, the victim of allied conditionality at that time, fails to understand the nature of its relationship with the southern European members of EMU. Germany continues to insist that "everybody has to improve competitiveness" (Merkel, 2013; and Schäuble, 2011) and to defend its international market shares. This attitude is directly preventing a solution to the euro crisis by creating a transfer problem. As competitiveness is a relative concept and current accounts will have to be balanced for the euro-zone as a whole (as the rest of the world will not accept current-account surpluses of such a huge block and can enforce this by exchange rate manipulation), the German approach violates fundamental logic.

2. TOUGH CHOICES AHEAD FOR THE EURO-ZONE

At the beginning of 2013 the rate of unemployment in the EU stood at more than 12%. In some southern European countries total unemployment exceeded 25% and youth unemployment reached a mind boggling 55% or even 60%. More than anything else, these figures show the failure of the euro-zone to tackle the problem that has emerged as the "euro crisis". The dramatic drop in growth and employment was triggered by the fall-out of the global financial crisis of 2008 and 2009. However, while Germany and most of the larger countries were able to return to positive growth rates rather soon, the debtor countries were deprived of the means to fight the recession and they were forced into pro-cyclical policies at a dimension last seen in the 1930s.

The German mantra of "austerity as the only solution" (Schäuble, 2011) was imposed across the board on all countries that asked for financial support when their access to international capital markets ceased or was blocked *de facto* by very high interest rates. An obsession with apparent fiscal problems is dominating the debate. The conditions agreed by the Eurogroup for access to financial support from the creditor countries have been centred on consolidating public budgets at any cost and as quickly as possible.

Clearly, differences in government bond yields between creditor and debtor countries were the first signal from financial markets indicating a split between the "solid" and the "profligate nations" in the euro-zone. But bond yields do not, as many believe, necessarily indicate a problem with the current budget deficit or the stock of government debt in the country concerned. A look back to the time before the creation of EMU reveals that bond yields did not sanction countries with high government debt in any systematic fashion. Nominal bond yields diverged by a wide

margin, but this mainly reflected differences between countries' overall level of interest rates. In real terms, however, the situation was quite different (Figure 19). Inflation-adjusted yields of Italian or Belgian government bonds were not much higher than those on German bonds, despite the fact that Italian and Belgian government debt was close to three times the size of German government debt (Figure 20).

This shows that in the past markets did not consider government bonds of EU countries to carry a default risk. Rather, they took into account the risk of a devaluation of the currency in which the government bond was denominated. The fact that the yields also converged perfectly during the first decade of EMU strongly confirms this point: as long as the danger of a break-up of the eurozone was considered to be negligible, the convergence of nominal bond yields made perfect sense. However, when the euro crisis emerged the exit of countries in trouble could no longer be excluded, so that markets perceived an increasing risk that the bonds of these countries might not be repaid

in euro, with the result that bond yields started to diverge. The ECB made several major attempts to contain the magnitude of the divergence, such as the two long-term refinancing operations (LTRO) and the signal of the ECB president to the financial markets that the ECB would do "whatever it takes to preserve the euro". Thanks to these attempts divergences narrowed, but they did not fully disappear.

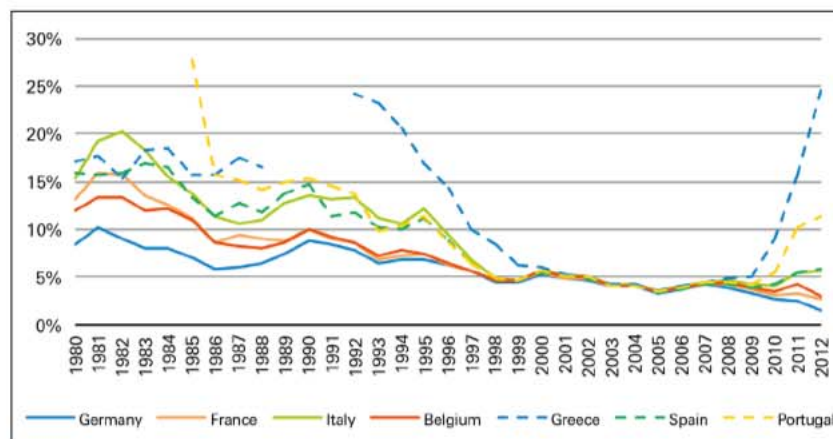
With the obvious failure of the adjustment programmes to deliver what was expected, namely "adjustment" in terms of a reduction of both the public budget deficits and the stock of government debt, uncertainty about the future of the euro remains high. At present, the situation has been stabilized thanks to the enormous power of the ECB to intervene and to cap bond yields. However, this just means that the fire is temporarily under control; it is still far from being extinguished.

In order to draw the right conclusions for the future of the euro, it is important to fully understand what has happened in the troubled nations up to now. The ad-

justment programmes as prescribed by the troika have two main elements. The first is fiscal adjustment, meaning cuts in government spending and higher tax rates. In a strong recessionary environment restrictive fiscal policies of this kind inevitably worsen the situation. Their negative impact on economic activity implies, as a rule, a fall in government tax revenues and increases in public expenditure owing to standing obligations in the field of social security and unemployment benefits.

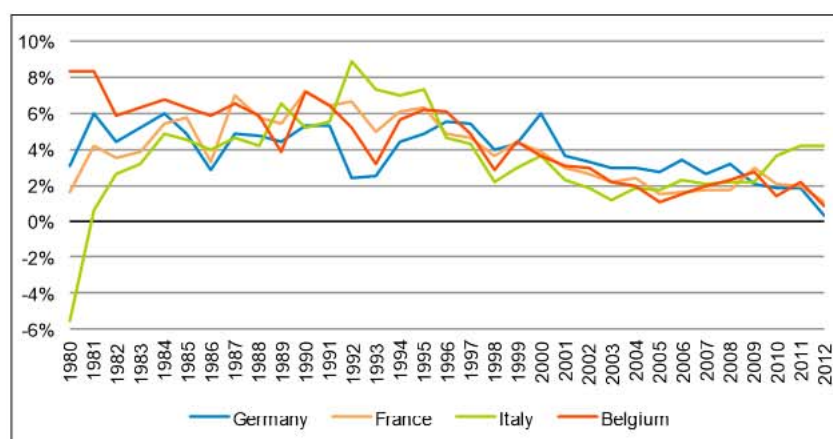
The idea expressed by parts of the troika and the German government that the private sector might react positively to this restrictive fiscal policy stance is close to absurdity. The so-called non-Keynesian effects, which are based on the "Ricardian equivalence theorem" and the theory of rational expectations, are a theoretical fiction that every reasonable citizen would consider plain nonsense. Cuts in public expenditure at a time when uncertainty among firms about demand and among households about their incomes is already high and has led the private sector to reduce spending only serve to increase uncertain-

Figure 19: Nominal 10YR bond yields



Source: AMECO database (Accessed: November 2012); own calculation. Figure 19: Nominal 10YR bond yields

Figure 20: Real 10YR bond yields¹



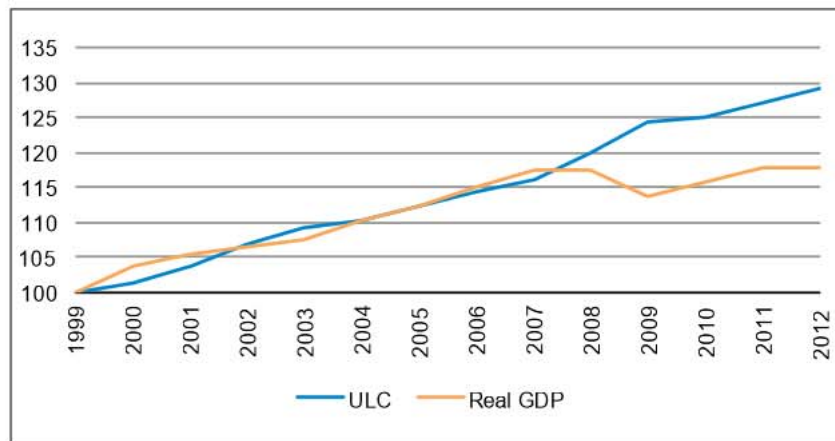
Note: Real bond yields equal nominal bond yields minus GDP inflation rate.
Source: AMECO database (Accessed: November 2012); own calculations.

ty further. The assumption that the average household has perfect foresight about its future income streams and tax burden means assuming the problem away before a serious analysis has even begun. Uncertainty in the private sector should be reason for governments to spend *more* or to *reduce* taxes in order to turn around perceptions in the private sector and to induce more private consumption and investment. Governments doing exactly the opposite show that their policy is based on an absurd model of the economy, and one that policy makers are trying to implant into the brains of the majority of the citizens.

The second element of the adjustment strategy is “structural reforms”, meaning mainly labour market reforms or, in plain language, wage cuts. According to the German finance minister (Schäuble, 2013) the way out of the crisis consists in improving the competitiveness of all eurozone countries. In this reasoning, a rejuvenation of the EU and a better future for all can be brought about when all countries that are now in crisis copy the German model. Beyond the problems with the concept of competitiveness mentioned above, “structural reforms” aimed at lowering wages are bound to fail. If pursued in many countries simultaneously, the result of wage cuts will be a dramatic drop in domestic demand in all these countries and a collapse of the trade flows between them. As shown above, in Germany, wage cuts directly reduced domestic demand; however, in all European countries domestic demand constitutes by far the largest share of total demand, and therefore wage cuts would cause unemployment to rise further (Figures 21–26).

There can be no doubt; the worsening of the crisis in southern Europe is closely correlated

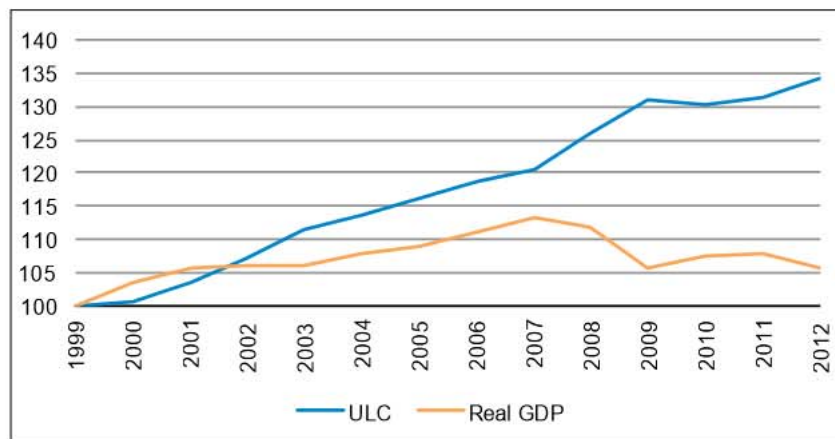
Figure 21: ULC¹ and real GDP – France (1999 = 100)



Note: ULC defined as gross income per capita in ECU/euro of dependent employees divided by real GDP per total number of people in employment.

Source: AMECO database (Accessed: November 2012); own calculations.

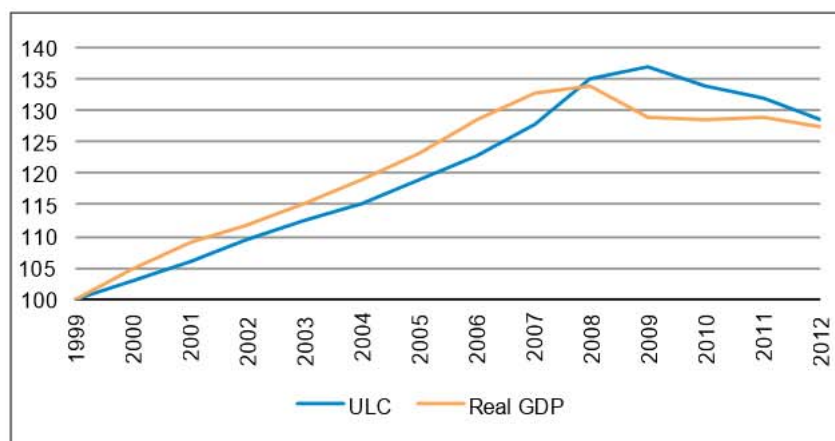
Figure 22: ULC¹ and real GDP – Italy (1999 = 100)



Note: ULC defined as gross income per capita in ECU/euro of dependent employees divided by real GDP per total number of people in employment.

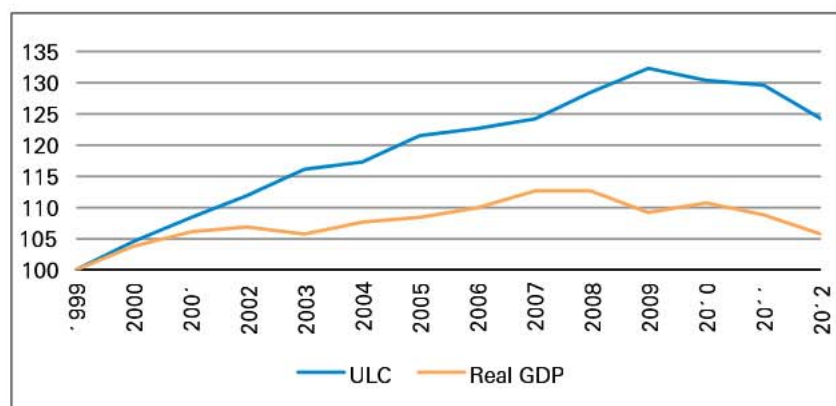
Source: AMECO database (Accessed: November 2012); own calculations.

Figure 23: ULC¹ and real GDP – Spain (1999 = 100)



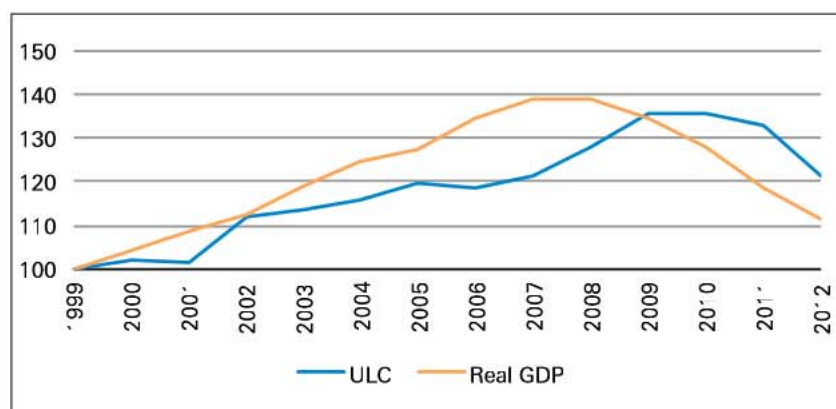
Note: ULC defined as gross income per capita in ECU/euro of dependent employees divided by real GDP per total number of people in employment.

Source: AMECO database (Accessed: November 2012); own calculations.

Figure 24: ULC¹ and real GDP – Portugal (1999 = 100)

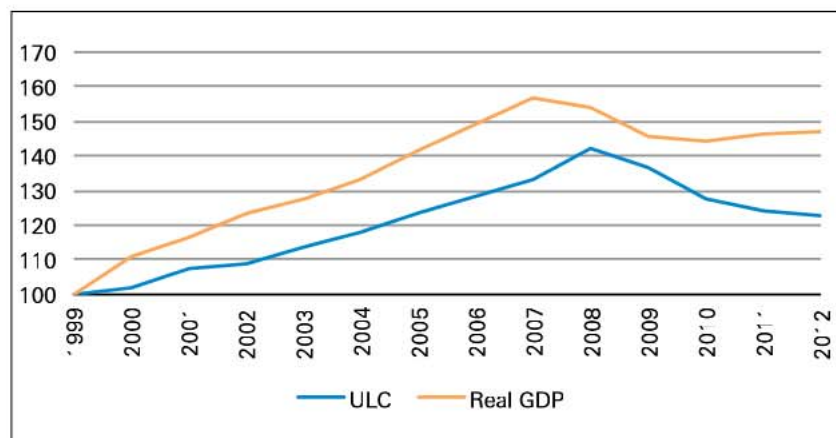
Note. ULC defined as gross income per capita in ECU/euro of dependent employees divided by real GDP per total number of people in employment.

Source: AMECO database (Accessed: November 2012); own calculations.

Figure 25: ULC¹ and real GDP – Greece (1999 = 100)

Note. ULC defined as gross income per capita in ECU/euro of dependent employees divided by real GDP per total number of people in employment.

Source: AMECO database (Accessed: November 2012); own calculations.

Figure 26: ULC¹ and real GDP – Ireland (1999 = 100)

Note. ULC defined as gross income per capita in ECU/euro of dependent employees divided by real GDP per total number of people in employment.

Source: AMECO database (Accessed: November 2012); own calculations.

with the application of the deflationary adjustment policies (fiscal austerity and wage reduction) imposed by the troika. While France and Italy have experienced a strong deceleration of growth even with unchanged growth of wages (and respectively unit labour costs), in all those countries that have followed the “the troika treatment” in one way or another, the decline of growth since 2009 is stunning.

Greece, the country that has brought down unit labour costs more than any other country has entered into a depression and lost some 30% of its GDP compared to 2009. However, despite these “achievements” it has not reached a level of competitiveness that would enable it to reap some benefits from the extremely painful adjustment in terms of higher exports (see Figure 7). Taking into account the developments over the whole history of EMU, the adjustment of the Greek economy still falls short of what is required to restore its international competitiveness.

Paradoxically, those countries that have gone quite a way in improving their competitiveness prove that this is the wrong way for all the others. If France and Italy were to pursue similar adjustments to the smaller European countries on the periphery, the result would be a depression and deep and long lasting deflation in the whole euro area. Such a development would most likely strengthen radical political movements and put democracy in jeopardy. It would also lead public opinion to shift against monetary union and the idea of European integration more generally. On the other hand, without adjustment France and Italy would further lose in terms of competitiveness, so that a rebalancing of their external trade would become impossible. Neither route

is feasible. This shows that a solution to the European crisis can only lie in an international cooperative effort, including a major adjustment in the surplus countries, especially Germany.

3. THE BALANCE OF COSTS AND BENEFITS OF BEING A MEMBER OF EMU SHIFTS RAPIDLY

With German dominance over export markets and the country's unwillingness to change its economic policy model, the kind of conditionality attached to the adjustment programmes in the crisis economies and dysfunctional adjustment mean that the cost of remaining a member of EMU is increasing rapidly. Against this, the benefits of being a member, as described at the beginning of this study, are small and shrinking.

The disintegration of capital markets in EMU after the financial crisis quickly reduced the benefit of being part of the monetary union and subject to common monetary policy. The ECB engaged in containing the divergence in long-term interest rates by introducing the LTRO programme and by the verbal intervention referred to in the last section. While these helped stabilize the situation for a while, interest rate differentials across countries have remained, adding to the unfavourable pattern of external competitiveness. The results are monetary conditions (interest rates and real exchange rates) that are worse in absolute terms in the deficit countries, where the economic situation requires much stronger stimulus than in the surplus countries. At the same time, record low interest rates on government bonds in the surplus countries prepare the ground for an easy consolidation of their budgets, given that benign monetary conditions there stimulate the overall economy.

This implies that the original divergence and the overall direction of the adjustment programmes are destabilising the monetary union to an extent that survival of the union itself is seriously put into question. However, European policy makers do not appear to recognize this fact. Nor are they willing to engage in a policy effort to turn around the overall economy and to stop the growing divergence. Therefore, disintegration and eventual collapse of the union have to be considered seriously.

The ECB, in particular, would have to follow much more consequently a policy approach that stops the divergence of long-term interest rates. But so far it has been acting half-heartedly. On the one hand, the ECB has pointed to the possibility of taking rigorous and pivotal measures ("whatever it takes ..."). On the other hand, it has shied away from actually implementing such measures. Even worse, during the negotiations with Cyprus the ECB directly obliged the government of Cyprus to accept the conditionality imposed by the Eurogroup by threatening to stop the provision of liquidity to the country's most vulnerable banks. This was a grave mistake and a violation of the role of the central bank in a monetary union. The central bank has

to be the central bank for each country in an absolutely non-partisan way and should not engage in blackmailing governments. The political conditionality attached to the bail-out funds provided by the other European countries is one thing. It is the result of negotiations between sovereign states, at least in the formal meaning of the word "sovereign". But liquidity provision by the central bank is a different matter.

If the business model of individual banks turns out to be no longer viable these banks have to be wound down by the oversight authorities in an orderly manner that includes the protection of depositors as laid down in European rules and regulations. But if the business models of the banks concerned become subject to negotiations between governments, and the central bank sides with these governments and puts additional pressure on the banks to restructure or shut down in a very short period of time, this sets a very bad precedent and destroys the confidence of depositors in the common currency. Equal treatment of the clients of banks throughout the monetary union, depositors and investors alike, is a precondition for a functioning monetary order. This precondition has been violated in the case of Cyprus.

4. AN ORDERLY EXIT FROM EMU INSIDE THE EU

Cyprus is the first case of a country to be detached from the generally agreed convertibility inside the eurozone. Restrictions on the movements of capital have been imposed by the authorities of Cyprus but these restrictions have been agreed by the troika. This means that the currency union has effectively ceased to exist as a single entity since it is not fully honouring its obligations. Moreover, the shock delivered to Cyprus and the imposition on the country of the obligation to abandon its national economic strategy, virtually overnight, have led to deep concerns regarding the future of Cyprus inside the eurozone. For the first time in the history of the European crisis, citizens have been shocked to such an extent that it is no longer taboo to talk about an exit from monetary union.

Indeed, as the economic costs of membership are increasing and the benefits shrinking, several countries have to consider the exit option. There is, however, no easy way out of a currency union such as the EMU. To devalue a currency that is already in circulation and to break its fixed convertibility to another currency, as in Argentina in 2002, is easy compared to the huge logistical and political challenges of introducing a new currency.

By far the biggest problem is preparing the population. It would be extremely difficult to keep such an important step secret, or to execute it overnight, even if some actions would have to take place quickly. But in the case of the euro, the fear of losing part of their savings would induce depositors to withdraw deposits from domestic banks and to transfer them abroad. The result would be a bank run that would threaten to

collapse the banking system. To avoid a collapse of the banking system, it would be necessary to impose severe administrative controls on banks as well as controls on capital flows. In the case of Cyprus, however, the troika has already imposed enormous losses on depositors of the two biggest banks. Furthermore, the troika and the Cypriot authorities have already imposed restrictions on banking transactions and on capital flows. The shock to the population is already close to that of fully exiting the eurozone.

In addition to the immediate shock and to the need to impose controls on banking and capital flows, exiting the euro would also create problems of monetary circulation, particularly as banknotes take time to print. Electronic money could be converted rapidly, depending on the law governing particular contracts. However, it would probably be necessary for the state to instigate fiat money with local circulation – IOUs of various descriptions, often issued by local authorities – to meet the needs of liquidity until the new currency was firmly in place. For some time there would be monetary turbulence and parallel systems of pricing in operation.

The most complex technical problem in returning to a national currency, however, would be finding a viable new foreign exchange regime. The new currency could be introduced at an administrative rate of 1:1 to the euro, but it would obviously depreciate rapidly in the FX markets. For a small country like Cyprus that vitally depends on imports, the magnitude of the devaluation of the new national currency would be crucial. If the new currency was left entirely to the market, there would be a significant risk of a fall in its value that would go far beyond what would be warranted to restore the competitiveness of the country's exports. Such a deep devaluation would cause constraints on the import side that would be hardly bearable. The prospect of having to call upon the IMF, shortly after the troika had lost control over the country, would be a nightmare. But this prospect could not be excluded as the vagaries of an exit and the uncertainty about the future of the country may drive demand for its currency significantly down in the short-term. To preclude such a poor outcome, it would be worth considering a safety net provided by other EU countries.

Countries considering exit from the EMU in a situation similar to the one in Cyprus would think twice before also exiting the EU. Continued membership of the EU could prove important in maintaining ties with the European common market, and thus the benefits from access to export markets once competitiveness was restored. The EU has a moral and practical obligation to prepare for such a situation, thus offering countries willing to take this big step a safe way out. The EU could easily provide a safety net in the form of a monetary mechanism connected to EMU. It would even be possible to revive aspects of the EMS that were prac-

tised before the creation of EMU, and which still exist formally. The new EMS could allow countries to peg their new currency at a reasonable rate to the euro, thus reducing the risk of becoming a punching ball in the international financial markets. Such an "orderly exit" would help preserve some of the achievements and the spirit of European partnership, without keeping countries in the straightjacket of EMU. The crisis has shown that the latter has tended to destroy the amicable relations that have been built among European nations over the past five decades.

5. NEITHER A POLITICAL UNION NOR A TRANSFER UNION IS THE WAY OUT

Many people still dream of a politically fully unified Europe that would help overcome the difficulties currently faced by EMU. In our view that dream should not guide politics. Given the obvious inability of the European institutions to appropriately manage the currency union, realistic observers have to admit that currency union was too ambitious a goal. The attempt to advance more rapidly on the way towards political union by means of a currency union has not worked out. Now, paradoxically, Europe has to retreat if it is to progress again.

At the core of the failure of EMU lie the German mercantilist economic model and the inability of the other European countries to question this model openly and to convince Germany that it is not even in that country's own interest to opt for competition rather than co-operation between nations, in particular between the members of the currency union. Acknowledgement that the lack of a spirit of cooperation will be a fact of life for the foreseeable future has to shape a reform of the institutional arrangements for a peaceful division of labour in Europe. This does not necessarily require a currency union. Without such a currency union it would become possible again to use currency devaluation as an instrument of economic policy and to fend off the attempts by some countries to economically occupy others. Devaluation has indeed been the most frequently used mechanism in modern history to respond to the attacks of an aggressive trading partner without engaging in outright protectionism. A system of orderly devaluation (and revaluation on the other side) might preserve much better the core idea on which economic integration in Europe was founded, namely free trade, rather than the current arrangements (UNCTAD TDR, 2010).

A transfer union, also seen by some as a way out, is not feasible among independent and sovereign nations. No member of the EU wants to become dependent on one country, Germany, which could transfer money to its neighbours to enable them to buy its products, but which would lead to a German dictate concerning the everyday conditions of life in Europe.

ANNEX: A SHORT HISTORY OF EUROPEAN MONETARY COOPERATION³

THE 1970S: THE FIRST STEPS AFTER THE END OF US DOMINANCE – THE SEARCH FOR A FURTHER HELPING HAND IN MONETARY AFFAIRS?

After the end of the Bretton Woods system, exchange rate stability stood high on the European agenda. The first major political initiative for a European monetary union was launched as early as 1969, a time when the decline of the Bretton Woods system was foreseeable but not yet definitive. Many smaller European countries decided to voluntarily “tie their own hands” in monetary affairs. The “snake” and the “snake in the tunnel”, in other words bands of fixed exchange rates around the fluctuating D-mark, were the first systemic and regional answer to the unwinding of the global system of regulated exchange rate relations in 1973.

These countries sacrificed part of their economic policy power to the group as a whole or to Germany. But, at the same time, they gained autonomy *vis-à-vis* the power of markets and the influence of multilateral international organisations such as the IMF. The German central bank *de facto* acted as a lender of last resort for the system as a whole, although this role was never explicitly assigned, and even more importantly, in a critical stage of the system the bank accepted the symmetrical obligations of both the surplus and deficit countries.

A country's decision to stabilize its nominal and real exchange rate may formally be an autonomous national question; however, *de facto* it is at least a bilateral affair. The country pegging its currency needs another country's currency to peg to, thereby forming the “anchor” of the system. The natural anchor for many European countries at the beginning of the 1970s was the D-mark. The D-mark had been consistently the most stable currency after the Second World War and Germany's economy as a market for the products of its neighbouring countries was large enough to enable neighbouring countries to benefit from a stable value of their currency against the D-mark.

Additionally, all participating countries in Europe demonstrated the political will to head towards further unification in many fields of economics and politics. From the very beginning, Germany did not merely follow the moves of the smaller countries with benign neglect, but actively participated in the first steps towards forming a new European currency system as soon as the turbulence from the collapsing old system had been left behind. Indeed, monetary cooperation paved the way for many other forms of cooperation, including fully-fledged monetary union and a single European currency.

1971 TO 1978: THE SNAKE

With highly integrated markets most members of the EU had a strong interest in avoiding short-term exchange rate instability between their currencies.⁴

Even from the beginnings of the erosion of the Bretton Woods system in August 1971 to its final breakdown in March 1973, a rather high degree of exchange rate stability was provided by the first European attempts to establish a genuinely European monetary system. After the widening of the bandwidths around the dollar parity to $\pm 2.25\%$ in December 1971, which enlarged the exchange rate band between the non-dollar currencies to $\pm 4.5\%$, the European countries almost immediately (April 1972) established a framework limiting these fluctuations to $\pm 2.25\%$. This arrangement, called the “snake”, was the forerunner of the famous Exchange Rate Mechanism (ERM) of the European Monetary System (EMS), and antedated most of its institutional settings. The “snake” started with the six EEC founding members. The UK and Denmark joined quickly, but left the “snake” soon afterwards. Norway and Sweden became associate members. Italy left in 1972, and France withdrew its membership twice: in 1974 and ' 1976. When Sweden opted out in ' 1977, the snake only included Germany, the three Benelux states and Norway.

At this stage, with growing real integration and looming initiatives for greater political cooperation but rather unsettled European monetary affairs, Helmut Schmidt and Valéry Giscard d'Estaing, the German and French political heavyweights at the time, took the initiative to head for a much more comprehensive approach to European monetary integration.

1978 TO 1988: EMS AND ERM

At the high time of monetarism and floating, and accompanied by much public and academic criticism, in 1978 the German chancellor and the French president brought forward their idea to establish a new system of fixed exchange rates for the member countries of the European Union. The system was adopted in principle at the European Council in Bremen between 6–7 July, 1978. Its concrete shape was decided by the European Council in December of that year.

The new scheme, called the European Monetary System, became effective on March 19, 1979 and, with some modifications, was operated in its original form until the beginning of European Monetary Union on January 1, 1999. Without doubt, the EMS constituted an important intermediary step to European Monetary Union.

The overall characteristics and the performance of the EMS shall be reviewed along with the following aspects:

³ This section is based on a study by Peter Bofinger and Heiner Flassbeck, which was sponsored by UNCTAD in the year 2000. ⁴ The value of money in time and space. This explains why Germany was especially interested in the exchange rate mechanism. Despite this, many economists (see Meltz, 1987) are still unclear about the rationale behind Germany's participation.

- Main features of its founding members in 1979
- Design of the institutional framework of the exchange rate mechanism
- Main achievements of the ERM between 1978 and 1999
- The big crisis of 1992/93 and how it could have been avoided

The founding members

As of March 1979, all (ten) EC member countries participated in the EMS. However, the United Kingdom and Greece did not become members of the ERM. Thus, their membership was of a purely formal nature, except for the fact that their currencies were included in the new European currency unit (ecu) basket.

At the start, the eight ERM participants were rather heterogeneous in many respects. Their population varied from 360,000 inhabitants (Luxembourg) to more than 60 million inhabitants (Germany). The per capita income of the poorest country (Ireland) was only 58% of that of the wealthiest country (the Netherlands). The inflation rate in Italy of 15% was more than three times higher than the German rate of 4%. And while Germany was still close to full employment with an unemployment rate of 3%, Italy was facing a serious unemployment problem with a rate of nearly 8%. The same is true for openness.⁵ While the three Benelux countries were extremely open economies (openness ratio of 50% and more), France with 18% was a relatively closed economy. The ratio of trade conducted with other ERM members (in relation to GDP) varied between 31.5% in Belgium and only 7.6% in France.

Notwithstanding these remarkable differences, most ERM member countries were convinced that stable monetary conditions could best be achieved through monetary cooperation instead of monetary disintegration. At the time, and immediately after the second oil price explosion, inflation was a serious problem for many European countries. Given the credibility of the Bundesbank and Germany's extraordinary low inflation rate, high-inflation ERM members used a stable nominal D-mark exchange rate as an external anchor to bring down domestic inflationary expectations.

The second important link between these countries was their membership in the European Community (EC) as the EU was called at that time. The provisions of the Treaty of Rome, which had established the EC's forerunner, the European Economic Community, had two major implications for exchange rate policies:

- EC members were obliged to guarantee the "free movements of goods" within the Community by abandoning all taxes and other barriers to trade *vis-à-vis* other member countries (Articles 23 to 31 of the Treaty in its present form). The "common market" for goods was an effective tool of integration for countries located within a rather concentrated regional area. Almost all major European economic centres are concentrated within a distance of 1000 kilometres around Frankfurt.

- For agriculture, the Treaty of Rome had envisaged a scheme of strictly regulated prices in all member countries, and thereby established the so-called "common agricultural policy", one of the major instruments to unify member countries' interests in the most critical sector after the war.

Obviously, there was widespread agreement that short-term exchange rate instability could have disastrous consequences for both areas. The underlying idea was that in an area without trade restrictions and very low transportation cost, the effectiveness of the "law of one price" in comparable markets would be dramatically reduced by volatile exchange rates overshooting fundamentals time and again. In a centrally organized agricultural market with unified prices, major deviations from the "law of one price" induced by exchange rate changes would also create major problems. The organisation of the common agricultural market fully relied on a common price policy. For many products intervention prices had to be set on an annual basis in a common currency. Strongly fluctuating exchange rates would have provided opportunities for arbitrage which would have impaired or benefited local producers in an arbitrary way. To deal with the problem of cases of adjustments in the official exchange rates, a complicated system of "green parities" and compensating payments had to be installed.

The ERM

Core of the design of the ERM was the so-called "parity grid", a matrix of bilateral exchange rates that defined for each member currency a parity *vis-à-vis* all the other ERM currencies (the Belgian and the Luxembourg franc were treated as a single currency since both countries had established a currency union years before). Around this parity, a band of $\pm 2.25\%$ (for the lira of $\pm 6\%$) was fixed to allow some movement. After the 1992/93 ERM crisis, the band was widened to $\pm 15\%$. It constituted an upper and a lower intervention point for all currencies. The symmetry of the bilateral parities implied that when currency A reached its upper intervention point *vis-à-vis* currency B, currency B would simultaneously reach its lower intervention point *vis-à-vis* currency A. Thus, if a currency pair drifted to its band limits, two central banks would be obliged to intervene.

The *formal* symmetry of the ERM's intervention obligations has induced some confusion about the adjustment processes underlying the whole system. As in the old Bretton Woods system the crucial question was whether the country with the weak currency (in more traditional language the "deficit country") or the country with the strong currency (the "surplus country") would have to bear the brunt of adjustment in the case of shocks.

However, a number of cases occurring during the 1980s show the logic of the system. For example, the

⁵ Defined as the average ratio of exports and imports to GDP.

French franc came under attack and depreciated *vis-à-vis* the D-mark with both reaching their intervention points. The central bank of both countries, the Banque de France (BdF) and the Bundesbank, were formally obliged to intervene on the foreign exchange market. Hence, the Banque de France was required to buy its own currency and supply the market with D-mark. To do that, it could either use its own reserves or use the credit lines of the “very short-term financing” (VSTF). This credit mechanism of the ERM was *unlimited* in the short-term. But credits used had to be repaid by the debtor central bank in assets other than its own currency, in principle six weeks after the end of the intervention month.⁶ The credit could be prolonged but it was limited to relatively small quotas.

Thus, for its interventions the BdF was operating under a strict budget constraint that limited its ability to cope with a persistent speculative attack simply by means of (sterilised) intervention. In other words, the central bank of the currency under threat of depreciation is always in a weak position. It has the option to raise interest rates or to devalue. As the Bundesbank was the central bank with the most stable currency and the anchor of the system, without direct assistance from the Bundesbank the BdF had no other possibility but to adjust towards the Bundesbank’s policy stance.

Indeed, the Bundesbank was simultaneously required to support the franc by buying franc assets and supplying D-mark to the foreign exchange market. But the rules of the ERM treated interventions that were carried out by the central bank with the strong currency just like a VSTF credit to the central bank with the weak currency. In other words, whenever the Bundesbank acquired franc deposits, it immediately transferred them to the BdF, which was debited on its VSTF account. Correspondingly, the Bundesbank was credited on its VSTF account. As all accounts were denominated in ecu, for the BdF the intervention by the Bundesbank had exactly the same effect as its own intervention, namely to create an increasing indebtedness in the VSTF. As in the first case, to avoid insolvency, a policy adjustment (devaluation or interest rate increase) by France was required whereas the increase in reserves did not necessitate any policy reaction in Germany. The *liquidity effect* of the interventions could have been easily sterilised by the Bundesbank. Thus, the adjustment mechanism was asymmetric as speculative attacks never changed the monetary policy stance of the strong country but always forced substantial increases of the short-term rates of the countries with weak currencies.⁷

Thus, in spite of its formal symmetry the ERM implied asymmetry and protected Germany against the high inflation rates that prevailed in some of the other countries at the start of the EMS. The credit mechanism was designed with the intention to provide unlimited funds for temporary speculative attacks, but to discourage the support of unsustainable exchange rate levels.

But, despite its importance in the adjustment mechanism, the definition of unsustainable exchange rates had been rather vague from the beginning. The Council resolution of December 1978 just states that (Paragraph 3.2): “Adjustments of central rates will be subject to mutual agreement by a common procedure which will comprise all countries participating in the exchange rate mechanism and the Commission. There will be reciprocal consultation in the Community framework about important decisions concerning exchange rate policy between countries participating and any country not participating in the system.” The resolution, different from Bretton Woods regulations, did not try to specify any concrete reason for a realignment.

The EMS

Overall, the European Council achieved its target of creating a “zone of monetary stability in Europe”. Europe became a zone of stability of the value of money in space as well as in time (Wicksell), in other words, it achieved stable domestic price levels and stable exchange rates.

After a bumpy start, and as a consequence of the second oil price shock, inflation differentials *vis-à-vis* Germany increased in several countries in the first few years of the 1980s; the second half of the 1980s saw a significant improvement in inflation convergence. The monthly variability of bilateral exchange rates declined directly after the start of the ERM and it was considerably lower than the variability *vis-à-vis* non-ERM EU currencies and *vis-à-vis* the US dollar.

However, the *nominal* D-mark exchange rate paths that the ERM members targeted were associated with very different real exchange rate paths. While France, Denmark and the Benelux countries maintained a relatively stable real exchange rate *vis-à-vis* the D-mark, Italy and Ireland experienced a massive real appreciation before 1992/93. The strong nominal depreciation following the 1992/93 crisis corrected this disequilibrium to some extent, but the lira may have entered EMU at a rather high real exchange rate.

The short-term stability of nominal rates was the result of intensive intervention. Within the ERM two forms of interventions have to be differentiated:

- *marginal interventions* were carried out when a currency reached its bilateral intervention point, and
- *intra-marginal interventions* were used at the discretion of individual central banks at exchange rate levels within the intervention points. ERM central banks made use of this option to avoid sending signals of distress to the markets.

Intervention activity in the ERM was rather high throughout its whole lifetime. The data that are available indicate that intra-marginal interventions were fre-

⁶ After September 1997 (the Båle-Nyborg-Agreement) this period was extended to two and a half months. ⁷ This is also confirmed by Gros and Thygesen, 1998, p. 174.

quently used to smooth the path of nominal exchange rates. During the 1980s, marginal interventions remained relatively limited reflecting the need for real exchange rate adjustments. During and after the ERM crisis of 1992/93 marginal interventions reached very high levels, the latter indicating the desire of the ERM members to keep exchange rate variations within limits despite the widened band of $\pm 15\%$.

Overall, the ERM was successful in bringing inflation down in a number of member states. From the very beginning many economists regarded the ERM mainly as a device for disinflation with rather low macroeconomic costs. Giavazzi and Pagano (1998) stressed the advantages “of tying one’s hands” by a credible commitment to an exchange rate peg *vis-à-vis* the D-mark. But there was a major difficulty in achieving the right balance between domestic stabilisation and exchange rate stabilisation once the contagion effects of currency turmoil led to speculative attacks on countries with sound economic fundamentals. Moreover, asymmetric intervention rules became a fatal burden for the whole system when the Bundesbank tightened further its already restrictive monetary policies in 1990/91 – despite clear signs of recession all over Europe – in order to limit the inflationary risks of German unification.

THE CRISIS OF EMS IN 1992

Towards the end of the 1980s, with progress in inflation convergence and the idea of a European monetary union arising on the horizon, nervousness had been spreading all around Europe. Even the three big contenders to Germany: France, Italy and the United Kingdom, different from tip to toe as they were, decided to get hold of a piece of the big political cake of monetary union by tying their own hands. They fixed their exchange rates and joined the ERM in 1987.

Despite the rather high and much discussed entry rates, time seemed to be on their side. After the stock market crash in autumn 1987 the central banks in the United States and Germany lowered their interest rates to historical lows despite the fact that the effects of the crash on the real economy were rather limited. Strong monetary stimulation at such a late stage of the recovery triggered a new round of frantic cooperative investment spending. The growth performances looked splendid; all the major economies reached growth rates of 4% or more.

However, inflation performance was much more mixed in the crucial period between 1987 and 1992. Whereas the traditional low-inflation countries including the United States contained inflation at 4% despite upbeat growth, in Italy and in post-Thatcher UK inflation flared up reaching 8% and more. In terms of the growth rates of unit labour costs in national currencies, the decisive measure of competitiveness in a fixed rate system (UNCTAD TDR, 2004), both countries fell behind at an even more rapid pace. Germany, Austria and France saw a very moderate reaction in wages to falling unemployment and rising growth rates, the

rise in unit labour costs remained subdued and below inflation. In Italy and the UK nominal wage growth exploded and drove unit labour cost increases from 4% to close to 10% in the three years following their entry. The accumulated loss of competitiveness between 1987 and 1991 eventually amounted to 23% in Italy and 28% in the UK, compared to Germany and the others including France. This was reflected in a huge swing in the current account from surplus to deficit in both countries.⁸

When the tide of the global economy turned in 1990, US monetary policy quickly stepped in and lowered its interest rates. Germany’s economy, however, stimulated by a unique boost in demand from the Eastern part of the country, did not show any sign of a slowdown. The German central bank decided to stop the overheating economy by all means. Policy interest rates in Germany reached a high of 8% in the summer of 1992 sending shockwaves around the world and demonstrating Germany’s unmistakable will to pay a high European price to reach its own inflation target. For all those European economies that were not directly and to a large extent benefiting from the German unification boom this policy stance was unacceptable.

From the perspective of the financial markets, the three big newcomers to the EMS were subject to the same dilemma, namely having to choose between the Scylla of a deepening recession on the one hand and the Charybdis of leaving the EMS on the other hand. Hence, the markets expected big gains from holding D-mark assets and the respective losses from assets of the three newcomers. With mounting pressure to depreciate their currencies, politicians in all three countries desperately asked for assistance from the system and the Bundesbank. In the cases of Italy and the UK however, governments and central banks knew that there was nothing to gain, given the dramatic losses in competitiveness and the obvious overvaluation of these currencies. Both currencies were supported only half-heartedly and had to be devalued in the end. The UK left the system and its finance minister Lamont (“we will never devalue”) resigned.

On the other hand, France insisted that it had been playing within the rules of the game and deserved the kind of symmetric treatment that the letters of the European treaties had promised. Eventually, France’s stubbornness proved to be justified. France, not unlike Austria and the Netherlands, had been able to preserve its competitive position after entering the EMS. The fact that France had come under pressure in the financial markets did not prove that its external situation was unsustainable. Notably, its overall economic situation

⁸ Krugman’s description of the European crisis as a “second generation model” of financial crisis is at least misleading. Although Krugman (1998) weights the fiscal situation of the countries in crisis heavily, Krugman does not take into account how quickly they all turned around after the depreciation of their currencies despite high budget deficits. There have not been several generations of models but only variations on one theme, namely a loss of competitiveness and rising current-account deficits.

at the time was gloomy compared to Germany or Austria and depreciation would have been an easy way out of recession. However, the decision by the French government to stick to the “unwritten” rules of the game (use depreciation only in the case of *external* disequilibrium) was confirmed in the end. In other words, the markets got it wrong in the French case whereas for the UK and for Italy the attack was justified. The bold move of the French authorities to challenge the wisdom of the market proved to be right: the band was widened formally, but the core rate of the French franc never changed until it entered the EMU.

The 1992/1993 currency crisis in Europe highlights the role that governments and central banks, through monitoring and steering the system, have to play. The attempt to moderate capital flight out of the pound, lira and franc would have been justified in either case. However, thorough analysis of the fundamentals of the economies involved reveals that there was a need to adjust the pound and the lira to a certain extent but no need at all to adjust the franc. There was no reason to fear panic or a total collapse of the EMS.

The lesson to be learned from this event in Europe concerns the macroeconomic steering of such a system. A better “early warning system” inside the EMS would have prevented systemic crisis. If the authorities of the EMS as well as the national authorities of all the countries involved had realized at a much earlier stage that the situation of the lira and the pound had become unsustainable, they could have reacted much earlier and depreciated the currencies of the two high-inflation countries in 1989 or 1990. This would have avoided the worst troubles of the crisis and prevented a country such as France from becoming a victim of the contagious effects of a general speculation against currencies with fixed exchange rates.

The crisis phenomenon and the waves of speculation occurring frequently in systems of fixed and semi-fixed exchange rates could give rise to the impression that an anchor approach to stabilizing the external and the internal value of money is counterproductive in most cases. But things are not so simple. Anchoring a small and very open country's currency has in several cases proved to be a very effective method of stabilizing the domestic price level. The main economic policy target many anchoring countries had in mind was not the ex-

ternal value of money but the domestic value. And it is here where the approach has proved to have its merits time and again.

This is true for the small anchoring countries in Europe such as Austria, the Netherlands and Belgium. In these countries inflation has been subdued for decades in the same way as in their anchor country (Germany), and they have been able to adjust to shocks as effectively. Nevertheless, the anchor approach has been successful in some larger countries such as France and Italy too. Although France fixed its exchange rate later than the smaller countries and the adjustment was not always as smooth, France managed to fully catch up with the German inflation performance. But even a country like Italy, which was the subject of many speculative attacks and backlashes during its adjustment process, finally converged in terms of growth rates of unit labour costs and flexibility in case of shocks. The growth rates of unit labour costs over time demonstrate the enormous convergence performance of the European countries in the phase that could be called the third oil price explosion of 1999 and 2000. Wage growth in a formerly high-inflation country like Italy does not exceed productivity much more than in the low-inflation area including France, Germany and Austria. Unit labour costs in the whole region have not risen at all in response to the oil price hike.

Given the fact that recently the United Kingdom and the United States (countries with flexible exchange rates) have also been successful in terms of speed and sustainability of adjustment to shocks, the question is self-evident whether this success has to be attributed mainly to the anchor approach or to other factors. Of course, Western industrialized countries have developed different institutional arrangements on the labour and the goods market to stabilize the internal value of money and quite different arrangements have proved a successful means of doing the job. However, for some countries' economies external pressure (pressure coming through the import and export channel) has been superior to domestic economic policy pressure alone. Italy is the most prominent example of a rather big country in which the domestic institutional framework has hardly ever been sufficient to stabilize monetary conditions.

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