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In Search of a New Equilibrium. Economic Imbalances in the Eurozone

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Marcello Messori, Carlo Milani
Edited by Marcello Messori

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List of Abbreviations

ABS	Asset Backed Security
AMR	Alert Mechanism Report
ASEAN	Association of Southeast Asian Nations
BRIC	Brazil, Russia, India, China
CA	Current Account
CEEC	Central and Eastern European Country
EA	Euro Area
ECB	European Central Bank
EFI	European Fund for Investment
EFSF	European Financial Stability Facility
EFSI	European Fund for Strategic Investments
EIB	European Investment Bank
EIP	Excessive Imbalance Procedure
EMU	European Economic and Monetary Union
EPBI	Europe Project Bond Initiative
EQUIP	European Quantitative-easing Intermediated Programme
ESM	European Stability Mechanism
EU	European Union
FA	Financial Account
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GDR	German Democratic Republic
GFCF	Gross Fixed Capital Formation
GIPS	Greece, Ireland, Portugal, Spain
ICT	Information and Communication Technology
IMF	International Monetary Fund
KA	Capital Account

LTRO	Long Term Refinancing Operation
MIP	Macroeconomic Imbalances Procedure
NKF	Net Capital Outflows/Inflows
NMS	New Member States
NIIP	Net International Investment Position
PPP	Public Private Partnership
REER	Real Effective Exchange Rate
RQMV	Reverse Qualified Majority Voting
RULC	Real Unit Labour Cost
SGP	Stability and Growth Pact
SMP	Securities Markets Programme
TFP	Total Factor Productivity
TSCG	Treaty on Stability, Coordination and Governance
ULC	Unit Labour Cost
US	United States
WDI	World Development Indicators
WITS	World Integrated Trade Solution

Introduction

1. This book aims to show that during the last five years there has been a significant re-equilibration of the negative imbalances in the current accounts of the large majority of peripheral Member States inside the euro area. This process has been successful in the short term; however, according to our interpretation of the empirical evidence, it will not be decisive in the long term since the re-adjustment was mainly due to factors which did not improve the structural competitiveness of peripheral Member States.

The structural competitiveness of an economic system depends on the dynamics of its different forms of productivity; and these dynamics depend, in turn, on factors such as the technical and organisational innovations of the firms, the macroeconomic level and composition of productive investments, and the efficient re-allocation of the economic and institutional resources. On the other hand, the recent reversal of the negative current account imbalances of several peripheral Member States was mainly based on three contingent factors: (a) a deep recession which dramatically decreased the total amount and the total value of imports; (b) the monetary wage compression towards the rest of the euro area which had an impact similar to the devaluation of the former national currencies; and (c) an absolute and relative deflation or – at least – an internal rate of inflation below the already low inflation rate of the euro area.

According to our thesis, factors (a)-(c) imply that peripheral Member States of the euro area were able to overcome their current account imbalances in the short term thanks to an internal general compression which did not improve their structural competitiveness. In any case, interacting with the growing positive imbalances of Germany and other

"central" countries, this trend led to the historical peak of the current account surplus of the euro area as a whole towards the rest of the world. The other side of the coin is that the adjustments in the "peripheral" Member States had dramatic social and economic costs in the short term as well as in the long term.

Let us refer to a few examples. The long recessions determined and are still determining important decreases in investments and employment rates in all the southern countries and in some of the central countries of the euro area; as a consequence, the potential for innovation and economic growth of these same countries went down. Moreover, the increase of non-employed and the compression of relative wages negatively affected the quality of human capital available to domestic activities. Together with the worsening of the growth potential, the deterioration of the stock of fixed and human capital had a negative impact on labour and total factors productivity; which in turn, drove down consumption and domestic aggregate demand. Hence, factors (a) and (b) created a vicious circle between the lack of growth, the disequilibria in the labour market, and the formation of fixed and human capital. It follows that, in the current situation of peripheral Member States, firms do not have sufficient incentives to increase investments and households do not have an adequate purchasing power to increase consumption; and these negative consequences are also involving the central Member States (Germany included). Deflation (see factor (c) above) is strengthening these negative factors.

Thus, it will be difficult to restart an equilibrating process of economic growth in the euro area without a positive European shock on the demand side and a parallel credible commitment to reform the economies in the peripheral Member States and – at least, partially – in a number of central Member States. Even if the former were able to exit from their recession/stagnation and to begin a growth process without having designed and implemented structural changes for innovation, they would experience new increases in their negative current account imbalances due to the competitiveness gap relative to the better performing Member States. We elaborate this "rational" forecast in Chapter 4 of the book.

This first conclusion does not mean that the reactions of the peripheral Member States to their current account imbalances (as well as to

other disequilibria) did not have and will not have any long term impact on their economies. Due to the deep and repeated recessions, the productive systems of these countries underwent processes of "creative destruction" that improved their economic efficiency and thus weakened the intensity of the direct links between their rates of macroeconomic growth and of net imports. Moreover, some European peripheral countries improved the dynamics of their labour productivity since they were hit by very high unemployment rates. In any case, all these mixed elements would appear to be insufficient to guarantee current account equilibria inside the euro area, if the latter restarted to have a robust rate of growth.

2. Our previous analysis has important theoretical implications. The standard models, centred on the assumption that the "catching up" process will progressively reduce competitive gaps and will thus overcome imbalances between countries of the same monetary area, did not and do not work. These models (see for example: Blanchard and Giavazzi 2002) are based on the faulty belief that market mechanisms are always efficient, that is, that they are not subject to systematic failures. Indeed markets are often inefficient, that is, subject to failures, so that they require frequent adjustment processes and the support of efficient governance and regulatory institutions.

As we emphasise in Chapter 3 of this work, the standard models assume that market mechanisms would be sufficient to overcome the competitiveness gaps of the peripheral Member States of the euro area and to adjust their negative imbalances due to the corresponding positive imbalances of the central Member States of this same area and the lack of domestic investment opportunities for their consequent excess of liquidity. At the launch of the euro area and in the first seven years of the new century, the empirical evidence seemed to support these theoretical statements: the current account balance of the European Economic and Monetary Union (EMU) as a whole was roughly in equilibrium, and the amount of savings exceeded the amount of investments in Germany and in a number of other central countries. From the theoretical point of view this implies that the financial and capital outflows from central countries are the consequence of the investment deficits in these

same countries, whereas the financial and capital inflows to peripheral countries weaken their adjustment constraints and can strengthen their productive investments. The point is that the allocation of these flows has to be freely decided by the foreign investors who live in the central countries of EMU; thus, this allocation is aimed at maximising the expected wealth of financial intermediaries and households of the latter countries and not necessarily the growth potential of the receiver peripheral countries. The standard models seem to neglect this point. They maintain that the allocation of the financial and capital flows to peripheral countries always improve the efficiency and hence the competitiveness of these countries.

The narrative relating to the first period of life of the euro area, shows that the wonderful world depicted by the standard models does not fit with the actual working of the markets. As it will be stressed several times in the book, from 1999 to 2007 peripheral Member States were unable to utilise a sufficient portion of their financial inflows in productive and innovative investments; then, between 2008 and 2012, the various crises determined a flight to quality which inverted the direction of these flows and worsened the position of peripheral countries. The latter had to over-adjust their negative current account imbalances, which were no longer compensated by capital and financial flows anymore but were worsened by massive private financial outflows. This narrative can be summed up by telling again the three main descriptive and analytical results obtained in the first four chapters of our work: imbalances in the current accounts of different Member States of the euro area are not definitively solved; to overcome these imbalances even in the long run, it would be necessary to reduce the structural competitiveness gaps between the peripheral and the central Member States; there is not an efficient market- or self-adjustment process able to reduce the competitiveness gaps inside the area.

These implications show the limits of the market as a self-adjusting mechanism and leave room for policy interventions at the European and national levels. Obviously, it would be a mistake to change from one position to the opposite. Here we do not suggest a traditional distortionary planning aimed at entrusting to the European institutions the decision and the allocation of the private capital and financial flows directed to

peripheral Member States. The crucial questions which stay at the heart of the final chapter of this work, are thus two. First: Is it possible to overcome the market failures, and thus to get the supposed but non-realistic performance of the Smithian "invisible hand" by means of a complementary European "visible hand", that is by means of policy interventions implemented by European institutions? Second: Which are the European policies able to support and to regulate the working of the markets, and at the same time able to stimulate the peripheral Member States to implement the reforms needed to improve their structural competitiveness?

3. In the last chapter of our book (Chapter 5), we start by emphasising that the current alert mechanisms and MIP procedures are not sufficient to solve the previous two questions. These new regulatory tools can play a positive role, avoiding that imbalances reach irreversible levels and that these levels become persistent. However, it is not their task to reduce the competitiveness gap between different Member States. On the other hand, the recent revisal of the European governance proposed the introduction of two new institutions which appear more promising: the so-called "contractual arrangements" centred on national reforms in exchange for European stimuli to growth, and the "Growth Compact" centred on a programme of European public and private investments. It is apparent that these two possible initiatives would be strictly linked and could positively interact. Moreover, they would have the merit of combining positive shocks on the demand side (short term) and reforms to improve the structural competitiveness of the EMU countries (long term).

Let us start by assuming that each of the peripheral and central Member States of the euro area sign a "contractual arrangement" with the European Commission in order to implement a set of national and well defined structural reforms. Specifically in the case of peripheral Member States, these reforms would have to be devoted to increase the degree of structural competitiveness of these same countries. Nevertheless, a number of economic reforms require or can be helped by additional investments at the European as well as at the national level. However, there is still not a detailed plan for European investments financed by the public and by the private sector; and the national investments

can be hardly financed by the single peripheral Member States due to the severe and binding European fiscal constraints. Hence investments which are part of – or are strictly linked to – the reforms defined in each contractual arrangement, could be financed either at the European level or by easing European governance.

In this respect, the "Growth Compact" could represent the right solution for the investments at the European level. This pact would have to finance big European projects in strategic activities such as digital innovations, infrastructure, and telecommunications. At the moment, the sources of financing and the room for the private initiatives are not well defined; moreover, the European institutions did not yet try to specify a general investment programme and to re-allocate the large number of their heterogeneous and often catatonic initiatives (industrial compact, youth unemployment, and so on) in the new framework. A possible but not exclusive financial partner of these initiatives could be the European Investment Bank (EIB), which has the right to issue projects bonds at a large scale; from the technical point of view, the EIB could finance European investment plans by implementing and strengthening the existing European Project Bond Initiative. Moreover, in principle, the European project bonds could be subscribed by the European Stability Mechanism (ESM) and, on the secondary market, by the European Central Bank itself.

On the other hand, the national investments that are based on the corresponding contractual arrangements but which cannot be – directly or indirectly – linked to the "Growth Compact" initiatives, could be partially financed by reallocating the structural funds and by relaxing the European requirement of national co-financing for the utilization of these same funds. Moreover, these investments could be directly financed by the national governments, if the relative cash outlays were not included in the Eurostat determination of the public deficits and public debts. In these cases, in order to avoid an improper use of contractual arrangements and to keep "moral hazard" under control, the single Member States would have to *ex ante* agree to share the implementation and the monitoring of these investments with the European Commission.

The procedures just described mimic the market process illustrated by the standard models, but either replace or combine the working of the markets with that of the European institutions. Financial and capital

aggregate inflows, recorded by the peripheral countries in the first years of euro life on the European financial market, are here partially replaced with financial flows covered by the European institutions. Then the allocation and the specific utilisation of these financial flows, which in the standard models were – respectively – in the hands of private intermediaries and foreign households and in the hands of national firms being typical market transactions, are here largely decided at the European level by means of the European investment plan or by means of the single contractual arrangements. We believe that these new initiatives might provide a right balance in a double perspective: between the short term positive shocks on the demand side and the need for reforms to improve structural competitiveness of weaker Member States on the long term side; and between the objective-functions of European peripheral countries which need additional means to stimulate growth, and those of the central countries which refuse any type of European cooperation without a European control.

4. The book is divided in five chapters. The first chapter provides a detailed analysis of the evolution of the current account imbalances and their components since the beginning of the euro area and for each Member State. Particular attention is devoted to the description of export performance in terms of market shares, and to the connection between external imbalances and the contribution of domestic demand and investment to GDP growth. The main message is that some EMU countries had imbalances in their current accounts even before the introduction of the single currency. However, the launch of the euro area implied a dramatic increase in the surpluses of a large number of central countries and a corresponding worsening in the deficits of a large number of peripheral ones, coupled with market share losses in the most important countries of the set. We also show that the recent rebalance in the current accounts of peripheral Member States has been mainly driven by a depressed domestic demand, both in terms of consumption and investment.

The second chapter completes the analysis of the external performance of each of the EMU Member States by looking at the evolution of their financial account's components and their resulting net international

investment positions. We show that peripheral countries financed their current account deficits mainly by means of the inflows of portfolio and other investments coming from central European countries; the components of these inflows mostly included debt and equity related instruments. This massive recourse to financial instruments instead of foreign direct investments (FDI) reflected the distortionary growth model which characterised countries such as Spain, Ireland, Portugal, and Greece. The related distortions are partly responsible for the problematic adjustments imposed to a large sub-set of these countries since 2010.

In the third chapter we look closely at the literature investigating the causes and consequences of current account imbalances. After a critical discussion of the Blanchard and Giavazzi (2002) model, we look at the theoretical explanations of the failures in the self-equilibrating mechanisms which are at the core of that model. The most interesting models point to three factors: (i) the too rapid banking and financial integration among euro area countries, which generated credit booms to finance consumption and asset bubbles in the non-tradable sectors; (ii) the divergence in the dynamics of the unit labour costs, also due to the wage moderation policy implemented in Germany after the unification; (iii) the growing competitive pressure of EMU surplus countries on the rest of the area, strengthened by the asymmetric trade shock due to the competition of non-EMU emerging countries in the European internal market. All these factors ask for policy actions, both at the national level and at the Euro-wide level. One of the shared conclusions is that these policy actions are necessary to rebalance the European economy.

The analyses in the fourth chapter provide some empirical evidence on the determinants of current account imbalances and their reduction in the post 2009-2010 period. This empirical evidence largely confirms the importance of the three main explanations proposed by the theoretical literature that criticises the standard models. It also shows that the net imports of a large number of European southern countries are strictly connected with financial flows coming from European northern countries. Moreover, the foreign-owned capital inflows to the former were used to a large extent for investment in non-tradable sectors, which in turn fuelled investment and market bubbles. In this scenario, which developed mainly during the period 2003-2007, the competitive gaps

among the euro area countries were strengthened, thus reducing the export potential and increasing the propensity to import of the Member States already in deficit. This latter phenomenon worsened the disequilibrium effects due to investment and market bubbles. The empirical evidence provided by this same chapter then shows that the partial recovery of competitiveness in most of the peripheral countries has been mainly driven by the effect of wage moderation, which was caused, in its turn, by the restrictive policy measures. In our reading this confirms that such improvement has no structural features so that imbalances might show up again once peripheral countries come out of the recession.

Finally, in the fifth chapter we review the main policy actions taken by the European institutions in order to correct macroeconomic imbalances and we suggest some new policy actions. First of all, we argue that the logic underlying the Macroeconomic Imbalances Procedure (MIP) and the "Two Pack" is still based on an asymmetric burden on the EMU countries in deficit, which have to adjust their current account disequilibria without having recourse to a coordinated approach. This emphasises the lack of adequate policy tools in the EMU and does not enhance the effectiveness of the poor existing policy measures. In these conditions, it becomes really hard to implement a virtuous and structural rebalancing. The latter can take place only by improving the structural competitiveness of troubled countries, which would need the support of a European growth policy. This explains why we conclude the chapter by proposing to finance asymmetric investments in the peripheral Member States of the euro area. This policy action can be implemented by combining the contractual arrangements and the Growth Compact.

1.
The Current Account Imbalances

1.1 INTRODUCTION

Since the introduction of the euro at the beginning of January 1999 to the starting of the European crises there has been a divergent trend in the external position of a large number of European Member States, with southern European countries experiencing a deterioration in their trade and current account balances and northern European countries (especially Germany and the Netherlands) improving their correspondent balances. To better understand, let us distinguish different subsets of countries according to their entry date in the euro area.

As is well known, the founding Member States of the euro area have been: Austria, Belgium, Germany, Finland, France, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain. Although both trade and current account imbalances already characterised these founding countries at the end of the Eighties and during the first half of the Nineties (see Tables 1.3 and 1.5), most of them enlarged the correspondent surpluses (for instance: Germany, Ireland, and the Netherlands) or deficits (for instance: Spain), kept the latter extremely large (Portugal) or changed the sign of their imbalances (for instance: France) before the start of the European sovereign debt and banking crises (2010). The same applies to Greece which joined the euro area two years later (1 January 2001) and worsened its large deficits from 2005 to 2007; and a similar trend also characterises three out of four other countries that adopted the euro at a later stage but before the beginning of the European crises (that is, Slovenia at 1 January 2007, and Cyprus and Malta at 1 January 2008).

Systematic adjustments in external imbalances of the countries in deficit (Spain, Portugal, Greece, Slovenia, Cyprus, and Malta) started at the

beginning of the crisis of the European Economic and Monetary Union (EMU). These adjustments derive more from the compression of the national inflation rates under the low and decreasing EMU's average, the cut of real wages, and the collapse of investment and intermediate consumption in the peripheral countries of the EMU,[1] than from a re-adjustment in structural competitiveness based either on more innovation and more systemic efficiency in these same countries or on an increase in real wages and aggregate demand of the central countries. In other words, we do not observe a re-composition toward a more sustainable growth model inside the EMU. To the contrary, the temporary adjustment effects of the economic depression risk to further weaken the future competitiveness of the peripheral countries since they go along with the reproduction of their high public debt/GDP ratio, the bankruptcies of vital parts of their productive apparatus, the weaknesses of their financial system, and the transformation of external imbalances in internal social disequilibria. As a consequence, if the European peripheral countries were able to follow an economic recovery path in the future, the deficits in their trade balances and current accounts could worsen again.

In December 2011 the European Commission established a new surveillance mechanism called Macroeconomic Imbalances Procedure (MIP), which is based on a set of indicators and aimed at monitoring, preventing and correcting macroeconomic imbalances (see also Chapter 5). Firstly, MIP takes into account both internal and external imbalances and sets threshold values working as an alert mechanism. Then, it develops an in-depth review of those countries that showed imbalances by the previous alert mechanism report. Finally, MIP activates a preventive intervention in countries whose balances are still not harmful, and a corrective intervention in countries with excessive imbalances.[2] If the

[1] Under this label we include Cyprus, Estonia, Greece, Ireland, Italy, Malta, Portugal, Slovakia, Slovenia, and Spain. However it must be recalled that Estonia joined the euro area just in 2011, and that Italy and Slovakia followed different paths. Let us also add that we do not analyse the last comer to the euro area, that is Latvia, which joined at 1 January of 2014.

[2] See European Commission (2011). These three steps are specified in two regulations of the so called "Six Pact".

latter countries were unable to implement the needed corrections in the short term, MIP would flow into an excessive imbalance procedure.[3]

Given the situation described above as well as the accounting rules and the framework set by the MIP, in this first chapter we analyse external imbalances in the euro area by looking at the current account (CA) which includes non-financial current transactions and is equal to the sum of trade balance, net income balance and unrequired transfers. Let us add that, even if the next sections of Chapter 1 are referred to the CA balance, we will dedicate special attention to the trade balance and its sub-components. The current account imbalances are a well-known and widely explored indicator of disequilibrium and possible strain in the economic literature. However, especially in a monetary union, trade flows imbalances point out the comparative advantages of each given country of the area without any superimposition with other transfers, which are less related to its competitive position. Given the importance of trade flows in goods and services, in the following sections we also look at the export market share in order to better understand the ability of EMU's countries to compete against emerging as well as other advanced economies.

The remaining part of the current chapter is structured as follows. In Sections 1.2 and 1.3 we analyse the external performance of the EMU's Member States in terms of changes in net exports and market shares, and then in Section 1.4 we describe the evolution of the corresponding current account balances. In Section 1.5 we sketch out the complex interaction between these imbalances and the macroeconomic dynamics of different countries. Finally, Section 1.6 concludes.

1.2 BALANCE OF GOODS' TRADE

The most important components of the current account are represented by trade flows in goods and services. The balance of trade of a given

[3] It is worth noting that one of the two additional regulations labelled "Two Pack", which was launched at November 2011 and implemented at May 2013, introduces further monitoring of EMU's Member States which are under excessive imbalances procedure.

country or a given area is a first indicator of its competitiveness, as it shows the ability of this country (or area) to place its goods and services in the international markets as well as its dependence on imported goods and services. In Table 1.1 we show the goods' trade balance from 1988 onward for the euro area countries and for the EMU as a whole.

In this respect, the traditional position of the euro area as a whole in the international market has been relatively favourable, registering a surplus in goods' trade around 1% of GDP since mid-1990s. This pattern continued in the first years of the following decade, while slowing down afterwards and in particular with the explosion of the global financial crisis (mid 2008). Leaving aside 2008, the aggregate trade balance of goods of this same area remained positive but its surplus was reduced to less than 0.5%. After the light increase in 2010 which went along with the short-term macroeconomic recovery, this surplus was cancelled in 2011 (balance equal to 0) despite the moderate trend in imports due to the negative dynamics of the internal demand. Then in 2012 the balance started to improve significantly, and in 2013 the slight recovery of EMU went along with an historical peak in the surplus of its trade balance of goods (1.8% of GDP).

Among the initial twelve euro Member States (the eleven founders and Greece), there has always been significant differences in goods trade balances due to different economic conditions and growth models. The structural problems of the Portuguese and Greek economies and their consequent strong dependence on imports implied highly negative goods trade balances since the beginning of the Nineties (1993): -8.6% and -10.1%, respectively. However, these two negative patterns sped up when it became rational to have the expectation that both countries were entering in the euro area. This happened in the second half of the Nineties for Portugal and at the end of the Nineties for Greece.[4] The negative trend continued during the first eight years of the new century. In 2008, the net goods trade of Portugal reached -13.4% whereas that of Greece -18.9%. These two imbalances decreased dramatically in the fol-

[4] It must be noted that the situation of Greece worsened since the end of the 1980s. However, the increases in Greek imbalances in goods trade reached their peaks in the sub-period between 1999 and 2001.

lowing years as a result of the contraction in domestic demand. In 2012 Portugal registered a deficit of -5.4%, that is a deficit 3.2 percentage points lower and equal to that in 1993; in 2013 the deficit further shrank by 0.6% in Greece and 1.1% in Portugal.

The Spanish goods trade balance too has been negative long before the introduction of the euro. This can be explained by the fact that the country, after the end of its long autarchy period due to Franco's dictatorship, started a process of catching up fostered by massive imports of capital and equipment goods and by the delocalisation of assembling activities from the more advanced European partners. At the beginning of the Nineties, this catching up process seemed to approach a new equilibrium: Spanish goods trade and total trade imbalances were not so negative. However, both these imbalances worsened during the decade 1998-2007: the convergence of interest rates after the introduction of the euro caused an investment boom in the Spanish housing sector, while the export capacity of the country suffered the competition of the new Member States (NMS) of the European Union (EU). Overall, the combination of these forces pushed the Spanish trade balance further down until 2007. From then on the Spanish goods trade and total trade negative imbalances decreased so that, in 2012 and 2013, the goods deficits were reduced – respectively – to -2.7 and -1.1 of GDP whereas the total trade balances, as shown in Table 1.3, became positive (respectively, 0.9 and 2.9 of GDP).

Other European countries had and/or still have deficits in their goods or total trade balances. Luxembourg has a huge goods trade deficit but, as we will see below, this is the result of both its small size and its specialisation in financial services. Also the Austrian goods trade balance was negative at the beginning of the Nineties (-4.6%); however, over time, the country managed to increase its net exports thanks especially to its integration with the neighbouring Eastern European countries, and in the last ten years its deficits have not raised any concern (even if it has been growing in the four years preceding 2013). Finally, we have to take into consideration the French and Italian cases. After an increase in the net exports of goods due to a currency devaluation in 1992-1993, France and Italy started to suffer decreasing positive imbalances and – then – negative imbalances, when the final parity with the

euro was introduced in 1999. For Italy, the contribution of goods' net export to GDP growth turned negative at the peak of the global financial crisis (2008); for France, whose rate of growth has been less dependent on exports, the turning point was in 2005. In any case, the French external imbalances have been larger than the Italian ones since 2005. Moreover, the speed of reduction of French external deficits have been rather disappointing: only 0.1% between 2008 and 2013, and 0.5% between 2012 and 2013 in terms of goods trade balances; 0.9% and 0.6%, in the corresponding two periods – respectively, in terms of total trade balances. In these same years and due also to the import reduction, Italy recorded a largely better performance (but in 2010) which flowed into increasing surpluses (+1.1,% in 2012, and around +2.5% in 2013).

Turning to the surplus countries, the Netherlands have long been recording positive goods and total trade balances, also thanks to the high contribution of natural gas export. Its external surpluses have increased fairly constantly (except in 2009) from 1999 on, with peaks of 8.4% in the goods trade balance and of 10.6% in the total trade balance in the last year (2013). Germany too recorded and is still recording very large surpluses. After the reunification shock which pushed down the net export of goods due to the strong demand from the ex-GDR (just 2% in 1993), the country turned back towards its historical levels already at the end of the 1990s (3.3% in 1999). With the introduction of the euro, German net exports of goods started to increase at unprecedented rates, reaching the peak of 8.2 of GDP in 2007; then, the international financial and "real" crises and the worsening of the European crisis had a negative impact on Germany's net balance of goods trade. The latter restarted to increase in 2012, reaching 6.7% (6.2% in terms of total trade surplus) at the end of 2013. The most recent figures of Germany and the Netherlands are so high that the European Commission (2014b) developed an in-depth review to conclude that: German surpluses, even if they are not "excessive", require monitoring and policy action; whereas the Netherlands, which are also affected by a private sector debt above another MIP's threshold and by a consequent deleveraging, have surpluses which must be "followed" by the Commission "in the context of the European Semester".

Belgium was also in goods trade balance surplus until 2007; then,

since 2008, the international and the European crises determined the country's deficit which has stabilised around -2.8% of GDP in 2011 and 2012. In 2013, this deficit dropped to -1.2%; moreover, Belgium did not record continual total trade deficits (+0.2% in 2013). In Ireland net export of goods has usually been highly positive since the beginning of 1990s (peak of 25.9% in 2001). This feature is mainly due to the richness of Irish zinc mines and natural gas, but also to the role played by manufacturing, especially in the pharmaceutical and computer industries, which attracted many multinationals. Nevertheless this Irish surplus shrank from 24.5% in 1999 to 10.4% in 2007. Only the deep restructuring of the economic system and public balance sheet, caused by the crisis of the domestic banking sector, allowed the goods' net export of the country to go back to 22-23% between 2010 and 2012; and in any case, the surplus in goods trade restarted to fall by 2.6 percentage points in 2013.

The new Member States of Eastern Europe were net importers of goods during the 1990s because they were still completing their transition processes; however, their deficits were much lower than those of Malta and Cyprus (around 20% of GDP). With the introduction of the euro, goods' net exports deteriorated in Slovenia for two years (with a peak of -5.8% in 2008); then the international crisis caused an adjustment which flowed into a surplus in 2013 (+1.8%). Slovakia, Cyprus, and Malta entered into the euro area during the crisis. The first became immediately a net exporter of goods, and reached large surpluses in 2012 and 2013 (5.0% and 5.9%, respectively). At the opposite, Cyprus and Malta experienced a peak in their goods trade deficits during the entry year in the euro area (-32.4% and -20.7%, respectively); then, their kept these deficits more or less stable between 2009 and 2011 and implemented significant adjustments in the last two years. However, their goods trade imbalances remain quite large: -17.8% for Cyprus, and -13.7% for Malta.

The previous figures show that, during the global financial crisis and the European one, there have been significant changes in the goods trade imbalances. In particular, Greece and Portugal have experienced strong improvements in their position, reducing their deficit by 50% and 68%, respectively. Spain has done even better by bringing its deficit to the limited figure of -1.1% in 2013. This has been mainly the result of

the long depression in Greece and Portugal which spread to other peripheral countries such as Italy and Spain. The internal devaluation in Greece, Portugal and Spain largely based on the compression of real wages, deleveraging processes, high rates of unemployment and inflation rates below the European average, have led to negative trends in consumption and to the collapse of the housing bubbles (Spain). Hence these countries have reduced dramatically the demand for imported goods. The case of Italy is quite peculiar in the sub-set of the peripheral Member States of EMU. After five years of total trade deficits but just two years of goods trade deficits, in 2012 Italy was able to turn positive its net export of goods as well as its total net trade: the negative growth of GDP had the effect to determine an import fall (with a positive impact of GDP equal to 2.2%) more than an export recovery (with a contribution to GDP equal to 0.6%). This path continued, although with lower intensity, in 2013.

Other countries have not changed their position much. As already noted, despite the unfavourable economic conditions in the euro area, the surplus of the Netherlands has continued to increase, while Germany recorded a small contraction in the period 2008-2011 and then a recovery in 2012 and 2013. The slow but persistent deterioration of the French position continued during the European crises; and the improvement has been very limited even in the last two years.

1.3 SERVICES, TOTAL TRADE BALANCE AND EXPORT MARKET SHARES

As to trade in services, the picture is roughly the mirror image of the goods trade since most of the deficit countries in goods trade have recorded surpluses in services' trade (see Table 1.2). In the aggregate, the net export of services has been positive in the euro area since 2003. The main net exporters have been (i) Luxembourg, which passed from 25.5% of GDP in 1999 to over 50% at the end of the last decade, with further increases in 2012 and a slight adjustment during the last year, due to its competitive advantages in the supply of financial services; (ii) Malta which improved its position after the entry in the EMU (in the last

three years over 20% of GDP); (iii) Greece, with values above 6% after the entry in the euro area and two peaks in 2005 (8%) and in 2013 (9.8%), in particular thanks to tourism and related service activities and to maritime transports; (iv) Portugal whose surpluses increased in 2007, remained stable for three years, and then recorded a further improvement reaching 6% in 2013; (v) Austria, which recovered in the last six years the surplus position (around 5% of GDP) that it had had before the construction of the euro area, and Slovenia which slowly improved its net positive position after its entry in the EMU, reaching a surplus above 5% both in 2012 and 2013; (vi) and finally Spain, whose surpluses increased immediately after the construction of the euro area (1999-2003), remained stable (around 2% of GDP) from 2005 to 2009, and increased in the last four years until the 4% of GDP in 2013.

Cyprus too was one of the main net exporters of the EMU as to trade in services. Its preexisting surpluses (around 20% of GDP) have been slightly affected by the participation to the euro area until the beginning of 2013. During the last year the country went through a severe banking crisis which flowed into a "bail-in" process towards banks' shareholders, bondholders, and depositors (over 100,000 euro).[5] Nevertheless, until the end of 2013, Cyprus' net position in services' trade has been practically unaffected.

With the exception of Ireland, whose deficit in services trade was above 11% of GDP in 1999 and 2001 and has recently turned into a significant surplus (2% of GDP in 2012, and 3.7% in 2013), and partially of Germany, the other surplus or deficit countries showed values of services' balance below or around 1%. The Irish case is peculiar. Its previous massive services deficit was mainly due to the insurance and financial activities, which were (and still largely are) at the core of Irish economic specialisation but which were not accounted as domestically created services since they belong to multinational companies enjoying

[5] The structural determinants of this crisis were the foreign overinvestment in the financial assets (particularly, in deposits) issued by the Cypriot banking system. In its turn, this overinvestment was due to the very high interest rates paid on banks' deposits, and to the low corporate taxation on the financial returns (often based on specific bilateral agreements, such as the fiscal treaty with Russia).

specific fiscal arrangements; recently the collapse and the related "bail out" of the Irish banking sector, its restructuring and the consequent reaction of the multinational financial companies implied the just mentioned severe adjustment in Irish services' imbalances. At a minor scale and for different reasons, also the German case is peculiar. In the mid-Nineties Germany was a net importer of services and its deficit position increased after the construction of the euro area. However, during the years 2001-2010, Germany reduced its deficit in services balance by more than 2 percentage points bringing it to 0.5% of GDP; and from then on this deficit has remained stable.

These figures show that, leaving aside the Irish case, services balances have not changed a lot during and after the crises.

Table 1.3 synthesizes the figures of Tables 1.1 and 1.2 by reporting the aggregate balances of goods and services for each Member State of the EMU. As we already stressed, the opposite signs of goods and services balances mitigate trade imbalances inside the euro area. In particular, it must be noted that in the recent years the structural deficit positions of Greece, Spain, Portugal, Cyprus, and Malta marked a significant improvement. Despite a deficit in goods' balance still around 10% of GDP, in 2012 and 2013 Greece reduced its negative balance to -2.3% and -0.2% respectively; and despite a deficit in goods' balance around 5%, Portugal got a substantial equilibrium in its total trade in 2012 and it reached a positive total balance in 2013. An analogous change in the sign of the total balance of trade has been obtained by Cyprus. On the other hand, Malta and Spain carried out a positive total balance since 2010 and 2012, respectively: in 2012 Malta's surplus had a peak of 7.3% of GDP, and in 2013 Spain's surplus was very close to 3% of GDP.

In Austria the overall net trade is positive thanks to the services sector, while in Germany and the Netherlands the overall balance is mainly the reflection of trade in goods. In any case, due to the fact that the services balances did not change so much during the recent crises, Table 1.3 supports the main result reached by analysing the figures of Table 1.1: the severe economic recession, which has mainly affected the peripheral Member States in the EMU during the last four/five years, has forced a significant adjustment in the trade imbalances inside the euro area.

To complete the analysis of total trade performances, Table 1.4

shows the evolution of EMU's export shares in the international market. On average, almost all the EMU countries have lost importance in the international market because of the rising contribution of emerging economies – with China and India on top – in world trade. However, there were significant differences in the performances of the various Member States. As far as the three biggest countries of the euro area (that is Germany, France, and Italy) are concerned, the decline started in mid-Nineties. During the period 1994-1999, Italy had the worst performance after Austria in the monetary area under construction; but also France and Germany experienced a decrease in their shares. At the opposite, some small countries (such as Ireland and Greece) carried out a strong increase in their shares. Then, in the first period after the introduction of the euro (that is, between 1999 and 2007), France and Italy suffered the highest losses: the former passed from 5.4% to 4% and the latter from 4.2% to 3.5% in terms of international market share. Also Portugal, the Netherlands, and partly Finland experienced a decrease in their shares. Over the same period the Spanish and Irish shares kept substantially constant; on the other hand, Germany increased its market share by 0.3 percentage points and approached its market position of the mid-Nineties, whereas other small Member States (such as Luxembourg and Greece) recorded significant improvements.

Since the international financial and real crises, almost all the EMU's countries have seen their contribution to world export substantially reduced, with the only exception of Estonia (see Figure 1.11).[6] The fall of the remaining sixteen countries was, in many cases, far below the threshold set by the MIP (see Chapter 5 for more details). Luxembourg, Spain, and Portugal suffered the lowest losses (above 6% but below 7.5% of GDP); and Germany, the Netherlands and France experienced a decrease in their market shares below 10%. At the opposite, the highest falls were recorded by Finland (-29.9%), Greece (27.3%), Cyprus (-27.2%), Italy (-17.8%), and Austria (-17.1%).

[6] This applies also to Slovakia which entered in the euro area since 2009. However, it must be noted that this country recorded an outstanding improvement (118% of GDP) in its export shares in the international market during the period preceding its entry in the euro area and suffered a slight decrease (2.2%) in the period that follows.

1.4 CURRENT ACCOUNT BALANCE

The increases in trade disequilibria inside the euro area, experienced from the introduction of the common currency to 2007, are a signal that the "catching up" process and the related convergence between central and peripheral Member States did not work during a "normal" macroeconomic period. On the other hand, the negative performances which were recorded by the euro area in the last six years in terms of shares in the international market, and which are an evident result of the global and European crises affecting the whole set of Member States – and not only the southern European countries – are a signal that this area is too fragile towards external systemic shocks. Hence, these figures seem to suggest that, in order to overcome European imbalances within a process of growth, it would not be sufficient to improve the competitiveness of Greece, Cyprus, Portugal, Spain, Italy, and France. It is also necessary to introduce changes in the working of central Member States and in the working of the euro area as a whole. In other words, we believe that the fundamental need to improve competitiveness in the weakest Member States would have to be supported by a different role played by the strongest Member States inside a re-organization of the EMU's area.

This conclusion risks to fall into the sterile debate between the indictors of the austerity measures, supported by Germany and its satellites and implemented by the European institutions, and the indictors of the "free lunches" and the "free riding" pursued by the Mediterranean countries and responsible for the sovereign debt crisis. To avoid this risk, it is necessary to improve and specify our preliminary and descriptive empirical evidence and to elaborate some of its implications. In this perspective, we would have first to complete our descriptive empirical analysis by taking into account the European figures on national current accounts, by specifying their different components, and by analysing the net financial flows; this step will be done in the remaining two sections of the current Chapter and in Chapter 2. Then we would have to utilize the resulting descriptive macro- and micro-economic picture, filtered by the main issues raised in the theoretical debate on European imbalances (see Chapter 3), to perform three more robust empirical steps. First, we would have to compare the EMU performance with that of the United States in order to

elaborate an indicator able to assess the relative competitiveness of the former area as a whole. Secondly, we would have to calculate the losses of each European country relatively to the average losses of the euro area in order to use the same indicator independently of the euro's reaction to wide shocks. Finally, we would have to calculate the evolution of internal imbalances of each of the euro countries, that is their imbalances inside the single market. These three steps will be done in Chapter 4.

Let us complete here and in the following Chapter the descriptive part of our analysis. The most traditional tool to test for the presence of macroeconomic imbalances is the current account balance which, in addition to the trade balance in goods and services, includes net current transfers and net income transfers due to the remuneration of production inputs. The latter is particularly important as it includes the repatriation of earnings from foreign direct investments (FDI) and other forms of investment.

Table 1.5 shows that the current account position of the euro area as a whole has been always in slight surplus or substantially balanced except in 2008 (that is at the peak of the international financial crisis, when this position recorded a deficit of -1.5% of GDP). Comparing Tables 1.1 and 1.3 with Table 1.5, we can however deduce that (i) net current and income transfers have been negative in the large majority of EMU countries, worsening by consequence the overall balance with respect to that in goods and services; (ii) hence a number of European countries had some negative current account imbalances already in 1999; (iii) these negative imbalances worsened after the introduction of the euro and before the explosion of the international crises for the large majority of the countries with a structural deficit in goods trade.[7]

In any case, total trade balances of EMU Member States give most of the contribution to the overall current account. At their entry date in the euro Portugal, Greece, and Spain were the countries with the highest

[7] The exceptions are Austria and Luxembourg. It must also be noted that the worsening in the negative account imbalances after the introduction of the euro and before mid-2007 affected some countries without structural deficit in goods trade (for example: Ireland and Italy). In the case of France, the switch to negative imbalances in goods' trade and in the current account was contemporary. For further comments, see below.

deficits also in the current account balance. Moreover, considering the thresholds imposed by the MIP in the recent years, the first two countries were immediately below of the negative thresholds, while in Spain the situation deteriorated since 2005. In Spain, net current and income transfers worsened its negative imbalances since the beginning of the Nineties; the same applies to Portugal and Greece since mid-2000s because of the massive repatriation of earnings from capital investments made by foreigners.

Generally speaking, net current and income transfers had a negative impact on the imbalances of the large majority of the remaining Member States of EMU. In Ireland the deficits in net current and income transfers were so high as to more than offset the positive trade surpluses and caused the country to fall below the more recent MIP threshold in 2007 and 2008; since 2010, despite negative net current and income transfers still accounted for 15% of GDP, the reduction of the deficit in services trade improved the overall situation. In Italy, the current account balance started to become negative in 2003 despite a surplus in total trade balance: the declining surplus in net exports was not sufficient to compensate for the deficit in net current and income transfers. The negative imbalances in Italian current accounts worsened from 2007 to 2011 (with peaks of -2.9%, -3.4%, and -3.0% in 2008, 2010, and 2011 respectively), when also the trade balances were in increasing deficit (-0.7%, -1.8%, -1.5%, respectively). The contribution of net current and income transfers to the negative position of Italy's current account balance remained important in 2012, when the trade surplus of 1.1% of the GDP turned into a current account deficit of -0.3%; then, in 2013 the Italian current account balance went back to the positive value of 1999 but remained 1.6 percentage point lower than the surplus in total trade.

Opposite conclusions hold for France, and partially for Germany, the Netherlands, and Belgium. In France, from 2005 to 2011, the deficits in trade balances were offset or partially compensated by the positive position in net current and income transfers;[8] this does not apply to 2012

[8] The French positive position in net current and income transfers strengthened its surpluses in current account with respect its surpluses in total trade balances immediately after the introduction of the euro (1999-2001).

and it may be due to the recent difficulties of France to meet the EMU's rules. In Germany these same transfers became positive since the very beginning of the international crises (2007) until today; as a result, during the same period (with the exception of 2009), Germany has not satisfied the more recent MIP threshold in terms of surpluses in current account balance (6%). In the Netherlands, the net current and income transfers turned to surplus during the peak (2011-2012) of the European crisis; and, applying the more recent MIP standards, the Netherlands recorded surpluses in its current account balance above MIP's threshold since 2010 (but also in 2005-2007). Finally, Belgium recorded persistent surpluses in the net current and income transfers from the introduction of euro to the international financial crisis.

Luxembourg's current account has always been always highly positive due to its leadership position in the export of financial services, but net transfers have been always highly negative. The latter mitigated Luxembourg's position, which otherwise would have been extremely unbalanced compared to the rest of the area. In any case, applying the 2011 MIP's new rule, this Member State recorded surpluses in its current account balance above MIP's threshold from 2009 to 2011 (and also from 1999 to 2007). Concerning the Member States which entered in the euro area after mid-2000s, imbalances were not particularly serious if we exclude some exceptionally negative or positive years. With the temporary exception of Malta in 2009 and 2010 possibly explained by the massive negative transfers due to its entry in the euro area in 2008, all these countries experienced negative transfers between 3% and 6% of GDP. In some cases these transfers brought their negative current account balances below the more recent MIP threshold (Cyprus since 2008 to 2010 and in 2012; and Malta in 2008); however, the recovery in external trade helped to reduce deficits in the last year (2013) or even in 2012. In another case (Slovenia), the same negative transfers were not sufficient to hinder a strong readjustment process which flowed into a surplus of the current account balance above MIP's threshold of 6%.

With the end of the world crisis and the beginning of the European debt crisis, imbalances were shrinking. The end of the housing bubble in Spain had its main effect in the reduction of imports, with the total trade deficit falling below 2% of GDP since 2009 and turning positive since

2012; as a result the Spanish current account balance recorded a deficit below 2% in 2012 and became positive in 2013. A similar trend holds for Ireland, although its bubble was of a different nature: Irish current account balance turned positive since 2010 and reached a value above MIP's threshold of 6% in 2013 (6.6% of GDP). The recession and the consequent stabilisation programs in Portugal brought its current account balance to a safe territory (-2%) in 2012 and – similarly to Spain – to a surplus (0.5%) in 2013. On the other hand, the position of surplus countries kept relatively stable, even if for the Netherlands and Germany the positive imbalances of their current account are continuing to increase.

Figure 1.2 synthesizes the current account imbalances of the euro area Member States in the years which matter for MIP's new rule. As already specified (see Section 1.1; see also Chapter 5), this rule became operative in 2012 and states that the three years moving average of the current account balance cannot exceed, respectively, the +6% and the -4% of GDP. According to the figures of Table 1.5, in the most recent period (2010-2013), there are three countries with current account deficits below the threshold of -4% and other three countries with a surplus above the threshold of +6%. The former group is composed by Cyprus, Greece, and Portugal; the latter is composed by the Netherlands, Germany, and Luxembourg.

1.5 CURRENT ACCOUNT DECOMPOSITION AND GROWTH ACCOUNTING

More information on the macro- and micro-economic impact of current account imbalances can be obtained by analysing its typical decomposition. In fact, we can define the current account balance (CA) as the difference between national disposable income and domestic absorption.[9] Formally:

$$CA = Y + IB + TR - A \qquad (1)$$

[9] See, for example, European Commission 2012a.

where the symbols indicate: *Y* the gross domestic product, *IB* the net income balance, *TR* the net unrequired transfers from abroad and *A* the domestic aggregate demand absorption.

Y and *A* can be defined, in their turn, as:

$$Y = A + (X - M) \quad (2)$$

$$A = C + G + I \quad (3)$$

where *C* and *G* denote private and public consumption – respectively, *I* denotes the total sum of private and public investments, *X* the exports of goods and services and *M* the imports of goods and services.

From (1) and (2) we obtain:

$$CA = (X - M) + IB + TR \quad (4)$$

In other words, *CA* is equal to the sum of net exports, net income balance and unrequired transfer. Furthermore, we can define the private saving (S_p) and the public saving (S_g) as:

$$S_p = (Y + IB + TR) - C - T \quad (5)$$

$$S_g = T - G \quad (6)$$

where *T* denotes taxes.

From (1), (3), (5) and (6), it follows that

$$CA = S_p + T - G - I = S_p + S_g - I = S - I \quad (7)$$

where $S = S_p + S_g$.

In other words, *CA* equals the difference between domestic saving (*S*) and investment. This difference can also be interpreted as net capital outflows/inflows (NKF), that is:

$$S_p + S_g - I = NKF \qquad (8)$$

Finally, by combining (7) and (8), we obtain that the current account balance equals net capital outflows/inflows:

$$CA = NKF \qquad (9)$$

According to (9), a positive current account imbalance indicates that there is an excess of savings over investments so that the unallocated capital flows out from the country. This means that, if the CA is positive (negative), a country is exporting (importing) capital in order to compensate (finance) the lack (excess) of investment over domestic savings.

Thanks to this decomposition, it becomes possible to underline which were the main drivers of CA surpluses/deficits in the euro area countries during the last twenty years.

Among the six countries that showed relevant surpluses in their CA for – at least – six years from 1999 to 2007 (i.e. Austria, Belgium, Germany, Finland, Luxembourg and the Netherlands), Germany and the Netherlands were mainly characterized by high corporate savings and fewer investments (see also Figures A1-A6 in Appendix).[10] During the same period Germany, Finland, and the Netherlands also experienced high public saving. After the 2007-2009 financial crisis, only Germany and the Netherlands were able to keep stable or even to improve their pre-crisis shares of CA surpluses thanks to a persistent and high corporate savings. The other four countries with CA surpluses had to face a reducing path of corporate savings, often associated with negative public savings. The consequent trend in total savings was not compensated by a corresponding decline in investment in Finland and Belgium, so

[10] As remarked by Gros (2012), the excess savings in the northern countries of the euro area are intermediated by the banking system and other highly regulated intermediaries (insurance companies, pension funds, etc.). These banking and non-banking intermediaries have a strong bias towards investing inside the euro area (an enlarged "home bias"). This explains why, before the international financial crisis, the excess savings in the central countries of the euro area were largely invested in the peripheral countries.

that these two countries experienced negative CA imbalances in the last three years (2011-2013). From 1999 to 2007 France and Italy recorded a deterioration in their positive CA, which flowed into negative imbalances since 2005 and 2003, respectively. Both countries worsened these CA deficits after the financial crisis also as a consequence of growing public debts, which implied negative public savings (see also Figures A7-A8). Italy substantially reabsorbed its negative imbalances in CA in 2012 and obtained a significant surplus in 2013; at the opposite, France was just able to reduce its CA deficit in 2013.

As far as the structural deficit countries are concerned, it must be noted that these countries followed two different paths in reproducing their CA negative imbalances after the introduction of the euro. Some countries such as Cyprus, Ireland, and Spain mainly carried out increases in investment;[11] on the other hand, countries such as Greece and Portugal mainly experienced a decrease in household savings (Figures A9-A13 and A14-A17, respectively).[12] However, all these countries were able to implement severe readjustment processes of their CA negative imbalances which started immediately after the international financial crisis. These processes were based on a common ground: a reduction in the negative values of public saving, an increase in the private savings and a severe decrease of investment.

Taking into account the overall euro area (17 countries), we find that the CA was close to zero from 1999 to 2007 (see also Figure A18). After the financial crisis, we observe a decline in public savings, which was gradually compensated by higher corporate savings and lower investment. Then, in 2011 and 2012, the aggregate CA of the euro area became positive mainly due to the decrease in investment.

Additional insights can be gathered from the contribution of the different components to GDP growth. As already stated (see equation 7 above), if the CA of a given country has negative balance, it will follow that its domestic demand for consumption and capital goods must be

[11] The same applies to Slovenia, Estonia and Cyprus itself for the years preceding their entry into the euro area.

[12] The same applies to Slovakia and Malta for the years preceding their entry into the euro area.

partially satisfied by borrowing capital from abroad; it will also follow that exports of this country do not give a substantial contribution to its growth. In Tables 1.6 and 1.7 we show the contribution to growth offered by domestic demand components and trade flow, respectively, in the six years before the creation of the euro area, in the first phase of the euro life preceding the international financial crisis, and during this crisis and the related European crises.

Private consumption was the main driver of GDP growth in the euro area as a whole until the global financial crisis, with an average contribution around 1.0% for the set of seventeen countries. Private consumption thus contributed to 50% of total GDP growth, both in the 1990s and in the first nine years of the euro; at the opposite, this component of the total demand remained basically stagnant during the crisis. Investment was the second driver of GDP growth, since its contribution increased from 22% in the 1990s to 28% after the introduction of the euro; on the other hand, this demand component accounted for most of the negative growth in the period from 2008 on. The contribution of the external sector to GDP growth of the euro area was always modest in the aggregate, but it further deteriorated during the first period of the euro life. On the contrary, since 2008 the slowdown in imports and a relatively positive export dynamics, due in particular to the demand from emerging markets, boosted the contribution of net exports The latter more than offset the negative output dynamics for the euro area as a whole.

Among Member States, during the first and the second periods the highest growth of domestic demand was recorded by Ireland and by the large majority of NMS which were involved in a catching up process. In particular, during the six central years of the Nineties the domestic demand offered a contribution above 6% to the Irish GDP growth. In this same period, the latter economy had also a higher contribution from net exports (1.9%) after Malta (3.5%). Net export played a positive role also in the case of Finland (1.3%) and Italy (0.7%). For the other main economies of the area (that is Germany, France, Spain and the Netherlands), the contribution of the external sectors was positive but below 0.5 (0.1% for Germany). This same contribution was negative for the two lagging behind countries (Greece and Portugal), where the positive GDP growth was highly dependent on the contribution of domestic demand.

During the first years of the euro, the contribution of private consumption and investment – mainly in real estate and constructions (see Figure 1.3) – increased strongly in Spain and Greece, and remained important but less outstanding in Ireland. With the exception of France, Italy and Finland, in all other euro countries the weight of total consumption declined or remained stable; at the opposite, with the exception of the Netherlands, Portugal and Finland, that of investment increased. As to the external sector, net export contributed negatively to GDP growth in countries like Spain, Greece, and Portugal but also in France and Italy. For the latter country, this change has been particularly harmful given that its past growth was mainly export-led. On the other hand, Germany increased the average contribution of net exports to its growth from 0.1% to 0.9%; a smaller but significant increase was also recorded by Luxembourg and the Netherlands.

With the global financial crisis (2008), things changed dramatically among euro area countries. The contribution of both private consumption and investment became strongly negative for the large part of the peripheral Member States, with gross fixed capital formation (GFCF) experiencing the highest losses. In this subset of countries, public consumption too gave often a negative contribution to GDP: stimulus measures, implemented immediately after the beginning of the crisis, were short-lived since they were replaced by austerity measures aimed at adjusting public finances. At the opposite, in Germany the contribution to GDP from private and public consumption increased, whereas in Belgium, France, Austria, and Finland it remained positive. However, also in these countries the investment dynamics became flat or even negative. As to net exports, in many cases the import collapse, the wage compression, and the decrease in relative inflation determined a net positive contribution to GDP growth. This was the case for the peripheral countries (Spain, Ireland, Greece, Slovakia, Slovenia, Malta, Cyprus, and Portugal). Italy represented a partial exception: the net effect was positive but smaller due to the fact that exports still have not returned to pre-crisis levels. The faster macroeconomic recovery experienced by countries such as Belgium, Germany, and the Netherlands implied that both imports and exports increased between 2008 and 2013.

Let us add that in a large number of peripheral countries the dynam-

ics of different forms of productivity was practically flat during the three periods examined. This factor explains, as we will see in more detail in Chapter 4, the increasing loss of competitiveness which has characterized the peripheral Member States towards the central Member States in the euro area. A significant example is offered by the comparison of the different trend in total factor productivity (TFP) in various countries.[13] Between 1999 and 2007 the growth rate of TFP was below the average of euro area by approximately 4.5% in Spain, Italy, Portugal and France, 10% in Ireland and 17% in Greece (see Figure 1.4). The global financial crisis worsened this picture as TFP dropped everywhere, but the fall was particularly severe in the majority of peripheral countries. All in all, this means that investment did not improve the macroeconomic fundamentals in these countries since they were mainly driven by the high profit opportunities in the financial and real estate sectors. After a partial recovery in 2010 and in the first part of 2011, TFP fell again everywhere, with the exception of Spain. For the Spanish economy however, the recovery in TFP came with huge costs in terms of employment losses.

1.6 CONCLUSIONS

The previous analysis shows that, from the point of view of the current account and its components, imbalances appear to be not entirely the result of the EMU creation. Greece and Portugal were already having troubles in the 1990s. The novelty introduced with the euro is the strong rise in surpluses of central countries like Germany and the Netherlands, and the increased deficit caused by the housing and other bubbles in Spain and Ireland respectively. For the latter two countries, the situation improved after the crisis, although at the cost of suffering a severe recession and a deep banking crisis and having to accept the assis-

[13] TFP can be interpreted as an indicator of the internal and external efficiency or inefficiency which characterize the activity of a given firm. Hence, the dynamics of TFP measures the degree of organization and innovation of this firm as well as the quality of the institutional and social setting, in which this same firm has to operate.

tance from European institutions.[14] The permanent character of such improvements depends upon the countries' ability to change their growth model which was based, in the period before the financial crisis, on speculative investments in the construction sector (Spain and Ireland) or on excessive levels of domestic consumption (Greece and Portugal). These changes are strongly correlated with the labour cost dynamics (Gros 2012). For the moment, too little effort has been made, particularly in peripheral countries, to increase productivity, as the dynamic of the TFP shows.

Italy and France have seen their position deteriorate after the crisis, despite their CA deficits being always above the threshold and have been overcome or reduced in 2012 and 2013. The recent temporary improvement was mainly due to the demand collapse caused by the recession. Hence, without a structural increase in competitiveness, the Italian and French situation could worsen in the coming years, leading to a further divergence between Germany and other the two main economies of the euro area.

The analysis of growth accounting indicated that, up to the global financial crisis, the GDP dynamics was everywhere driven by the increase in private consumption and capital formation. However, while in some countries – like Germany – this process was coupled with net capital outflows and positive net exports, in other countries – like Spain and Greece – both consumption and investment needs were financed by borrowing from the rest of the world. A similar argument applies to Portugal, although its growth performance was quite modest, and to Italy, where the disappearance of the external surplus was coupled with a higher need to finance public and private consumption. After the crisis, the external sec-

[14] The reference is to the European aid program centered on the EFSF's and – then – on the ESM's intervention. The aim of this program, which was launched in 2010, is to allow the Member States in difficulty to temporary finance their public debt by means of the European institutional loans, that is without issuing new bonds on the market. However, the countries under aid program had to pay high interest rates and to accept a recovery plan, designed and monitored by two European institutions (the European Commission and the European Central Bank) and by the International Monetary Fund. Let us add that Spain had recourse to a lighter aid program than Greece, Ireland, Portugal, and Cyprus.

tor has brought about a positive contribution to the recovery of GDP and domestic demand appears to play a higher role in countries like Germany, Austria and Finland. In a large subset of the peripheral Member States the positive contribution of net export is the mirror image of the depressed domestic demand, both in terms of consumption and investment. This pattern suggests that although imbalances declined after the crisis, the composition of expenditure has not changed. Indeed, deficit countries are mainly suffering from the necessity to consolidate their public finances. This means that in the future the recovery of the whole area could bring about a reprisal of external imbalances.

Table 1.1. Trade Balance (only Goods) in % of GDP

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12	-1.1	1.3	0.9	1.1	1.4	0.6	0.6	-0.3	0.3	0.3	0.1	1.2	1.9
Euro area 17			0.8	1.0	1.3	0.5	0.5	-0.2	0.3	0.2	0.0	1.0	1.8
Austria	-4.5	-4.6	**-2.2**	**-1.7**	**-0.7**	**-0.4**	**0.5**	**-0.2**	**-0.9**	**-1.1**	**-2.5**	**-2.3**	**-1.2**
Belgium			**3.7**	**2.4**	**2.8**	**0.9**	**0.4**	**-3.2**	**-1.3**	**-1.1**	**-2.8**	**-2.8**	**-1.8**
Germany	5.6	2	**3.3**	**4.7**	**6.0**	**7.0**	**8.2**	**7.3**	**5.5**	**6.3**	**5.9**	**6.5**	**6.7**
Spain		-2.9	**-5.2**	**-5.7**	**-5.1**	**-7.5**	**-8.7**	**-7.9**	**-4.0**	**-4.6**	**-4.2**	**-2.7**	**-1.1**
Finland	1.2	7.4	**9.1**	**9.8**	**7.5**	**4.7**	**5.1**	**3.7**	**1.8**	**1.4**	**-0.7**	**0.0**	**0.1**
France			**1.2**	**0.3**	**0.2**	**-1.3**	**-2.2**	**-3.1**	**-2.3**	**-2.8**	**-3.8**	**-3.5**	**-3.0**
Ireland	8.3	13.8	**24.5**	**25.9**	**23.2**	**17.3**	**10.4**	**13.2**	**20.0**	**22.6**	**22.6**	**22.2**	**19.6**
Italy	-0.1	2.7	**1.9**	**1.4**	**0.7**	**0.0**	**0.2**	**-0.1**	**0.1**	**-1.3**	**-1.1**	**1.1**	**2.4**
Luxembourg			**-12.2**	**-12.2**	**-10.2**	**-11.1**	**-9.3**	**-12.2**	**-9.4**	**-10.7**	**-13.0**	**-15.3**	**-13.9**
Netherlands	4.1	5.2	**4.0**	**4.9**	**6.8**	**7.6**	**7.3**	**7.0**	**6.0**	**6.8**	**7.2**	**7.3**	**8.4**
Portugal		-8.6	**-12.0**	**-12.4**	**-9.4**	**-11.8**	**-11.3**	**-13.4**	**-10.6**	**-11.1**	**-8.3**	**-5.4**	**-4.3**
Greece	-8.3	-10.1	-14.3	**-14.8**	**-13.1**	**-14.3**	**-18.6**	**-18.9**	**-13.3**	**-12.7**	**-13.1**	**-10.1**	**-9.5**
Slovenia			-5.6	-3.0	-2.1	-3.6	**-4.2**	**-5.8**	**-1.2**	**-2.3**	**-2.6**	**-0.3**	**1.8**
Slovakia			-5.4	-10.1	-1.9	-5.0	-1.2	-1.2	**1.5**	**1.2**	**1.5**	**5.0**	**5.9**
Cyprus			-23.7	-26.9	-24.1	-25.2	-29.6	**-32.4**	**-25.5**	**-26.8**	**-24.3**	**-21.8**	**-17.8**
Malta			-14.2	-13.7	-12.3	-18.3	-17.6	**-20.7**	**-18.9**	**-18.0**	**-16.5**	**-13.9**	**-13.7**
Estonia		-8.5	-14.4	-12.4	-15.8	-13.9	-16.4	-12.6	-5.0	-1.9	**-2.0**	**-4.5**	**-4.7**

Source: Eurostat.
Note: Bold figures refer to the years in which each specific country belongs to the euro area.

Table 1.2. Trade Balance (only Services) in % of GDP

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12			-0.2	-0.1	0.2	0.5	0.6	0.7	0.7	0.9	0.9	1.0	1.2
Euro area 17			-0.1	0.0	0.3	0.5	0.5	0.5	0.5	0.7	0.8	0.9	1.1
Austria	5.0	5.0	**2.9**	**3.3**	**3.5**	**3.8**	**4.1**	**5.0**	**4.6**	**4.6**	**4.6**	**4.6**	**4.9**
Belgium			**0.5**	**0.8**	**0.6**	**1.3**	**1.3**	**1.4**	**2.6**	**2.3**	**1.8**	**2.0**	**2.0**
Germany	-1.2	-1.9	**-2.7**	**-2.9**	**-2.1**	**-1.8**	**-1.2**	**-1.0**	**-0.7**	**-0.5**	**-0.5**	**-0.5**	**-0.5**
Spain		2.3	**3.3**	**3.4**	**3.0**	**2.4**	**2.2**	**2.4**	**2.4**	**2.7**	**3.4**	**3.6**	**4.0**
Finland	-1.7	-2.5	**-1.5**	**0.0**	**-0.4**	**-0.4**	**0.3**	**0.4**	**0.2**	**0.2**	**0.1**	**-0.5**	**0.2**
France			**1.3**	**1.1**	**0.8**	**0.7**	**0.8**	**0.9**	**1.0**	**1.1**	**1.6**	**1.6**	**1.8**
Ireland	-1.3	-3.9	**-11.2**	**-11.3**	**-7.9**	**-5.7**	**-0.6**	**-4.3**	**-4.3**	**-4.2**	**-1.0**	**2.0**	**3.7**
Italy	0.1	0.3	**0.1**	**0.0**	**-0.2**	**0.0**	**-0.5**	**-0.5**	**-0.5**	**-0.5**	**-0.4**	**0.1**	**0.2**
Luxembourg			**25.5**	**31.8**	**34.1**	**43.1**	**53.0**	**53.4**	**49.5**	**50.3**	**50.7**	**54.4**	**52.5**
Netherlands	-0.9	0	**0.6**	**-0.6**	**-0.1**	**1.1**	**1.6**	**1.5**	**1.0**	**1.4**	**1.5**	**1.3**	**2.3**
Portugal		1.5	**1.5**	**2.2**	**2.5**	**2.5**	**3.9**	**3.8**	**3.6**	**3.9**	**4.5**	**5.3**	**6.0**
Greece	4.1	4.5	5.8	**6.3**	**6.7**	**8.0**	**7.4**	**7.3**	**5.5**	**6.0**	**7.0**	**7.8**	**9.3**
Slovenia			1.6	2.3	2.1	3.2	**3.0**	**3.8**	**3.3**	**3.6**	**4.1**	**5.1**	**5.7**
Slovakia			0.3	2.3	0.7	0.7	0.7	-0.8	**-1.6**	**-1.1**	**-0.5**	**0.4**	**0.2**
Cyprus			24.5	28.5	23.6	22.5	23.1	**21.0**	**19.9**	**20.6**	**20.1**	**18.7**	**19.7**
Malta			9.3	8.5	9.2	13.1	15.6	**18.7**	**16.6**	**18.0**	**20.3**	**21.2**	**20.1**
Estonia		4.4	9.9	10.4	8.4	7.5	6.5	8.1	10.1	9.3	**8.2**	**7.0**	**6.7**

Source: Eurostat.
Note: Bold figures refer to the years in which each specific country belongs to the euro area.

Table 1.3. Trade Balance (Goods and Services) in % of GDP

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12			0.6	0.8	1.6	1.1	1.1	0.3	1.0	1.1	0.9	2.1	3.2
Euro area 17			0.7	0.9	1.6	1.0	1.0	0.2	0.8	0.8	0.8	1.9	2.9
Austria	0.5	0.5	**0.6**	**1.6**	**2.8**	**3.4**	**4.5**	**4.8**	**3.7**	**3.5**	**2.0**	**2.3**	**3.7**
Belgium			**4.3**	**3.2**	**3.4**	**2.3**	**1.7**	**-1.8**	**1.3**	**1.2**	**-1.0**	**-0.8**	**0.2**
Germany	4.4	0.1	**0.6**	**1.8**	**3.9**	**5.2**	**7.0**	**6.2**	**4.8**	**5.7**	**5.4**	**6.0**	**6.2**
Spain		-0.7	**-1.9**	**-2.3**	**-2.1**	**-5.1**	**-6.5**	**-5.5**	**-1.6**	**-1.9**	**-0.8**	**0.9**	**2.9**
Finland	-0.5	4.9	**7.5**	**9.8**	**7.1**	**4.3**	**5.3**	**4.0**	**2.0**	**1.6**	**-0.6**	**-0.6**	**0.3**
France			**2.5**	**1.4**	**1.0**	**-0.6**	**-1.4**	**-2.2**	**-1.3**	**-1.7**	**-2.3**	**-1.9**	**-1.3**
Ireland	7	9.9	**13.2**	**14.7**	**15.3**	**11.6**	**9.9**	**9.0**	**15.8**	**18.4**	**21.5**	**24.1**	**23.3**
Italy	0.1	3	**2.0**	**1.4**	**0.6**	**0.0**	**-0.3**	**-0.7**	**-0.4**	**-1.8**	**-1.5**	**1.1**	**2.6**
Luxembourg			**13.3**	**19.6**	**23.9**	**32.1**	**43.8**	**41.2**	**40.1**	**39.6**	**37.7**	**39.1**	**38.6**
Netherlands	3.1	5.2	**4.6**	**4.3**	**6.7**	**8.7**	**8.9**	**8.5**	**7.0**	**8.2**	**8.7**	**8.6**	**10.6**
Portugal		-7.1	**-10.4**	**-10.2**	**-6.8**	**-9.3**	**-7.5**	**-9.5**	**-7.0**	**-7.2**	**-3.8**	**-0.1**	**1.7**
Greece	-4.2	-5.6	-8.5	**-8.5**	**-6.5**	**-6.3**	**-11.1**	**-11.5**	**-7.8**	**-6.8**	**-6.0**	**-2.3**	**-0.2**
Slovenia			-4.0	-0.6	0.0	-0.4	**-1.2**	**-1.9**	**2.0**	**1.3**	**1.4**	**4.8**	**7.5**
Slovakia			-5.1	-7.8	-1.2	-4.3	-0.5	-1.9	**-0.1**	**0.1**	**0.9**	**5.5**	**6.1**
Cyprus			0.8	1.7	-0.5	-2.6	-6.5	**-11.4**	**-5.5**	**-6.2**	**-4.3**	**-3.1**	**1.9**
Malta			-4.9	-5.2	-3.0	-5.2	-2.0	**-2.0**	**-2.3**	**0.1**	**3.8**	**7.3**	**6.3**
Estonia		-4.1	-4.5	-2.1	-7.4	-6.4	-10.0	-4.5	5.1	7.4	**6.1**	**2.5**	**2.0**

Source: Eurostat.
Note: Bold figures refer to the years in which each specific country belongs to the euro area.

Table 1.4. Export Market Share

	Level									% change		
	1994	1999	2003	2007	2008	2009	2010	2012	2013	1994-1999	1999-2007	2008-2013
Belgium			**2.45**	**2.16**	**2.11**	**2.16**	**1.97**	**1.83**	**1.89**			-10.7
Germany	9.27	**8.80**	**9.32**	**9.07**	**8.82**	**8.90**	**8.41**	**7.91**	**8.01**	-5.1	3.1	-9.2
Ireland	0.71	**1.20**	**1.40**	**1.20**	**1.10**	**1.28**	**1.10**	**1.00**	**1.01**	67.8	0.2	-8.0
Spain	2.03	**2.34**	**2.49**	**2.26**	**2.15**	**2.22**	**2.02**	**1.91**	**2.00**	15.3	-3.4	-7.1
France	5.77	**5.39**	**4.93**	**4.02**	**3.87**	**4.26**	**3.79**	**3.45**	**3.51**	-6.6	-25.4	-9.3
Italy	4.56	**4.17**	**3.96**	**3.53**	**3.31**	**3.16**	**2.89**	**2.69**	**2.72**	-8.6	-15.3	-17.8
Luxembourg		**0.36**	**0.39**	**0.48**	**0.45**	**0.46**	**0.42**	**0.40**	**0.42**		33.4	-6.8
Netherlands	3.49	**3.52**	**3.53**	**3.24**	**3.20**	**3.22**	**3.03**	**2.84**	**2.90**	0.8	-8.0	-9.2
Austria	1.39	**1.24**	**1.29**	**1.25**	**1.22**	**1.20**	**1.07**	**0.98**	**1.01**	-10.6	0.7	-17.1
Finland	0.66	**0.69**	**0.69**	**0.65**	**0.65**	**0.57**	**0.51**	**0.45**	**0.45**	3.1	-4.9	-29.9
Portugal	0.48	**0.49**	**0.49**	**0.44**	**0.42**	**0.43**	**0.39**	**0.37**	**0.39**	2.1	-10.1	-7.3
Greece	0.27	0.36	**0.39**	**0.39**	**0.40**	**0.37**	**0.32**	**0.28**	**0.29**	30.5	8.5	-27.3
Slovenia	0.16	0.15	0.17	**0.19**	**0.19**	**0.18**	**0.17**	**0.15**	**0.16**	-8.9	28.9	-16.2
Slovakia	0.17	0.17	0.27	0.37	0.41	**0.39**	**0.37**	**0.39**	**0.40**	1.8	118.0	-2.2
Cyprus		0.07	0.07	0.06	**0.06**	**0.06**	**0.05**	**0.04**	**0.04**		-15.2	-27.2
Malta		0.05	0.04	0.04	**0.04**	**0.04**	**0.04**	**0.04**	**0.04**		-15.6	-4.1
Estonia	0.03	0.06	0.07	0.09	0.09	0.08	0.09	**0.10**	**0.10**	73.4	59.0	7.4

Source: Eurostat.
Note: Shares are calculated in nominal values. Bold figures refer to the years in which each specific country belongs to the euro area.

Table 1.5. Current Account Balance in % of GDP

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12			-0.4	-0.2	0.5	0.2	0.4	-0.8	0.2	0.5	0.7	2.0	3.0
Euro area 17			-0.5	-0.4	0.3	0.1	0.4	-0.7	0.3	0.6	0.8	2.1	3.0
Austria	-0.2	-0.3	**-1.7**	**-0.8**	**1.7**	**2.2**	**3.5**	**4.9**	**2.7**	**3.4**	**1.6**	**2.4**	**2.7**
Belgium	2.3	4.4	**5.1**	**3.4**	**3.4**	**2.0**	**1.9**	**-1.3**	**-0.6**	**1.9**	**-1.1**	**-1.9**	**-1.6**
Germany	4	-0.9	**-1.3**	**0.0**	**1.9**	**5.1**	**7.4**	**6.2**	**5.9**	**6.4**	**6.8**	**7.4**	**7.5**
Spain	-1.3	-1.1	**-2.9**	**-3.9**	**-3.5**	**-7.4**	**-10.0**	**-9.6**	**-4.8**	**-4.5**	**-3.7**	**-1.2**	**0.8**
Finland	-2.5	-1.3	**5.3**	**8.4**	**4.8**	**3.4**	**4.3**	**2.6**	**1.8**	**1.5**	**-1.5**	**-1.4**	**-1.1**
France	-1.7	0.8	**2.6**	**1.7**	**0.4**	**-0.5**	**-1.0**	**-1.7**	**-1.3**	**-1.3**	**-1.8**	**-2.2**	**-1.3**
Ireland	0.2	3.5	**0.2**	**-0.6**	**0.0**	**-3.5**	**-5.3**	**-5.6**	**-2.3**	**1.1**	**1.2**	**4.4**	**6.6**
Italy	-0.6	0.8	**1.0**	**0.3**	**-0.8**	**-0.9**	**-1.3**	**-2.9**	**-1.9**	**-3.4**	**-3.0**	**-0.3**	**1.0**
Luxembourg	14.8	12.7	**8.4**	**8.8**	**8.1**	**11.5**	**10.1**	**5.4**	**7.3**	**7.7**	**6.6**	**5.8**	**5.2**
Netherlands	2.8	4.1	**3.9**	**2.6**	**5.5**	**7.4**	**6.7**	**4.3**	**5.2**	**7.4**	**9.1**	**9.5**	**10.4**
Portugal	-7.9	0.4	**-8.7**	**-10.3**	**-6.4**	**-10.3**	**-10.1**	**-12.6**	**-10.9**	**-10.6**	**-7.0**	**-2.0**	**0.5**
Greece	-1.2	-0.7	-4.1	**-7.2**	**-6.5**	**-7.6**	**-14.6**	**-14.9**	**-11.2**	**-10.1**	**-9.9**	**-2.4**	**0.7**
Slovenia		2.2	-3.2	0.2	-0.8	-1.7	**-4.2**	**-5.4**	**-0.5**	**-0.1**	**0.4**	**3.3**	**6.3**
Slovakia		-4.1	-5.6	-8.3	-5.9	-8.5	-5.3	-6.2	**-2.6**	**-3.7**	**-3.8**	**2.2**	**2.1**
Cyprus			-1.7	-3.3	-2.3	-5.9	-11.7	**-15.6**	**-10.7**	**-9.8**	**-3.4**	**-6.9**	**-1.9**
Malta			-4.3	-5.2	-11.3	-10.0	-15.9	**-9.2**	**2.7**	**2.8**	**1.8**	**-1.8**	**-1.0**
Estonia		1.1	-3.1	-3.7	-3.0	-8.5	-6.2	-4.8	-8.9	-6.0	**-0.8**	**2.1**	**1.4**

Source: Eurostat, AMECO.
Note: Bold figures refer to the years in which each specific country belongs to the euro area.

Table 1.6. Contribution of Domestic Demand Components to GDP Growth

	1993-1998			1999-2007			2008-2013		
	Pvt Cons	Pub Cons	GFCF	Pvt Cons	Pub Cons	GFCF	Pvt Cons	Pub Cons	GFCF
Euro area 12	0.9	0.2	0.4	1.1	0.4	0.6	-0.1	0.2	-0.7
Euro area 17	1.2	0.3	0.7	1.1	0.4	0.6	-0.1	0.2	-0.7
Belgium	0.9	0.3	0.5	0.8	0.4	0.7	0.5	0.3	-0.3
Germany	0.7	0.3	0.1	0.5	0.1	0.2	0.6	0.3	0.0
Spain	1.1	0.4	0.6	2.3	0.9	1.6	-1.0	0.1	-2.0
France	0.8	0.2	0.3	1.4	0.4	0.8	0.3	0.4	-0.3
Greece	1.4	0.3	0.7	2.6	0.7	1.6	-3.3	-0.7	-2.8
Ireland	3	0.6	2.5	2.9	0.9	1.5	-0.6	-0.4	-2.1
Italy	0.8	-0.2	0.2	0.7	0.4	0.6	-0.8	-0.1	-1.0
Luxembourg	1.6	0.6	1.3	1	0.7	1.4	0.3	0.5	0.0
Netherlands	1.5	0.4	1	0.8	0.7	0.4	-0.4	0.3	-0.7
Portugal	1.6	0.5	1.4	1.4	0.4	0.1	-1.1	-0.3	-1.4
Austria	0.8	0.6	0.6	0.9	0.3	0.4	0.4	0.2	0.0
Finland	1.3	0.3	1.3	1.7	0.3	0.8	0.4	0.2	-0.3
Cyprus	5.3	0.5	-0.6	3.1	0.6	1.1	-1.4	0.0	-1.8
Malta	2.3	0.2	-1.9	1.8	0.4	0.8	0.8	0.7	-1.3
Slovakia	3.4	0.3	3.2	2.5	0.4	0.9	0.5	0.2	-0.6
Slovenia	3.3	0.7	2.7	1.9	0.6	2.1	-0.4	0.1	-2.0
Estonia	4	0.7	3.9	4.6	0.5	4.2	-0.9	0.2	-1.4

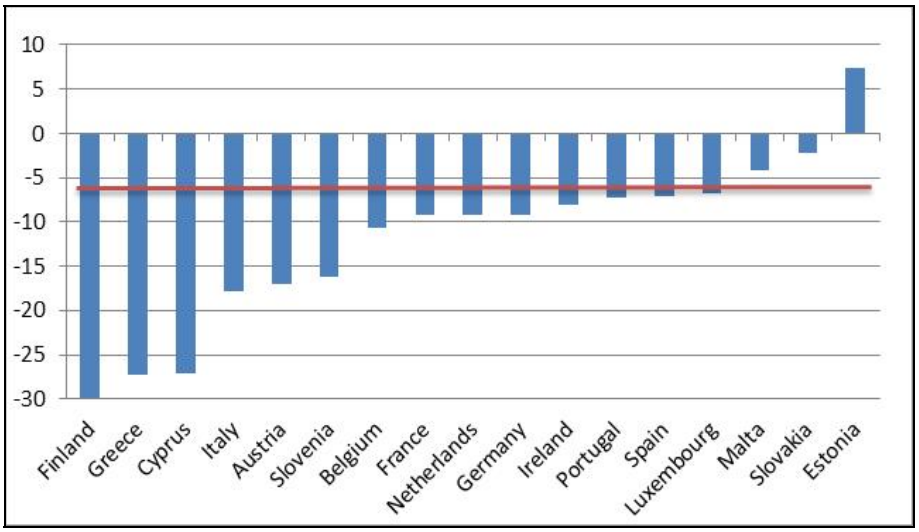
Source: Own elaboration on AMECO.

Table 1.7. Contribution of Trade Flows to GDP Growth

	1993-1998				1999-2007				2008-2013			
	Exp	Imp	Net Exp	GDP	Exp	Imp	Net Exp	GDP	Exp	Imp	Net Exp	GDP
Euro area 12	2	-1.6	0.3	1.8	2.1	-2	0.1	2.2	0.6	-0.1	0.5	-0.3
Euro area 17	2.3	-2.3	0.1	2.3	2.2	-2	0.1	2.3	0.7	-0.1	0.5	-0.3
Belgium	3.6	-3.3	0.3	2	3.4	-2.9	0.4	2.3	1.0	-1.0	0.0	0.4
Germany	1.4	-1.2	0.1	1.3	2.9	-2	0.9	1.7	1.2	-1.2	0.0	0.7
Spain	2.4	-2.1	0.3	2.4	1.4	-2.4	-1.0	3.7	0.7	1.2	1.9	-1.0
France	1.6	-1.2	0.4	1.7	1	-1.4	-0.3	2.2	0.2	-0.2	0.0	0.1
Greece	1.0	-1.6	-0.6	1.8	1.3	-2.1	-0.8	4.0	-0.5	3.0	2.5	-4.3
Ireland	11.9	-10	1.9	7.9	7.4	-6.1	1.3	6.6	1.5	1.1	2.7	-1.2
Italy	1.5	-0.8	0.7	1.4	0.9	-1.1	-0.1	1.5	-0.1	0.8	0.7	-1.5
Luxembourg	7.7	-7.3	0.4	3.9	12.4	-10.4	2.0	5.1	1.1	-2.2	-1.1	0.1
Netherlands	4.3	-4.1	0.2	3.2	3.9	-3.4	0.5	2.5	2.0	-1.4	0.6	-0.3
Portugal	2	-2.9	-0.8	2.7	1.4	-1.5	-0.1	1.8	0.8	0.8	1.6	-1.2
Austria	2.1	-1.7	0.4	2.3	3.5	-2.7	0.8	2.4	0.3	-0.1	0.1	0.6
Finland	3.7	-2.4	1.3	4.2	3	-2.3	0.7	3.5	-0.7	0.1	-0.5	-0.6
Cyprus	3	-3.3	-0.4	4.7	2.2	-3.1	-0.9	3.9	-0.9	2.4	1.5	-1.3
Malta	1.6	1.9	3.5	4.1	3.4	-3.8	-0.4	2.6	3.1	-1.5	1.6	1.5
Slovakia	4	-5	-1.1	5.5	8.2	-7	1.2	5	3.9	-1.6	2.3	1.8
Slovenia	3	-5.1	-2.2	4.1	5.1	-5.1	0	4.5	0.7	1.1	1.7	-1.3
Estonia	6.3	-9.6	-3.3	4.9	6.4	-8.6	-2.3	7.1	4.1	-2.2	1.9	-0.2

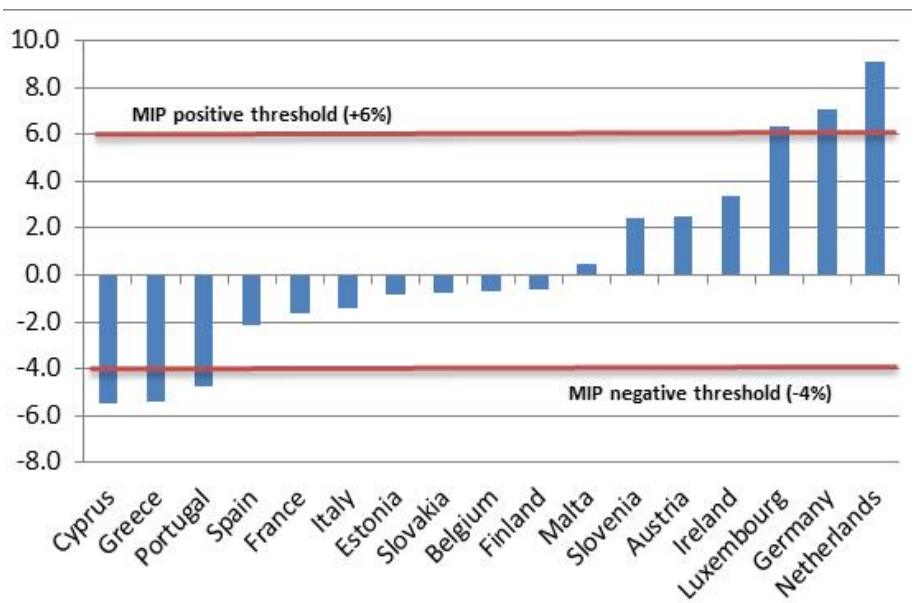
Source: Own elaboration on AMECO.

Figure 1.1. Percentage Change in Export Market Shares (2013 vs 2008)



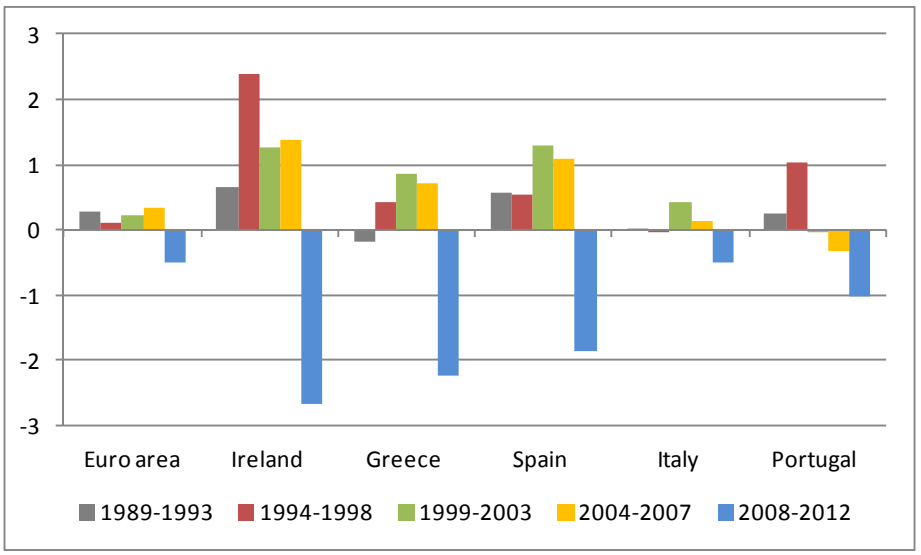
Source: Own elaboration on Eurostat data. Note: the horizontal line indicates the MIP threshold of -6%.

Figure 1.2. Current Account Balance in % of GDP (2010-2013 average)



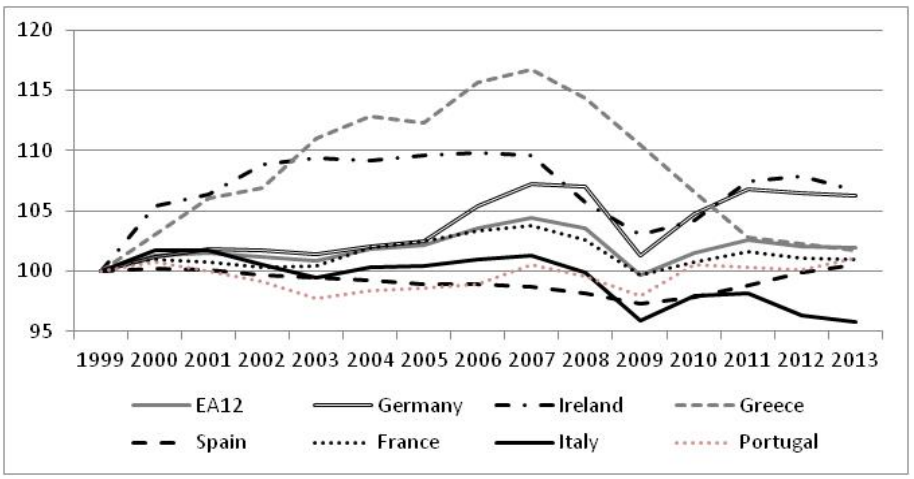
Source: Own elaboration on Eurostat data.

Figure 1.3. Average Contribution of Construction Investment to GDP Growth



Source: Own elaboration on AMECO.

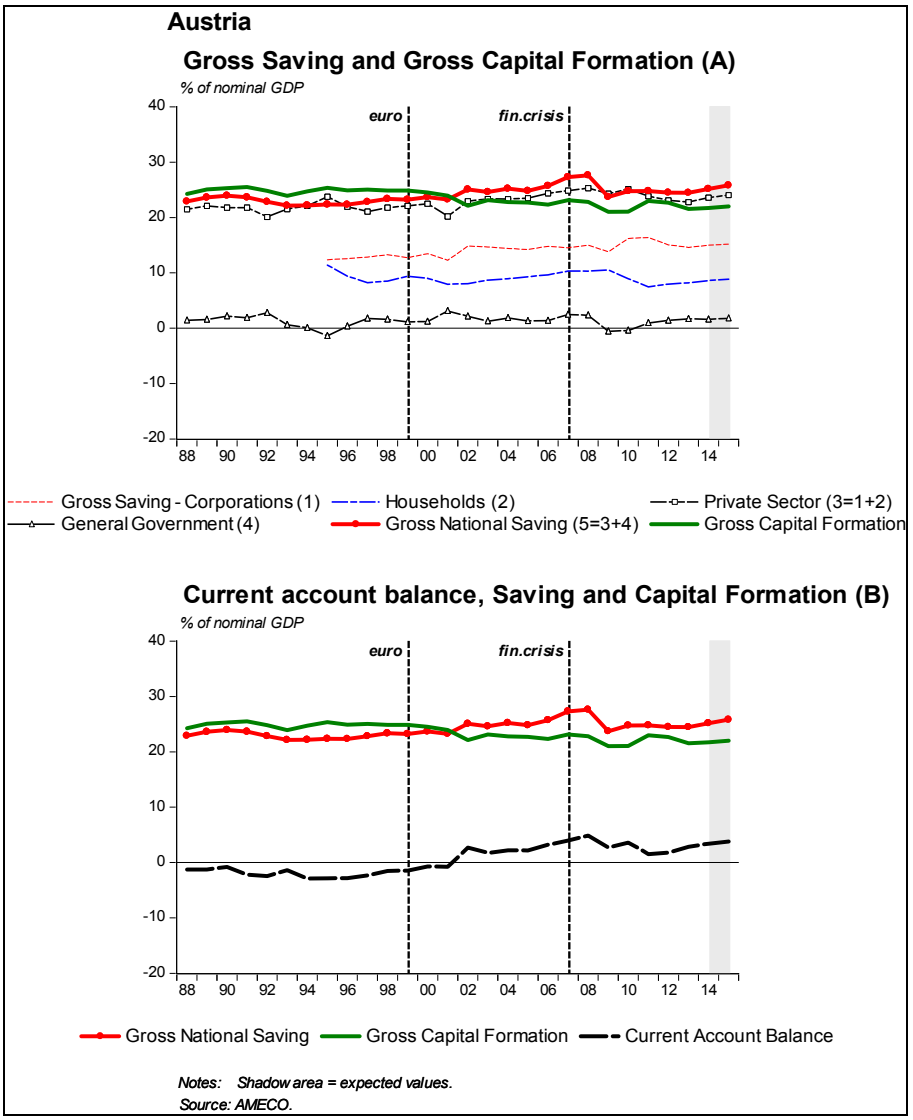
Figure 1.4. Index of Total Factor Productivity (TFP), 1999=100



Source: AMECO.

APPENDIX - STATISTICAL ANNEX

Figure A1



Notes: Shadow area = expected values.
Source: AMECO.

Figure A2

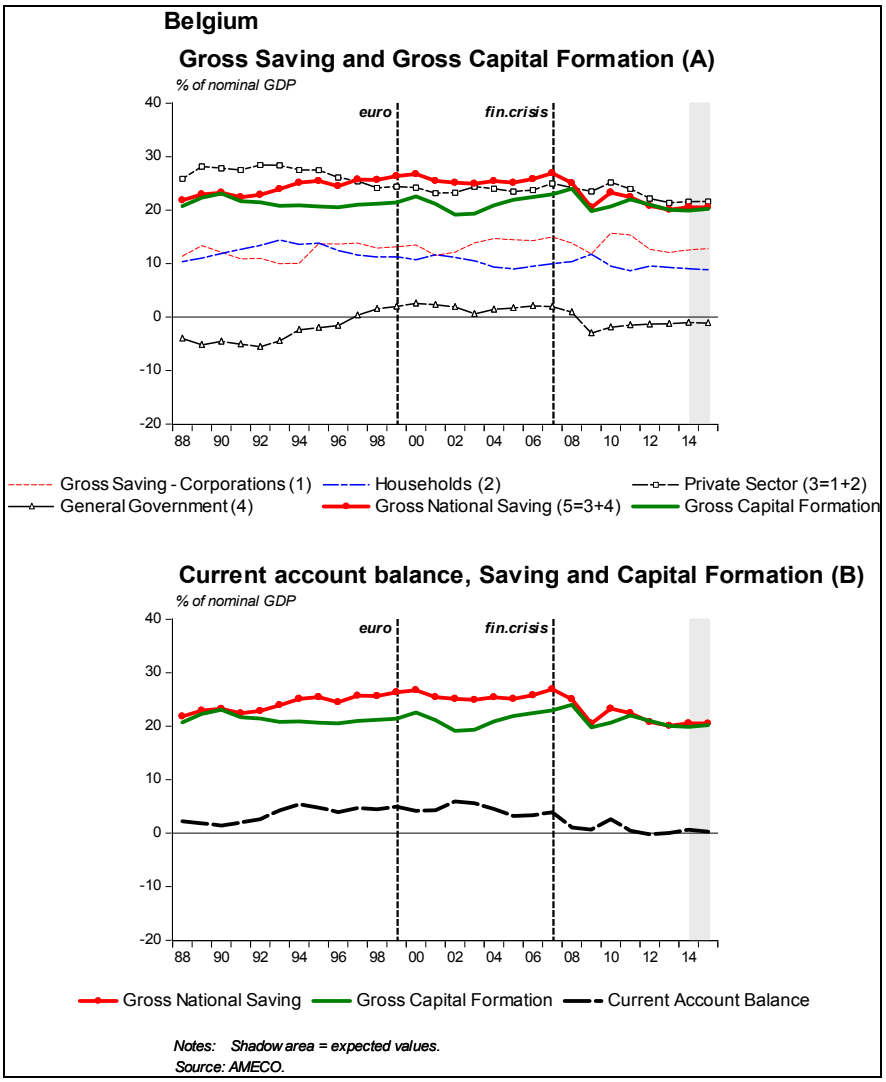
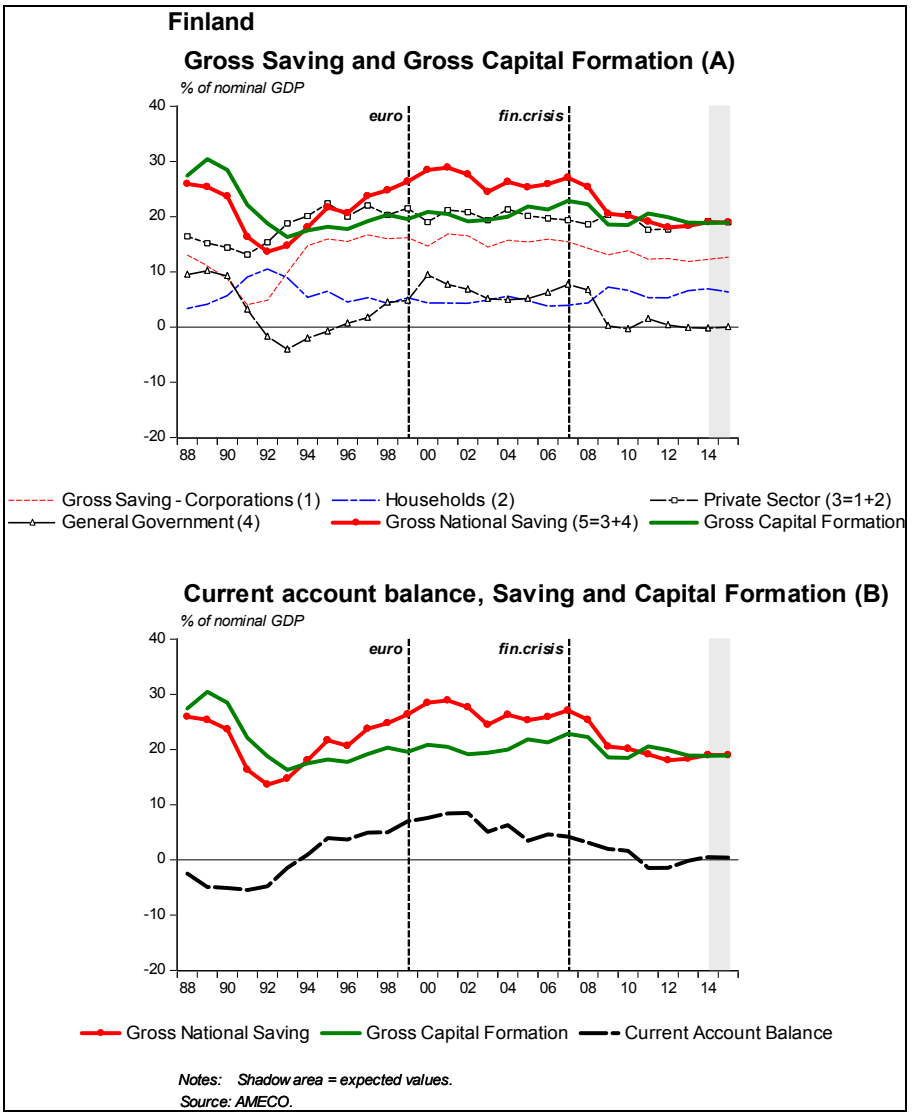
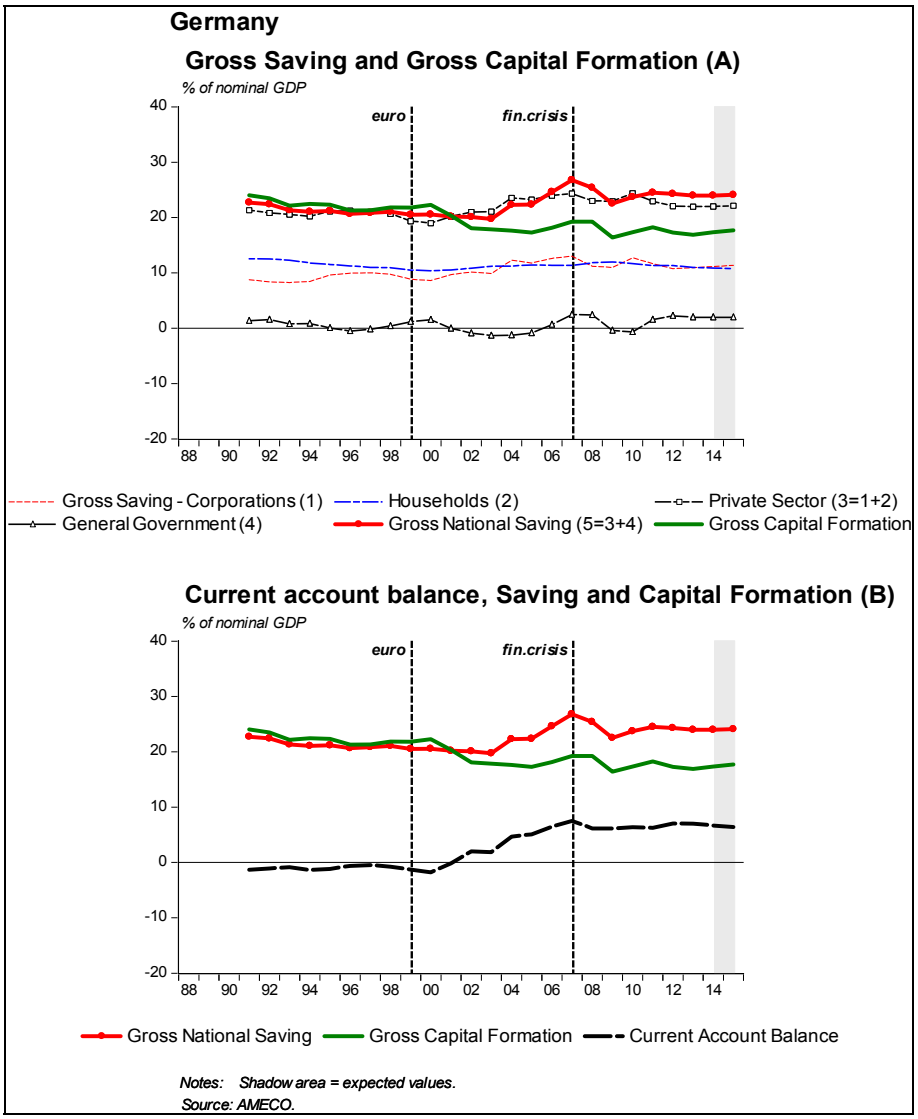

Belgium
Gross Saving and Gross Capital Formation (A)
% of nominal GDP
euro
fin.crisis
40
30
20
10
0
-10
-20
88 90 92 94 96 98 00 02 04 06 08 10 12 14
Gross Saving - Corporations (1)
Households (2)
Private Sector (3=1+2)
General Government (4)
Gross National Saving (5=3+4)
Gross Capital Formation
Current account balance, Saving and Capital Formation (B)
% of nominal GDP
euro
fin.crisis
40
30
20
10
0
-10
-20
88 90 92 94 96 98 00 02 04 06 08 10 12 14
Gross National Saving
Gross Capital Formation
Current Account Balance
Notes: Shadow area = expected values.
Source: AMECO.

Figure A3



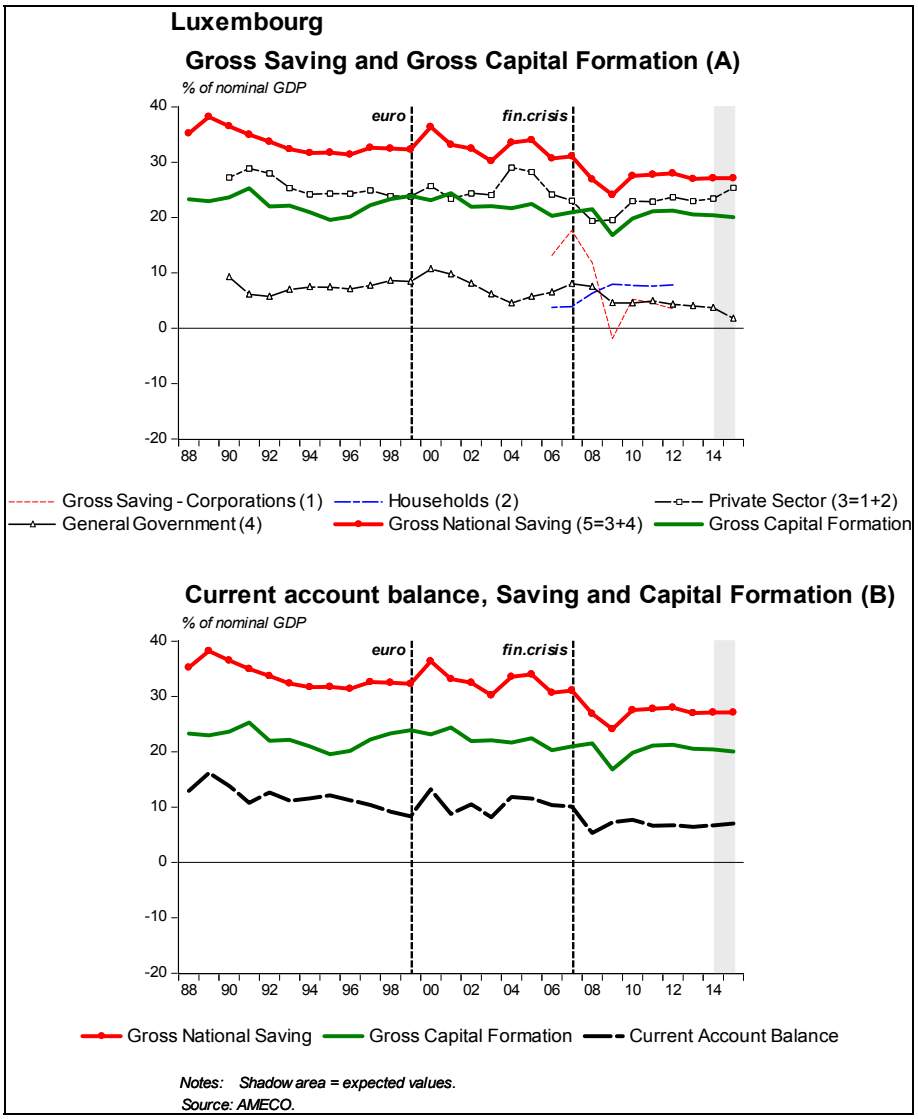
Notes: Shadow area = expected values.
Source: AMECO.

Figure A4



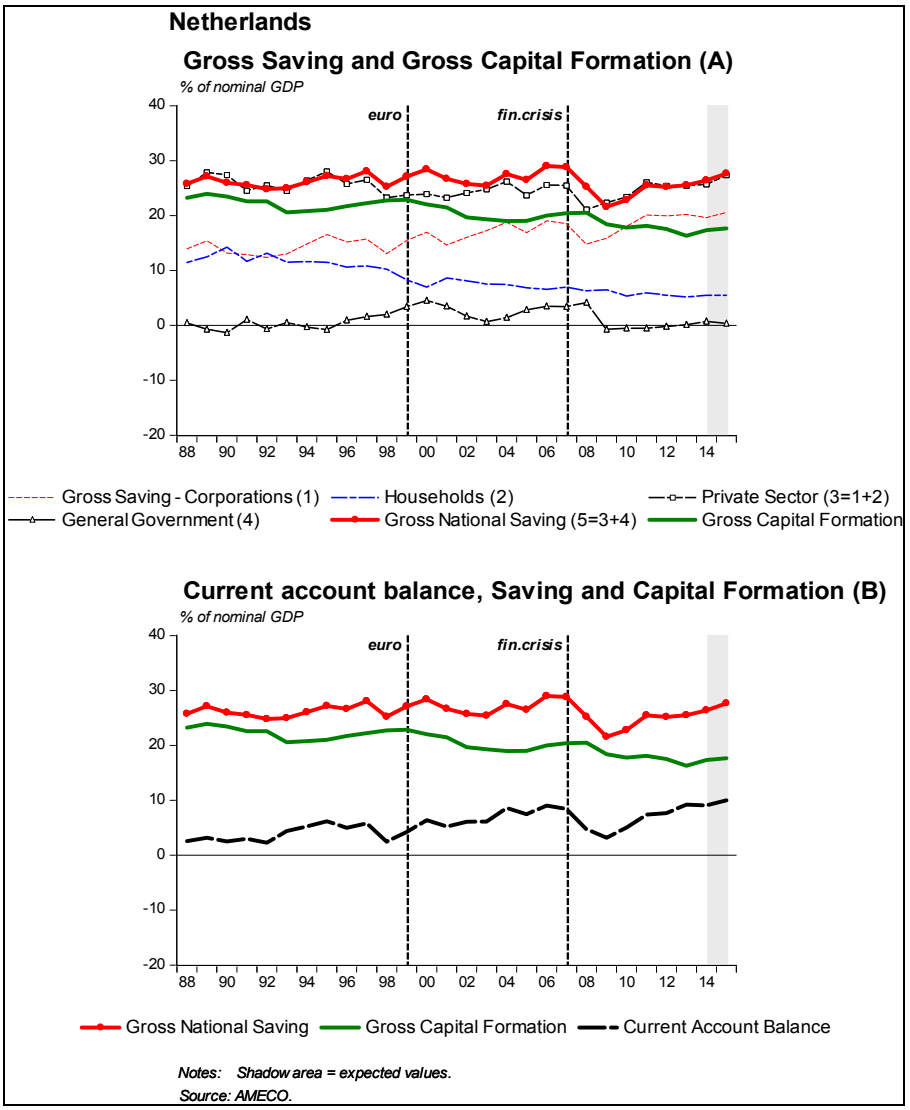
Notes: Shadow area = expected values.
Source: AMECO.

Figure A5



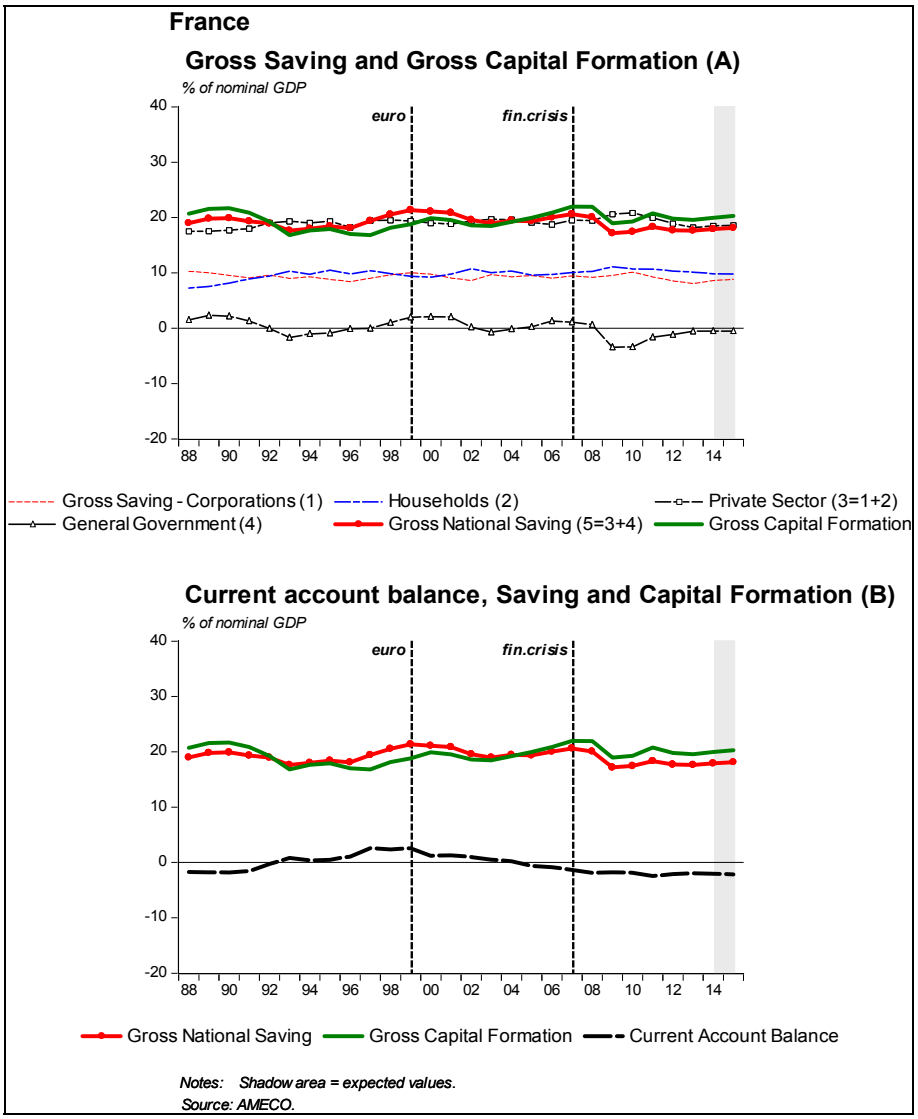
Notes: Shadow area = expected values.
Source: AMECO.

Figure A6



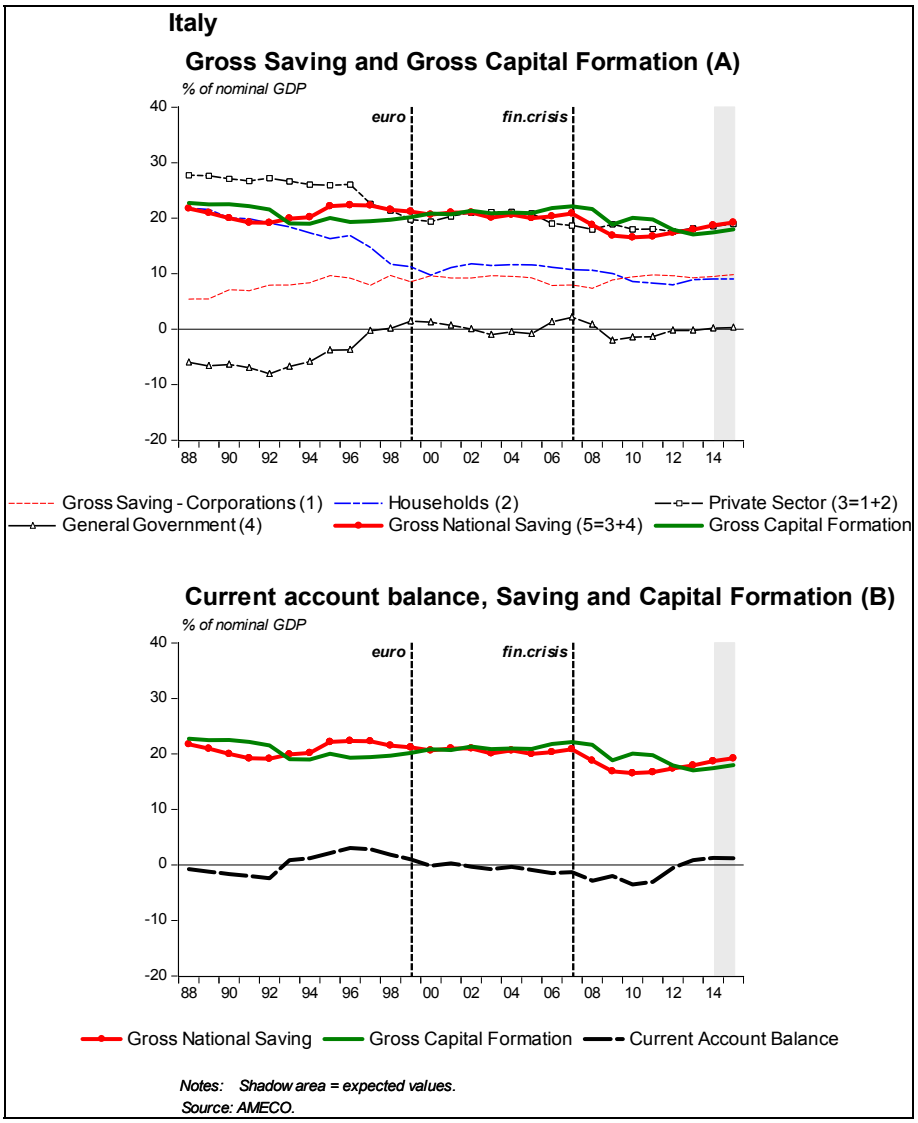
Notes: Shadow area = expected values.
Source: AMECO.

Figure A7



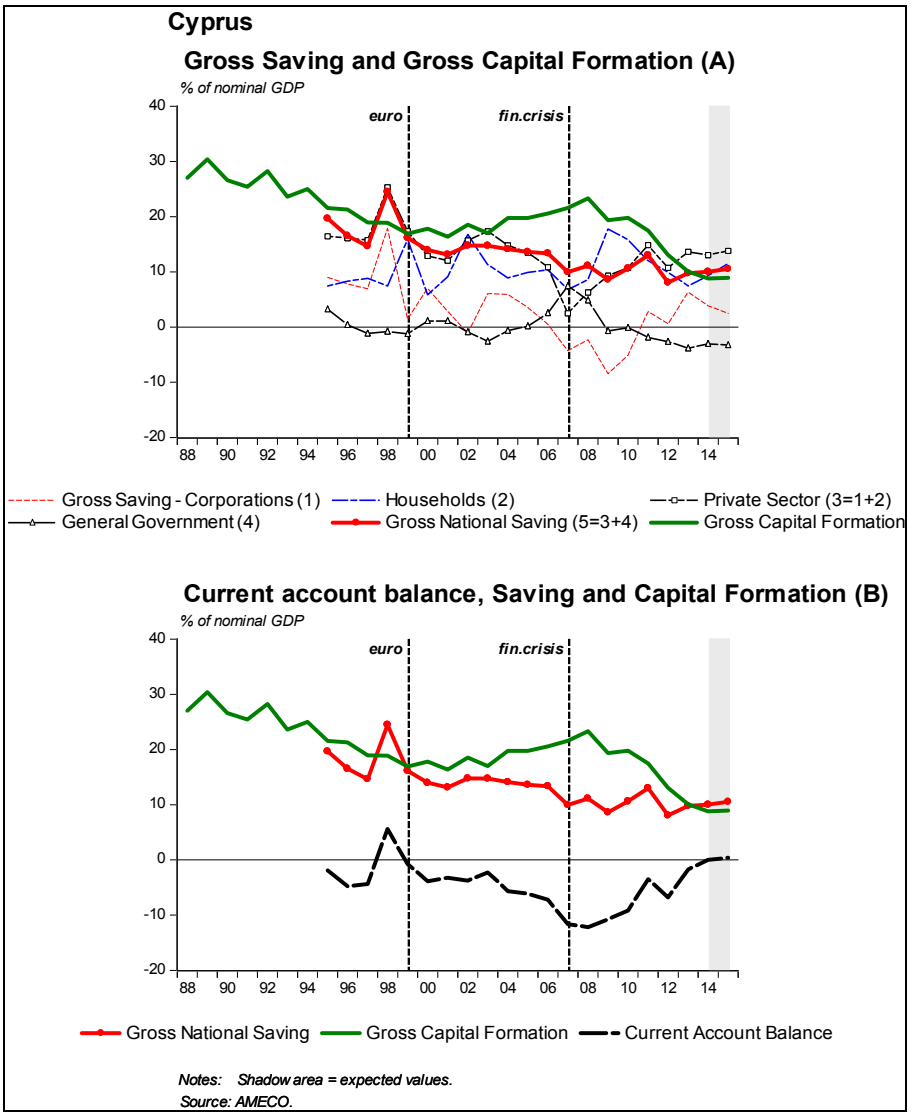
Notes: Shadow area = expected values.
Source: AMECO.

Figure A8



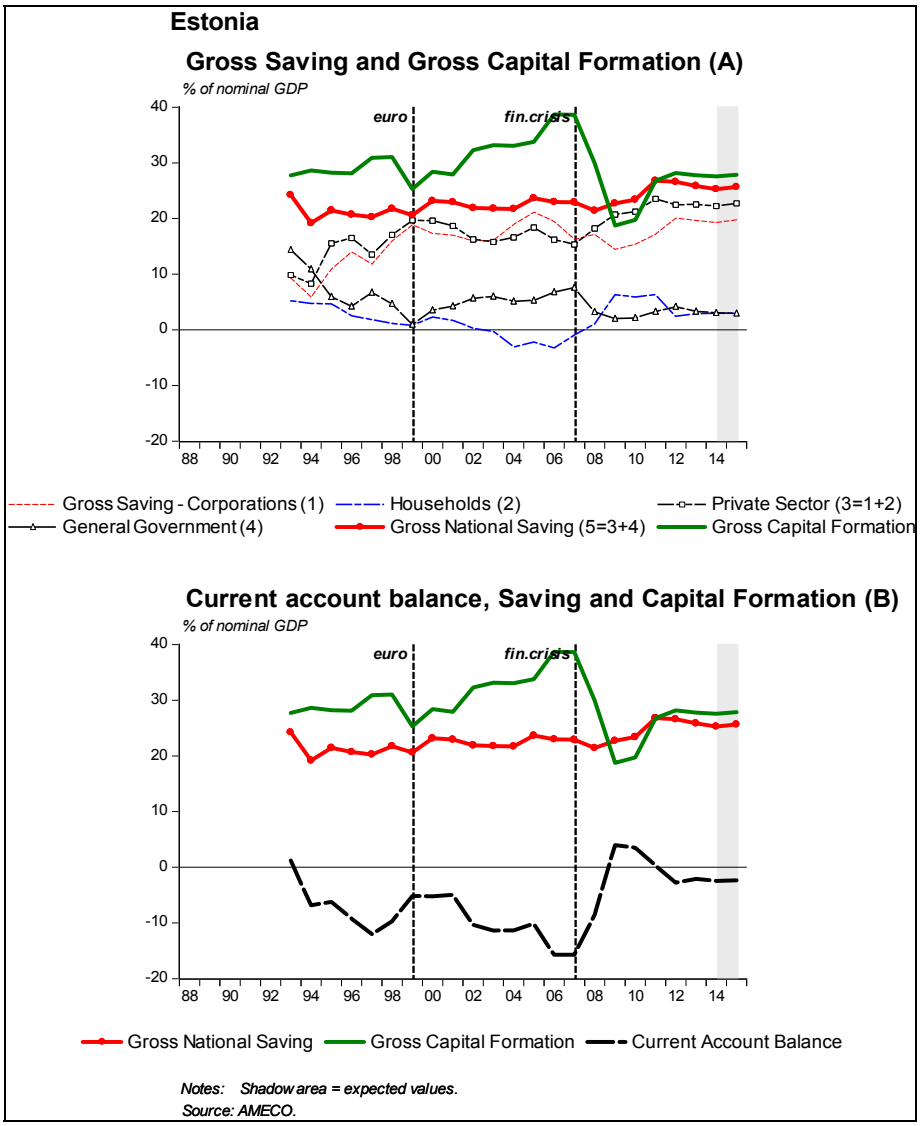
Notes: Shadow area = expected values.
Source: AMECO.

Figure A9



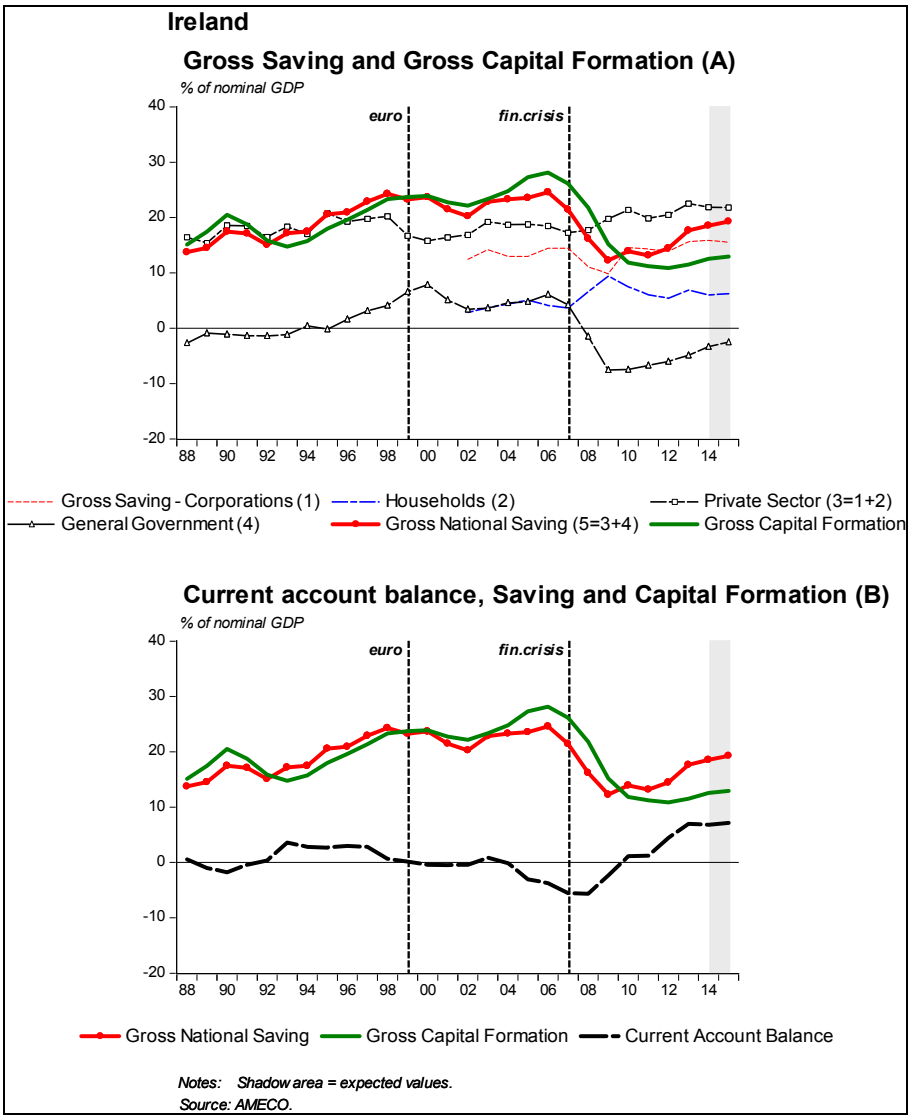
Notes: Shadow area = expected values.
Source: AMECO.

Figure A10



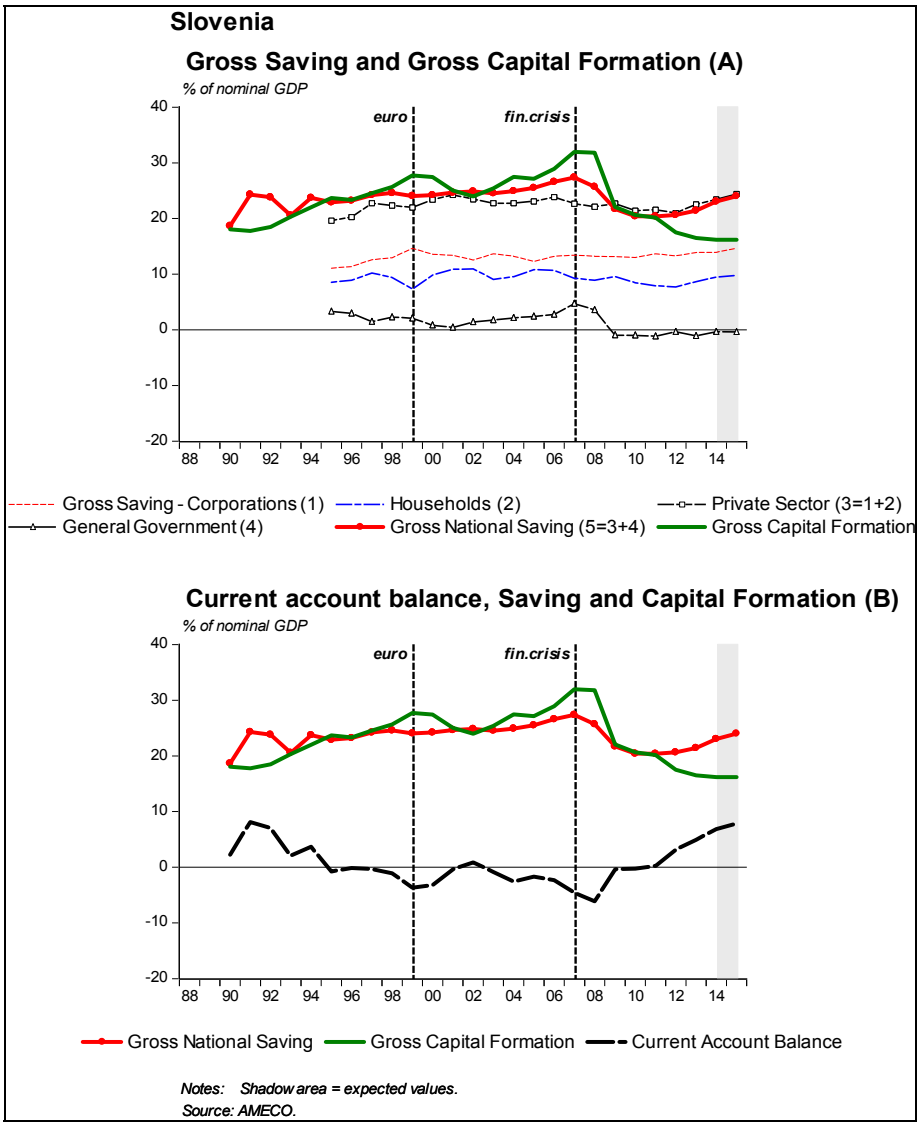
Notes: Shadow area = expected values.
Source: AMECO.

Figure A11



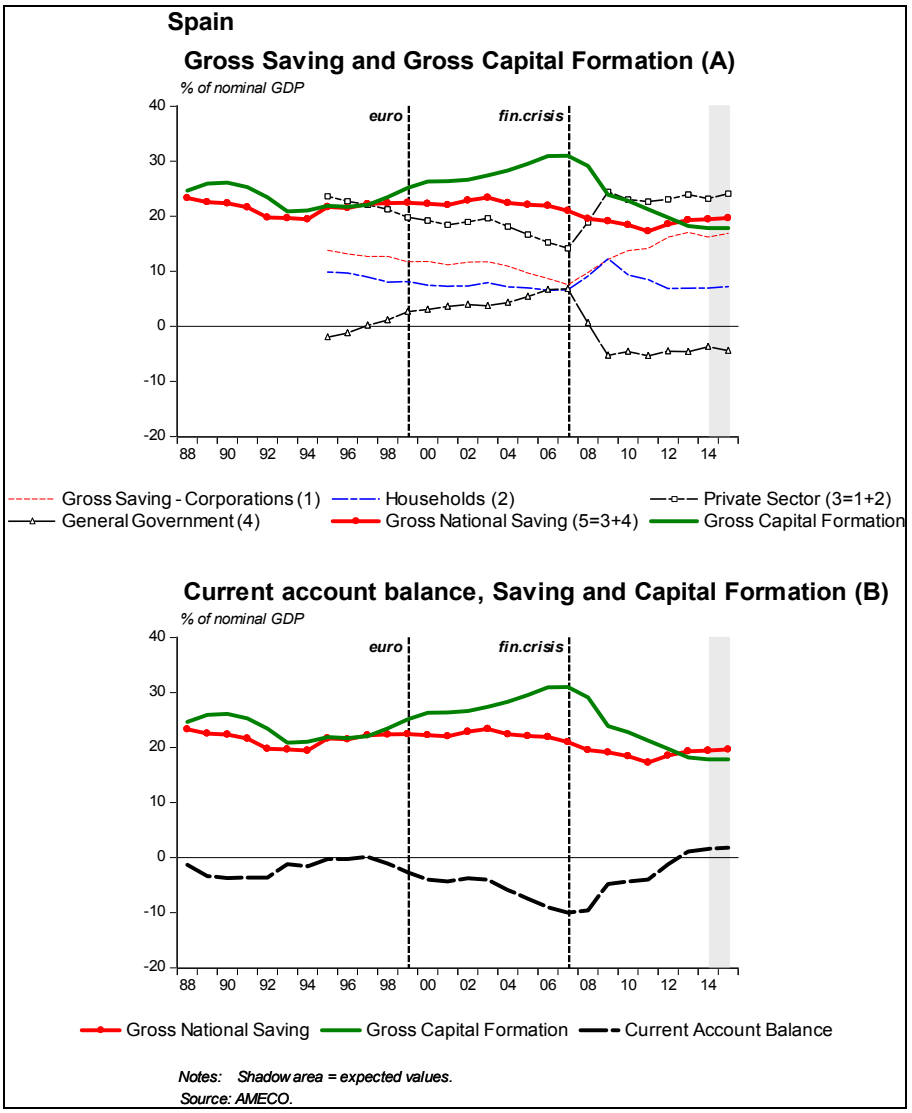
Notes: Shadow area = expected values.
Source: AMECO.

Figure A12



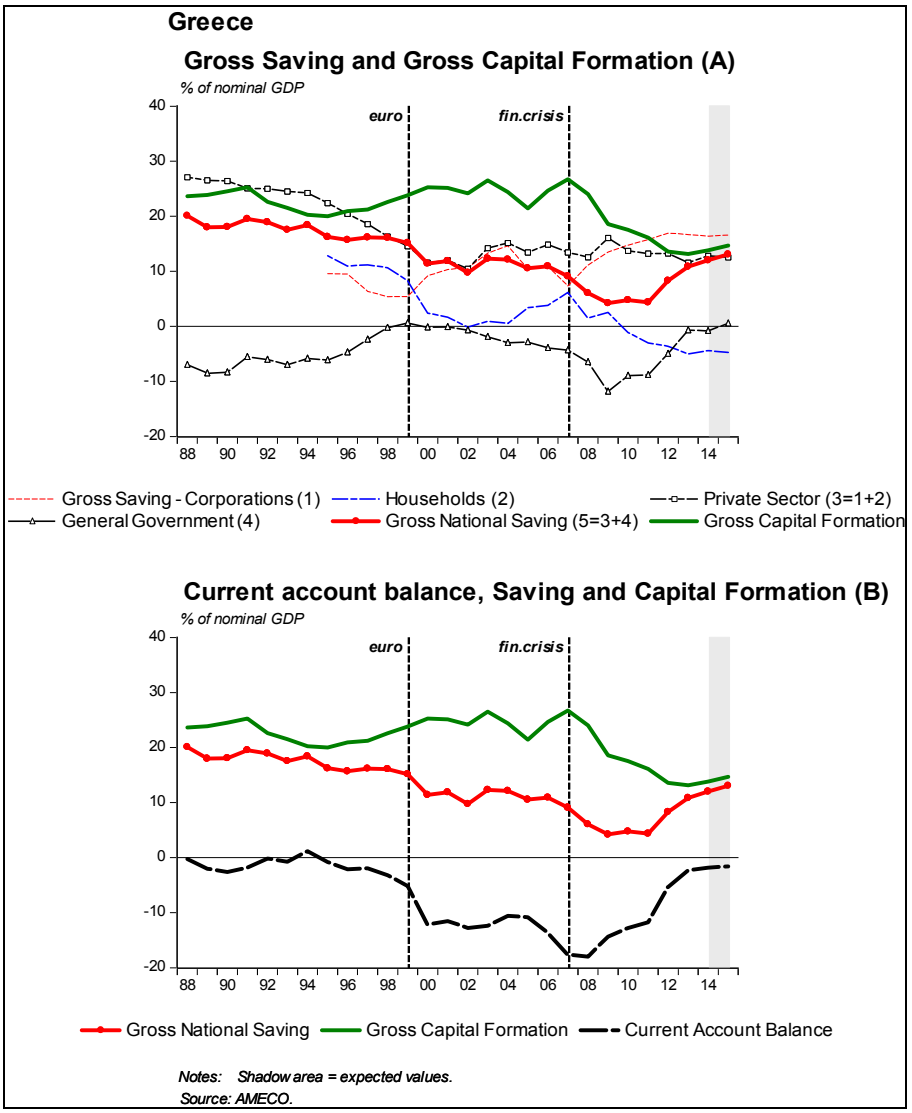
Notes: Shadow area = expected values.
Source: AMECO.

Figure A13



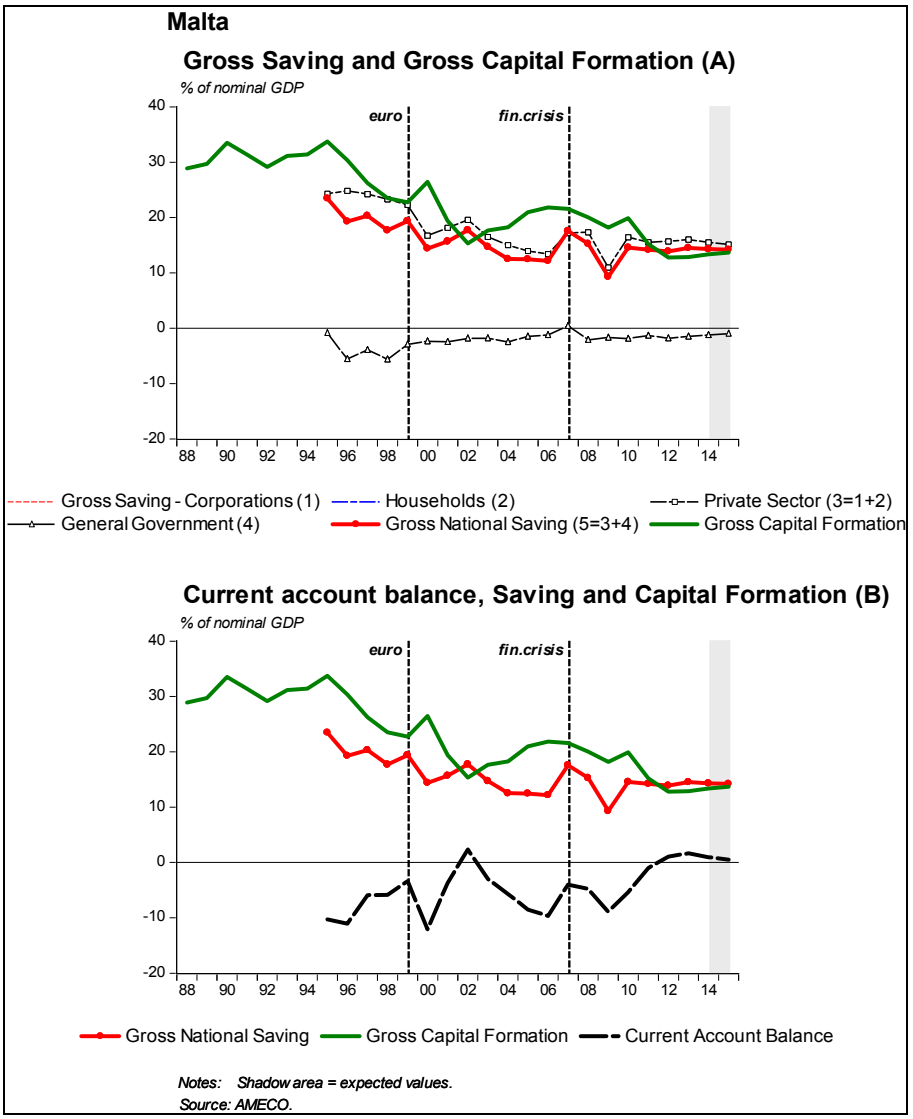
Notes: Shadow area = expected values.
Source: AMECO.

Figure A14



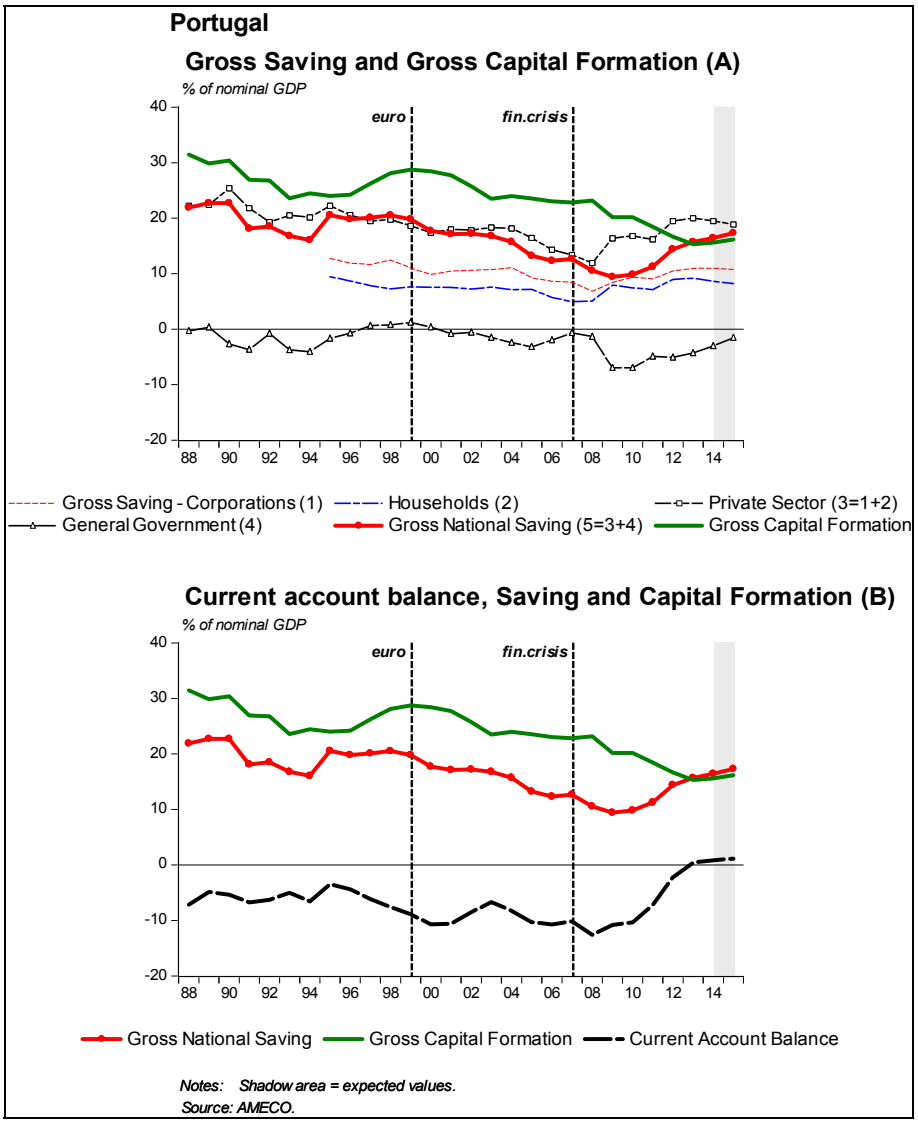
Notes: Shadow area = expected values.
Source: AMECO.

Figure A15



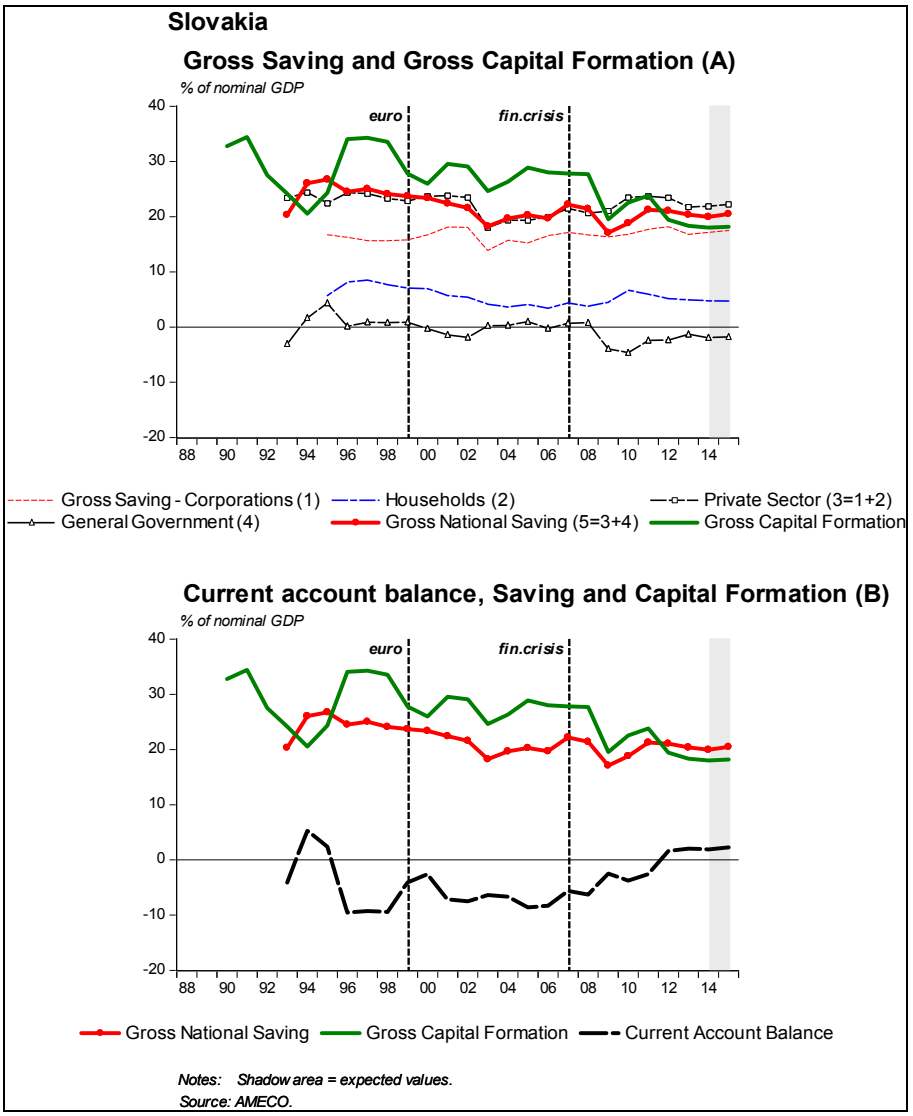
Notes: Shadow area = expected values.
Source: AMECO.

Figure A16



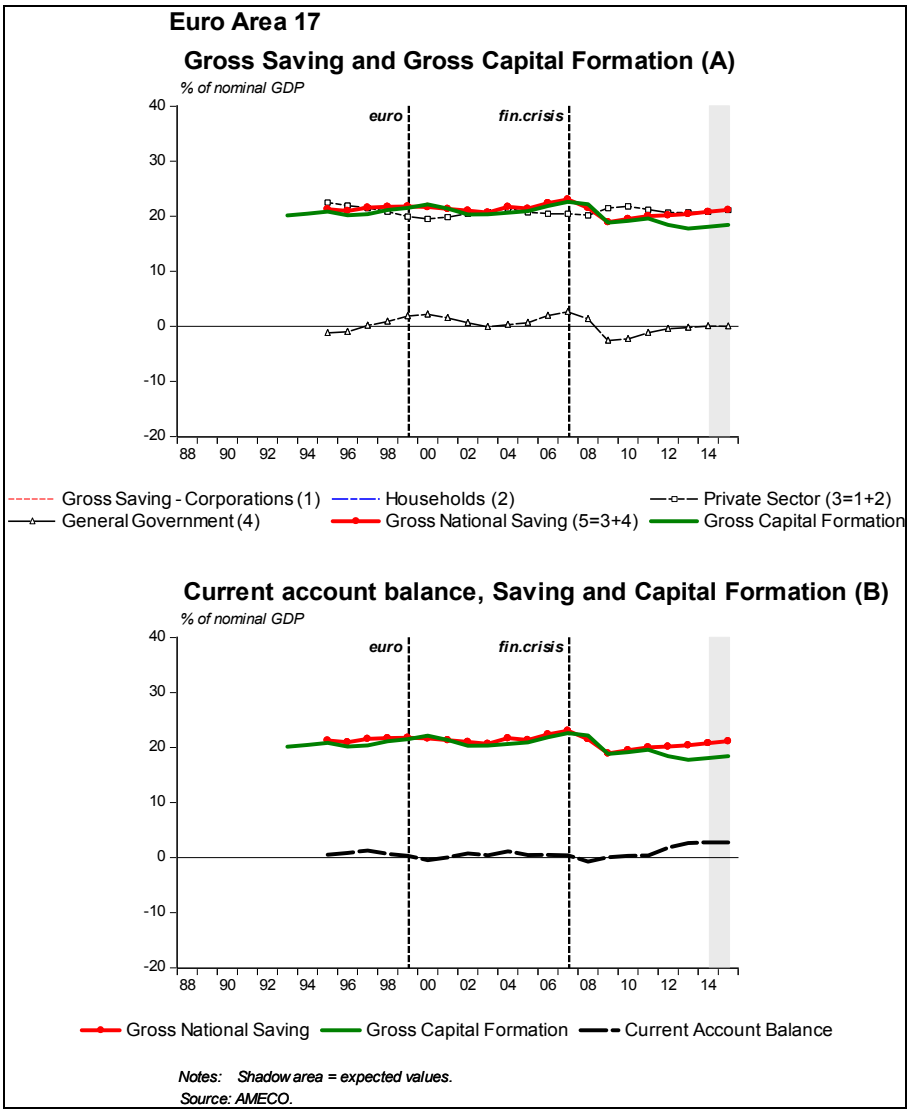
Notes: Shadow area = expected values.
Source: AMECO.

Figure A17



Notes: Shadow area = expected values.
Source: AMECO.

Figure A18


Euro Area 17
Gross Saving and Gross Capital Formation (A)
% of nominal GDP
euro
fin.crisis
40
30
20
10
0
-10
-20
88 90 92 94 96 98 00 02 04 06 08 10 12 14
Gross Saving - Corporations (1)
Households (2)
Private Sector (3=1+2)
General Government (4)
Gross National Saving (5=3+4)
Gross Capital Formation
Current account balance, Saving and Capital Formation (B)
% of nominal GDP
euro
fin.crisis
40
30
20
10
0
-10
-20
88 90 92 94 96 98 00 02 04 06 08 10 12 14
Gross National Saving
Gross Capital Formation
Current Account Balance
Notes: Shadow area = expected values.
Source: AMECO.

2.

The Capital and Financial Account Imbalances

2.1 INTRODUCTION

There has been a synchrony between the worsening of the current account imbalances of many peripheral Member States (Greece, Ireland, Portugal, and Spain) and the predominant and fulfilled expectations of the imminent introduction of the single currency. This synchrony has been fuelled by the impact of the euro on the peculiar "catching up" processes set up in the area. During the first eight years of the euro the majority of peripheral countries showed higher rates of growth with respect to the rest of the area (see Figure 2.1). These differences can be explained by at least two factors: the large financial flows from the centre to the periphery of the area and the consequent convergence of the national interest rates to the German benchmark (see Figure 2.2); the dramatic increases of speculative or short-term investments (mainly in the real estate and construction sectors) in Spain and Ireland, and the rise of consumption in Portugal and Greece. Hence, as Section 1.5 has shown, growth in many peripheral countries between 1999 and 2007 was mainly driven by a recurrent positive excess of demand or equivalently by increases in their output gaps (see Figure 2.3).

This evidence does not perfectly fit with the standard theoretical models, according to which the construction of a monetary area fosters the "catching up" processes of the late-comers creating current account imbalances in the short-term which should be reabsorbed in the medium-term by the efficient working of the markets (e.g. Blanchard and Giavazzi 2002; see also Chapter 3). As the first chapter has shown and highlighted using the previous few data, the "catching up" processes can reproduce

imbalances in the medium-term. This failure in the convergence process is due to various determinants. However, a relevant explanation is that adjustment of a few macroeconomic indicators does not imply an increased competitiveness of the late-comers. This is particularly evident if a higher GDP growth in the late-comers is not sustained by a significant improvement in their different measures of productivity.

Despite the criticism raised by Gros (2012; see also Chapter 3), our analysis maintains that the latter case applies to the peripheral Member States in the euro area until the arrival of the European banking and sovereign debt crises. GDP growth in Spain, Ireland, Portugal and Greece was mainly driven by investments in the real estate and construction sector and/or by private consumption. These investments, whose weight in the four countries under examination was far above the euro area average (see Figure 2.4), were often based on short-term speculative perspectives and financed by foreign capital flows. The fast increase of private consumption was relying on imports, largely contributing to the deterioration of the current account balance of these same countries and hence increasing their financial debts. As a consequence, the four peripheral countries also absorbed a large amount of financial flows from the central Member States. On the other hand, these countries have not been able to attract a large amount of net foreign direct investments (FDI). Hence, it is not surprising that the catching up processes of these peripheral countries in the European Economic and Monetary Union (EMU) did not improve their macroeconomic fundamentals relative to those of central countries in the same area.

The international financial crisis of 2007-2009 caused an explosion of disequilibria, generating risks for the stability of the global economic system and worsening the imbalances and asymmetries inside the euro area. Then, after a partial recovery in the last quarter of 2009 and in the first half of 2010, EMU was characterised by the explosion of the sovereign debt and banking crises. These crises were determined and, at the same time, were strengthened by an inversion in the direction of the financial flows inside the euro area: the financial intermediaries and the private wealth holders of the central countries cut their transfers towards the European peripheral economic systems, and at the same time as the financial intermediaries and the private wealth holders of the pe-

ripheral countries increased their financial investments in the central economic systems. Hence, the private financial investments suddenly stopped compensating for the current account imbalances within the euro area. These imbalances thus became unbearable. European institutions reacted by placing Greece, Ireland and Portugal under severe austerity measures. The result of these policies was to push the three countries into a deep depression without avoiding the contagion to Italy and Spain (since May 2011). The consequent worsening of the European crisis led to a severe recession in the whole euro area, which stopped just in the second term of 2013 and was still under way for a few of peripheral countries (in particular, Italy) at the beginning of 2014 of 2014.

In this chapter we describe the process which inverted the direction of net financial flows inside the euro area. Special attention is devoted to the capital account (KA), which records capital transfers, and to the financial account (FA), which embraces transactions in financial assets. The chapter is organised as follows. In Section 2.2 we describe the evolution of the KA balance and of the FA balance in the EMU's Member States. Then, in Section 2.3, we analyse the different components of the FA which have the main impact on the balance of payments of different European countries. This leads us to analyse, in Section 2.4, the net international investment position (NIIP). Finally, Section 2.5 concludes.

2.2 CAPITAL AND FINANCIAL ACCOUNTS

The capital account includes two main categories (IMF 1993):

1) capital transfers, which consist of capital repatriation/ expatriation and public/private unilateral transfers of capital, such as those from the EU budget;
2) acquisition or disposal of non-produced, nonfinancial assets, i.e., those transactions associated with tangible assets that may be used or are necessary for production of goods and services but are not actually produced (e.g., land), and transactions associated with non-produced, intangible assets (e.g., patents, copyrights, trademarks, franchises).

These categories are of minor importance in the European setting. In fact, as shown in Table 2.1, net capital account balances have been negligible for the large majority of the countries which belong to the oldest circle of the EMU. In the first stage of the euro (before the beginning of the financial crisis), the only exceptions were the surpluses of Luxembourg, the Netherlands, and – for few years – Belgium. Moreover, since 2007 the net capital account surpluses were ranging between 1% and 2% of GDP for Portugal and Greece and reached a deficit of -1.3 % of GDP – but just in 2012 – for Ireland. Among the NMS, Slovakia, Malta and Estonia recorded important inflows. The Baltic state in particular, due to its deep recession during the global financial crisis, received important inflows of capital with a peak of 4.1% of GDP in 2011.

On the other side, the financial account records the amount of net financial assets (bonds, loans, equities and other debt instruments) that the residents have bought from the rest of the world. By definition, there is a net accumulation of foreign assets (liabilities) when the sum of current and capital account is in surplus (deficit). The financial account can be written as:[1]

$$CA + KA + FA = 0 \qquad (10)$$

Unfortunately, the lack of data does not allow a complete analysis of the positions at country and aggregate level in the pre-euro decade. What is clear is that the overall balance for the euro area had been close to zero since the end of the Nineties to the peak of the European crisis, while it became substantially negative in the last two years here analysed (2012 and 2013) due to the current account surplus and the negligible impact of the capital account of this same area. At the opposite, single countries' positions show again relevant differences representing the mirror image of their specific current account positions (Table 2.2).

Germany, Luxembourg and the Netherlands showed increasing or very

[1] In practice, however, the accounts frequently do not balance due to the bias in the estimates of the different items of the balance of payments derived from heterogeneous sources. In order to equalise the balance of payments, net errors and omissions are included in the accounts.

high deficits in their financial account balances between 1999 and 2007, as a result of loans and the financial investments that these countries carried out into southern European markets.[2] After severe reductions during the international financial crisis, the deficits in the financial accounts balance of these same countries again to be very high until 2013 (Germany and the Netherlands) or until 2011 (Luxembourg). It must also be noted that, during the international financial crisis, Austria recorded a dramatic increase in the deficits of its financial account balance, which went down since 2010. In addition, as reported by the European Commission (2012a), during the whole period Germany played the role of euro area door for investment flows coming from outside the area.

Southern European countries systematically increased their demand for foreign financial investments in order to finance public and trade deficits, since 1999 to 2007 (Spain) or 2008 (Greece, Ireland, and Portugal);[3] at the same time, these foreign financial investments were stimulated by the lack of devaluation risks and by the downward convergence of interest rates after the euro introduction. In the case of Greece, Portugal, and Spain the surpluses in the financial account balances remained high but decreasing from 2009 to 2011; in the case of Ireland instead, the dynamics of this balance became more erratic during the same period. In any case, all these peripheral countries turned to deficits their financial account balances in the last two years (Ireland and Portugal) or in the last year (Spain and Greece) here analysed.[4]

For other countries, like Italy and France, surpluses in the financial account balance had been moderate during the first decade of the euro, but in Italy they increased up to 5.5% of GDP during the European crisis, because of both the public debt increase and the higher long-term inter-

[2] The capital outflows from North to South Europe also involved the northern banks' large purchase of government bonds issued by peripheral Member States. This was also a consequence of Basel II regulation. According to the latter, government bonds of investment grade (such as those issued in the euro area) have zero capital requirements (see Abad et al. 2013).

[3] It must be noted that Portugal recorded a high surplus already in 1999.

[4] In the view of Gros (2012), the expansion in domestic demand financed by the capital inflows mainly explains why southern euro area countries were able to reproduce their lack of competitiveness towards northern countries.

est rates. Between 2011 and 2013, Italy's balance fell rapidly below zero as result of the country's deep recession. At the opposite, France's balance increased until 3.7% of GDP in 2012 and remained slightly positive in 2013. Finally, Finland started to have surpluses in its financial account balance during the international financial crisis; then, these surpluses increased up to 8.8% of GDP at the peak of the European crisis but became negative in the last year here analysed (2013).

The conclusion is that the European crisis determined a dramatic decrease in the financial transfers from the central to the peripheral Member States of the EMU. The former did not cancel the significant deficits in their financial accounts, due to the need to compensate their current accounts surpluses towards the rest of the world; the latter had to re-equilibrate their current account balances due to the impossibility to reproduce the previous surpluses in their financial balances. These new unstable equilibria could have had negative effects for structurally creditors countries, due to the higher risks which characterised the international markets with respect to the European internal market; and they certainly had recessionary impacts on the structural debtors countries which have been forced to adjust their current account disequilibria in the short run. These effects have been partially buffered by the TARGET2 payment system.[5] However, as pointed out by Abad et al. (2012), the shock-absorption function of TARGET2 allows to postpone, but can't eliminate, the necessity of reforms useful to structurally adjust current account imbalances in the euro area.

2.3 THE COMPONENTS OF THE FINANCIAL ACCOUNT

The financial account (as part of the balance of payments) is divided into FDI,[6] portfolio investment, other investment, net flows of derivatives and changes in the amount of official reserves.

[5] TARGET2 (Trans-European Automated Real-time Gross settlement Express Transfer system) is the real-time interbank payment system of cross-border transfers throughout the European Union.

[6] FDI denotes the foreign direct investments, that is those investments which reach at least the 10% of the shares of a given foreign company.

The FDI balance, as Table 2.3 shows, was negative until the explosion of the international financial and "real" crises (2008) for the whole euro area as is typical for its position in terms of economic development. This is confirmed by the fact that most of the EMU countries recorded negative balances, denoting that they invested more abroad than other countries invested in their economies. This pattern was widespread in the group of twelve original euro countries (Greece included), with the partial exception of Portugal, Greece, Finland, and Belgium. Among the main countries, France had deficits which reached the peaks of -5.5% and -3.2% (in 1999 and 2008, respectively) and Germany's correspondent peaks have been of -2.5% and -2.7% (in 1999 and 2007, respectively). Similar values were recorded by Italy in 2007 and 2008 (-2.5% and -3.4%, respectively); however it must be noted that, differently from France and Germany, Italy was typically characterized by a poor attractiveness of direct investment from abroad. Smaller countries (such as the Netherlands and Ireland) followed more erratic paths, whereas Luxembourg recorded the highest deficits (with a peak of -146% in 2007) due to its financial power.

The FDI balance of the euro area reduced dramatically its deficits after 2008, and reached the equilibrium in 2012 and 2013. This was certainly due to the entry of the NMS which are highly dependent on FDI, and hence recorded structural and significant surpluses (with the partial exception of Slovenia). In particular, FDI's surpluses represented the major component of the financial account balance for Cyprus and Malta. However, in the last five years even the large majority of the older Member States of the euro area either recorded surpluses or reduced their deficits. Luxembourg, Belgium, Ireland and Portugal had surpluses in four out of five years. The low rate of corporation tax played a key role for Luxembourg and Ireland: the FDI balance surpluses of the former reached peaks just below 74% in 2012 and above 66% in 2011, those of the latter reached a peak of 10.9% in 2011. Similarly, Belgium showed two peaks above 11% in 2010 and 2011 while Portugal recorded a peak of 4.4% in 2010. Greece and Spain reported slight surpluses after the peak of the international crisis and again during the last two years. France, which kept important deficits since 2009 to 2012, recorded a surplus in 2013 (0.3%). Finally, Germany and Italy reduced their

deficits (respectively to -0.8% and -0.7% in 2013). The other euro area countries, which recorded systematic deficits in the FDI balance during the last five years, were Austria and Finland.

These trends confirm that the European peripheral Member States were unable to attract a sufficient net positive amount of FDI from the rest of the euro area when they had growth rates above the average and would have had to implement a catching up process in terms of structural competitiveness. At the opposite, they started to have positive FDI's balances when they had to face a deep financial and "real" crisis and their economies were in recession.

The portfolio investment balance includes those foreign investments in equity, which are below the 10% of the shares of a given foreign company and thus cannot be classified as direct investments (see Table 2.6), as well as foreign investments in debt securities. In the euro area this balance has recorded systematic surpluses with the exception of 2001 (Table 2.4). In particular, in this area net inflows reached a peak at the start (3.8% in 1999) and approximated this peak during the worst phase of the European crises (3.4% in 2011) and during the international crisis (2.7% in 2008 and 2009). Then, in the two most recent years these surpluses have fallen almost to zero. In order to better interpret this dynamics, it is necessary to refer to the specific countries.

Leaving aside the year 2009, Luxembourg represented the main European attractor of portfolio investments; this was largely due to its fiscal incentives. Also France, Greece and Portugal obtained surpluses in their portfolio investment balances for various years; however, France recorded deficits in the first period of the euro life (from 1999 to 2005), whereas Greece's and Portugal's positive balances were affected by the sudden reversion of net flows after 2010. The Greek and Portuguese evolution, which was partially followed also by Spain (2011 and 2012) and Italy (2010 and 2011), was probably due to the sovereign debt problem and the related speculative attacks against all southern European countries. The other traditional peripheral country (that is Ireland) paid instead for the bursting of the ICT bubble and of the beginning of the international crisis. However it remains true that, after having recorded important surpluses in its portfolio investment balances between 2009 and 2011 (with a peak of more than 54% in 2010), Ire-

land suffered deficits in the last two years here analysed. Finally, the position of NMS was mainly affected by the troubles of Cyprus (2008-2010) and Malta (2009-today), while the portfolio investment net balances of Slovakia were not so high (but for the important surpluses in the last two years) and those of Slovenia were largely positive (with peaks of 13.1% and 10% in 2009 and 2013, respectively).

Other investments include trade credits, loans, currency transfers and deposits, loans from the IMF, and so on. Table 2.5 displays that, at the starting of the euro area (in 1999), the European countries showed small imbalances with respect to these instruments, with the only exceptions of Portugal, Austria and Spain which were characterised by significant surpluses. In the following years, Spain increased its surplus in other investment balances until 2008 (with a peak of almost 10%) and kept an important positive balance also in 2011, but recorded a high deficit in 2013 (-8.7%). Portugal too recorded continuous surpluses until 2012 and switched to a negative balance in the last year here analysed. However, its trend was less regular than that of Spain: Portugal reached a peak in 2010 (10.5%), kept high surpluses in the following two years, and recorded a small deficit in 2013. The other countries with systematic prevailing surpluses in the other investment balances during the first fourteen years of the new century were Greece, Finland, Slovakia, Malta, Italy, and partially Cyprus. In particular, Malta has had regular and important surpluses since 2009; Finland, and especially Greece, recorded recurrent surpluses since 2005, with peaks of almost 20% (in 2010 and 2011) and of 56.9% (in 2012) in the Greek case. Slovakia too recorded continuous surpluses even before its entry in the euro area; however, it recorded significant deficits in the last two years. Italy recorded modest surpluses, with three peaks (4.3% in 2007, 9.7% in 2010, and 5.3% in 2011), and a small deficit in 2013. Finally, Cyprus recorded two huge surpluses in 2008 and 2009 (just below 100%) but also important and growing deficits in the last three years.

At the opposite, in the new century Luxembourg recorded huge deficits in its balances of other investments (often around -200% and with a peak of -500% in 2012), but during the international financial and "real" crises (2008 and 2009), as usual, these negative imbalances were mainly due to the competitive fiscal conditions offered by this country. Even

if with largely smaller percentages than Luxembourg, Germany too recorded systematic deficits in its balances of other investments and, with the exceptions of two years, the same applied to Austria and the Netherlands. France and Belgium followed more erratic paths with a prevalence of years with deficit balances. The main variance was recorded by the Irish balances with peaks of both deficit (2010) and surplus (2008) around 50%.

Despite the just examined different trends which characterized its various Member States, the euro area as a whole had a balanced position until 2010 while it recorded significant deficits in the last three years. As pointed out by some authors (Schmitz and von Hagen 2011, Schnabl and Freitag 2012), the rough compensation of imbalances at the European level could be the result of higher financial integration among Member States after the introduction of euro, with a consequent increase in the level of cross-border banking loans. From this point of view, it is interesting to recall that Germany, Luxembourg and other "central" countries were systematic net lenders while inflows exceeded outflows in the large majority of the peripheral countries, in particular with the outbreak of the international financial crisis. Then, the credit crunch and the reduced propensity to invest, implied by the explosion of the debt crisis and of the banking crisis – first – in Greece, Ireland and Portugal and – then – in Spain and Italy, led to a segmentation of the European financial markets with dissimilar impacts at country level. Due to the different problems of the national banking systems and to the fact that other investments include transactions in some government assets, the imbalances of the single peripheral countries and of other European countries in difficulties were affected by the specificities in the restructuring of public finances and of financial systems.

Before analysing the two remaining components of the financial accounts (that is, the net flows of derivatives and the variation of official reserves) which do not have a significant aggregate impact, it is convenient to offer a general comment on the empirical evidence collected until now. Both portfolio and other investments seem to confirm the view that the majority of the EMU "central" countries, and in particular Germany and Luxembourg, have been the main financers of public and private debt of the EMU peripheral countries until the recent years. This

role of financers have been facilitated by the fact that Germany, France and Luxembourg played also the role of intermediating capital inflows from non-euro area countries (European Commission 2012a).

Let us now turn to the two remaining components of the financial accounts. Net flows of derivatives (Table 2.6) as well as changes in official reserves (Table 2.7) are negligible for almost all European countries. As far as derivatives are concerned, the only systematic exception is represented by Luxembourg which recorded recurrent and important positive imbalances and a few years of high deficits.[7] Erratic negative imbalances also affected Germany (-3.5% in 2007), Cyprus (-4.9% and -3.8% in 2012 and 2008, respectively) and the Netherlands (-2.8% and -2 in 2008 and 2010, respectively), whereas erratic positive imbalances affected France (2.2% in 2007) and again the Netherlands (3.5% and 2.3% in 2008 and 2013, respectively) and Cyprus (3.1% in 2009). For what concerns official reserves, there were just significant positive variations in Spain and Greece at their entry into the euro area, and important negative variations in most of the NMS before their entry into the euro area. In any case, all these imbalances were not so significant to change the impact in the European trends of the financial accounts.

2.4 NET INTERNATIONAL INVESTMENT POSITION

Let us recall equation (10) (see above, Section 2.2): $CA + KA + FA = 0$. On the basis of this equation, the progressive accumulation of external financial assets (liabilities) must offset the progressive accumulation of total surpluses (deficits) in the current and capital accounts. This implies that, due to the minor importance of capital accounts in the European setting, positive (negative) changes in the difference between the stock of external financial assets and that of external financial liabilities of a given country must be roughly equal to the current account surpluses (deficits) of this same country.

[7] Ireland had serious problems with derivatives during the international crisis. However, due to the lack of data, we cannot offer a satisfying interpretation of the imbalances which characterised this country.

We can better understand the implications of this conclusion, by defining the net international investment position (NIIP) of a specific country in a given period as the difference between the stock of its external financial assets and that of its external financial liabilities. Accordingly, with few passages, the NIIP of this same country in period (*t*) can be expressed as:

$$NIIP_t = NIIP_{t-1} + FA + VAL + OTH \qquad (11)$$

where (*VAL*) indicates the current (positive or negative) revaluation effects due to changes in prices and in exchange rates, and (*OTH*) indicates other unexpected (positive or negative) changes in the amount of assets (e.g. due to catastrophic losses).

It follows that changes in the NIIP of a given country between two periods are mainly determined by the imbalances in its financial accounts. Hence, equations (10) and (11) imply that changes in the NIIP of a given country must also be roughly equal to the imbalances in the current account position:

$$NIIP_t - NIIP_{t-1} \approx CA \qquad (12)$$

Equation (12) offers an important key to interpret the NIIP positions of the EMU Member States. The evidence available for the early 1990s (see Table 2.8) confirms the role of systematic net investors played by Germany, Luxembourg, and Belgium in terms of stocks and for several years also in terms of flows. Instead the Netherlands and Finland became systematic net investors since 2008 and 2009, respectively; but it must be noted that the latter recorded huge negative NIIP positions (with a peak of -175.4%) from 1999 to 2005. At the opposite, a systematic dependence on foreign investments was denounced by Spain, Portugal, Greece, Ireland and Cyprus in terms of both stocks and flows, and by the other NMSs (with the exception of Malta) in terms of stock only. To a lesser extent, also Italy and France had the role of systematic net debtors.

These data indicate once again that investments in southern Europe were largely financed by debt liabilities contracted with European northern countries. They also show that, despite the recent improve-

ments in the current account imbalances of all European peripheral countries, a number of EMU Member States still record a worrying position in terms of stocks. According to the recent literature,[8] once countries' net stock of foreign liabilities rises above 40% of GDP, the risk of unbearable imbalances accelerates. This explains why the European MIP includes a maximum NIIP threshold of -35% in terms of GDP (see Chapter 1 and Chapter 5).

Figure 2.5 shows that several euro area countries exceeded the MIP threshold in 2012. In this case too, there is a divergent dynamic pattern in the net financial position between northern and southern European countries. The NIIP's imbalance involved the whole subset of old peripheral Member States but Italy, and all the NMS but Malta. Furthermore only the Netherlands, Germany, Malta, Finland, and Austria improved their NIIPs position with respect to the year 1999. Finally, only Finland was able to pass from a theoretical NIIP's imbalance in 1999 (when the rule was not operative) to a net investor position in 2012; at the opposite Ireland, Slovenia, Slovakia, Spain, and Portugal were able to meet the theoretical threshold in 1999 but not the actual threshold in 2012.

2.5 CONCLUSIONS

At the aggregate level, the financial account represents the mirror image of the current account: it reflects the fact that the countries experiencing trade and current account deficits must be financed by capital inflows through the selling of financial instruments. As we discussed in the previous sections of this chapter and in Chapter 1, this was particularly the case of Spain, Ireland, Portugal, and Greece as well as of the large majority of NMS in the euro area. These countries were largely financed by the EMU "central" countries, and in particular by Germany, the Netherlands, Luxembourg and Belgium. However, a difference between the old peripheral Member States can be emphasized. The intro-

[8] This result is mainly due to Catão and Milesi-Ferretti (2013).

duction of the euro worsened the financial imbalances in the cases of Spain, Greece and Ireland; it did not have a large negative impact in the cases of Portugal and NMSs.

The previous descriptive analysis also allowed to specify the impact of the different components of the financial account. Net derivatives and changes in official reserves played a minor role at the EMU level as well as for the large majority of the different countries. FDI flows had a major impact on the aggregate but did not appear to have a great importance to explain the intra-European imbalances. This was probably one of the reasons why peripheral Member States were unable to implement a catching up process in terms of competitiveness before the explosion of the international and European crises. More important were the portfolio and other investment, in particular, the debt and equity related instruments. The countries' trends of both these components reflected the distortionary growth model which characterised Spain, Ireland, Portugal, and Greece; after 2009, these same trends allowed the partial reproduction of imbalances in the public balance sheets and in the current accounts of the peripheral Member States, but also imposed their difficult adjustments. The evolution in the NIIPs positions confirmed this analysis. The rise in the net foreign liabilities of the southern European countries has been balanced by the expansion of the net foreign assets in a growing number of northern countries. It suffices to note that only the latter were able to increase their net international investment positions after the EMU creation.

As we will see in the next chapter, the temporary presence of imbalances was not an unexpected consequence of the creation of the euro area. According to many authors (e.g. Blanchard and Giavazzi 2002; Schmitz and von Hagen 2011; European Commission 2012; Schnabl and Freitag 2012; Chen et al. 2013), the launch of the euro area would have improved the financial integration between Member States and would have led to the reduction of real interest rates in southern Europe. These positive shocks would have increased the potential rate of growth of many peripheral countries, and asked for an amount of national investments above the disposable internal savings. However, the consequent initial imbalances would have had to be reabsorbed by means of a progressive reduction in the competiveness gaps inside the euro area. The

point is that something went wrong in this expected process as there is no evidence of overall convergence in national productivities even before the international crisis. Contrary to the predictions of the standard economic theory, the economic growth in peripheral countries implied increased structural imbalances inside the euro area and these imbalances became an important component of the European crises.

Table 2.1. Net Capital Flows in % of GDP

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12			-0.1	-0.3	0.0	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Euro area 17					-0.3	-0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Austria	0	-0.4	**0.0**	**0.0**	**0.0**	**-0.1**	**0.1**	**0.0**	**0.0**	**0.1**	**-0.1**	**-0.1**	**-0.1**
Belgium			**1.1**	**0.8**	**1.0**	**0.9**	**-0.4**	**-0.5**	**-0.4**	**-0.3**	**-0.2**	**0.5**	**0.0**
Germany	-0.1	-0.1	**0.0**	**0.1**	**0.1**	**0.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**
Spain		0.6	**0.1**	**0.0**	**-0.5**	**0.0**	**0.4**	**0.5**	**0.4**	**0.6**	**0.5**	**0.6**	**0.8**
Finland	0	0	**0.6**	**0.6**	**0.1**	**0.2**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
France			**0.2**	**0.1**	**0.2**	**0.1**	**0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.1**
Ireland		1.5	**-0.4**	**-0.4**	**-0.5**	**3.1**	**0.0**	**0.0**	**-0.8**	**-0.4**	**-0.2**	**-1.3**	**0.0**
Italy	0.1	0.2	**-0.1**	**-0.8**	**-0.6**	**-0.3**	**0.1**	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**	**0.0**
Luxembourg			**2.0**	**0.9**	**1.8**	**1.1**	**-0.4**	**-0.7**	**-0.8**	**-0.4**	**-0.4**	**-0.5**	**-0.5**
Netherlands	-0.1	-0.2	**2.1**	**1.6**	**0.7**	**1.1**	**-0.3**	**-0.5**	**0.0**	**-0.5**	**-0.2**	**-1.6**	**0.0**
Portugal			**0.0**	**0.0**	**-0.6**	**-0.4**	**1.2**	**1.5**	**0.8**	**1.1**	**1.2**	**2.3**	**2.1**
Greece			0.8	**0.4**	**0.3**	**0.0**	**1.9**	**1.8**	**0.9**	**0.9**	**1.3**	**1.2**	**1.7**
Slovenia			0.0	0.1	0.3	0.5	**-0.2**	**-0.1**	**0.0**	**0.2**	**-0.2**	**-0.3**	**-0.1**
Slovakia			0.8	0.0	0.3	3.1	0.6	1.3	**0.7**	**1.5**	**1.3**	**1.9**	**1.4**
Cyprus			0.0	0.2	0.7	0.8	0.0	**0.0**	**0.3**	**0.2**	**0.3**	**0.1**	**1.5**
Malta			0.8	0	0.4	3.2	1.2	**0.4**	**1.6**	**1.4**	**1.2**	**1.9**	**2.0**
Estonia		0	0	0.2	0.7	0.8	1.1	1.3	3.5	3.5	**4.1**	**3.5**	**2.7**

Source: Eurostat.
Note: Bold figures refer to the years in which each specific country belongs to the euro area.

Table 2.2. Financial Account Balance in % of GDP

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12			-0.1	-0.2	-0.2	-0.4	-0.4	0.3	-0.5	0.3	-0.3	-1.9	-3.9
Euro area 17			0	-0.1	-0.2	-0.5	-0.4	0.3	-0.5	0.3	-0.3	-1.9	-3.8
Austria			**3.3**	**1.9**	**-0.2**	**-0.1**	**-4.2**	**-5.3**	**-3.6**	**-1.2**	**-1.2**	**-2.4**	**-1.8**
Belgium					**-3.5**	**-2.4**	**-1.7**	**2.5**	**1.8**	**-1.9**	**1.5**	**1.2**	**1.7**
Germany	-4	1.3	**-0.5**	**-0.6**	**-2.9**	**-5.8**	**-8.7**	**-7.0**	**-6.6**	**-5.0**	**-6.7**	**-8.4**	**-9.2**
Spain		1.1	**2**	**3.2**	**2.3**	**6.7**	**9.6**	**9.2**	**5.0**	**4.1**	**2.9**	**0.0**	**-2.5**
Finland	1.7	0	**-5**	**-9.2**	**-5.2**	**-1.9**	**0.1**	**2.2**	**2.7**	**-2.1**	**4.4**	**8.8**	**-0.4**
France						**-0.1**	**1.6**	**0.9**	**1.2**	**1.3**	**2.7**	**3.7**	**0.8**
Ireland			**-2.3**	**-0.3**	**-1.0**	**-0.3**	**6.4**	**9.0**	**-0.7**	**4.6**	**6.9**	**-6.2**	**-6.1**
Italy			**-0.8**	**-0.3**	**1.3**	**2.8**	**1.9**	**2.0**	**2.5**	**5.5**	**4.3**	**0.9**	**-1.6**
Luxembourg					**-7.6**	**-14.4**	**-9.4**	**-4.6**	**-6.8**	**-7.1**	**-6.6**	**-3.5**	**-4.9**
Netherlands	-1.2	-5.4	**-1.3**	**-0.8**	**-4.3**	**-5.9**	**-4.4**	**-3.7**	**-7.2**	**-5.4**	**-8.4**	**-8.0**	**-9.4**
Portugal		-0.3	**7.0**	**9.1**	**4.4**	**9.1**	**8.5**	**11.1**	**10.4**	**9.0**	**5.7**	**-0.8**	**-2.2**
Greece	1.1	1.3	3.6	**4.7**	**5.7**	**6.5**	**12.4**	**12.8**	**10.6**	**9.4**	**8.5**	**2.1**	**-2.0**
Slovenia			3	-0.6	0.8	3.8	**5.7**	**7.0**	**0.4**	**1.3**	**-1.1**	**-3.2**	**-8.3**
Slovakia			4.8	7.1	4.6	7.8	4.4	9.4	**4.2**	**3.9**	**4.9**	**-0.5**	**1.9**
Cyprus				2.4	1.9	4.4	12.0	**16.1**	**10.9**	**9.5**	**4.4**	**4.8**	**3.1**
Malta			4.2	-2.8	2.1	6.1	5.1	**3.1**	**-1.2**	**-4.2**	**-3.9**	**-8.6**	**1.0**
Estonia		1.4	7	5.0	11.2	8.2	14.6	7.6	-6.7	-6.0	**-6.4**	**-1.7**	**-2.9**

Source: Own elaboration on Eurostat, World Bank WDI data.
Note: Aggregates are calculated using only countries with available data. Bold figures refer to the years in which each specific country belongs to the euro area.

Table 2.3. Net FDI Flows

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12		-0.3	**-2.5**	**-0.9**	**0.1**	**-2.3**	**-2.3**	**-3.1**	**-0.8**	**-1.0**	**-0.3**	**-0.2**	**-0.1**
Euro area 17		-0.2	**-2.5**	**-0.9**	**0.1**	**-2.2**	**-2.3**	**-3.0**	**-0.8**	**-0.8**	**-0.2**	**0.0**	**0.0**
Austria	0.1	0	**-0.1**	**1.5**	**0.0**	**-0.1**	**-2.0**	**-5.5**	**-0.2**	**-2.4**	**-2.7**	**-3.3**	**-0.7**
Belgium					**-1.6**	**0.5**	**2.9**	**-5.3**	**11.3**	**11.1**	**4.3**	**-2.7**	**4.7**
Germany	-1	-0.8	**-2.5**	**-0.7**	**1.1**	**-1.0**	**-2.7**	**-1.8**	**-1.4**	**-1.8**	**-0.6**	**-1.9**	**-0.8**
Spain	1.6	1.3	**-4.1**	**-0.8**	**-0.3**	**-1.5**	**-5.0**	**0.1**	**-0.2**	**0.1**	**-0.9**	**2.2**	**1.0**
Finland	-2	-0.6	**-1.6**	**-3.7**	**3.4**	**0.3**	**2.1**	**-3.8**	**-2.1**	**-1.2**	**-0.9**	**-1.4**	**-2.0**
France	-0.6	0	**-5.5**			**-1.4**	**-2.6**	**-3.2**	**-3.2**	**-1.2**	**-0.8**	**-0.5**	**0.3**
Ireland	0.2	1.8	**12.6**	**5.3**	**10.9**	**-22.7**	**1.4**	**-13.4**	**-0.4**	**9.8**	**10.9**	**9.4**	**5.8**
Italy	0.2	-0.3	**0**	**-0.6**	**0.5**	**-0.9**	**-2.5**	**-3.4**	**-0.1**	**-1.1**	**-0.9**	**-0.4**	**-0.7**
Luxembourg					**-36.3**	**-23.0**	**-145.8**	**-53.9**	**-46.0**	**31.6**	**66.3**	**73.9**	**6.2**
Netherlands	-1	-1.1	**-3.9**	**0.3**	**-4.3**	**-13.2**	**8.1**	**-7.3**	**0.5**	**-9.7**	**-2.2**	**1.2**	**-1.6**
Portugal	1.5	1.5	**-1.5**	**0.0**	**0.3**	**0.9**	**-1.0**	**0.8**	**0.8**	**4.4**	**-1.6**	**4.0**	**0.8**
Greece	1.2	0.9	0.0	**0.7**	**0.4**	**-0.4**	**-1.0**	**0.6**	**0.1**	**-0.4**	**-0.2**	**0.4**	**1.3**
Slovenia		0.8	0.3	1.1	-0.6	-0.1	**-0.7**	**0.9**	**-1.9**	**1.2**	**1.8**	**0.5**	**-1.6**
Slovakia		1	3.6	6.9	5.8	4.7	4.0	4.6	**-1.0**	**0.9**	**2.9**	**3.2**	**1.1**
Cyprus	1.4	1	6.5	-0.6	2.4	3.7	4.5	**-5.2**	**13.2**	**0.4**	**0.7**	**6.8**	**1.0**
Malta	1.9	2	19.8	6.2	8.0	11.4	13.0	**5.6**	**3.1**	**9.4**	**2.9**	**0.4**	**-21.9**
Estonia		9	3.9	5.4	7.8	15.7	4.4	2.6	1.5	7.7	**8.0**	**2.5**	**2.4**

Source: Own elaboration on Eurostat, World Bank WDI data.
Note: Aggregates are calculated using only countries with available data. Bold figures refer to the years in which each specific country belongs to the euro area.

Table 2.4. Net Portfolio Investment

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12		-0.4	**3.8**	**-0.8**	**0.7**	**1.1**	**1.7**	**2.7**	**2.7**	**1.0**	**3.4**	**0.2**	**0.3**
Euro area 17		-0.4	**3.8**	**-0.8**	**0.6**	**1.1**	**1.7**	**2.7**	**2.7**	**1.0**	**3.4**	**0.2**	**0.3**
Austria	1.8	3.2	**-1.3**	**3.0**	**1.8**	**-4.5**	**8.3**	**9.4**	**-2.5**	**-2.4**	**5.3**	**1.8**	**0.7**
Belgium					**0.3**	**-11.7**	**-8.9**	**10.0**	**9.1**	**-7.3**	**-4.3**	**12.6**	**6.1**
Germany	-2.7	6	**-0.6**	**1.5**	**2.5**	**-1.3**	**6.3**	**1.3**	**-3.6**	**-4.5**	**1.1**	**-2.4**	**-6.0**
Spain		0	**0.4**	**-2.8**	**-5.3**	**4.6**	**8.5**	**-0.1**	**4.8**	**3.4**	**-2.9**	**-4.0**	**4.9**
Finland	2.9	7.1	**-1.6**	**-4.5**	**-1.4**	**-3.5**	**-2.2**	**0.4**	**-3.8**	**-5.5**	**4.2**	**4.8**	**1.3**
France	0.8	0.3	**-0.6**			**-0.8**	**-6.4**	**1.3**	**12.8**	**6.1**	**11.4**	**1.9**	**4.8**
Ireland	2.7	4.8	**-16**	**-21.4**	**-28.4**	**32.4**	**-3.8**	**-25.4**	**13.9**	**54.4**	**16.5**	**-6.9**	**-26.1**
Italy	0	7.2	**-2.1**	**-0.6**	**0.3**	**1.8**	**0.4**	**4.8**	**2.6**	**-2.8**	**-0.6**	**1.7**	**0.9**
Luxembourg					**66.9**	**129.6**	**261.2**	**62.8**	**-114.2**	**122.1**	**155.6**	**406.9**	**164.0**
Netherlands	1.4	0.5	**1.4**	**3.4**	**4.1**	**12.0**	**-14.2**	**9.8**	**-4.9**	**6.2**	**3.1**	**-8.8**	**-7.3**
Portugal	3.3	2	**2.5**	**3.4**	**-3.6**	**-0.2**	**5.9**	**8.5**	**8.9**	**-5.6**	**-2.7**	**-13.0**	**-0.6**
Greece			4.5	**6.4**	**7.1**	**3.8**	**8.0**	**7.2**	**10.2**	**-9.6**	**-9.1**	**-51.2**	**-3.3**
Slovenia		0	1.6	0.3	-0.9	-4.6	**-6.5**	**1.5**	**13.1**	**5.5**	**5.1**	**-0.6**	**11.3**
Slovakia		-2.3	3.2	-1.0	-1.7	-2.0	-0.9	0.1	**-2.8**	**1.9**	**-0.2**	**11.6**	**10.0**
Cyprus		-0.8	-2.5	0.8	1.9	-0.9	-2.0	**-74.2**	**-101.1**	**-11.1**	**32.2**	**30.1**	**71.1**
Malta	-1.8	-9.5	-12.5	-12.0	-30.2	-43.3	6.6	**6.2**	**-32.4**	**-49.8**	**-46.4**	**-23.3**	**-32.0**
Estonia		9.6	-0.4	-0.6	1.8	-15.8	-2.3	3.1	-10.4	-3.2	**7.1**	**-0.6**	**-2.8**

Source: Own elaboration on Eurostat, World Bank WDI data.
Note: Aggregates are calculated using only countries with available data. Bold figures refer to the years in which each specific country belongs to the euro area.

Table 2.5. Other Investment

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12					0.2	-1.5	1	1.4	-2.3	0	-3.2	-2	-4.1
Euro area 17					1.7	-1.4	0.9	1.5	-2.5	0.1	-3.3	-2.0	-4.3
Austria			**4-0**	**-3.4**	**-2.5**	**4.2**	**-9.5**	**-9.5**	**-2.1**	**4.3**	**-3.1**	**-0.7**	**-3.0**
Belgium					**-1.6**	**9.7**	**4.2**	**-3.6**	**-18.6**	**-5.9**	**2.4**	**-9.1**	**-9.7**
Germany	-1.5	-4.5	**1.9**	**-2.0**	**-6.4**	**-3.1**	**-8.7**	**-5.2**	**-2.2**	**2.1**	**-6.0**	**-3.3**	**-1.7**
Spain		-11.6	**2.8**	**6.6**	**6.6**	**3.4**	**6.5**	**9.9**	**1.0**	**-0.1**	**7.8**	**1.2**	**-8.7**
Finland	0.9	-6.1	**-1.5**	**-0.6**	**-8.7**	**0.3**	**0.6**	**5.0**	**7.6**	**3.8**	**0.7**	**5.0**	**-0.4**
France						**1.4**	**8.5**	**3.3**	**-7.8**	**-4.6**	**-9.0**	**1.7**	**-5.2**
Ireland		-8.2	**-1.1**	**15.8**	**15.6**	**-6.7**	**15.1**	**46.6**	**-12.5**	**-52.1**	**-21.6**	**-1.8**	**16.0**
Italy			**0.5**	**0.9**	**1.0**	**2.0**	**4.3**	**0.8**	**-0.4**	**9.7**	**5.3**	**0.1**	**-1.4**
Luxembourg					**-58.3**	**-111.9**	**-151.4**	**27.7**	**183.4**	**-204.5**	**-253.1**	**-500.5**	**-189.8**
Netherlands		-2.8	**-0.6**	**-3.2**	**-4.1**	**-4.4**	**1.1**	**-3.3**	**-6.3**	**0.1**	**-7.8**	**-1.2**	**-2.8**
Portugal		-6.7	**5.8**	**6.2**	**3.6**	**7.5**	**3.1**	**1.7**	**0.5**	**10.5**	**9.0**	**8.3**	**-1.5**
Greece	1.5	3.3	-0.5	**-6.7**	**-4.4**	**3.1**	**5.7**	**5.2**	**0.7**	**19.1**	**18.2**	**56.9**	**0.4**
Slovenia			0.8	4.2	3.3	9.2	**12.6**	**4.4**	**-11.2**	**-5.1**	**-7.7**	**-2.5**	**-16.8**
Slovakia			1.8	1.9	4.8	10.0	6.4	3.5	**6.7**	**1.2**	**2.8**	**-15.2**	**-8.6**
Cyprus				8.5	-4.2	5.9	7.4	**97.6**	**95.1**	**19.4**	**-27.3**	**-27.5**	**-68.9**
Malta			3.3	9.4	26.7	42.3	-10.8	**-4.7**	**30.1**	**36.1**	**38.4**	**15.6**	**55.2**
Estonia		3.7	3	-0.4	3.3	11.2	13.4	4.6	1.6	-16.4	**-21.1**	**-3.6**	**-2.9**

Source: Own elaboration on Eurostat, World Bank WDI data.
Note: Aggregates are calculated using only countries with available data. Bold figures refer to the years in which each specific country belongs to the euro area.

Table 2.6. Net Flows of Derivatives

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12			-0.2	-0.3	-0.1	0.0	-0.6	-0.9	0.1	0.2	-0.1	0.1	0.3
Euro area 17			-0.2	-0.3	-0.1	0.0	-0.6	-0.9	0.1	0.2	-0.1	0.2	0.3
Austria			**-0.1**	**-0.2**	**-0.3**	**0.1**	**-0.3**	**0.1**	**0.2**	**-0.1**	**0.3**	**0.8**	**1.2**
Belgium				**-0.8**	**-1.2**	**-1.4**	**0.3**	**1.1**	**0.2**	**0.4**	**-0.5**	**0.5**	**0.4**
Germany	0.0	0.0	**-0.6**	**0.0**	**-0.1**	**-0.4**	**-3.5**	**-1.2**	**0.5**	**-0.7**	**-1.1**	**-0.6**	**-0.6**
Spain		0.0	**0.3**	**-0.7**	**-0.4**	**0.0**	**-0.4**	**-0.7**	**-0.5**	**0.8**	**-0.2**	**0.8**	**0.3**
Finland		0.1	**-0.5**	**-0.2**	**1.1**	**0.9**	**-0.3**	**0.8**	**1.3**	**-0.1**	**0.6**	**0.6**	**1.1**
France		0.0				**0.3**	**2.2**	**-0.8**	**-0.9**	**1.4**	**0.7**	**0.7**	**0.8**
Ireland		0.0	**0.4**				**-6.2**						
Italy		0.0	**0.2**	**-0.2**	**-0.4**	**-0.1**	**-0.2**	**0.1**	**0.3**	**-0.3**	**0.5**	**-0.4**	**-0.2**
Luxembourg				**-6.1**	**20.4**	**-9.3**	**26.5**	**-40.9**	**-29.9**	**43.8**	**24.9**	**16.1**	**14.9**
Netherlands		-0.1	**-1.1**	**-1.5**	**-0.1**	**-0.7**	**0.4**	**-2.8**	**3.5**	**-2.0**	**-1.2**	**1.1**	**2.3**
Portugal		0.0	**0.3**	**0**	**0.0**	**-0.1**	**0.1**	**0.1**	**0.1**	**0.2**	**0.3**	**0.0**	**-0.6**
Greece		0.0		**-0.1**	**0.1**	**0.0**	**-0.2**	**-0.2**	**-0.3**	**0.2**	**-0.3**	**-0.4**	**-0.4**
Slovenia			0.0	0.0	0.0	0.0	**0.0**	**0.1**	**0.0**	**-0.3**	**-0.4**	**-0.6**	**-1.3**
Slovakia			0.0		0.0	-0.1	0.1	-0.2	**0.4**	**-0.2**	**-0.5**	**0.0**	**-0.4**
Cyprus				-0.5	0.1	-0.1	0.6	**-3.8**	**3.1**	**-0.3**	**-1.5**	**-4.9**	**-0.3**
Estonia			0	-0.1	0.0	-0.1	-0.3	0.3	0.1	0.2	**-0.2**	**0.4**	**0.4**

Source: Own elaboration on Eurostat, World Bank WDI data.
Note: Aggregates are calculated using only countries with available data. Bold figures refer to the years in which each specific country belongs to the euro area.

Table 2.7. Change in Official Reserves

	1988	1993	1999	2001	2003	2005	2007	2008	2009	2010	2011	2012	2013
Euro area 12					0.4	0.4	-0.1	0.0	0.1	-0.1	-0.1	-0.1	0.0
Euro area 17					0.3	0.3	-0.1	0.0	0.1	-0.1	-0.1	-0.1	0.0
Austria			**1.0**	**1.0**	**0.8**	**0.2**	**-0.7**	**0.2**	**0.9**	**-0.4**	**-0.2**	**-0.3**	**-0.1**
Belgium					**0.6**	**0.6**	**-0.3**	**0.2**	**-0.2**	**-0.2**	**-0.3**	**-0.1**	**0.1**
Germany	1.2	0.7	**0.6**	**0.3**	**0.0**	**0.1**	**0.0**	**-0.1**	**0.1**	**-0.1**	**-0.1**	**0.0**	**0.0**
Spain		1.2	**3.6**	**0.2**	**1.7**	**0.2**	**0.0**	**-0.1**	**-0.1**	**-0.1**	**-1.0**	**-0.2**	**0.0**
Finland	-0.1	-0.3	**-0.2**	**-0.3**	**0.4**	**0.0**	**-0.1**	**-0.1**	**-0.4**	**0.9**	**-0.2**	**-0.3**	**-0.4**
France						**0.4**	**0.0**	**0.4**	**0.2**	**-0.3**	**0.3**	**-0.2**	**0.1**
Ireland	-1.4	-5.1	**1.9**				**0.0**						
Italy			**0.6**	**0.0**	**-0.1**	**0.1**	**-0.1**	**-0.4**	**0.0**	**-0.1**	**-0.1**	**-0.1**	**-0.1**
Luxembourg					**-0.4**	**0.1**	**0.2**	**-0.2**	**-0.1**	**-0.1**	**-0.3**	**0.0**	**-0.1**
Netherlands		-2.1	**1.0**	**0.1**	**0.1**	**0.3**	**0.2**	**-0.1**	**0.0**	**-0.1**	**-0.3**	**-0.3**	**0.0**
Portugal		3	**-0.2**	**-0.7**	**4.0**	**0.9**	**0.4**	**0.0**	**0.0**	**-0.6**	**0.7**	**-0.1**	**-0.3**
Greece	-1.7	-3.0	-0.4	**4.3**	**2.6**	**0.0**	**-0.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**-0.1**
Slovenia			0.4	-6.3	-1.0	-0.7	**0.4**	**0.1**	**0.5**	**0.1**	**0.2**	**0.1**	**0.0**
Slovakia			-3.6		-4.3	-4.9	-5.1	1.5	**0.9**	**0.0**	**-0.1**	**0.0**	**-0.1**
Cyprus				-6.4	1.6	-4.3	1.4	**1.7**	**0.6**	**1.1**	**0.2**	**0.3**	**0.2**
Malta			-6.2	-6.6	-2.7			**1.8**	**-0.1**	**-0.4**	**0.8**	**-1.8**	**0.5**
Estonia		-11.2	-2.1	0.7	-1.7	-2.8	-0.6	-3.1	0.5	5.8	**-0.1**	**-0.4**	**0.0**

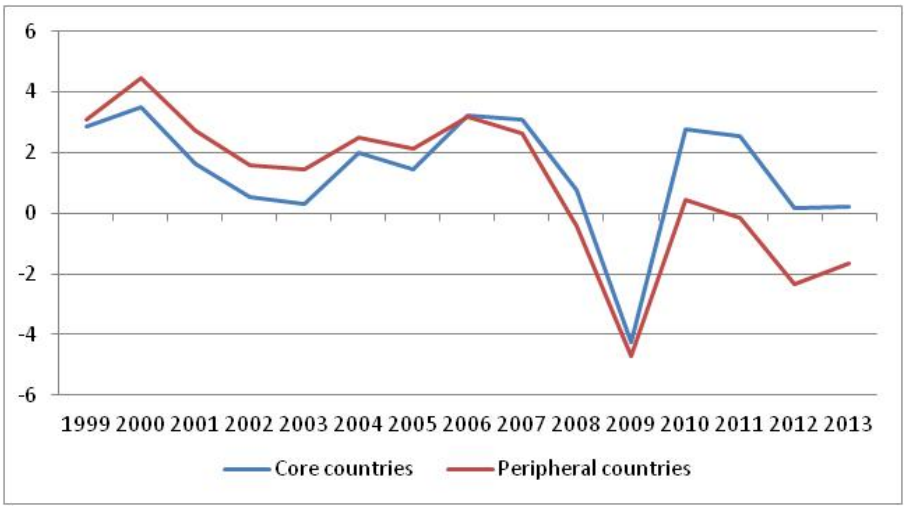
Source: Own elaboration on Eurostat, World Bank WDI data.
Note: Aggregates are calculated using only countries with available data. Bold figures refer to the years in which each specific country belongs to the euro area.

Table 2.8. Net International Investment Position (NIIP)

	1988	1993	1999	2001	2003	2005	2008	2009	2010	2011	2012	2013
Austria	-3.5	-6.3	**-26.2**	**-25.6**	**-14.3**	**-21.7**	**-16.9**	**-8.0**	**-6.2**	**-0.8**	**1.0**	**3.4**
Belgium					**36.6**	**33.5**	**39.7**	**54.2**	**50.9**	**48.1**	**47.6**	**44.1**
Germany	16.7	11.5	**4.5**	**8.7**	**6.6**	**21.0**	**25.5**	**34.0**	**35.4**	**33.7**	**41.5**	**48.3**
Ireland			**50.4**	**-15.2**	**-20.0**	**-24.5**	**-75.6**	**-92.4**	**-88.0**	**-112.2**	**-112.0**	**-104.9**
Spain		-24.7	**-32.1**	**-35.6**	**-45.2**	**-55.6**	**-79.3**	**-93.8**	**-89.1**	**-91.4**	**-92.8**	**-98.2**
Finland	-18.2	-52.3	**-175.4**	**-82.2**	**-26.4**	**-15.3**	**-2.7**	**6.7**	**21.4**	**19.7**	**18.4**	**15.8**
France			**-8.0**	**-2.0**	**-4.2**	**1.1**	**-12.9**	**-9.4**	**-12.5**	**-18.8**	**-21.1**	
Italy			**-5.0**	**-5.8**	**-13.6**	**-18.2**	**-25.5**	**-26.5**	**-24.8**	**-23.3**	**-28.3**	
Luxembourg					**140.3**	**127.8**	**100.1**	**86.7**	**98.0**	**74.2**	**169.1**	
Netherlands	16.4	16	**-8.2**	**-13.4**	**-1.7**	**-2.6**	**4.2**	**16.7**	**24.5**	**34.1**	**45.8**	**53.0**
Portugal			**-31.5**	**-47.5**	**-57.5**	**-66.9**	**-96.2**	**-110.3**	**-107.2**	**-104.8**	**-116.1**	**-118.7**
Greece			-34.9	**-46.5**	**-58.9**	**-77.3**	**-76.8**	**-89.6**	**-98.4**	**-84.5**	**-109.1**	**-119.0**
Slovenia			-9.5	-2.0	-5.7	-11.0	**-35.9**	**-39.8**	**-43.2**	**-40.8**	**-44.9**	**-37.9**
Slovakia			-23.8	-26.5	-33.8	-49.5	-59.5	**-66.7**	**-63.1**	**-65.5**	**-64.1**	**-65.1**
Cyprus					4.3	20.0	**-15.1**	**-30.4**	**-35.6**	**-71.7**	**-82.4**	**-85.7**
Malta			17.3	12.4	38.4	36.1	**2.6**	**12.6**	**8.1**	**6.9**	**25.1**	
Estonia			-51.7	-48.3	-65.9	-85.2	-76.7	-80.6	-72.4	**-56.4**	**-54.0**	**-45.2**

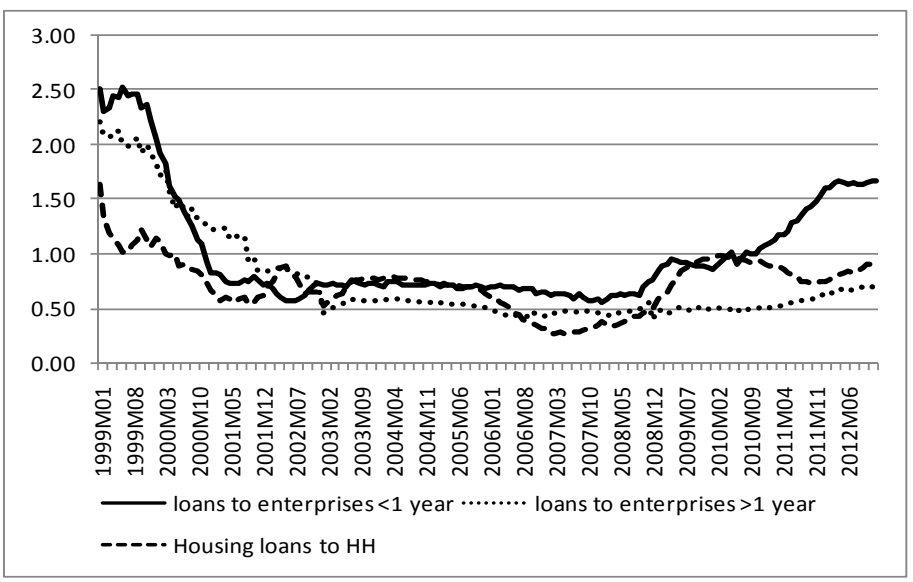
Source: Eurostat.
Note: Bold figures refer to the years in which each specific country belongs to the euro area.

Figure 2.1. GDP Rate of Growth of Peripheral and Central Countries in the Euro Area



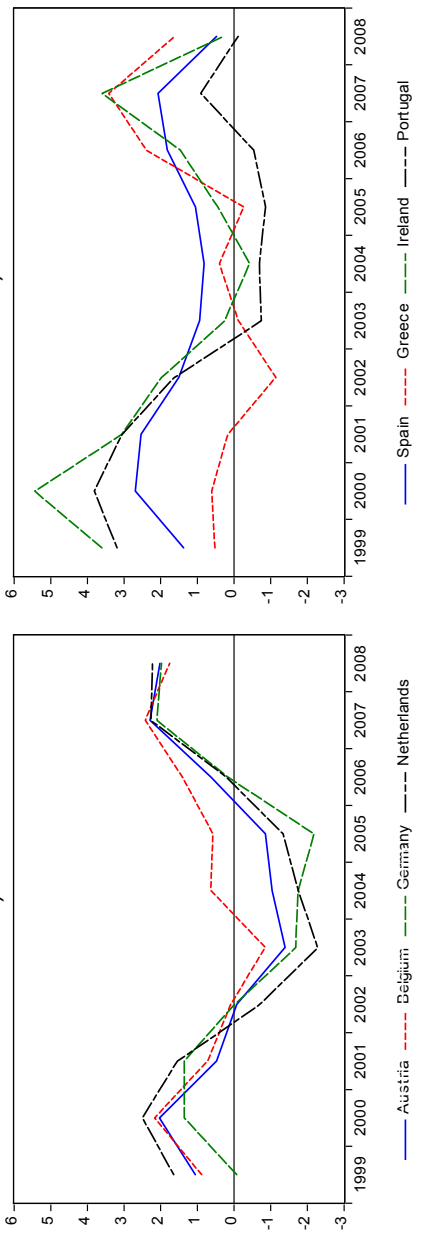
Source: Eurostat.

Figure 2.2. Standard Deviation of Interest Rates in the Euro Area (12 countries)



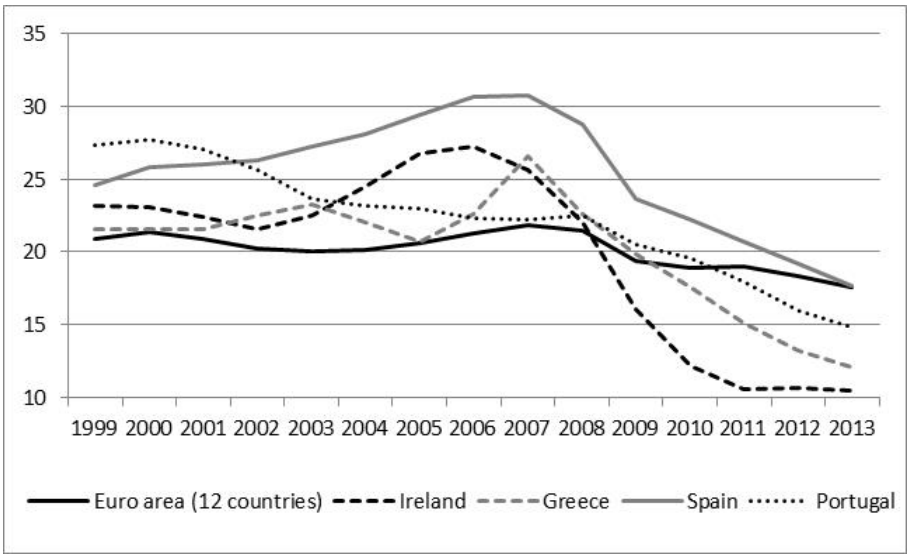
Source: Eurostat.

Figure 2.3. Output Gap in Some Central Countries (panel a) and Peripheral Countries (panel b)



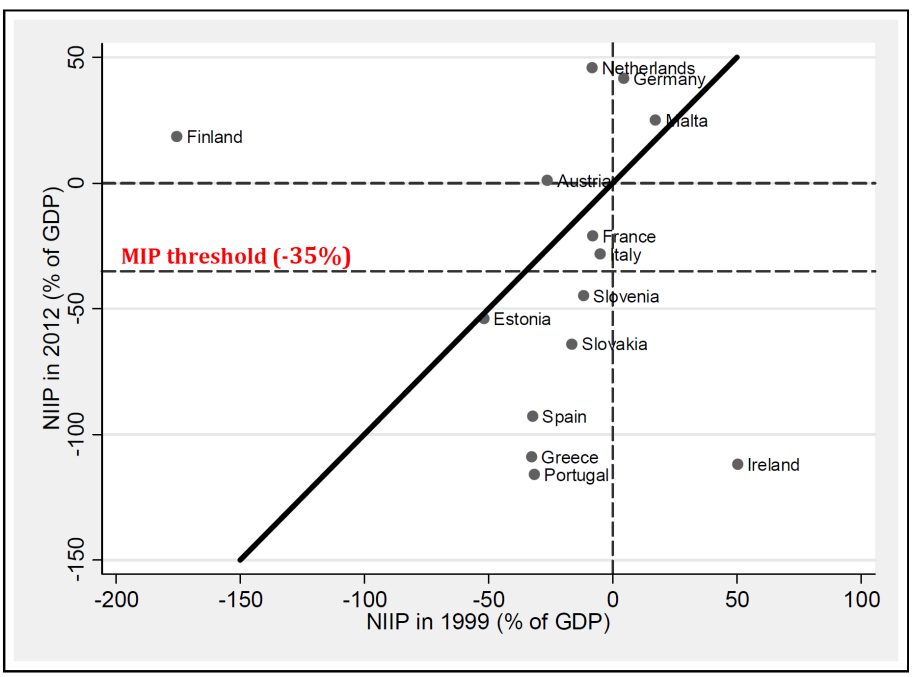
Source: AMECO.

Figure 2.4. Investments in the Construction Sector (in % of GDP) of Euro Area



Source: Own elaboration on AMECO.

Figure 2.5. NIIPs Transition (2012 vs 1999)



Source: Own elaboration on Eurostat data.
Note: Belgium, Cyprus and Luxembourg are not represented in the graph due to missing values in 1999.

3.

European Macroeconomic Imbalances: The Models

3.1 Introduction

In this chapter we review the main theoretical and empirical literature on the current account and on the related financial account imbalances in the euro area. The results of the two previous chapters give us a number of hints which are not easy to reconcile with the theoretical frameworks developed in the main economic contributions of the last two decades. First of all, the presence of some trade and current account imbalances already in the 1990s – especially in Greece and Portugal – suggests that structural differences between the original twelve countries were probably hard to shrink from the beginning of the euro area. Secondly, the increase in current account imbalances during the first decade of euro's life (1999-2008) has been the result of investment bubbles – driven by the reduction of interest rates – and of the strong growth in private consumption in the peripheral Member States, which were mainly fuelled through external net financial flows and through the related imports of goods and services. Furthermore, the reduction of current account imbalances in the last years can be partially ascribed to the positive export performances of the most troubled members, but it is mainly the result of the recession and the austerity measures which depressed internal consumptions and investments as well as relative prices, and – hence – imports, and partly the value of exports, in peripheral countries.

As we will see, before the international financial crisis increasing current account imbalances in the euro area were not a matter of concern. According to the standard view, imbalances were seen as one of

the unavoidable but temporary outcomes of the introduction of the single currency and of the related catching up processes. This was the main message of the model built by Blanchard and Giavazzi (2002), which represented for a long time the benchmark to understand changes in the external position of the euro area countries. As a consequence of the global financial crisis and the explosion of current account deficits and public debt in a large number of EMU peripheral Member States, a growing body of research has been devoted to analyse the structural determinants of imbalances in the euro area and their possible distortionary effects. This new strand of research raised criticisms towards the basic assumptions of the Blanchard and Giavazzi model, and opened to alternative explanations of European disequilibria.

The majority of the new contributions question the standard thesis that imbalances represent a temporary feature of the optimal functioning of the European Monetary Union; and even the models compatible with the analytical approach proposed by Blanchard and Giavazzi (2002) emphasise that the actual quality of growth in the European peripheral countries in the first years of the euro area (1999-2007) involved negative aspects which hindered the absorption of the competitiveness gaps towards the European "central" countries (Schmitz and von Hagen 2011, European Commission 2012a). In any case, the various criticisms to the standard explanation largely agree on the structural nature of the European current account imbalances but differ in selecting the main determinants of these imbalances. Many contributions find the trigger in the financial markets which allowed an unconstrained accumulation of disequilibria, others point to the low competitiveness of the "real" sector of peripheral countries which led to a vicious circle between the growth paths and the increase in current account imbalances of these same countries, with the result of an increased vulnerability towards the emerging economies.

According to the existing literature, we can identify three broad and partially complementary sets of factors which are the main responsible for the European imbalances:

1) the too rapid banking and financial integration among euro area countries which activated abundant financial flows from "central" Member States to the peripheral ones, and hence allowed

the reproduction and the consequent strengthening of the differences in the macroeconomic structure of these two types of countries;

2) the divergence in the dynamics of the unit labour costs, which characterised the productive sectors of the "central" and peripheral Member States before the international financial crisis and which implied a further fall in the competitiveness of the latter inside the euro area;
3) the growing competitive pressure of EMU surplus countries and of non EMU emerging countries in the European internal market, which made imports more convenient in the EMU peripheral countries and allowed the latter to implement actual rates of growth above their potentials.

In this chapter we will review the main theoretical contributions which address points (1)-(3) to analyse the evolutions of current and financial account imbalances in the euro area. The aim is to give a consistent explanation of the trends described in the two previous chapters. In Section 3.2, we present the Blanchard-Giavazzi model and the main weaknesses of it; in order to show that this model does not fit with the empirical evidence of the euro area even before the international crises. In Section 3.3, we review the main literature focusing on the financial integration among euro area countries and on the related role of financial flows. Then, in Sections 3.4 and 3.5 we analyse the main contributions which focus on the role played by changes in the unit labour costs, in the competitiveness and in the external trade with reference to the different Member States of the euro area. Section 3.6 provides some considerations about the adjustment processes of the current account imbalances after the European crises. Section 3.7 compares the empirical descriptive evidence provided in the first two chapters with the interpretations offered by the existing literature, in order to identify the points which require further investigation.

3.2 THE BLANCHARD-GIAVAZZI MODEL AND ITS CRITICISMS

During the 1990s and 2000s the main explanation of the current account imbalances among European countries was based on the neoclassical convergence model. This model emphasises two channels, through which the poorer economies in an integrated area have to temporarily run current account deficits. However, these same channels should have led to a gradual reduction in the competiveness gaps of the poorer economies, and hence to a final optimal equilibrium without significant imbalances.

The first channel can be labeled "conditional convergence". Financial market integration and, in particular, a monetary union reduce the cost of capital and eliminate the currency risk, thus stimulating both import of goods and services and investment flows from richer to poorer countries. In this respect, Ingram (1973:15) points out that under monetary integration "the traditional concept of a deficit or surplus in a member nation's balance of payments becomes blurred." The second channel can be labeled "productivity catch-up". Stronger economic discipline due to the increased competitive pressure and capital inflows due to the working of the first channel improve the domestic total factor productivity of poorer countries, and thus increase their potential rates of growth. In the short run, the expectations of higher real incomes imply lower saving rates and higher consumption levels in the poorer countries; and these increases in consumption are fuelled mainly via imports. However, due to the first channel, poor countries do not have to suffer a decrease in investments since the latter are financed by external financial flows. Hence, the increased potential rates of growth flow into an increase in the actual rates of growth. Moreover, in the medium run the consequent disequilibria in the current account balances of poorer countries tends to be automatically adjusted by the increase in their total factor productivity dynamics and the related gains in competitiveness relatively to richer and surplus countries.

Blanchard and Giavazzi (2002) formalise the neoclassical convergence model in an intertemporal structure where each country produces a single good and households have the same preferences and con-

sume the same composite good throughout the area. Given these assumptions, the two authors obtain the following relation:

$$CA = \frac{1}{2}\left(1 - \frac{1}{1+x}\left(\frac{1+g}{1+g^*}\right)^{1-\frac{1}{\sigma}}\right) \qquad (3.1)$$

where CA denotes the ratio between current account balance and national income, x represents the differential between the world consumption interest rate and the rate at which a country can borrow, g is the rate of growth of domestic output, g^* is the world rate of output growth, σ is the elasticity of substitution among goods which is supposed to be greater than one in order to satisfy the Marshall-Lerner condition.[1]

In order to insert equation (3.1) in the intertemporal structure of the model, it must be noted that three factors can affect a country's optimal external borrowing:

1) expected output growth: the higher the expected output in the next period relatively to the actual output of the current period, the higher the optimal amount of external borrowing;
2) interest rate: the higher the interest rate, or – better saying – the greater the differential between the country and the world interest rates, the higher the cost of borrowing abroad and thus the smaller the optimal amount of external borrowing;
3) expected rate of change in the terms of trade: the larger the expected fall in the price of domestic goods, the lower the expected revenues will be; and, in their turn, lower expected revenues will increase the cost of external borrowing and will, thus, reduce its optimal amount.

[1] Formally, the condition states that a currency devaluation has a positive impact on trade balance, if the sum of price elasticity of exports and imports (in absolute value) is greater than 1. If exported goods are elastic to prices, their demanded quantity will increase proportionately more than the decrease in prices, and the total export revenue will increase. Similarly, if imported goods are elastic, total import expenditure will decrease. Both results lead to an improvement in the current account balance.

On the basis of equation (3.1) and of the determinants of external borrowing, Blanchard and Giavazzi (2002) can state that a process of economic integration leads to higher current account deficits for poorer countries. This process implies that the latter are characterised by higher growth prospects, higher expected revenues and lower interest rates relatively to the other countries of the integrated area. The first two factors increase the propensity to invest and reduce the current saving rates of poorer countries, thus generating deficits in their current account balances. At the same time, due to points (1)-(3), all the three factors just mentioned increase the optimal amount of external borrowing for the poorer countries. Symmetrically, the richer countries of the integrated area run larger current account surpluses, and thus are ready to transfer additional financial flows to poorer countries. The latter can thus satisfy their propensity to increase external borrowing and can reproduce the positive difference between their investments and their internal savings, that is their imbalances. According to Blanchard and Giavazzi, these compensatory mechanisms would be strengthened if the process of economic integration was accompanied (as it is often the case) by a process of financial liberalization in the domestic markets of poorer countries. The elimination of capital controls and of other restrictions to financial flows reduces regulatory uncertainty and improves transparency,[2] enhancing capital flows from richer countries. As a consequence, poorer countries can run higher current account deficits.

The conclusion of Blanchard and Giavazzi is that, in highly integrated regions like the euro area, the Feldstein-Horioka puzzle – i.e. the high correlation between investment and saving rates both across time and across countries (Feldstein and Horioka 1980), no longer holds. Moreover, the two authors maintain that market mechanisms will gradually adjust the consequent imbalances and lead to a new and more efficient medium-long term equilibrium. In fact, as soon as the poorer European countries catch up the productivity of the richer ones, thanks to the growing amount of productive investments financed by these latter, the

[2] Gourinchas (2002) does not exclude that they are the consequence of improvements in the efficiency of the domestic financial sector, thanks to financial integration.

increased competitiveness of the former will lead to an increase in their exports and, hence, to a self-reduction of their current account deficits.

The model of Blanchard and Giavazzi leads to the conclusion that the single European current account deficits, recorded in the first phase of the monetary union, were not distortionary since these imbalances were an unavoidable and temporary step to reach a final optimal equilibrium in the medium term. As a consequence, it would have been inappropriate to apply corrective policy interventions at the national or European level during the first years of the new century: the laissez-faire policy had to be preferred. In other words, the so-called "Lawson doctrine", named after Nigel Lawson – the UK Chancellor of the Exchequer during the 1980s and the Thatcher era –, should have to be applied: to the extent that expectations are rational and current account deficits reflect private savings and private investment decisions, there are no distortions and then there are no reasons for the government to intervene (Clarida 2007, Blanchard 2007).

However the descriptive evidence, offered in Chapters 1 and 2, shows that the catching-up processes of the EMU peripheral Member States during the first part of 2000s was characterised by bubbles in investments, mainly in the construction sector, and by excessive increases in private consumptions which imply excessive decreases in savings (Jaumotte and Sodsriwiboon 2010). This same evidence also shows that the current account imbalances inside the EMU were far bigger in the period 2003-2008, when – according to Blanchard and Giavazzi (2002) – the convergence mechanisms should have had to operate most powerfully (Lane 2013), than during the years immediately following the launch of the euro. Moreover, as proved by Lane and Milesi-Ferretti (2012), this outcome cannot be explained by shifts in fundamentals.

The failure of the Blanchard and Giavazzi model to foresee the evolution of the euro area imbalances can be ascribed to its excessive confidence in the beneficial effects of financial integration and in the self-adjusting power of market mechanisms. In the first respect, Gourinchas and Jeanne (2002) maintain that small open economies reap quite poor gains from financial integration and liberalisation; in fact, as the recent experience of the euro area has shown, both these factors are unlikely to remove *per se* domestic distortions or inefficiencies. In the second re-

spect, a more recent paper (Jaumotte and Sodsriwiboon 2010; see also Holinski et al. 2012) shows that, by reducing private savings, financial integration and liberalisations in the euro area allowed peripheral countries to implement an excessive amount of investments which led to an internal overcapacity not adjusted by market mechanisms.[3]

It is possible to be just a bit more precise on the determinants and consequences of market failures in a new monetary union such as the euro area. The easier access to international capital markets for the EMU poorer members and the consequent euphoria about their positive economic prospects had the effect of postponing those structural reforms in the tradable and non-tradable sectors, which would be required to adjust imbalances.[4] As acknowledged by Blanchard himself (2007), when countries run high current account deficits, the short term impact is the expansion of their non-tradable sectors and the relative contraction of their tradable sectors. Hence, to adjust these deficits in the medium term, it would be essential to launch an opposite process: a relative contraction of the non-tradable sectors and an expansion of the tradable sectors. This rebalancing did not happen in the peripheral countries of the euro area before the international crises due to the possibility to finance their prolonged imbalances by means of abundant external capital flows. The consequent reproduction of current account deficits and the related postponement of structural reforms had a negative impact on the learning-by-doing mechanisms and on the productivity of tradable sectors of European peripheral countries (Krugman 1987). The combination of high external deficits and stagnant productivity implied that these countries suffered an appreciation in their implicit real exchange rates and a fall in their competitiveness. Hence, these same

[3] Financial liberalization has implied relaxation of capital controls, entry barriers, and quantitative credit controls. On the other side, it has improved financial supervision; but supervisory failures did not allow an effective substitution between less control and more regulation.

[4] Lane and Pels (2012) show that countries with more optimistic growth forecasts ran larger and persistent current account deficits during the pre-crisis period. The two authors attribute the result to a decline in the risk aversion of the policy makers and agents, who belonged to these countries. Hence the latter did not have the right incentives to adopt sufficiently-countercyclical prudential policies.

countries became extremely vulnerable to negative external shocks, and the investors of central Member States became worried about their possible growth performances (Gourinchas 2002).

This conclusion, which clearly describes what happened in the euro area with the global financial crisis, also clarifies why the Blanchard and Giavazzi model is unable to explain the actual evolution of the European current account imbalances. This model is too confident in the self-adjusting power of market mechanisms. Hence, it overestimates the benefits of financial integration and expected growth, while it overlooks the risk of excessive investment and consumption.

3.3 THE ROLE OF FINANCIAL FLOWS

As we have seen in the previous section, monetary and financial integration does not necessarily foster the catching up process of peripheral countries towards "central" ones. The European evidence shows, at the opposite, that this integration can have a major role in the emergence and persistency of current and financial account imbalances; and the latter can hinder the implementation of convergent equilibria in the medium-long term. In this section, we review the main contributions in the recent economic literature which stress the importance of financial flows to start, strengthen and reproduce current account imbalances inside a monetary area.

In order to do that, it is necessary to start with an empirical as well as a theoretical specification. From the empirical point of view, it must be noted that this literature recently gained large room due to the growing size and the related growing importance of financial flows. In the 1970s, gross financial flows were smaller than trade flows; at the opposite, at the beginning of the 1990s, the former were already large enough to dominate the quantitative flows in the balances of payment of all developed countries. In the following years, the economic evolution implied that financial flows became a large multiple of "real" flows and that the international financial markets became more and more integrated. Hence, it is not surprising that the creation of the EMU represented a dramatic shock for the euro area countries: the elimination of the cur-

rency risks implied that even low yield differentials were sufficient to determine massive transfers of capital flows. In this situation, EMU peripheral Member States did not have any problem to finance their current account deficits and their public debts. Spain, Greece and Italy were able to allocate a growing amount of bonds in the European financial market without binding constraints; Portugal and Slovenia obtained large flows of foreign loans; Cyprus and Malta received increasing amounts of FDI (Jaumotte and Sodsriwiboon 2010).

From a theoretical point of view, it must be noted that there are two opposite approaches with respect to the impact of increasing financial flows on the working of the economic systems (Obstfeld 2012). The first approach maintains that financial markets are efficient markets because they are a good approximation of complete Arrow-Debreu markets. This implies that financial flows tend to be optimally allocated since idiosyncratic risks can be diversified through well-functioning contingent securities. The second approach maintains instead that financial markets represent the typical case of market imperfections. There are a number of variables which hinder the well-functioning of these markets and increase the probability of their repeated failures: information asymmetries, incompleteness of contracts, skewed expectations and incentives, tax avoidance or evasion, regulatory arbitrage, implicit government guarantees, and so on. These variables lead to inefficient allocations and reinforce systemic risks. In this context, debt or debt-like instruments are potentially worrisome because they allow financial players to leverage themselves.[5]

In line with the first approach, Ahearne et al. (2008) and Schmitz and von Hagen (2011) point out that capital flows are in principle efficiently allocated; hence, the massive transfer of financial flows from the "central" to the "peripheral" Member States in the euro area before the financial crisis was compatible with the convergence hypothesis. Never-

[5] As remarked by Bernanke et al. (2011), Europe significantly leveraged up its international balance sheet, issuing sovereign debt and bank debt and using the proceeds to buy substantial amounts of highly rated US mortgage-backed securities and other fixed-income products (see also Obstfeld 2012). US subprime crisis mainly propagated to Europe through this channel.

theless, given the impact of the international financial and European crises, Schmitz and von Hagen (2011) acknowledge that possibly the development of peripheral countries was also negatively affected by large capital inflows. The latter facilitated the violation of market discipline in the European peripheral countries. Hence, the favourable financial conditions should have been associated with more prudent macroeconomic management.

The contributions which follow the second approach and do not share these conclusions, can be divided in different strands. One of them focuses on the impact of credit booms in emerging and developed countries. Credit booms represent one of the main drivers of financial instability (Jordà et al. 2011). Using a sample of 19 advanced and 28 emerging market economies over the years 1960-2010, IMF (2011) finds that financial inflows can be used as predictors of credit booms. Gourinchas and Obstfeld (2012) attribute the resilience of many emerging countries in the aftermath of the global financial crisis in part to their preventive actions against credit booms; and they add that this was not the case for Central and Eastern European Countries (CEECs). Borio et al. (2011) find that credit booms were reinforced by international credit flows that bypassed the domestic banking system through direct cross-border lending to customers and purchases of domestic bonds by non-residents. Reis (2013) points to credit frictions in the financial system as a factor that produces capital misallocation. In fact, incumbent non-productive firms, while holding collateral assets, can survive through increasing leverage and crowding out to more productive firms. Since non-productive firms operate typically in the non-traded sector, this financial mechanism implies losses of productivity in tradable sectors.

Recent works investigate the role of financial flows in the euro area imbalances (Giavazzi and Spaventa 2010, Schnabl and Freitag 2012, Collignon 2013). Collignon (2013) sees the excessive lending from northern to southern countries as one of the factors facilitating the increase in imbalances. Schnabl and Freitag (2012) suggest that the combination of the inability of European peripheral countries to sterilise the huge capital inflows arising from the process of financial integration and the exogenous shock of the German unification is likely to have played an important role up to the present. In contrast, external factors, namely the

change in saving and investment behaviour of key trading partners, especially the United States (US), have been the main cause of surpluses in Germany and the Netherlands.

Giavazzi and Spaventa (2010) argue that financial flows could have direct effects on the domestic economic activity to the extent that foreign capitals go into the production of non-traded and non-tradable goods, like dwellings, or finance higher levels of consumption and public deficits rather than to finance productivity-enhancing projects in the traded sector (see also Eichengreen 2010). The result is a low productivity dynamics, as in the case of Ireland and Spain. On the other hand, Giavazzi and Spaventa (2010) explain the case of Greece and Portugal pointing out domestic problems given by excessively high levels of consumption and low saving, which in the Portuguese case add to a stagnant growth performance.

The analysis of Croci Angelini and Farina (2012) leads to similar results. These two authors argue that financial and real interconnections among EMU countries have magnified and mutually reinforced imbalances between surplus and deficit countries, with a consequent increase in the systemic risk of the whole euro area. In addition, by analysing deficit countries they distinguish the cases of Ireland and Spain, where import booms were driven by bubbles and excessive domestic demand boomed imports (see also Diaz Sanchez and Varoudakis 2013), from that of Italy, Portugal and Greece where trade balances worsened because of exchange rate shocks. In the latter group, the main contribution to the systemic risk is connected to domestic factors, that is a strong increase in public expenditure and a fragile link between savings and investments; additional concerns for Italy come from low growth, deteriorating competitiveness and reduced fiscal revenues.

These results support the view that financial market imperfections can reinforce systemic risks. Hence, and on the basis of recent experience, we agree with Obstfeld (2012): the hypothesis that cross-border financial flows promote efficient risk sharing is implausible. Moreover, countries with large net financial inflows, necessary to finance large current account deficits, are subjected to "sudden stop", as remarked by Calvo and Reinhart (2000). If foreign lenders suddenly become unwilling to provide capital, and a country has few liquid foreign assets, a sud-

den stop in financial inflows leads to a sharp and painful adjustment, mainly though a collapse in domestic demand.

Vulnerabilities emerge on the asset side of the banking sectors as a consequence of the abrupt growth in nonperforming loans, due to the contraction of the economy and to the lower average loan quality because of too rapid credit growth in the previous years. This scenario happened in some of the southern euro area countries, with a sudden stop in private financial inflows and with only IMF, EU and ECB ready to finance them. Furthermore, it should be noted that, because of the effect of financial inflows on the NIIP, countries with large stock of net external liabilities are always vulnerable to a financial crisis (Catão and Milesi-Ferretti 2013).

3.4 DIVERGENCE IN UNIT LABOUR COSTS AND COMPETITIVENESS

The second group of contributions on the causes of the widening of imbalances points mainly to the role of unit labour costs (ULC) development in the euro area, which is one of most common measures of cost competitiveness. The first contribution on the subject is the study of Dullien and Fritsche (2009), which already in 2006 analysed the development of ULC among euro area members. They conclude that Portugal, and to a lesser extent Spain and Greece, have been characterised by excessive increasing in labour costs. At the same time, they warned about the strong fall in German ULCs, although they argue that this can be the result of initial misalignment of the euro conversion rate. The authors were the first to draw general attention to this problem, before imbalances became a matter of concern. Other works followed on the subject (Belke and Dreger 2011, Stockhammer and Onaran 2013, Collignon 2013). Generally speaking, all of these works share the conclusions reached by Dullien and Fritsche (2009).

They argue that current account imbalances in the euro area are due to the development of unit labour costs, pointing in particular to the role of Germany where current accounts surpluses were associated with wage deflation. The argument of Collignon (2013) is in line with the

above contributions as it also points to the difference in development of ULC, but it claims that together with labour costs, capital efficiency should be taken into account in order to draw a clear picture of the competitive position of individual countries. In a following work Collignon and Esposito (2014) built a ULC based measure of competitiveness embedding also capital efficiency. They provide evidence that this measure is much more effective in explaining the export performance of euro area countries, both in terms of market shares and trade balances.

Stockhammer and Onaran (2013) analyse European imbalances from a post-Keynesian point of view and posit the role of wages in creating and reducing such imbalances. They find two explanations: first, as the euro area is a relatively closed wage-led economy, the competitiveness effect of wage reduction is more than compensated for by the negative impact on consumption; second, imbalances arise because some northern countries (Austria, Germany and the Netherlands) are export led while a number of EMU peripheral countries are credit-led.

The solutions proposed by this strand of literature are mainly two: on the one hand, Stockhammer and Onaran (2013) and Collignon (2013) stress the role of wage bargaining, while others stress the necessity of structural reforms and investments to restore competitiveness (Zemanek et al. 2010, Belke and Drager 2011). The first solution is advocated by Stockhammer and Onaran (2013) who propose to consider the balance of payment position in wage bargaining and the introduction of a coordinated system in which wages rise in line with productivity growth, and a substantially upwardly-revised inflation target. Collignon (2013) has also proposed a more coordinated wage bargaining process, which should also take into consideration the efficiency of the capital stock. Schelke (2013) is also in favour of more policy coordination.

Among the proponents of structural reforms, Zemanek et al. (2010), find that ULC is not a significant determinant of the current account position. Nevertheless the authors stress the need for structural reforms aiming in particular to increase labour market flexibility, in order to prevent current account deterioration. Belke and Drager (2011) argue that ULC should be reduced in deficit countries as surplus countries cannot deteriorate their competitiveness. According with this point of view only asymmetric adjustments are feasible.

3.5 EXTERNAL TRADE AND COMPETITIVE PRESSURES

Closely related to the analysis of domestic cost competitiveness is the literature exploring the role of external trade shocks and competition from emerging economies (Chen et al. 2013, Guerrieri and Esposito 2012 and 2013). These papers stress the role of asymmetric trade developments with countries outside the euro area in addition to the traditional explanations referring to intra-European causes. In particular, they point to the role of integration with Central and Eastern Europe as well as import competition of Chinese products in worsening the position of southern European countries. As deficits are financed mainly by financial flows from surplus members, which in turn are subject to increasing claims from extra-euro area countries, the authors conclude that the peculiarity of the euro area allows for persistent external imbalances. On a similar line, Guerrieri and Esposito (2012) point to the role of trade integration through outsourcing with the most advanced CEECs, together with the introduction of the common currency, to explain the positive performance of German net exports in comparison with Italy, France and Spain. In a following paper, Guerrieri and Esposito (2013) find that Germany has been less penalised by import competition and trade integration with the BRICs (Brazil, Russia, India, China) and the group of ASEAN (Association of Southeast Asian Nations), while Italy, given its higher dependence on the external sector with respect to Spain and France, has been the most penalized. In terms of policy implications, Guerrieri and Esposito (2012) stress the role of a symmetric mechanism in designing adjustment policies at the European level, where surplus countries would implement expansionary policies in order to favour the rebalancing of the area. In addition, the authors stress the importance of an industrial policy in fostering the penetration of emerging markets similarly to the German model.

Finally, special attention should be paid to the study of the European Commission (2012a), containing a deep investigation on the anatomy of current account imbalances in the euro area. While pointing to the standard causes already addressed in the present work, (i.e. interest rate reductions, financial integration and increasing competitive pressures from the internal market and from emerging economies), the study

shows that only deficits are a matter of concern, as CA surpluses can be justified by fundamentals and do not pose problems of debt sustainability. As the report find no causal relation between surplus and deficit countries, it argues that reducing surpluses would have no direct effects on deficit countries. A reduction of surpluses would be beneficial to strengthen domestic demand and contribute to rebalancing the CA only if they are related to market failures and to the lack of structural reforms. Hence, the Commission is basically confirming the view according to which most of the adjustment should take place in deficit countries.

3.6 CURRENT ACCOUNT ADJUSTMENT AFTER THE EURO CRISES

This section aims to assess whether the current account rebalancing observed since 2009 is the effect of the self-equilibrating mechanism, which operates when CA imbalances emerge in a monetary union, as Blanchard and Giavazzi (2002) predicted.

Berger and Nitsch (2014) argue that trade imbalances among euro area members considerably widened since the introduction of the common currency. The paper shows the relevance of the real effective exchange rate (REER) as a determinant of trade balance for a sample of 18 European countries over the sample period 1948-2008. According to Sinn (2014) in order to structurally rebalance current accounts within the euro area what is required is a real devaluation in peripheral countries and a real revaluation in Germany. The author measures international competitiveness of the euro area countries using REER as provided by Eurostat. The paper argues that in the period 2007-2012 Ireland represented an exception showing a significant devaluation in REER following the bubble burst in 2006. Thus Ireland seems to have been able to cut wages and prices. Countries like France, Italy, Portugal, Greece and Spain have not been able to achieve any substantial real devaluation. At the same time the necessary real revaluation of Germany did not take place.[6]

[6] The real exchange rate for countries belonging to the monetary union moved in a

The current scenario shows that peripheral countries are far from the real effective exchange rate realignment required to achieve debt sustainability and Italy, according to Sinn (2014), should leave the euro in order to restore its external competitiveness. By contrast Diaz-Sanchez and Varoudakis (2013) find that until 2009, the increasing imbalances in deficit countries were mainly driven by the raise in domestic demand due to the great financial integration in the euro area. According to this point of view, internal devaluation would have only a limited effect in absorbing macroeconomic imbalances of deficit countries.

The increase in unit labour cost in the periphery cannot be considered a cause but a symptom of the demand shock triggered by large capital inflows in the 2000s (Gaulier and Vicard 2013). Auer (2014) argues that the increasing export performance of the southern euro area in the last years can be interpreted as a result of an improvement in competitiveness. However, as Table 1.4 shows, there is no substantial increase in the export market share of peripheral economies sufficient to identify an increase in competitiveness. This means that the export performance reported by Auer (2014) have been driven by the global recovery after 2009. At the same time, since 2011, the reduction in imports of goods and services has been driven by the recession brought about by the strong austerity measures. According to this evidence, we should conclude that the current adjustment is not structural and imbalances are likely to show up again once trade patterns normalise. We will provide more evidence in favour of this point of view in Chapter 4.

3.7 CONCLUSIONS

This chapter analysed the existing literature on the imbalances inside the EU in order to provide explanations for the results of the descriptive analysis in the first two chapters. In general, useful explanations can be

destabilizing direction between the pre-crisis period and 2010. The main source of external adjustment for deficit countries has been expenditure compression, rather than expenditure switching (Lane and Milesi-Ferretti 2012).

found both in the financial markets and in the development of competitiveness and external trade. We have seen that financial flows generate imbalances without automatic rebalancing mechanisms: the adjustment after the crisis is the result of the recession hitting the euro area; such recession was brought about by the strong austerity measures, which transformed external into internal imbalances. The export performance of the southern countries since 2011 cannot be ascribed to increases in competitiveness but represents the result of global recovery after 2009.

The literature on financial integration and financial flows help explaining the unsuccessful growth model of some peripheral countries, especially Spain and Ireland. The introduction of the euro and the elimination of currency risks generated massive capital flows from richer to poorer countries, which financed the CA deficit in southern Europe. Although this result is in line with the prediction of mainstream economics, many factors were originally not taken into account with the result of increasing the systemic risk in the euro area:

- the problem of credit booms in economies affected by massive capital inflows, which deteriorated their international investment position, making them more vulnerable to the financial crisis and to a sudden stop in capital inflows;
- the fact that financial flows, in many cases, were directed to the non-tradable sector, or to finance high levels of consumption. Again, this explains the problems of Spain and Ireland;
- initial misalignments of the exchange rate could have increased the problems for southern Europe, especially Italy and Greece;
- domestic factors, such as low growth and high budget deficit in Italy, high consumption and low savings in Greece and Portugal, put additional pressure on their CAs.

The literature on competitiveness and external trade is particularly relevant to explain the dichotomy between southern and northern countries. In particular, it explains why Germany increased its export performance at the expense of other countries. The wage moderation in Germany coupled with a fixed exchange rate, improved its external competitiveness especially within the euro area, reducing relative competitiveness of southern Europe and France.

In addition, asymmetric trade shocks further explain the deterioration of the position of Italy and France. These countries are suffering more from the competition from emerging economies, also because of the development of outsourcing relations. Deficits in these countries are then financed by Germany and other northern countries, leading to a vicious circle of mutually reinforcing imbalances.

Although some studies still show the view of the European Commission that imbalances (especially surpluses) may simply be the outcome of the proper functioning of the monetary union, there is increasing evidence against this view, which points to the need to take policy actions, both at the individual and at the euro-wide level in order to rebalance the economy. In doing so, all factors must be taken into account (credit booms, investments in non-tradable, ULC development and external competitiveness).

4.
In Search of the Determinants

4.1 INTRODUCTION

As Chapter 1 suggests, the recent rebalancing in the current accounts of peripheral Member States of the euro area can be explained by several factors. Let us just stress the main three. The first and most important factor has been the deep and long recession in the peripheral economies (2008-2013), which produced a reduction in consumption, investment and imports. The second factor can be identified in the substantial deflation of various peripheral countries, which has improved their pri ce competition by keeping their rates of inflation below the very low European average. Finally the third factor has been the compression of real wages, eased by a rate of unemployment above the high European average and a rate of activity below the European average. In Chapter 3 we concluded that the standard explanation based on the existence of a market equilibrating mechanism, which progressively adjusts current account imbalances inside a monetary union (Blanchard and Giavazzi 2002), is not able to explain the evidence. Therefore, further investigations of the determinants of the European macroeconomic imbalances are in order.

We start with an in-depth review of the report of the European Commission (2012a) on current account imbalances in the euro area. The European Commission's findings and policy suggestions can be summarised in the following three points: (i) the need to avoid coordinated policy actions that could compromise the competitiveness of the monetary union as a whole; (ii) the relevance of external factors in explaining intra-EU imbalances; (iii) the absence of causality between deficit and surpluses trade balances. These beliefs are based on the dominant view in the European Union that only asymmetrical adjustments involving deficit countries are needed.

In this chapter, we provide evidence that are not in line with these conclusions and offer some alternative explanations. Competiveness indicators show, on the one hand, that the monetary union produced imbalances both before and after the global financial crisis and that a competitive gap with the United States also affects the central European countries. On the other hand, the recent adjustment of the competitive positions of the deficit countries seems to be mainly driven by temporary factors. Trade imbalances by area show that external shocks contributed to their widening, but that the dynamics of trade within the euro area also played an important role. The strict link between trade and financial flows allowed surplus countries to exert pressure on deficit countries that received cross-border capital.

An econometric analysis, based on an augmented version of the gravity equation for the period 1999-2007, is performed to better understand the nature and evolution of trade imbalances within the euro area. The chapter is structured as follows. Section 4.2 reviews the report of the EC (2012a). In Section 4.3 we discuss the competitive performance of the euro area and the determinants of ULC changes; in Section 4.4 we take a deep look at the geographical composition of trade flows, while in Section 4.5 we discuss the linkages between trade and financial flows. Section 4.6 presents the econometric analysis we used for testing the different explanations advanced in the literature for the rise of external imbalances among EU countries. Section 4.7 concludes.

4.2 THE INSTITUTIONAL EXPLANATION

In Section 4.1 we briefly described the study of the European Commission (2012a) on current account imbalances in the euro area. Here we go into more details and discuss the main implications of this report.

The Commission report aims to analyse the persistent current account surplus in some euro area countries. Looking first at the bilateral trade relations among countries, the report does not find any causality between deficit and surplus countries. In other words, if the surplus countries represent the main exporters for the deficit countries, the reverse does not necessarily occur. This result has an important policy

implication: a demand increase in surplus countries implies a limited positive effect on imports from deficit countries. Based on this finding, the European Commission (2012a) believes that the symmetrical development of surpluses and deficits is not a determinant of the current account imbalances. Hence, coordinated policy actions that reduce both large deficits and surpluses are not only unneeded but even harmful. According to European Commission (2012a:13, 112),

> the rebalancing inside the euro area (and the EU) cannot consist of policies which undermine the competitiveness of the EU, of the monetary union, or even of individual Member States in the global economy. […] In an economic and monetary union, the adjustment mechanism through relative costs and prices should operate symmetrically, helped by sufficiently flexible product and labour markets that allow the efficient reallocation of resources.

Hence, the macro-prudential regulation is a key factor in preventing the imbalances.

Focusing on financial linkages, EC (2012a) finds, in addition, that: in the pre-crisis period financial flows went mainly from the surplus to the deficit countries, which produced a strong euro bias: in fact, a small share of the euro area periphery's deficit was financed by the rest of the world. The net flows to the deficit countries did not change in their overall size during the crisis period because the withdrawal of funds by surplus countries was replaced by financial flows through TARGET2.[1]

EC (2012a) sees the convergence in the interest rates, after the introduction of the euro, and developments in global financial markets as the main factors affecting imbalances. But external factors, including the increased competition from China and the other emerging countries, al-

[1] TARGET2 is an interbank payment system for the real-time processing of cross-border transfers throughout the European Union. It is mainly used to settle operations of monetary policy and monetary flows. It has to be used for all payments involving the Eurosystem, as well as for the settlement of operations of all large-value involving the euro. It follows that, if the imbalances in the current accounts of European countries are not compensated by financial and capital flows, TARGET2 has the function of cleaning room among central banks.

so appear to have a relevant impact on intra-EU imbalances. Therefore, to promote the recovery of peripheral countries what is required is to promote non-debt capital inflows from surplus countries, which could stimulate growth and reduce the burden of debts. Overall, we can summarise the Commission report on the European current account imbalances in the following points:

1) external factors have a relevant impact on the intra-EU imbalances;
2) there is no causality between deficit and surplus trade balances;
3) competitiveness of the monetary union should not be compromised by coordinated policy actions aimed at reducing both large deficits and surpluses.

The next section gives an alternative explanation of European macroeconomic imbalances.

4.3 PRODUCTIVITY, COST COMPETITIVENESS AND IMBALANCES

In this section we analyse the performance of the EMU after the introduction of the euro in terms of productivity and cost competitiveness. More specifically, in Section 4.3.1 we first assess the competitive performance of the euro area as a whole with respect to the United States; secondly, we consider the evolution of the relative position of each country with respect to both the US and the EMU average; this is done in order to identify the link between trade/current account imbalances and competitiveness. In Section 4.3.2, we focus on the nature of the recent developments in the relative competitive position of some deficit countries with respect to Germany in order to assess whether the recovery is a structural phenomenon or simply the effect of a temporary reduction of nominal costs.

4.3.1 Imbalances and the competitive performance of the euro area with respect to US

The analysis of the relative competitive performance of the euro area and US is done by using three standard indicators for productivity and cost competitiveness:

1) GDP at constant market prices, adjusted for the impact of terms of trade, per person employed, which is an index of labour productivity;
2) total factor productivity (TFP), an index of overall productivity in the total economy;
3) unit labour costs (ULC) at constant market prices, which combines the cost for using labour forces (total labour compensation) and their productivity.

We also consider the real GDP growth, which could be viewed as the consequence of the different competitiveness levels. The sample period covers data from 1999 to 2015 since we also take into account the EC forecasts for 2014 and 2015.

Figure 4.1a reports the percentage change in the real GDP per person employed in the euro area and in the US, adjusted for the impact of terms of trade in order to sterilise the effect of exchange rate variation and avoid biases in the indicator. Except for 2006 and 2007, we find that this productivity indicator in the euro area is always below that of the US. In the pre-crisis period, productivity grew on average at a rate of 1% in the euro area (EA), while in the US the increase was 1.9%; in the post-crisis period the productivity gap enlarged, with an increase in the EMU of 0.2% and a rise of 1.5% in the US.

Considering the difference between each EMU country and US, we find that only Spain and Portugal were able to improve their relative productivity from the pre-crisis to the post-crisis period (Figure 4.1b), although at the cost of a strong increase in unemployment. By contrast, Estonia, Slovakia, Slovenia and Greece are the countries that have lost the highest level of relative productivity. The differences based on the euro area average confirm these results (Figure 4.1c).

Figure 4.2a displays the percentage change of TFP in the euro area and in the US. In the pre-crisis period (1999-2007), we see that the TFP

dynamics in the EMU was on average below that of the US. With the financial crisis this scenario worsened: TFP dropped by 0.4 percentage points in the EMU, while in the US it increased by 0.8 per cent.[2]

The relative position of each Member State with respect to the US also shows a negative picture: only Slovakia was able to raise its TFP in the same proportion as the US, although it was lower than the pre-crisis period (Figure 4.2b). Spain and Portugal display a relative better position in the transition between the pre- and post-crisis period, but show a productivity gap relative to the US. Finally, Greece, Estonia, Slovenia, Finland, Ireland, Austria and the Netherlands display the worst behaviour in terms of TFP dynamics: in the period 1999-2007 they had a relative advantage with respect to the US, in the post-crisis period they lost competitiveness.

The difference in TFP dynamics of each Member State with respect to the EMU average are shown in Figure 4.2c. The figure points out that Estonia, Greece, Slovenia and Finland recorded a loss in competitiveness in the post-crisis period.

Finally, the real ULC indicator (Figure 4.3) reveals that in the 1999-2007 period the EMU exhibited a negative variation, while the US had a peak in 2000 (Figure 4.3a). The performance of real ULC in the EMU before the global financial crisis (-0.5 on average), was better than that of the US (-0.3). However, after the financial crisis the situation changed. In fact, the EMU showed a severe increase in the period 2008-2009, while the US presented a quite modest rise just in 2008. As a result, in the period 2008-2012 the real ULC showed a positive change in EMU on average (+0.6), while in the US the average variation has been negative (-0.7%).

Looking at Figure 4.4, it is clear that the boost in ULC in the EMU was due to the rise in real compensation per employee brought about by the decreasing path of inflation. The US also show an upsurge in the real compensation in the same period; however, the negative effect on competitiveness has been fully balanced by the increase in productivity (see Figures 4.1a and 4.2a).

More details on the ULC behaviour can be obtained from Figure 4.3b.

[2] See European Commission (2013) for a detailed analysis of the productivity gap of the euro area with respect to the US.

In this Figure we represent, on the horizontal axis, the average difference in the percentage change of the real ULC between each EMU country and the US in the period before the financial crisis (1999-2007), while on the vertical axis we report the average difference after the financial crisis (2008-2013). From Figure 4.3b we find that, with the exception of Greece and Cyprus, all euro area countries show a worsening relative position vis-à-vis the US, from the pre- to the post-crisis period. As to the remaining peripheral countries, the deterioration is limited in Spain and Portugal while it is more pronounced in Ireland and Italy. Among the European countries with sounder macroeconomic conditions, Luxembourg, Finland, Austria and Germany show the highest deteriorating behaviour, followed by Belgium and the Netherlands.

Taking into account the relative position of each member with respect to the euro area average, we find that only Malta, Portugal, Cyprus, Greece, Estonia, Ireland and Spain were able to improve their competitiveness in terms of real ULC (Figure 4.3c); Belgium and the Netherlands maintained their relative position; France and Italy were unable to reduce the competitiveness gap; whereas Luxembourg, Slovakia, Germany, Austria, Slovenia and Finland experienced the greater losses.

The increasing gaps in productivity and labour costs show their effect on the economy by mainly reducing its growth rate. Figure 4.5a shows the real GDP growth in the EMU and in the US respectively: in the period after the launch of euro (1999-2013), the gap in terms of growth is equal, on average, to 80 basis points (+1.3% for the EMU; +2.1% for the US). The gap has remained substantially unchanged in the pre- and post-crisis period. But in the 1999-2007 period the euro area grew by 2.3 percentage points (2.8% in the US), whereas in the crisis period (2008-2013) the EMU growth rate fell dramatically to -0.3% (+1.0% in the US). This feature is common to several countries, not only to peripheral ones (see Figure 4.5b). In details, Greece, Ireland, Estonia, Slovenia, Spain, Luxembourg, Finland and Cyprus, all show a path of a higher growth before the crisis and of a severe slump after the crisis. The differences based on the EMU average confirm these findings (see Figure 4.5c).

The three main competitiveness indicators show two important pieces of evidence: first, an increasing competitive gap for the EMU with respect to the US in terms of TFP and labour costs both in the pre- and

post-crisis period; second, a rebalancing of the competitive position of deficit countries and more intensively for the peripheral countries under European aid programs (Greece, Ireland, Portugal and Spain).

The loss in competitiveness involved not only the peripheral countries, but also the core countries and resulted in an overall reduction of the standards of living with respect to the US. Since the gaps are increasing in the post-crisis period there is an urgent need for a change in the European policies. Coordinated policy actions are required in order to maximise the outcome for the euro area as a whole and enable it to keep the pace with the United States.

As to the intra-EMU rebalancing of competitive positions, we have seen that most deficit countries in the period 2008-2013 reduced their real unit labour costs. On a first look, this might be seen as a positive result and as an indication of the effectiveness of the austerity measures implemented, but in most countries this is not associated with a similar gain in productivity. Only Portugal and Spain show signs of structural improvements while for the rest of the countries, most importantly the other peripheral ones, wage compression appears to be the main driver, casting doubts about the long-lasting nature of these improvements.

4.3.2 Is the rebalancing of peripheral Europe a structural phenomenon? Evidence from the deconstruction of ULC growth

In this section we take a deeper look at the determinants of the competitive improvement of most peripheral countries by deconstructing the ULC growth into its main components.[3] Through this method we can assess whether the competitive gain is due to long-lasting structural changes in productivity or to temporary causes like wage compression or (the) various changes in employment protection mechanisms. The latter component is important in explaining the different adjustment

[3] In order to assess the international competitiveness of a country the Real Effective Exchange Rate (REER) might be a better indicator. Nevertheless, we prefer to use ULCs for two reasons: first, REERs do not allow to disentangle the effect of the different components of the index; second, in terms of competitiveness gaps among countries the two indicators display a similar dynamics.

paths since 2008 because in some countries the employment reduction during the two crises has been strongly mitigated by wage guarantee funds, which allowed for employment adjustment by reducing the number of hours worked rather than that of persons employed.

The average number of hours worked (k) is then an important determinant in ULC adjustment at times of crisis. In order to explicitly take account of its effect on the ULC dynamics, as shown in Box 4.1, we deconstruct the growth rate of the latter into that of labour compensation, hourly labour productivity and average number of hours worked and assess their contribution for the main peripheral countries (Greece, Ireland, Italy, Portugal and Spain) *vis à vis* Germany.

Figure 4.6 shows the ULC growth rate since 1999 and that of the three components. In the period 1999-2007 we can see that the German improvement in ULC with respect to peripheral countries is due to the combined effect of improvements in hourly labour productivity and moderate wage dynamics. In the years up to 2003, the effect of the Agenda 2010 reforms, which introduced forms of temporary employment with a lower load in terms of hours worked, is visible but this effect is of minor importance with respect to the combined effect of wages and productivity. Among the main peripheral countries, with the partial exclusion of Greece, the loss of competitiveness was caused by a sustained wage growth coupled with substantially flat productivity dynamics.

From 2008 on, as we have seen previously, there has been a partial catching up in cost competitiveness since Germany started to increase wages at a faster pace and ULC grew on average by 2% every year while in all troubled countries, except Italy, ULC growth has been on average negative. This result, which is particularly important for Greece and Spain, is, in any case, due mainly to the internal devaluation effect on wages. As we can see in Figure 4.6, the main change with respect to the pre-crisis dynamics is wage growth. The Greek case is the most striking one since the dynamics of ULC has been entirely driven by the wage compression effect in the last three years, while productivity growth was null or even slightly negative. In Ireland and Portugal, we find only weak signs of increases in productivity between 2008 and 2012 and ULC growth turned again positive in 2013 due, for the former, to a productivity reduction, and for the latter, to the return to a positive wage growth for the first time since 2010.

Spain is the only country where productivity improvements played a major role, together with the flat wage dynamics, in the ULC reduction. This is because in Spain the adjustment through the reduction in the average number of hours worked was of minor importance and unemployment rose up to 26.2% in 2013, with a youth unemployment rate above 50%. In Italy, on the contrary, the reduction in the average number of hours worked contributed to the continuous deterioration in ULC in 2009 and 2012, the two negative peaks of the crises; however, the main contribution came from the wage growth, which, contrary to the other countries of the group, was positive in most of the recent years so that the expected reduction in ULC did not materialise.

To sum up, in recent years the recovery in cost competitiveness of most of the peripheral countries is mainly due to the internal devaluation effect since we do not observe, except for Spain, substantial changes in the productivity dynamics. The competitive gain is likely to be, by consequence, only temporary and ULC will rise again with the recovery of GDP and employment, as the Portuguese and Irish cases have already shown. Given the high level of unemployment in Spain, its performance might deteriorate in the coming years with the recovery of the economic cycle.[4] The implied conclusion is that imbalances are likely to arise again in the coming years since restrictive fiscal policies and the related economic dynamics caused only a recession-induced competitive gain, and the structural problems of peripheral countries remain still mostly unsolved. Lacking resources for investments, due to the necessity to consolidate public finances, the countries' potential output will deteriorate, and the divergence in the competitive positions within the euro area and with respect to the US, most likely, will continue for the years ahead.

[4] In the last months Spain, and to a lower extent Portugal, implemented deep reforms which might be effective in bringing about an improvement in their structural competitiveness. Positive signals come in particular from the reduction of unemployment during the second and third quarters of 2014. Nevertheless, since the unemployment rate is still very high and public finances are not yet in order, such positive signals must be taken with caution. Important improvements have also been implemented by the Irish economy. In the next future Ireland should probably not be considered a peripheral country anymore.

Box 4.1. Unit Labour Cost Decomposition

Since the average number of hours worked k is the ratio of total hours worked (H) to total employment (E), we can express employment as:

$$E = H / k \tag{1}$$

and consequently, total labour productivity becomes:

$$TLP = \frac{GDP * k}{H} \tag{2}$$

which represent the product between hourly labour productivity (HLP) and average hours worked.

Since ULC is the ratio of the average compensation to labour productivity, by using equation (2) we get a formulation of unit labour costs that includes k:

$$ULC = \frac{Compensation}{HLP * k} \tag{3}$$

because this expression is multiplicative, ULC's growth rate can be expressed as the difference between the growth rate of the numerator and that of the denominator of equation (3):

$$\dot{ulc} = \dot{comp} - \dot{k} - \dot{hlp} \tag{4}$$

According to this formulation, ULC (competitiveness) rises (falls) when the wage growth is positive or when productivity growth is negative; in addition, an increase in k will improve competitiveness since a more intensive use of labour resources boost total labour productivity.

4.4 THE GEOGRAPHY OF TRADE IMBALANCES

In this section we discuss the geographical composition and evolution of euro area trade flows. This is an important piece of the story since the existing literature on the analysis of European trade imbalances (Chen et al. 2013, Guerrieri and Esposito 2012 and 2013, Etzel et al. 2013) finds a role both for the euro in favouring German export at the expense of the rest of the area (Guerrieri and Esposito 2012 and 2013, Etzel et al. 2013) and for the asymmetrical external shocks caused by the rising importance of emerging markets – above all Central and Eastern European Countries (CEECs) and China-ASEAN region – in world trade. These two explanations have different policy implications since the former deals mainly with the functioning of the euro area and the latter implies a focus on structural reforms at the country level. The following analysis of intra-euro area trade as well as intra- and extra EU trade is then a necessary step to clearly understand the forces driving the rise of external imbalances.

4.4.1 Trade balances within European countries

Trade balances within the euro area, the EU and with extra-EU countries are shown in Table 4.1.[5] Intra-euro area trade has contributed mostly to the increase in surplus countries, especially for the Netherlands and Germany. Between 1999 and 2007 these two countries extracted most of their surpluses from the euro area, and the Dutch case is particularly evident as its balance with extra EU countries is strongly negative.

For deficit countries, the deterioration of the balance is mainly due to extra EU27 trade. Between 2003 and 2007, Spain lost 2.2% of GDP against this group; similarly, Italy lost 1.3%, which more than offset the improvement within the EU, especially vis-à-vis non EMU countries. The Greek negative balance outside the EU doubled, passing from -3.9% in 1999 to -7.8% in 2007, while the imbalance within the EU and the EMU

[5] Due to the different data source for geographically disaggregated trade flows the sum of intra- and extra EU27 trade does not exactly match the total trade balance shown in Chapter 1.

kept basically stable although strongly negative. The Slovenian case is interesting, as the relative stability of its overall deficit is the result of a loss outside the EU and a strong gain against the European non-EMU countries.

Exceptions to this pattern are represented by Portugal, which shows no geographical change in the composition of deficit, and France, where two thirds of the total loss between 1999 and 2007 are generated within the EU and mainly within the euro area.

Among the remaining countries it is interesting to note that the recovery of Austrian net exports is entirely due to the extra EMU trade flows, especially with European countries. In fact, Austria together with Germany has been one of the countries most engaged in outsourcing activities with CEECs (see Marin 2006).

As shown in Chapter 1, there has been a general reduction in trade imbalances since the global financial crisis, due to both the collapse of domestic demand and investment and to a partial export recovery. In most of the deficit countries, the reduction is mainly due to the improvement of trade balances within the euro area, while Italy, similar to Germany, has gained from extra EU trade.

Box 4.2. Price Effects, Volumes Effects and Oil Price Dynamics: Do They Foster Imbalances?

The evolution of trade prices is an important component in explaining changes in trade and current account imbalances. Nevertheless, little attention has been paid by the European authorities to the development of the terms of trade in European countries, and no consideration of trade prices is included in the MIP. The dynamics of trade prices is strictly related to the evolution of exchange rates between the euro and the other main currencies, especially the US dollar, and to the dynamic of the oil price as European countries are, on average, still strongly dependent on the import of oil from outside the EU.

This box aims to assess the importance of price dynamics on trade imbalances among euro area members. We do so by deconstructing changes in trade balances into price and volume effects and by assessing the contribution of trade flows of oil and oil-related products (in such effects). The methodological details of the deconstruction are described in the following section, whereas the discussion of the results is in Section B4.2.

B4.1 Decomposition of trade balance changes

We decompose the overall variation of net export of goods and services into the effect of trade prices (unit values) and volumes. As we are interested in GDP ratios, we further include the effect of changes in both real GDP and GDP deflator. As a starting point, we can express the trade balance at current prices as:

$$\frac{TrBal}{GDP} = \frac{X - M}{GDP} = \frac{p^x X^k}{pGDP^k} - \frac{p^m M^k}{pGDP^k}, \qquad (1)$$

where p^x and p^m are export and import unit value indexes, p is the GDP deflator and the superscript k indicates constant prices. By dividing values into price and volume components and total differentiating[6] the two sides of equation (1) we obtain the contribution of each factor on export and import flows as follow:

$$\Delta\left(\frac{X}{GDP}\right)=\frac{X^k}{pGDP^k}\Delta p^x+\frac{p^x}{pGDP^k}\Delta X^k-\frac{X^k p^x}{p^2 GDP^k}\Delta p-\frac{X^k p^x}{pGDP^{k2}}\Delta GDP^k \quad (2)$$

$$\Delta\left(\frac{M}{GDP}\right)=\frac{M^k}{pGDP^k}\Delta p^m+\frac{p^m}{pGDP^k}\Delta M^k-\frac{M^k p^m}{p^2 GDP^k}\Delta p-\frac{M^k p^m}{pGDP^{k2}}\Delta GDP^k \quad (3)$$

where the first two blocks on the right hand side of equations (2) and (3) represent the contribution of trade prices and volumes. The third and fourth blocks represent the impact of variations in the overall price level and real GDP(,) effects that are not null only when the trade balance is significantly different from zero.

B4.2 Main evidence

For the euro area as a whole, the dynamics of import and export prices, as well GDP deflator, is shown in Figure B4.1. GDP deflator evolved smoothly from 2000 to 2012 while the dynamics of trade prices shows a reduction of both import deflators during the period 2000-2003.[7] As import prices are more dependent on and strictly correlated with the oil price (Figure B4.2), we observe an improvement in the terms of trade

[6] The total differential is defined as the sum of changes in each component, weighted by the partial derivative of the trade balance with respect to the given component. This is similar to the calculation of the contributions to GDP growth, the only difference being in the simple additive form of the GDP equation whereas partial derivatives are simply given by the initial value of the component.

[7] Data for 1999 are not available.

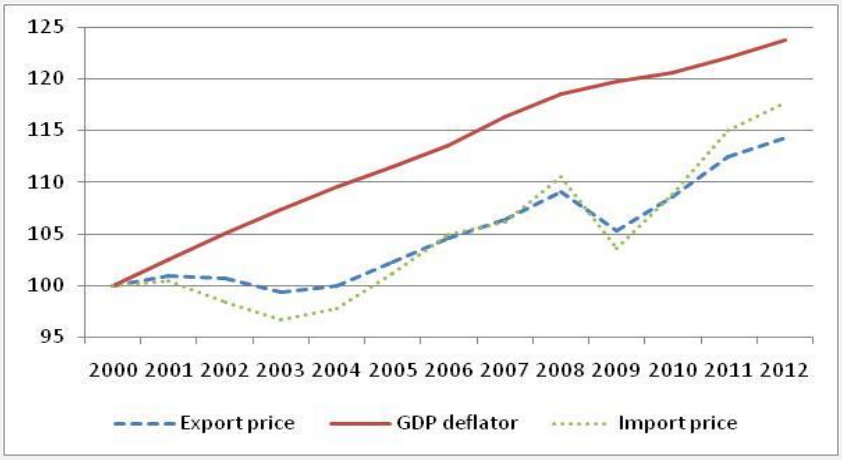
up to 2003 as import prices fell more. In the following period, and up to the global financial crisis, both indexes started to increase, but while the export price matches closely the pattern of GDP deflator, the import price experienced a faster dynamic because of the strong rise in the oil price. The greater reaction of import prices to the oil price continued also during and after the global financial crisis.

Focusing on the period 2000-2007, in Figures B4.3 and B4.4 we plot trade balance changes against price effects obtained from equations (2) and (3) for the two sub-periods 2000-2002 and 2003-2007. In the Figures the blue dots indicate variables calculated on total trade and the red triangles refer to changes excluding oil and oil related products (category SITC 3). As we already know from Chapter 1, the evolution of trade balances was positive in most of the countries, with the exception of Greece and Italy. Due to the greater fall of the import deflator, the price effect was positive almost everywhere over the same period and this is true also excluding oil products.

The picture for the period 2003-2007 is reverted and more jeopardised. The north-south dichotomy in terms of total changes is broadly replicated also excluding oil products, but a substantial effect of oil products is clearly present in Finland, Spain and Ireland. Interestingly enough, the Italian trade balance turns positive when excluding oil products and the oil price plays a major role as the increase is almost entirely due to a volume effect.

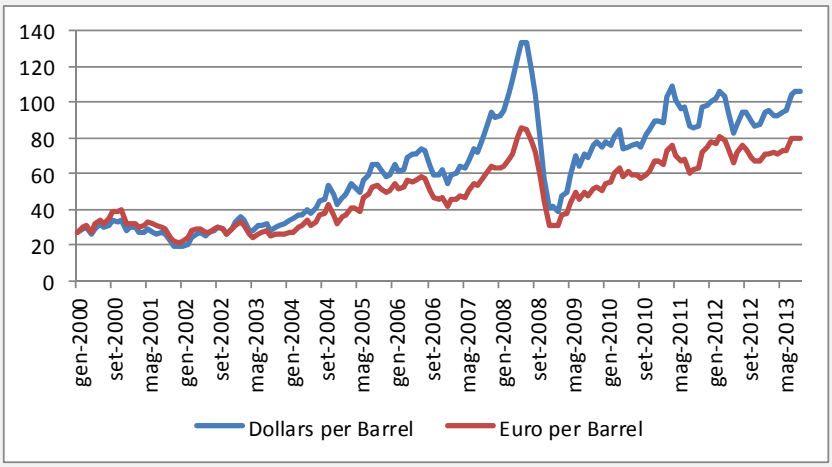
In conclusion, the dynamics of trade prices exerted a roughly balanced effect on the members of the euro area. Although, the dependence on extra EU imports for oil products had a negative effect on the trade balance, between 2003 and 2007, when imbalances experienced their greater increase, country differences were not exacerbated by the dynamics of trade prices. The only exception is Italy, for which the dependence on oil imports account for most of the balance deterioration. For this country, policies aiming at reducing the dependence on oil imports could prove effective in boosting the country's export performance.

Figure B4.1. Trade Prices and GDP Deflator for the Euro Area and Main Countries



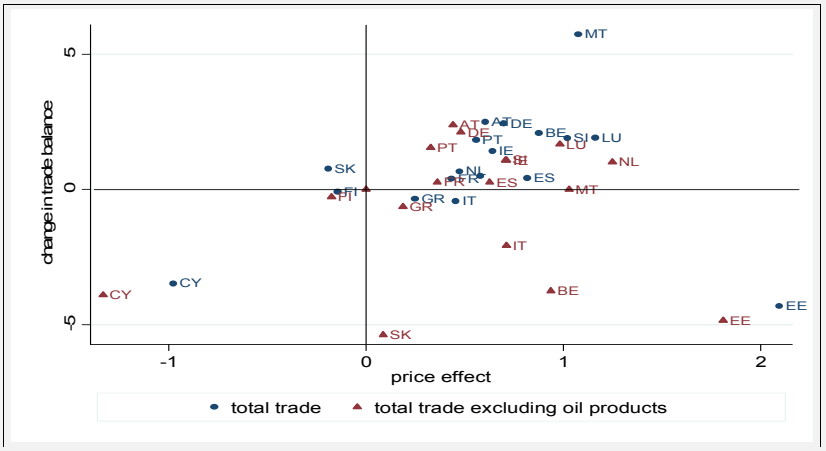
Source: Eurostat.

Figure B4.2. Change in Trade Balance Excluding Oil and Oil Related Products (2010-2012)



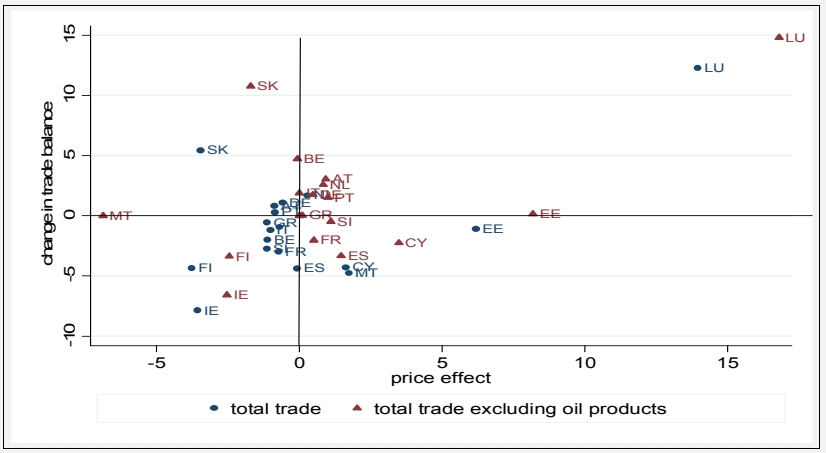
Source: US Energy Information Administration and Eurostat.

Figure B4.3. Change in Trade Balance and Price Effect (2000-2002)



Source: Own elaboration on Eurostat.

Figure B4.4. Change in Trade Balance and Price Effect (2003-2007)



Source: Own elaboration on Eurostat.

4.4.2 Import and export intensities

Let us now take a step forward by looking at the evolution of import and export flows, in order to understand whether deficits (surpluses) are the result of a deteriorating (improving) export performance or increasing (decreasing) import dependence. Such dynamics are shown in Table 4.2 which reports the changes in import and export intensities since the introduction of the euro by geographical area. Between 1999 and 2007 the export-to-GDP ratio increased almost everywhere except for Ireland (-26.4%), Luxembourg (-4.7%), Malta (-2.8%), Cyprus (-0.9%), Spain (-0.5%) and Greece (-0.2%). With the exception of Ireland, Cyprus and Malta, all countries increased the export intensity toward extra EU markets; however for Austria, Belgium, Germany and the Netherlands, as well as Slovenia and Slovakia, the export increase is largely due to the intra-EU component, which accounts for at least two-thirds of the total increase. Among the remaining countries, the increase in the export intensity of Italy and France comes mainly from the extra EMU markets, with a strong growth in Italy against the EU-non EMU countries in particular (mainly CEECs). Estonia compensates the deterioration of its export intensity toward the euro area with an opposite movement in extra EU exports.

Between 2007 and 2012 the export intensity increased everywhere but in Luxembourg. Again, the higher increases are recorded by surplus countries, together with the more recent Member States. In most of the cases the increase is mainly due to the performance outside the EU; nevertheless, in Slovenia, Slovakia, Estonia, Portugal and the Netherlands the intra-EU export growth plays a dominant role. Finally, Italy and France show a more balanced export growth among the areas but, similarly to Slovakia and Estonia, a relevant portion of this increase is linked to exports toward Central and Eastern Europe.

Turning to the import intensity, we observe a widespread increase between 1999 and 2007, which in many cases can be ascribed to the increase in oil prices (see Box 4.2). Austria, Belgium, the Netherlands, Slovenia and Slovakia experienced the largest increase in import intensities. However, relevant differences among countries exist. For Belgium and the Netherlands the majority of import growth comes from euro area countries, while in southern Europe as well as in Slovakia the import

growth is dominated by flows of goods from outside the EU. This is in line with the proposition that southern Europe is more affected by the competition of China and the other emerging economies, as shown by Chen et al. (2013) and Guerrieri and Esposito (2013). This result is also due to the higher dependency of southern European countries on the import of oil products and hence of its price changes. As we show in Box 4.2, the price effect was strong everywhere during the 2003-2007 period, and in the case of Italy it even reverted the sign of the trade balance's change. In Germany, Finland and France the growth of imports comes equally from within and outside the EU, but for the first two countries the intra-EU imports are driven by non-EMU countries; this latter evidence suggests that the role of non EA countries can also be the result of the emergence of a European Production Network.

In the years from 2007 to 2012 the import intensity increased in almost all countries (Cyprus being the only exception), and again the group of surplus countries experienced the higher growth. For the majority of countries the increase is mainly due to the rise in extra-EU imports. This effect has been particularly strong for the main peripheral countries, as well as for Finland and the Netherlands. Among the most troubled countries, it is interesting to note the relative contraction in imports from the euro area in Portugal and Greece, which is a consequence of the deep recession brought about by strong austerity measures.

4.4.3 Polarization of intra-EMU trade

In order to get a better picture, we now show in Table 4.3 the distribution of export and import flows within the euro area. The countries are classified in four groups: the first includes northern-surplus countries (Germany, Belgium, Austria, the Netherlands, Luxembourg and Finland); the second group includes Italy and France; the third group includes Greece, Ireland, Portugal and Spain (GIPS); the last group is made up of the new Member States (Estonia, Cyprus, Malta, Slovenia and Slovakia). At the bottom of each exporter's panel we add the contribution of the group to the total intra-euro area flow.

The main change in the geographical composition of intra-euro area

flows comes from the increased importance of northern countries' exports, mainly at the expense of Italy and France and, to a lesser extent, the GIPS. On the import side, although changes are smaller, the pattern is similar, it is interesting to note that the increase of the import share of northern countries is mainly due to trade among theirselves while they actually reduced substantially imports from France, Italy and the other traditional peripheral countries. The importance of the latter in total export has declined, while its import share has remained stable; by contrast, the NMS have recorded a generalised increase in both flows.

The resulting picture is that of a general increase of northern countries' importance as a single trade block whereas the remaining countries, except for NMS, have lost weight in northern markets while keeping stable their dependency on imports. After the crisis we do not see a radical change in this pattern. In most cases the pre-crisis dynamics continued or at best stabilised so that in the future we cannot preclude that the polarization between North and South will continue.

4.4.4 A summary view on intra-EMU trade imbalances

The main points that emerge from the above geographical analysis of trade flows are the following:

- imbalances arise both from the growing importance of Germany and the Netherlands as exporter countries within the euro area and to the strong increase of imports from outside the EU27, especially from emerging economies (BRICs and ASEAN above all).[8] The export dynamics in the surplus countries vis-à-vis the deficit countries strongly support this conclusion;
- Spain and Greece reduced their intra-EMU export intensity;
- the remaining countries experienced an export growth (as a percentage of GDP) below the average and more oriented to extra EU27 markets;

[8] The group of BRIC include Brazil, China, India and Russia. ASEAN countries are: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

- exports in surplus countries kept on growing also in the 2008-2012 period and, with the exception of the Netherlands, the growth is concentrated in extra EU markets;
- the new Member States also increased their intra-EU exports, but mainly toward non EMU countries;
- a rising competition on the import side emerged from non-EU countries, especially for peripheral countries up to the global financial crisis, and this trend became more intense in the period 2008-2012;
- intra-euro area flows experience an increasing polarisation, with northern countries becoming the main trading block and the remaining countries being marginalised as exporters.

The above facts indicate that the rise of trade imbalances might be explained by a relocation pattern within the EU, from less competitive to more competitive countries. Surplus countries, especially Germany, increased their export intensity in the common market while southern countries did not keep pace with northern Europe and experienced a deterioration of their balances as a result. Italy, France and the group of GIPS, did not increase their penetration to the northern markets and in some cases their share declined, while their import from northern Europe increased substantially. Competition from outside the EU further exacerbated these dynamics, as it caused a higher growth of imports in southern Europe compared to the north. The final picture is that of a dual Europe, with northern countries becoming the main trading block of the euro area and southern countries being both dependent on northern countries exports and more affected by external competition.

4.5 TRADE AND FINANCIAL INTERLINKAGES: A STRICT RELATION

In this section we discuss the role of financial interlinkages in the development of trade and current account imbalances and question the European Commission (2012a) finding of a lack of causality between surpluses and deficits. In our view, the established non-causal relationship

between deficit and surplus countries in the Commission report seems to miss a key point: the strict relation between trade and financial accounts (see Section 1.3.1). In fact, the European Commission (2012a:54-55) recognises that "in the euro area, the surplus countries financed the periphery by more than their bilateral trade balances, and effectively intermediated flows coming from the rest of the world"; at the same time the EC does not consider the effect of financial cross-border flows on trade balances, which is generally negative. As remarked by Pettis (2013:137), "countries that export capital do not help the deficit countries that import capital – on the contrary, capital exports often have adverse trade and growth impacts on the recipients."

In order to test for the effect of financial flows on trade balances, let us now consider:

- the bilateral trade accounts, as a percentage of GDP, of EMU deficit countries (Greece, Estonia, Ireland, Portugal, Spain, Slovenia and Slovakia) with the EMU surplus partners (Austria, Belgium, Finland, Germany, Luxembourg and the Netherlands) (source: CHELEM International Trade database);
- the bilateral banking foreign liabilities, as a percentage of GDP, of the EMU deficit countries with respect to the EMU surplus partners (source: Bank for International Settlements).

For these two variables we first calculate the Pearson's correlation coefficient in the period between the launch of the euro and the global financial crisis (1999-2007). The restriction to the pre-crisis period is made in order to exclude the effects of capital "flight to quality" that followed the on-set of the crisis. Next, to assess the causal relation between the bilateral financial and trade links, we consider the level of bilateral banking foreign liabilities in previous year (*t-1*).

Table 4.6 shows the main results. To limit the effects of outliers, we also computed the Pearson correlation obtained after the winsorisation of data.[9] We find that bilateral banking foreign liabilities in a given year are highly correlated with the bilateral trade account in the following

[9] We transform data by limiting extreme values to 5th and 95th percentile.

year (36.7%, significant at 1%, in the case of winsorised data). This result implies that the EMU deficit countries were able to finance the increase in their domestic demand, through increasing imports from EMU surplus partners, thanks to the higher level of banking foreign liabilities (see also Figure 4.7). In other words, financial flows from EMU surplus economies helped growth in deficit countries but implied a higher level of private debts in the EMU deficit partners. The funding of peripheral borrowers by core economies was a part of the deal, leading both to large surpluses in core countries and to debt problems in deficit countries (Pettis 2013).

We also find a positive correlation between the bilateral trade account (at time *t*) and the overall position of the EMU deficit countries in terms of financial account (at time *t-1*), and between the bilateral trade account (at time t) and FDI (at time in *t-1*) (Table 4.6). The fact that the Pearson correlations with these financial variables are smaller (but always statistically significant), can be explained by the fact that these indicators are not based on bilateral positions.

The policy implication of these results is straightforward: forcing only the (EMU) deficit countries to adjust their imbalances is not the optimal strategy. Allowing EMU surplus countries to have large surpluses, and hence high level of national savings, puts strong pressure on the deficit countries that receive cross-border capital. In this situation, Pettis (2013) identifies only four options for deficit countries:

1) matching the CA surplus of EMU core countries, by running a deficit through higher investment (mainly investment in infrastructure), financed by core countries capital. This option implies a rise in public debt of peripheral countries that is hard to sustain;
2) increase their private consumption – which means, by definition, decrease their savings rate – through a higher level of banking indebtedness. This option implies an increase in private debt that is also unsustainable;
3) cutting fiscal spending and raising taxes with an increase in domestic unemployment and in savings rate;
4) devaluing their currency or imposing trade barriers.

Excluding the first two options, which imply higher public or private debts, we are left with only the last two: accepting high unemployment for many years, which is actually the option followed in the EMU under the "austerity policy measures", or abandoning the euro and the EU. Nonetheless, there exist other feasible solutions that could be implemented by EU policy-makers to make both deficit and surplus countries better off. These options, which will be discussed in Section 5.4, are based on reforms to improve structural competitiveness.

4.6 SOME EMPIRICAL EVIDENCE FROM A GRAVITY MODEL OF BILATERAL TRADE

In this section we empirically assess the relevance of the different factors proposed in the literature in order to explain external imbalances among euro area countries. More specifically, we focus on bilateral trade flows among countries belonging to the monetary union. The methodological approach is based on the well-known gravity model of bilateral trade (Anderson 1979, Bergstrand 1985), which we augment by including variables related to the different causes of imbalances identified throughout the book, that is: financial integration and financial flows, differences in competitiveness, and the excessive development of the non-tradable sectors.

4.6.1 The econometric strategy

The basic formulation of the gravity equation relates the amount of bilateral trade to the economic mass of the trading partners, proxied by GDP, to the bilateral exchange rate, and to spatial variables such as geographical distance, dummies for neighbouring countries, common language and so on.

The baseline model specification that we use in order to estimate the determinants of export and import flows among the EMU countries, is the following:

$$\log\left(Exp_{i,j,t}\right) = \alpha + \beta_1 \log\left(GDPrel_{i,j,t}\right) + \beta_2\ \pi^{rel}_{i,j,t} + \sum_{k=1}^{n} \beta_k X_{i,j,t} + \gamma_{i,j} + \theta_t + \varepsilon_{i,j,t} \quad (1)$$

where the log of export at constant prices of country *i* toward country *j* ($Exp_{i,j,t}$) is regressed on: the log difference between importer's and exporter's GDP ($GDPrel_{i,j,t}$); the inflation rate differential between the importing and the exporting country ($\pi^{rel}_{i,j,t}$); a set of pairs and time-specific dummies ($\gamma_{i,j}$ and θ_t); a vector of variables ($X_{i,j,t}$) representing the different determinants of European imbalances proposed in the literature completes the equation. The inclusion of pair-specific fixed effects (i.e. importer-exporter combination) allows us to neglect other geographical and time-invariant variables normally required in gravity models. $GDPrel_{i,j,t}$ captures both relative demand and catching-up effects so that conclusions about the growth process of European countries are not univocal. The relative inflation ($\pi^{rel}_{i,j,t}$) captures the impact of the standard price competitiveness: a higher relative inflation of the exporting country reduces its export competitiveness. Hence, we expect a positive impact of these variables, independently of the surplus or deficit position of the considered country. Finally, the vector $X_{i,j}$ includes the following variables:

- changes in the net international investment position of importing and exporting country ($\Delta NIIP_j$ and $\Delta NIIP_i$);
- absolute difference between the interest rates of importing and exporting country ($AbsDifInt_{ij}$);
- relative real unit labour costs of the importing and exporting country ($RULCrel_{j,i}$);
- gross fixed capital formation to GDP ratio of the importer country ($GFCF_j$);
- share of construction and real estate activities in total capital formation ($NTsh_j$).

On average, the NIIP deteriorated in the deficit countries and improved in surplus countries. The deterioration of the net position in the deficit countries implies a net inflow with the rest of the world and a rise in imports, hence, it should show a negative sign. If external financing is

used to improve the productive structure, then exports should also benefit from the increased deficit (negative sign of exporter's $\Delta NIIP$). By contrast, if foreign capital is used to finance domestic consumption or investment in non-productive sectors, the impact on exports is expected to be zero or even negative and the expected sign is positive (i.e. a deterioration of the net position reduces export).

Surplus countries, on the other hand, are net lenders to the rest of the world, and to the rest of the euro area in particular. This means that we should expect a positive impact of improvements in NIIP on export, and a zero or positive impact on imports as the financial integration raises the overall intra-area trade. In this case too, the expected sign of the importer's $\Delta NIIP$ is positive.

Interest rates are important indicators of financial integration. The introduction of the euro and the resulting reduction of the exchange rate risk level in peripheral members brought about a convergence in the interest rates of peripheral countries to the lower levels of surplus countries. Such convergence, associated with the still positive differential enjoyed by southern Member States, stimulated cross-country capital flows especially from core to peripheral Europe.[10] In order to seize the convergence of interest rates, we used the absolute value of the difference between partners' interest rates.

As we stressed in Chapter 3, the divergence of unit labour costs is a key issue in the alternative explanations of macroeconomic imbalances. The more competitive countries should find it easier to export their products to the less competitive economies which, at the same time, increase their demand for imports from the more competitive ones. We define the relative real unit labour cost (RULC) as the ratio of importer's to exporter's real ULC. This means that its effect, if significant, should have a positive sign since an increase in this ratio signals a relative loss of competitiveness of the importing country. Note that even though this effect is present in all countries, we expect the RULC differences to have a higher impact on deficit countries' import flows. If this holds true, it

[10] Differences in returns on capital are roughly captured by financial flows. The inclusion of simple difference between the interest rates was never significant.

will follow that competitiveness losses played a significant role in increasing European imbalances.

The last two groups of variables ($GFCF_j$ and $NTsh_j$) are introduced to better qualify the growth process of European countries. Fixed investment has a positive effect on the amount of imports as long as imported capital goods are used in the production process; however, the net effect on imbalances depends on the nature of investments. In order to distinguish between productive and non-productive investment, we added the share of construction and real estate activities in total investment. This variable captures the effect of both speculative bubbles, as in the case of Spain and Ireland, and of the excessive development of the non-tradable sector. Relatively high shares of such kind of investments are also present in other deficit countries like Italy and Slovenia; therefore this variable can capture the general process that strongly affected not only Spain and Ireland but also the whole group of non-core countries.

Equation (1) is estimated on a panel of bilateral export of 14 euro area countries over the sample period 1999-2007.[11] To better identify the role of the different factors, we estimated six specifications which alternatively restricted the sample of export and import flows for the GIPS, the deficit and the surplus countries, respectively. We further divided the sample into two sub-periods, that is, the years 1999-2002 and 2003-2007. This is done in order to take account of the strong increase in imbalances since 2003. As a matter of fact, trade and current account balances experienced small changes before 2003, which suggests the presence of structural breaks between the two sub-periods.

4.6.2 Results

The results of the econometric analysis are shown in Tables 4.7-9. In each table, the first three columns show the estimated relation for export flows of GIPS, deficit, and surplus countries, respectively; whereas columns 4-6 show the estimated relation for import flows. Results for

[11] The presence of missing data forced us to exclude Luxembourg, Cyprus and Malta.

the whole sample are reported in Table 4.7, whereas Tables 4.8 and 4.9 report the outcomes for the two sub-periods.

The estimates for the whole period (Table 4.7) provide interesting insights and appear to be consistent with the estimates on the two sub-periods. As shown in Chapter 1, imbalances started to increase in 2003, while the first years of the euro were characterised by small divergences. This pattern is confirmed by the estimation results since real and financial variables exert different impacts in the two sub-periods. Relative growth is relevant in explaining the export performance and its impact is stronger in the first sub-period (columns 1-3 in Table 4.8). Relative inflation seems to affect both import and export flows, but while in the first period it acted mainly by stimulating import flows, since 2003 it also affected the export performance.[12] Given that the GIPS and the deficit countries experienced on average a higher inflation dynamics compared to surplus ones, we can conclude that the price dynamics acted so as to reduce the exports of GIPS and the other deficit countries while fostering the exports of surplus countries.

Let's now consider financial variables. Exporter's NIIP has a positive impact on exports of both GIPS and surplus countries. Nevertheless, the NIIP actually deteriorated for the former, and the final effect was an increase in the exports of surplus countries and a widening of imbalances. On the import side, we find evidence of a negative impact of a rise in the NIIP on deficit countries. Since this variable actually worsened in deficit countries, the final effect is an increase in imports and, by consequence, a widening of imbalances.

The dynamics over the whole period 1999-2007 hide different evolutions in the two sub-periods. In particular, we see that, while the beneficial effect of exporter's NIIP on the export of surplus countries is concentrated in the first period (column 3 in Table 4.8), the effect on GIPS is not significant.[13] We also find that in the first period the deterioration of

[12] Relative inflation is defined as the difference between importer and exporter inflation; hence, in most cases a positive sign is expected because an increase in the variable implies cheaper imports and more expensive exports.

[13] This outcome can be ascribed to the concentration of the positive effect around the period 2002-2003, so that each subsample captures only a part of the whole effect.

the net position for the whole group of deficit countries improved their export performance. This suggests that increasing financial imbalances, at least in the initial years of the euro, stimulated intra-area trade flows for all countries, with a higher intensity for the group of deficit countries. This prevented the development of excessive trade imbalances.

The convergence of interest rates stimulated both import and export flows of deficit countries on average. This result is robust throughout the whole period, but since 2003 it acted by stimulating import flows of all countries and, more intensively, for the group of GIPS (see column 4 in Table 4.9). Importer's gross investment over the whole period stimulated the imports of surplus countries but this result comes mainly from the 1999-2002 period while in the following period it raised the demand for imports of deficit countries.

Relative RULCs are significant in explaining intra-euro area trade flows. According to the estimated coefficients, they acted mainly by reducing the export capacity of deficit countries and by increasing import flows of GIPS and surplus countries. For the latter, the impact is the highest, since relative RULC in surplus countries actually decreased, the final effect over the period was a reduction of imports from most of their partners. As we can see in Tables 4.8 and 4.9, real competitive differences started to be relevant since 2003 and acted so as to foster imbalances by reducing the exports of GIPS and of the whole group of deficit countries, increasing the imports of GIPS, and reducing the imports of surplus countries.

The last piece of evidence regards the share of importers' investment in non-tradable sectors as an indicator of investment bubbles or in general of an excessive development of non-productive investment. The results are straightforward. The investment in non-tradables significantly increased the import flows of GIPS. This comes mainly from the period 2003-2007, when the excessive development in construction and real estate activities increased the import of the whole group of deficit countries. The positive coefficient for the export of deficit countries, associated with the insignificant one for the export of GIPS indicates that investment in non-tradables stimulated the export of Italy and France (compare columns 1 and 2 in Table 4.9). By contrast, in the first part of the sample we find an opposite process, suggesting that import flows were stimulated, in deficit countries, by productive investment.

Summing up, our results suggest that financial integration, competitive differences and over-development of the non-tradable sector represent the main forces behind the evolution of intra-euro area trade imbalances between 1999 and 2007. Nevertheless, in the first sub-period, we find that: (i) up to 2002 financial integration and domestic investment led to a relatively balanced process where all countries increased exports, in spite of diverging financial positions; and (ii) the convergence of interest rates fostered both import and export of deficit countries, where investment was strongly turned on imported tradable goods. Since 2003 and up to the global financial crises, financial variables played no direct role, except for the interest rate convergence, whereas trade flows were mainly driven by nominal and real competitive differences as well as by the demand for non-tradable investment goods. Competitive differences also played a role by reducing the export performance of deficit countries and the imports of surplus ones, whereas the development of non-tradables increased the import of deficit countries especially in the group of GIPS. This is an indirect consequence of financial integration, as the massive capital inflows into the deficit countries fuelled the investment bubbles and the development of the non-tradable sector.

4.7 CONCLUSIONS

In this chapter, we analysed the main factors affecting the European current account imbalances. Starting with European Commission (2012a) report on EMU imbalances, the investigation allowed us to refine and revise the main conclusions that form the mainstream in Europe.

We found that the EMU shows a competitive gap with the US during the whole period and that the loss in competitiveness affected both peripheral and core countries. The partial recovery of cost competitiveness in most of the peripheral countries is driven mainly by the wage moderation effect and it's not likely to last long since the most recent data show that ULC started to increase again in Ireland and Portugal. This signals that the monetary union produced imbalances that, contrary to European Commission (2012a) policy recommendations, require a coordinated action.

In accordance with the EC's findings, we found that external shocks contributed to the widening of trade imbalances; however, in contrast to the EC, we found the dynamics of trade within the EMU also played a key role. Italy, France and the GIPS, on average reduced their export orientation toward northern markets, whereas their imports from northern Europe were basically stable. At the same time, competition from outside the EU further exacerbated this dynamic, as it caused a higher growth of imports in southern Europe compared to the north. In addition, northern countries traded more intensively with each other, contributing to the marginalisation of southern Europe, and this pattern did not change in the years after the global financial crisis.

We further found that trade and financial flows are strictly interlinked. In particular, the surplus countries financed the periphery by more than what their bilateral trade balances can explain, thanks to their role of capital intermediation with the rest of world. Peripheral countries used these financial flows to increase their internal demand, thus worsening their external position.

In this scenario, the deficit countries seem to be left with only two options (Pettis 2013): accepting a high unemployment for many years, which is the option actually followed in the EMU by implementing restrictive fiscal policies and by introducing more severe adjustment measures, or abandoning the euro and the EU. Nonetheless, other feasible options exist that can yield better outcomes for both the deficit and surplus countries since, as we found in Section 4.4, the competitiveness of troubled countries improved mainly due to an internal devaluation effect on wages while productivity hardly changed. These will be discussed in the Section 5.4.

An econometric investigation that is better able go into the nature and evolution of trade imbalances within the euro area confirmed that three causes of imbalances (financial integration, competitive differences and development on the non-tradable sector) were at work between 1999 and 2007. The comparison of the estimated coefficients over the two sub-periods 1999-2002 and 2003-2007 indicates that in the first period the diverging net external financial position of surplus and deficit countries helped to improve exports in both groups. The picture changed dramatically in the second period when financial variables

reduced their impact and real ULC divergences, inflation differentials and non-productive investment played a key role. The imports of deficit countries were mainly financed through the increase in foreign-owned assets and capital inflows were used to a large extent for investment in non-tradable sectors, which in turn fuelled an investment bubble. In this scenario, competitive differences worked by reducing the export capacity of deficit countries and increasing the imports of GIPS, thus adding to the effect of investment bubbles.

Comparing our results with those in the existing literature, we do not find evidence of any self-re-equilibrating mechanisms in the euro area as advanced by Blanchard and Giavazzi (2002) on intra-area trade. As a matter of fact, if financial integration improved the export performance of all countries in the first years of the euro, in subsequent years the existing imbalances widened considerably (see, e.g., Dullien and Fritsche 2009, Zemanek et al. 2010, Belke and Drager 2011, Collignon 2013, Stockhammer and Onaran 2013) since competitive differences, which are confirmed to be a crucial determinant of imbalances along with an excessive development of the non-tradable sector, became the main determinants of trade flows (Giavazzi and Spaventa 2010). Such a pattern hit more severely the group of GIPS, but in general all the deficit countries were damaged.

APPENDIX

Figure 4.1a

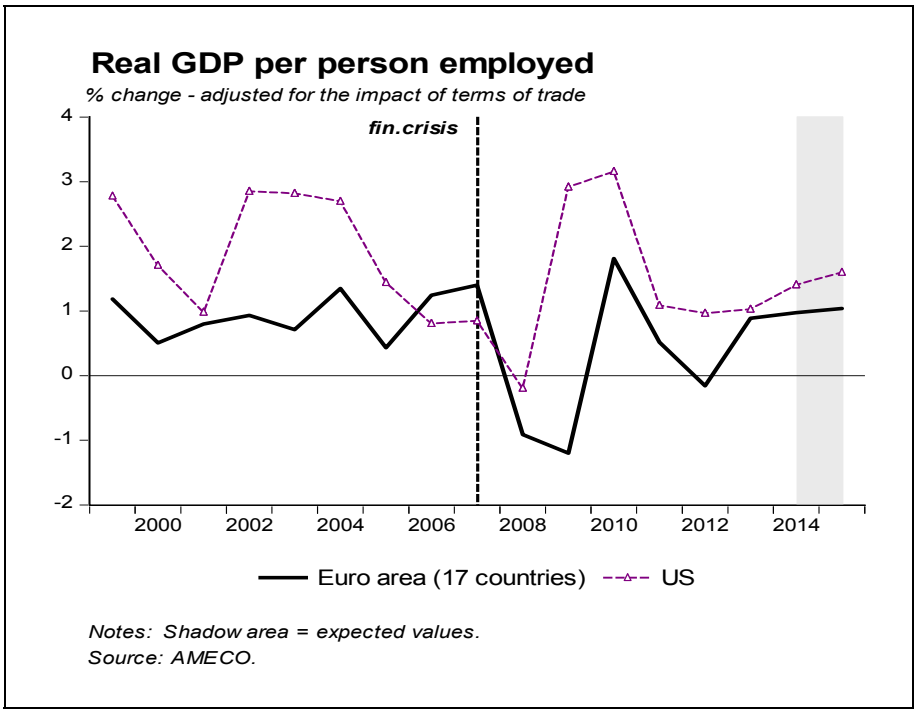


Figure 4.1b

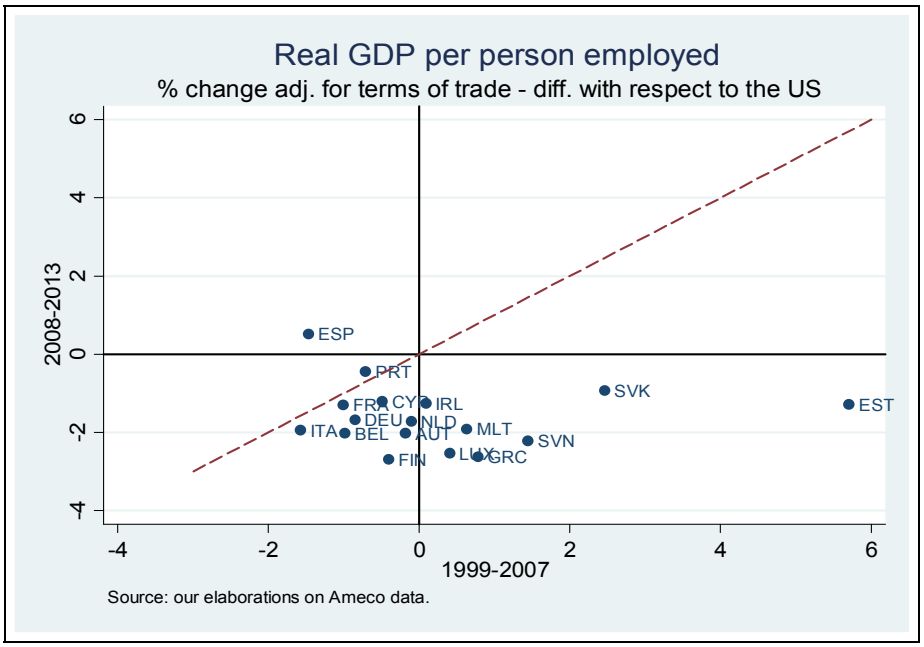


Figure 4.1c

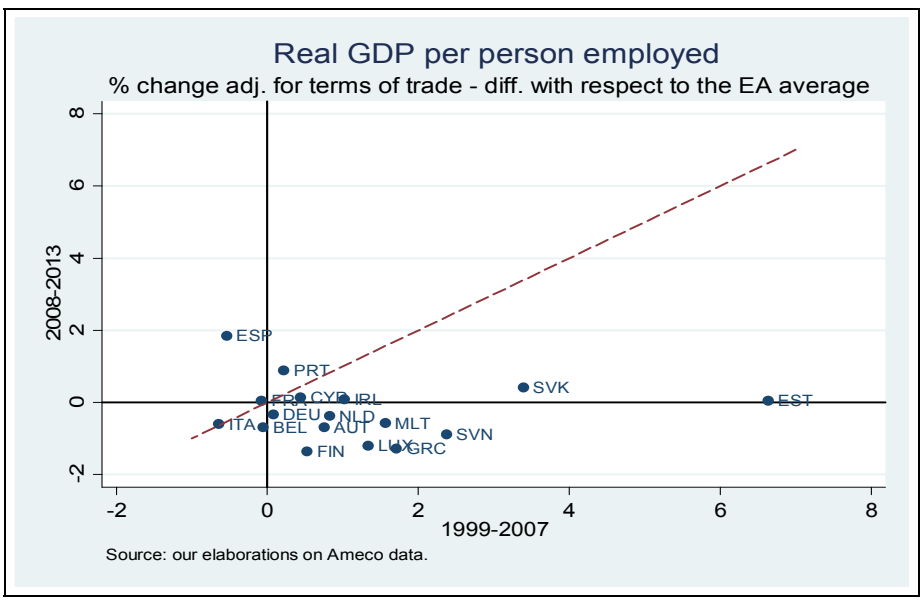


Figure 4.2a

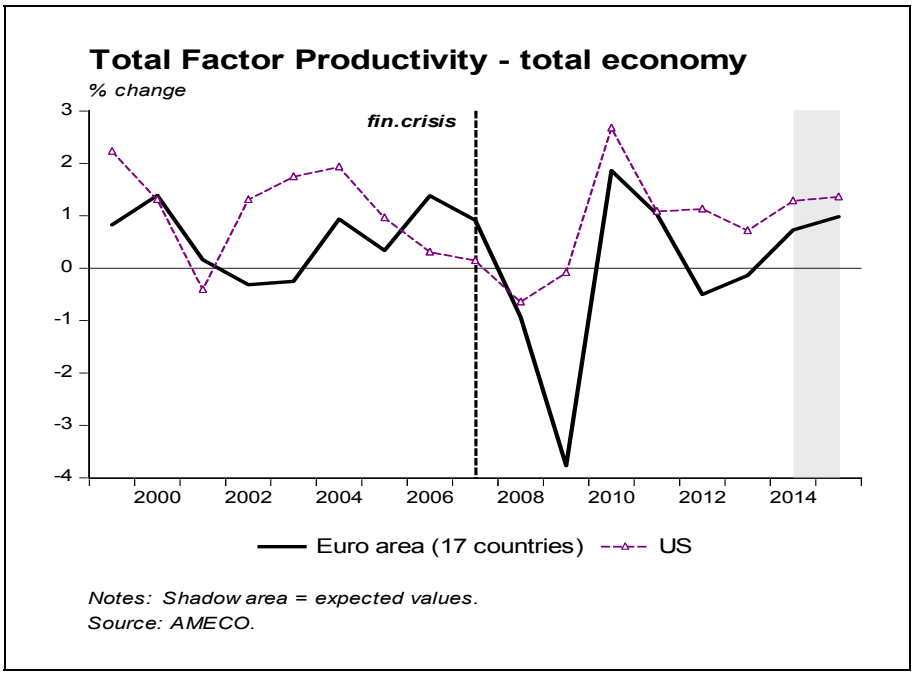


Figure 4.2b

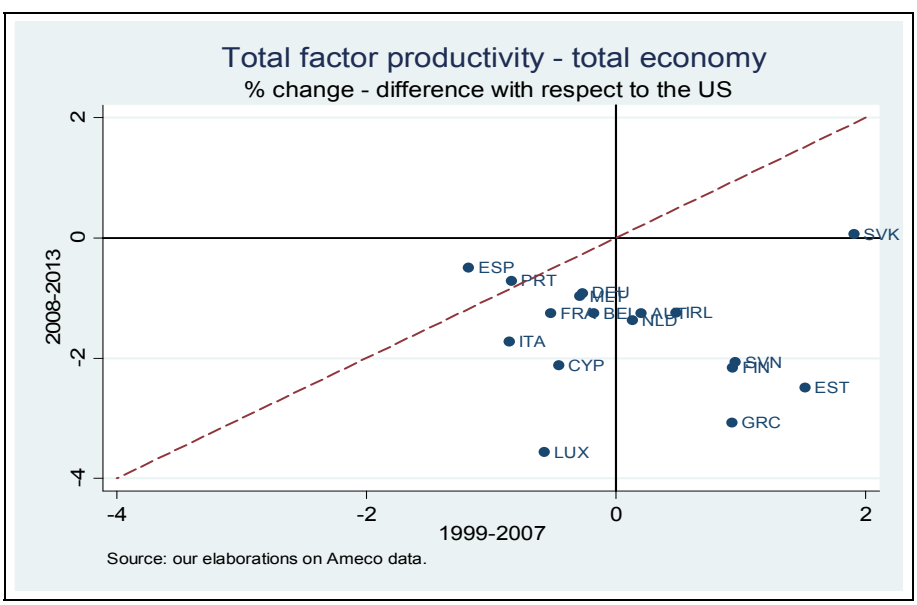


Figure 4.2c

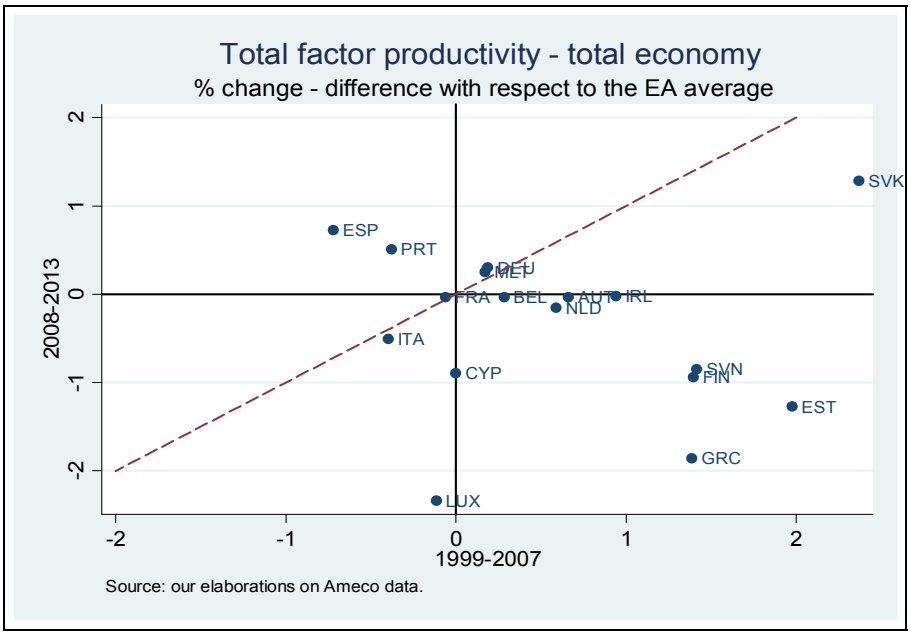


Figure 4.3a

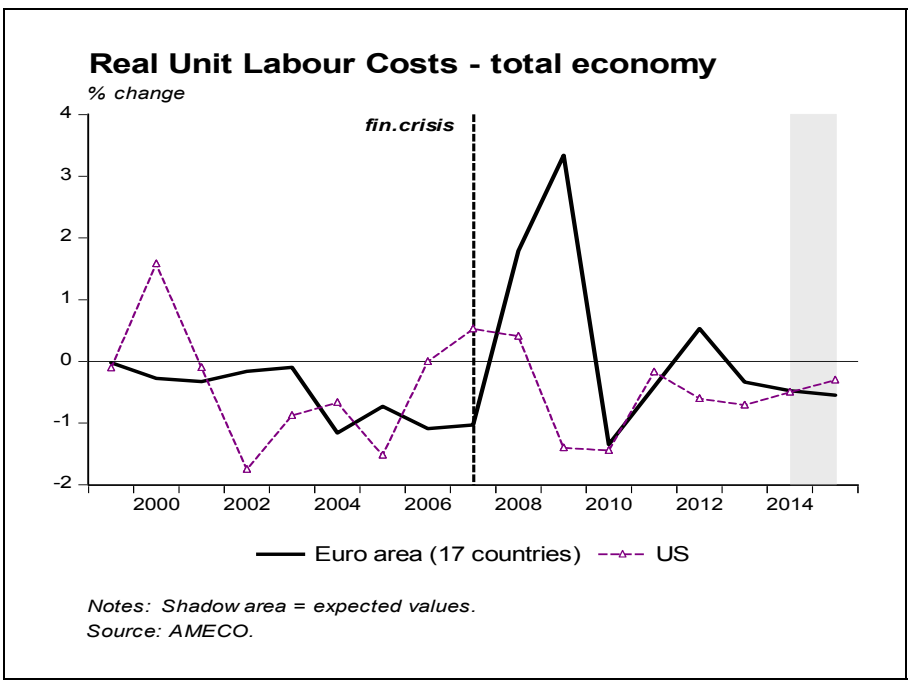


Figure 4.3b

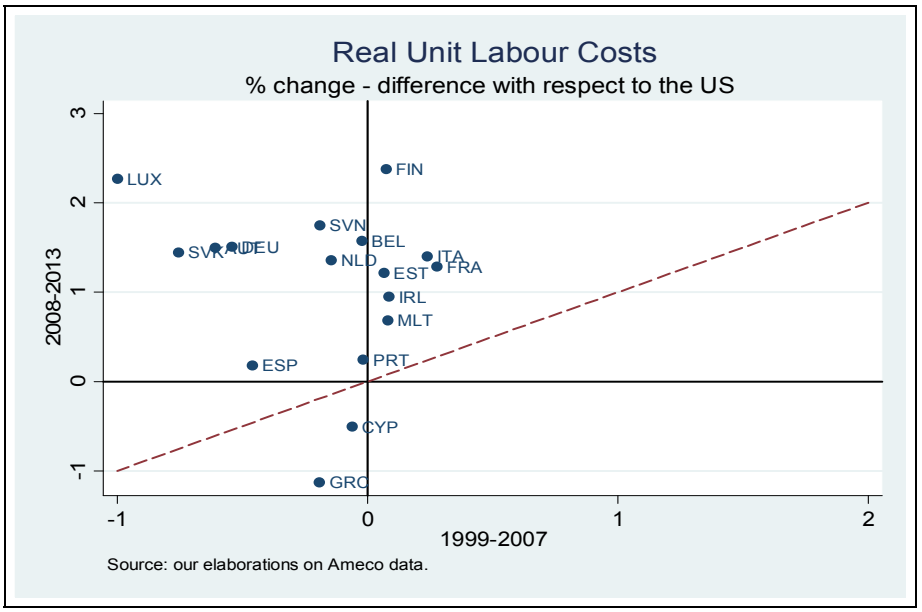


Figure 4.3c

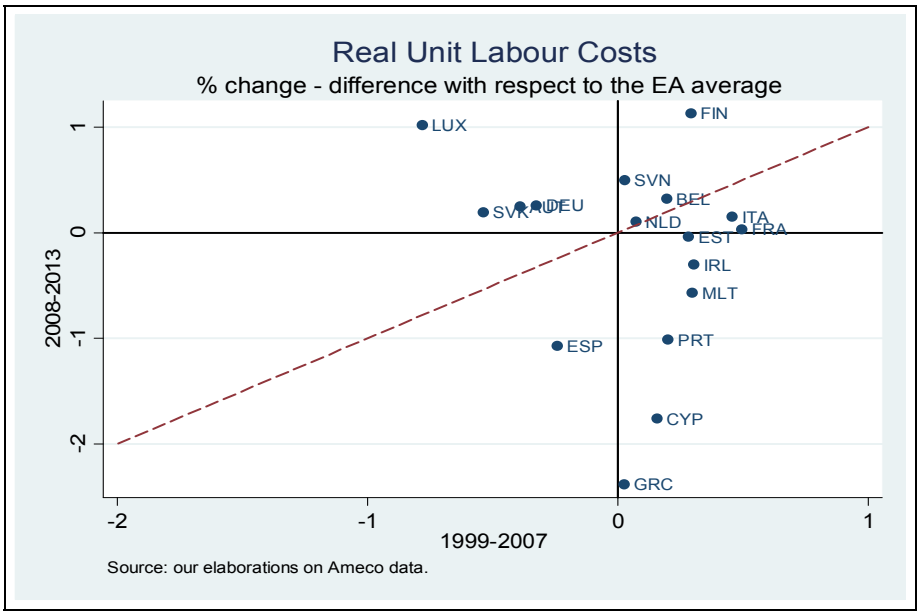
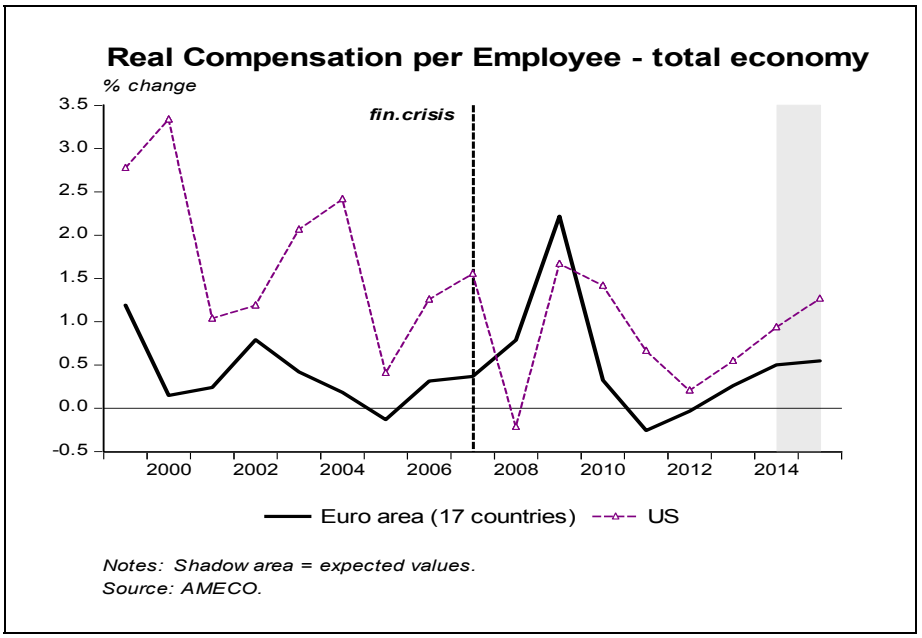
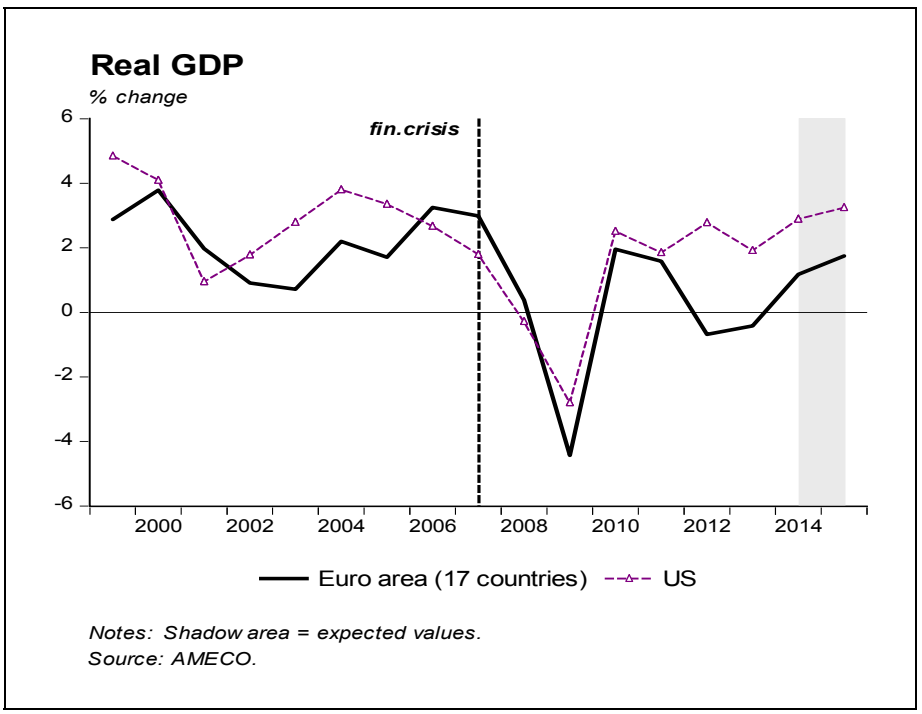


Figure 4.4



Notes: Shadow area = expected values.
Source: AMECO.

Figure 4.5a



Notes: Shadow area = expected values.
Source: AMECO.

Figure 4.5b

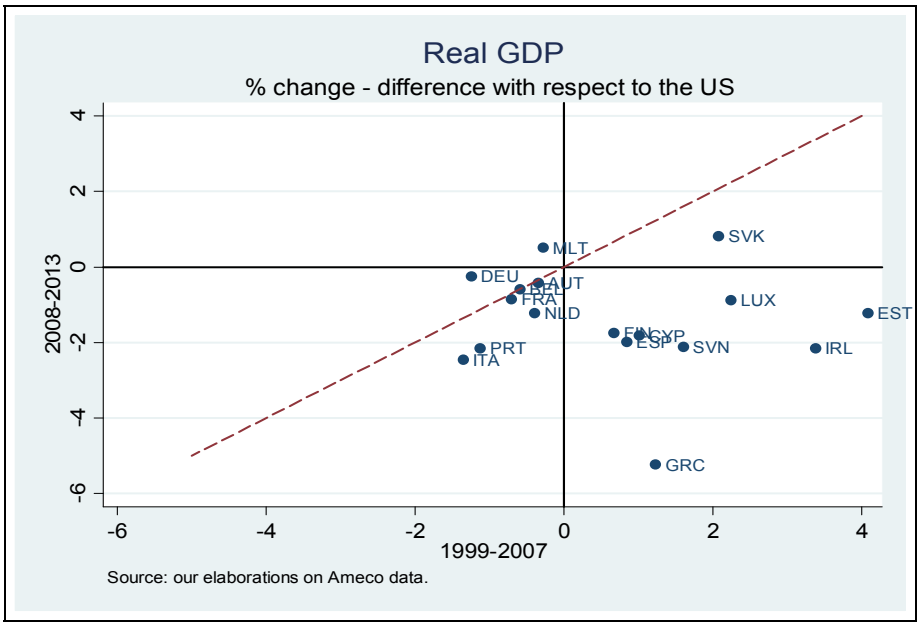


Figure 4.5c

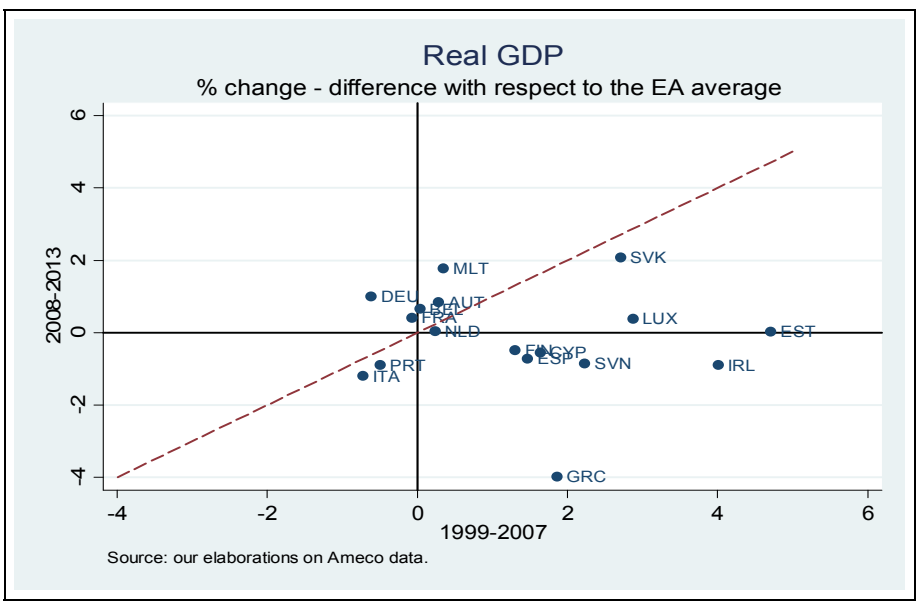
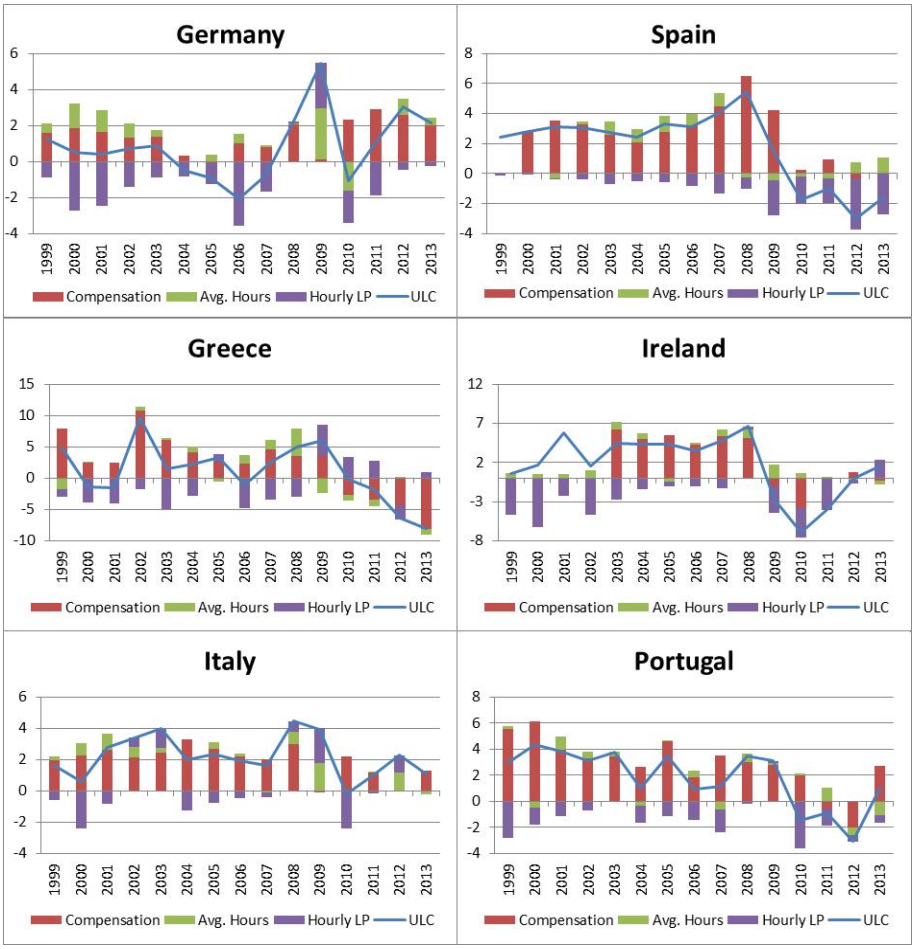
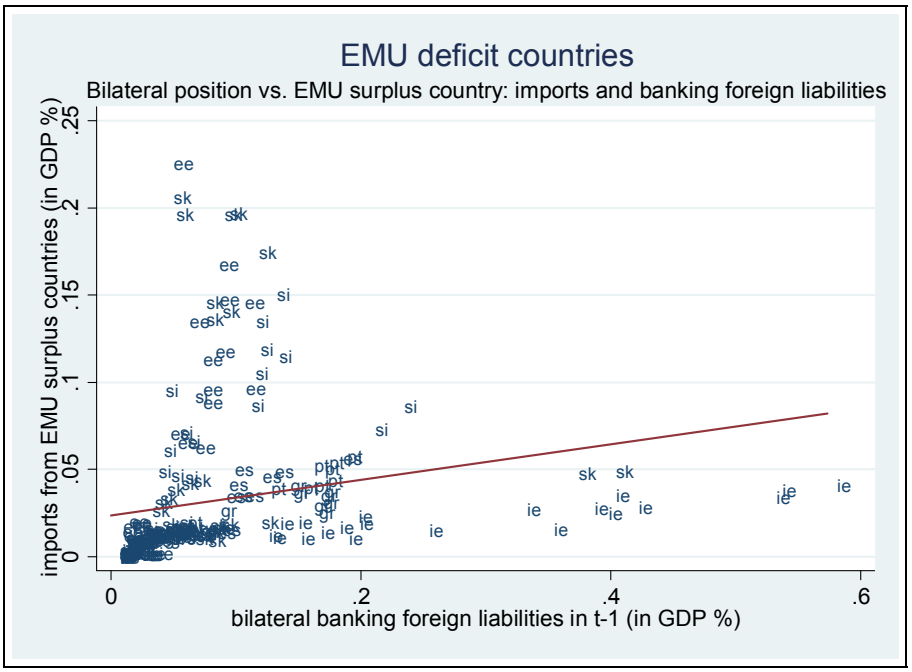


Figure 4.6. Unit Labour Cost Decomposition



Source: Own elaboration on AMECO.

Figure 4.7



Source: Own elaboration on BIS and CHELEM data.

Table 4.1. Trade Balance by Area (in % of GDP)

	Intra-EMU						Intra-EU						Extra EU					
	1999	2003	2007	2009	2011	2012	1999	2003	2007	2009	2011	2012	1999	2003	2007	2009	2011	2012
Austria	-3.9	-2.9	-3.2	-3.1	-4.4	-3.8	-3.2	-1.7	-0.8	-1.7	-3.1	-2.9	0.0	0.7	1	0.3	0.1	0.3
Belgium	6.9	5.8	5.4	3.8	3.5	0.9	8.6	7.8	7.8	6.5	5.4	3.3	-3.0	-1.2	-4	-2.6	-2.9	-1.4
Germany	1.7	3.1	4.5	3.4	3.1	2.6	2.7	4.6	6.9	4.9	4.6	4.2	0.6	1.4	1.2	0.8	1.5	2.9
Spain	-2.6	-2.4	-3.6	-0.6	0.2	0.7	-3.1	-2.5	-4	-0.9	0.4	1.1	-2.8	-3.4	-5.6	-3.5	-4.7	-4
Finland	3.2	1.5	0.5	-0.4	-2.7	-0.9	5.7	3.3	2.3	0.3	-3.4	-0.3	2.1	3.4	1.1	0.6	1.4	-1
France	0.5	-0.1	-1.2	-1.3	-1.8	-2.1	1.1	0.6	-0.8	-1.2	-1.8	-2	-0.5	-0.6	-1.8	-1.4	-2.2	-1.8
Ireland	20.5	16.9	11.3	15.2	15	15.4	21.8	17.4	9.5	15.3	14.2	15.5	3.0	7.3	4.2	8.8	12.8	10.8
Italy	0.0	-0.8	-0.4	-0.6	-0.9	-0.2	0.4	-0.1	0.5	-0.3	-0.4	0.4	0.8	0.2	-1.1	-0.1	-1.2	0.2
Luxembourg	-11.6	-15.2	-12.8	-8.9	-11.8	-12.5	-9	-13.5	-11	-8.5	-11.4	-11.9	-3.6	1.0	-0.8	-3.9	-4.7	-6.1
Netherlands	7.9	10.2	11.6	11.4	12.7	16.3	8.3	13	15.5	13.9	15	18.7	-7.6	-7.3	-8.3	-7.7	-10.4	-11.7
Portugal	-8.7	-7.6	-8.4	-8.9	-6.6	-2.8	-8.5	-7.2	-8.4	-9.1	-6.6	-2.4	-3.6	-2.3	-3.1	-2.2	-2.4	-3.9
Greece	-8.6	-8.2	-8.5	-7.1	-5	-4.8	-10	-8.9	-9.4	-8.1	-5.4	-5.2	-3.9	-7.2	-7.8	-6.5	-4.6	-5.7
Slovenia	-4.8	-5.3	-5.6	-2.3	-2.1	-1.8	-6.7	-5.7	-3.4	-1	-0.2	0.2	-0.2	2	-2.6	-1.8	-4.1	-3.4
Slovakia	1.6	5.2	12.3	11.6	14.1	15	3.5	6.2	21.4	20.1	27.1	31.9	-8.8	-7.8	-23	-19.7	-24.8	-28
Cyprus	-13.3	-14.2	-20.5	-18.5	-18	-17.3	-18	-17.7	-25.4	-22.5	-21.8	-19.9	-15.2	-13.1	-11.5	-8.4	-9.9	-8.6
Malta	-19.6	-22.9	-21.1	-17.4	-24.7	-33.8	-24.2	-24.5	-26.7	-22	-32	-39.8	-2	1	3.2	0.9	8.8	13.9
Estonia	-12.8	4.3	-10.3	-3.5	-3.8	-5.5	-6.2	11.9	-10.6	-4.3	-6.1	-5.7	-12.9	-35.3	-11.5	-0.4	3.1	-0.5

Source: COMTRADE (accessed through WITS).

Table 4.2a. Change in the Export-to-GDP Ratios by Area and Sub-period

	Export									
	World		EA12		EA17		EU27		XEU27	
	1999-2007	2007-2012	1999-2007	2007-2012	1999-2007	2007-2012	1999-2007	2007-2012	1999-2007	2007-2012
Austria	13.8	6.4	5.0	2.5	5.8	2.6	8.8	3.7	5.0	2.7
Belgium	23.4	14.5	13.8	3.7	14.1	3.8	16.4	5.5	6.9	8.9
Germany	14.5	7.6	5.7	0.7	6.1	0.9	9.5	2.1	4.9	5.5
Spain	-0.5	5.9	-1.2	1.8	-1.1	1.8	-1.0	2.5	0.6	3.4
Finland	4.4	3.1	0.0	-0.4	0.0	-0.2	0.4	0.5	4.0	2.5
France	0.6	3.7	-0.1	1.3	0.0	1.3	0.0	1.7	0.5	2.0
Ireland	-26.4	4.3	-10.4	0.2	-10.4	0.2	-18.8	1.6	-7.7	2.7
Italy	4.0	4.6	0.8	1.5	1.0	1.7	1.9	2.3	2.2	2.4
Luxembourg	-4.7	-0.9	-4.2	-1.6	-4.1	-1.5	-5.0	-1.5	0.3	0.6
Netherlands	19.5	17.9	10.7	9.0	10.9	9.1	14.8	11.9	4.7	6.0
Portugal	2.8	9.0	0.7	4.8	0.7	4.8	-0.3	5.7	3.2	3.3
Greece	-0.2	7.9	-0.8	1.1	-0.6	1.4	-0.3	2.2	0.0	5.7
Slovenia	17.6	13.8	5.3	6.6	5.9	7.0	11.3	9.3	6.3	4.5
Slovakia	28.1	24.5	11.2	8.7	11.5	9.0	22.9	19.4	5.2	5.1
Cyprus	-0.9	0.8	0.1	-0.1	0.1	-0.1	-0.2	0.2	-0.7	0.6
Malta	-2.8	37.7	-3.9	5.9	-3.6	5.9	-2.6	6.5	-0.2	31.2
Estonia	0.5	29.0	-3.1	4.5	-3.2	4.8	-5.6	15.3	6.1	13.7

Source: COMTRADE (accessed through WITS).

Table 4.2b. Change in the Import-to-GDP Ratios by Area and Sub-period

	Import									
	World		EA12		EA17		EU27		XEU27	
	1999-2007	2007-2012	1999-2007	2007-2012	1999-2007	2007-2012	1999-2007	2007-2012	1999-2007	2007-2012
Austria	10.5	8.1	4.5	3.3	5.2	3.9	6.4	5.2	4.1	3.0
Belgium	25.2	16.4	15.5	6.6	15.6	6.6	17.3	8.7	7.9	7.7
Germany	9.6	6.2	3.0	1.4	3.2	1.6	5.3	2.8	4.3	3.4
Spain	3.2	4.5	-0.2	0.4	-0.1	0.4	-0.2	0.5	3.3	4.0
Finland	8.9	5.1	2.3	0.1	2.7	0.3	3.9	1.1	5.0	4.1
France	3.7	4.9	1.6	2.0	1.7	2.1	1.9	2.5	1.8	2.4
Ireland	-15.2	2.2	-1.2	0.0	-1.2	0.0	-6.4	1.4	-8.8	0.8
Italy	5.8	5.9	1.2	1.9	1.4	2.0	1.8	2.4	4.0	3.5
Luxembourg	-5.4	4.7	-2.9	2.0	-2.9	2.0	-3.0	1.9	-2.5	2.8
Netherlands	13.0	17.1	7.1	4.3	7.3	4.3	7.6	7.1	5.4	10.1
Portugal	2.3	4.0	0.3	-1.3	0.4	-1.2	-0.4	-1.0	2.7	5.0
Greece	3.0	4.2	-1.0	-1.0	-0.6	-0.9	-0.9	-0.7	3.9	4.9
Slovenia	16.6	14.0	6.3	6.3	6.7	6.5	7.9	8.0	8.7	6.0
Slovakia	24.4	21.1	0.7	5.4	0.8	5.6	5.0	7.6	19.4	13.5
Cyprus	2.9	-1.6	7.2	-0.9	7.4	-1.3	7.2	-2.4	-4.4	0.8
Malta	-5.5	42.5	-2.2	22.2	-2.1	22.3	-0.1	24.3	-5.4	18.2
Estonia	3.5	30.4	-5.8	6.5	-5.7	6.8	-1.2	16.7	4.7	13.7

Source: COMTRADE (accessed through WITS).

Table 4.3. Percentage Distribution of Intra-Euro Area Export Flows

		Export						Import					
Reporter	Partner	1999	2003	2007	2009	2011	2012	1999	2003	2007	2009	2011	2012
ITA-FRA	ITA-FRA	6.3	5.6	5.2	5.0	5.1	4.8	6.4	5.8	5.2	5.0	4.9	4.9
ITA-FRA	NMS	0.6	0.7	0.8	0.8	0.8	0.9	0.4	0.5	0.7	0.8	0.8	0.7
ITA-FRA	North	15.9	13.5	12.6	12.5	13.4	13.5	18.9	18.0	17.9	18.0	18.7	18.6
ITA-FRA	GIPS	6.8	6.4	6.0	5.1	4.5	4.1	5.1	5.4	4.7	4.7	4.7	4.8
ITA-FRA	EMU	29.5	26.2	24.6	23.3	23.8	23.3	30.9	29.7	28.4	28.5	29.1	29.0
NMS	ITA-FRA	0.4	0.4	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9
NMS	NMS	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
NMS	North	1.0	1.3	1.5	1.6	1.9	2.0	1.1	1.2	1.6	1.5	1.6	1.7
NMS	GIPS	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.3	0.3	0.3
NMS	EMU	1.4	1.8	2.4	2.5	2.8	2.9	1.9	2.2	2.7	2.6	2.8	2.9
North	ITA-FRA	19.9	20.3	19.7	20.3	20.1	20.0	16.2	14.6	14.0	14.5	14.3	14.5
North	NMS	1.1	1.4	1.8	1.7	1.9	1.9	1.1	1.5	1.6	1.6	1.9	2.0
North	North	28.3	29.9	32.2	33.1	33.5	34.5	27.4	29.3	31.4	31.9	33.4	34.1
North	GIPS	6.7	7.5	7.8	6.8	5.8	5.4	6.2	6.7	5.9	6.5	5.9	5.8
North	EMU	56.1	59.1	61.5	61.9	61.3	61.9	51.0	52.2	52.9	54.5	55.5	56.4
GIPS	ITA-FRA	5.1	5.0	4.6	4.7	4.8	4.6	6.8	6.3	5.8	5.0	4.3	4.1
GIPS	NMS	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
GIPS	North	5.5	5.3	4.5	4.9	4.8	5.0	7.1	7.1	7.5	6.5	5.6	5.2
GIPS	GIPS	2.2	2.4	2.3	2.4	2.3	2.1	2.2	2.4	2.5	2.7	2.5	2.2
GIPS	EMU	13.0	12.9	11.6	12.2	12.1	11.9	16.2	15.9	16.0	14.5	12.7	11.7
EMU	EMU	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Own elaboration on COMTRADE (accessed through WITS).
Note: ITA-FRA = Italy and France; NMS = Cyprus, Estonia, Malta, Slovenia and Slovakia; North = Austria, Belgium, Finland, Germany, Luxembourg and the Netherlands; GIPS= Greece, Ireland, Portugal and Spain.

Table 4.4. Pearson Correlation between Imports of EMU Deficit Countries[1] from EMU Surplus Countries[2] and Financial Account Balance of EMU Deficit Countries (1999-2007)

	Unadjusted data	Winsorised data[3]	Obs.
EMU deficit countries: correlation between imports from EMU surplus countries and bilateral banking foreign liabilities in t-1 (both in GDP %)	0.225***	0.367***	243
EMU deficit countries: correlation between imports from EMU surplus countries and financial account balance in t-1 (both in GDP %)	0.153**	0.140**	280
EMU deficit countries: correlation between imports from EMU surplus countries and FDI in t-1 (both in GDP %)	0.158***	0.170***	280

Source: Own elaboration on BIS, Chelem and Eurostat data.
Notes: *, ** and *** indicate statistical significance at 10, 5 and 1 percent significance level respectively.
1) EMU Deficit Countries = Greece, Estonia, Ireland, Portugal, Spain, Slovenia and Slovakia.
2) EMU Surplus Countries = Austria, Belgium, Finland, Germany, Luxembourg and the Netherlands.
3) Extreme values are limited to 5th and 95th percentile of the distribution.

Table 4.5. Determinants of Intra-Euro Area Trade Flows (1999-2007)

	Export			Import		
	GIPS	Deficit	Surplus	GIPS	Deficit	Surplus
$logGDPrel_{i,j}$	0.900*	0.142	1.651***	-0.312	0.414	-0.33
	[0.518]	[0.282]	[0.293]	[0.583]	[0.281]	[0.445]
$\Pi^{rel}_{j,i}$	-0.785	1.385**	0.229	4.340**	0.821	1.922***
	[0.802]	[0.533]	[0.644]	[1.278]	[0.672]	[0.532]
$\Delta(NIIP_j)$	0.095*	0.049	0.002	-0.024	-0.315**	0.021
	[0.056]	[0.044]	[0.022]	[0.200]	[0.138]	[0.034]
$\Delta(NIIP_i)$	0.415**	0.064	0.058**	0.070	0.109*	0.052
	[0.180]	[0.271]	[0.027]	[0.093]	[0.056]	[0.032]
$AbsDifInt_{j,i}$	-0.061	-0.079***	-0.031	-0.081**	-0.084***	-0.048
	[0.045]	[0.017]	[0.020]	[0.036]	[0.016]	[0.030]
$GFCF_j$	0.014	0.027**	-0.002	-0.004	0.013	0.042**
	[0.011]	[0.011]	[0.007]	[0.012]	[0.009]	[0.019]
$RULCrel_{j,i}$	0.655	1.377**	0.442	1.461**	0.804	2.345***
	[0.420]	[0.447]	[0.413]	[0.618]	[0.522]	[0.454]
$NTsh_j$	-0.688	-0.555	-0.387	1.622**	-0.399	0.039
	[0.609]	[0.442]	[0.313]	[0.632]	[0.313]	[0.707]
R^2 w	0.688	0.665	0.891	0.661	0.714	0.790
N	464	1032	580	464	1032	580

Notes: GIPS= Greece, Ireland, Portugal and Spain; Deficit = GIPS + Italy, France, Estonia, Slovenia and Slovakia; Surplus = Austria, Belgium, Finland, Germany, the Netherlands.
Robust standard errors in brackets; *significant at 10% level; **significant at 5% level; ***significant at 1% level. Estimation method: panel fixed effects.

Table 4.6. Determinants of Intra-Euro Area Trade Flows (1999-2002)

	Export			Import		
	GIPS	Deficit	Surplus	GIPS	Deficit	Surplus
$logGDPrel_{i,j}$	4.097***	1.211**	1.847**	-2.939**	-0.292	0.239
	[1.063]	[0.546]	[0.636]	[1.138]	[0.594]	[0.831]
$\Pi^{rel}_{j,i}$	-0.968	1.190**	-1.333	3.472**	1.124	1.469***
	[1.402]	[0.510]	[0.818]	[1.216]	[0.808]	[0.353]
$\Delta(NIIP_j)$	0.099*	0.020	0.032*	0.132	-0.331	0.027
	[0.057]	[0.039]	[0.018]	[1.087]	[0.251]	[0.039]
$\Delta(NIIP_i)$	0.007	-1.441***	0.071**	0.094	0.128**	0.015
	[1.362]	[0.366]	[0.033]	[0.074]	[0.057]	[0.035]
$AbsDifInt_{j,i}$	-0.036	-0.100***	-0.028	-0.057	-0.112***	-0.04
	[0.047]	[0.028]	[0.022]	[0.052]	[0.028]	[0.042]
$GFCF_j$	-0.009	0.020	-0.006	-0.037	0.016	0.053**
	[0.023]	[0.015]	[0.008]	[0.035]	[0.013]	[0.023]
$RULCrel_{j,i}$	1.469	0.257	0.157	-0.595	-0.597	1.215
	[0.887]	[0.669]	[0.477]	[0.832]	[0.564]	[0.904]
$NTsh_j$	-2.365**	-2.344***	-0.307	2.058	-1.870**	-0.148
	[0.890]	[0.630]	[0.327]	[1.768]	[0.601]	[0.914]
R^2 w	0.364	0.348	0.482	0.341	0.357	0.167
N	204	447	255	204	447	255

Notes: GIPS= Greece, Ireland, Portugal and Spain;. Deficit = GIPS + Italy, France, Estonia, Slovenia and Slovakia; Surplus = Austria, Belgium, Finland, Germany, the Netherlands.
Robust standard errors in brackets; *significant at 10% level; **significant at 5% level; ***significant at 1% level. Estimation method: panel fixed effects.

Table 4.7. Determinants of Intra-Euro Area Trade Flows (2003-2007)

	Export			Import		
	GIPS	Deficit	Surplus	GIPS	Deficit	Surplus
$logGDPrel_{i,j}$	-0.430	-0.979**	1.192***	-1.058	-0.470	-0.954
	[0.536]	[0.404]	[0.339]	[1.100]	[0.456]	[0.679]
$\Pi^{rel}_{j,i}$	5.160**	2.778**	1.492*	6.228*	2.152*	2.292*
	[1.602]	[1.084]	[0.756]	[3.230]	[1.205]	[1.287]
$\Delta(NIIP_j)$	0.092	0.062	-0.021	0.046	-0.184	0.173*
	[0.099]	[0.094]	[0.073]	[0.202]	[0.194]	[0.090]
$\Delta(NIIP_i)$	-0.037	0.171	0.028	0.128	0.07	0.165
	[0.140]	[0.250]	[0.075]	[0.271]	[0.186]	[0.149]
$AbsDifInt_{j,i}$	-0.124	-0.098**	-0.063	-0.189**	-0.092**	-0.104**
	[0.104]	[0.037]	[0.048]	[0.092]	[0.041]	[0.046]
$GFCF_j$	0.020	0.034**	0.015**	0.006	0.024**	0.030*
	[0.013]	[0.013]	[0.007]	[0.012]	[0.012]	[0.016]
$RULCrel_{j,i}$	1.708**	1.571**	-0.011	1.996**	0.987	2.266***
	[0.724]	[0.526]	[0.483]	[0.869]	[0.648]	[0.615]
$NTsh_j$	0.776	2.096***	0.065	2.348**	1.438***	0.154
	[0.488]	[0.539]	[0.249]	[0.843]	[0.364]	[0.976]
R^2 w	0.624	0.52	0.86	0.466	0.577	0.679
N	260	585	325	260	585	325

Notes: GIPS= Greece, Ireland, Portugal and Spain; Deficit = GIPS + Italy, France, Estonia, Slovenia and Slovakia; Surplus = Austria, Belgium, Finland, Germany, the Netherlands.
Robust standard errors in brackets; *significant at 10% level; **significant at 5% level; ***significant at 1% level. Estimation method: panel fixed effects.

5.

European Policies and Possible Improvements

5.1 Introduction

The previous two chapters showed that the Blanchard-Giavazzi (2002) model is unable to explain both the rise of current account imbalances up to 2008 and their subsequent adjustments. As to the latter, the main driver has been a recessionary trend brought about by the severe restrictive fiscal policies, which were imposed by the European institutions and carried out by a number of peripheral Member States of the European Economic and Monetary Union (EMU). These policies were centred on adjustment processes based on strong internal devaluation, rather than on structural long-term improvements in the different forms of productivity (labour productivity as well as total factors productivity) characterising the economies of the peripheral countries. The internal devaluations were usually obtained through high levels of unemployment and wage compression, while increases in productivity would have required organisational and process innovations. With this interpretation in mind, which continues to apply to the current European economic situation, in spite of the progress recently made by a number of peripheral countries, our conclusion is that the rebalances observed in the current accounts of the whole set of these countries during the period 2010-13 are likely to be short-lived: as soon as there is a recovery of the euro area and in particular of peripheral Member States, the demand for imports will increase and consequently the trade and current account imbalances should re-appear.

However, in the current economic phase it is more important to take into account the deterioration of the recovery prospects than the stability

of the re-adjustments in the current account imbalances. In fact, after positive figures in the first quarter of 2014, a downturn followed even in the German economy. Southern European economies were differently affected by this new negative trend; for instance, as distinct from Spain or Ireland, Italy is still struggling with negative GDP growth, that is, with its third recession during the last six years. The current forecasts indicate that the entire 2014 risks being a year of recession or stagnation for some of the weakest Member States of EMU, if not for the euro area as a whole.

The main message arising from the evidence collected in the previous chapters is that EMU has a structural problem of competitiveness. Market forces, so far, have not been able to provide the efficient productive investments that are required to replace the old stock of capital equipment and to stimulate the different forms of productivity. In particular, the European financial integration has not boosted productivity in the peripheral Member States since foreign capital has mainly gone into non-tradable good sectors, creating asset bubbles which reproduced a model of dependence on foreign capital without fostering a virtuous structural change. We believe that such mechanisms are at the root of the persistence of negative trade and current account imbalances. In addition, as shown in Chapter 4, the euro area as a whole is accumulating an increasing competitiveness gap with respect to the United States; and this negative gap also affects the EMU's surplus countries.

In the first part of this chapter we look closely at the policy responses of the European institutions to the problem of macroeconomic imbalances and to that of the increasing competitiveness gaps; then we will analyse some of the alternative proposals to finance the competitiveness-enhancing investments. After the strong increase in the interest rates on long-term sovereign bonds of southern European countries and – in particular – of Italy and Spain after June 2011, the ECB implemented the LTRO initiatives (December 2011 and February 2012) whereas the European Council and the European Commission suggested and introduced new regulations aimed at addressing the adverse consequences of the debt crisis and strengthening the power of surveillance of the European institutions.

The first innovation comes from the so-called Six-Pack, which was approved by the EU Council in October 2011 and adopted two months

later. The Six-Pack is composed of a set of legislative measures (five Regulations and one Directive) aimed at reforming the new Stability and Growth Pact that entered into force in June 2011 and at putting macroeconomic imbalances under stronger control. In particular, two of the regulations are devoted to the prevention and correction of macroeconomic imbalances by means of the surveillance of macroeconomic trends and the building up of a scoreboard based on eleven quantitative indicators. The Six-Pack was complemented by two other legislative initiatives: the so-called Two-Pack and the Fiscal Compact. In November 2011 the European Commission launched two additional regulations to strengthen budgetary and economic surveillance. In December 2011 it started the preparation of a "fiscal" treaty, which became an international treaty (Treaty on stability, coordination and governance, TSCG) and was agreed by the EU countries (with the exception of the United Kingdom and Czech Republic) one month later.

We maintain that the European sovereign debt crisis and the policy responses played an important role in the adjustment of the current account imbalances. However, at least in the short term, both Six-Pack and Two-Pack exacerbated the economic recession of the peripheral Member States and contributed to its extension to the euro area as a whole. On the other hand, our previous analysis showed that the adjustment process can be explained by at least three factors: (i) the severe recession affecting peripheral countries which dramatically reduced the value of imports in these economies; (ii) the real wage compression which can be interpreted, in a monetary union, as an internal devaluation; (iii) an internal inflation rate below the already low euro-area average.

It is apparent that our interpretation is not in agreement with that proposed by the European Commission. In several studies (for instance: European Commission 2012a and 2014a), the latter shares the statement that most of the rebalancing in the euro area can be ascribed to significant adjustments in current accounts imbalances of the most vulnerable countries; but the European Commission adds that these adjustments are mainly based on a structural recovery in the competitiveness of these same countries.[1] It follows that the differences between

[1] The Commission's point of view can find support in the results reached by some

the interpretation of the European Commission and ours depend on the definition of structural competitiveness.

The European Commission maintains that the adjustments of countries such as Ireland, Greece, Spain, Cyprus, Portugal, and Slovenia have been non-cyclical in the light of two crucial factors: (i) these adjustments were supported by increasing price competitiveness due to lower unit labour costs, and (ii) the reduction in the unit labour costs is permanent due to a significant slowdown in the potential output growth of these same countries, which implies a long-term compression of their real wages.[2] Hence, according to the European Commission, the structural competitiveness of a number of peripheral Member States improved due to the fact that their output gap became much lower and their "natural" rate of unemployment became much higher with respect to the pre-crisis period. However, this is equivalent to saying that the competitiveness of the EMU peripheral economies is based on a structural decrease in their rate of growth; that is, in a decrease of their levels of permanent consumption and productive investments and in the reduction of their productive capacity. It is not surprising that, under these conditions, the value of imports should contract and the amount of export should partly increase.

Our interpretation rejects these conclusions for two analytical reasons. First, we are not ready to define a structural reduction in the rate of growth of a given economic system as a condition for the improvement of its structural competitiveness. According to the most seminal growth and development models in the history of economic analysis (see for instance: Schumpeter 1911, Aghion and Howitt 1992), the opposite holds true: there is a positive correlation between competitiveness of a given economic system and its rate of growth. Second, we maintain that the

theoretical models. For example, Vogel (2011) elaborates a micro-founded model, which analyses a small open economy belonging to the EMU, the rest of the Euro area, and the rest of the world. The model assesses the effect of structural reforms in the open economy on its external imbalances. According to the author, reforms in product market, wage moderation and fiscal consolidation accelerate current account rebalancing by strengthening price competitiveness.

[2] As the recent reaction of the Italian Minister of the Economy shows, the European Commission dramatically reduced the potential output of various EMU countries including Italy.

dramatic decrease in the potential outputs of the European peripheral Member States is not the consequence of the unavoidable exit from the international and European crises, but depends instead on the peculiar working of the EMU, and particularly on the absence of mechanisms to stabilise asymmetric shocks affecting the countries of this area. Chapter 4 supports this approach since it shows that the relative loss in international competitiveness concerns not only peripheral countries, but also a large portion of the central countries of the EMU.

As has been detailed already in this book, during the first period of life of the euro area the actual working of the markets did not prime the expected catching-up process. Between 1999 and 2007, peripheral Member States did not allocate a sufficient portion of their financial inflows to productive and innovative investments. Then, the following period (2008-2012) has been characterised by a flight to quality, which inverted the direction of the financial flows and worsened the sustainability of the negative imbalances of peripheral Member States. This means that these imbalances were no longer compensated for by foreign capital and financial flows, so that the European peripheral countries had to rapidly and actively adjust their disequilibria. These stylised facts can be interpreted as market failures. Hence, it becomes crucial to design policy mechanisms implying the removal of the structural determinants of imbalances in the European countries in order to avoid a widening in negative imbalances during the recovery and the expansionary phases. At the same time, it is also crucial to conceive policy measures aimed at fuelling this recovery.

The chapter is organised as follows. In Section 5.2 we describe the new macroeconomic surveillance framework based on the so-called Six-Pack, focusing on the early warning system and on the excessive imbalance procedures; we also describe the so-called Two-Pack discipline. In Section 5.3 we then discuss the effectiveness and weaknesses of these new procedures in terms of European imbalances and economic growth. In Section 5.4 we present some of the policy proposals elaborated by European institutions and leading academics, and we point out their main limitations. In Section 5.5 we sketch our own proposals for defining, financing, and implementing investments able to fuel an economic recovery in the euro area and to fill the main gaps in competitiveness between Member States. Section 5.6 concludes.

5.2 MACROECONOMIC SURVEILLANCE

In September 2010 the European Commission presented six legislative proposals (five regulations and one directive: the so-called Six-Pack) to strengthen the European institutions of economic governance. Two of these proposals were introduced to reduce macroeconomic imbalances and promote competitiveness through preventive and corrective actions. One year later, under the pressure of the euro area crisis, this macroeconomic surveillance framework was specified in terms of the Macroeconomic Imbalance Procedure (MIP) and was approved by the EU Council and by the European Parliament on behalf of the EU Member States (see European Commission 2011). This mechanism is based on two factors: (i) an early warning system, based on a scoreboard consisting of a set of macroeconomic indicators (Regulation EU No 1176/ 2011 of 16 November 2011 on the prevention and correction of macroeconomic imbalances); (ii) a new Excessive Imbalance Procedure (EIP), based on Article 121.6 of the Treaty, which allows the Commission and the EU Council to adopt preventive recommendations under Article 121.2 of the Treaty at an early stage, that is, before the imbalances become too large to be managed (Regulation EU No 1174/2011 of 16 November 2011 on enforcement measures to correct excessive macroeconomic imbalances in the euro area).

5.2.1 The early warning system: the MIP scoreboard

The set of indicators, which are at the basis of the Macroeconomic Imbalances Procedure (MIP), specifies both internal and external imbalances and sets threshold values acting as an early warning device. Thresholds have not been set at very stringent levels in order to avoid a large number of "false alarms" (that is, signals of macroeconomic imbalances which – *ex post* – clearly reveal themselves as non-excessive). At the same time, threshold levels have been set at prudential levels in order to be able to identify problems before they became too hard to solve (European Commission 2012b). The objective is to ensure that appropriate policy responses are promptly adopted by EU countries with macroeconomic disequilibria, but also that these same countries do not

lose their heads. Hence, the European Commission defined eleven early warning indicators and identified lower and upper thresholds for each of them. It is understood that the composition of the scoreboard can evolve over time, according to new possible threats for macroeconomic stability and improvements in data availability.

The current scoreboard includes two external imbalance indicators, three competitiveness indicators and six internal imbalance indicators. The external imbalance indicators are: (i) three-year rolling average current account (CA) imbalance in percentage of GDP, with lower and upper thresholds equal to -4% (in case of negative imbalances) and +6% (in case of positive imbalances); and (ii) net international investment position (NIIP) in terms of GDP, which should not fall below -35%. The three competitiveness indicators are: (iii) three-year percentage change in the Real Effective Exchange Rate (REER), which refers to thirty-five industrial countries, with lower and upper thresholds equal to -/+5% for the euro area countries and -/+11% for the rest of the EU; (iv) five-year percentage change in export market share, with a threshold of -6%; (v) three-year percentage change in nominal Unit Labour Costs (ULC), with a threshold of +9% for the euro area countries and +11% for the rest of the EU. Finally, the six internal imbalance indicators are: (vi) the amount of private sector (consolidated) debt in percentage of GDP with an upper threshold of 160%; (vii) the credit flow to the private sector in percentage of GDP (15% threshold); (viii) the annual changes in the house price index relative to a Eurostat consumption deflator, with an upper threshold of 6%; (ix) the total amount of government debt in percentage of GDP (upper threshold of 60%); (x) three-year rolling average of the unemployment rate (threshold of 10%); (xi) annual percentage change in total financial sector liabilities (upper threshold of 16.5%).

The MIP Scoreboard for euro area countries in 2012 is reported in the appendix (see Table 5.1).

5.2.2 The Excessive Imbalance Procedure (EIP)

If a significant subset of the eleven indicators included in the scoreboard has figures incompatible with their specific thresholds, there is the activation of an Alert Mechanism Report (AMR) for the country involved.

The AMR is a necessary but not a sufficient condition to put a given Member State under in-depth review, in the sense that the decision to start this review is not mechanically based on the scoreboard results but also refers to other information. If the European Commission decides to start an in-depth review, this will imply a more detailed country-study based on a wider set of indicators and analytical tools (Figure 5.1).

There are three possible outcomes of each in-depth review: (a) the signalled imbalances of the country under review are not significant or have been already re-absorbed, so that the procedure stops; (b) these imbalances are still operative but not immediately harmful for the rest of the euro area, so that the European Commission and the EU Council limit themselves to release recommendations under Article 121.2 of the Treaty; (c) these same imbalances are excessive in the sense that they threaten the stability of the euro area, so that the Commission and the EU Council ask the given Member State to present a corrective action plan. In principle, the latter recommendation (taken under Article 121.4 of the Treaty) is equivalent to the opening of a procedure for excessive macroeconomic imbalance. In fact, the formal procedure (EIP) would start only if a euro area country failed twice to submit an adequate corrective action plan. In this case, a fine of up to 0.1% of GDP can be imposed. Sanctions are decided by reverse qualified majority voting (RQMV).[3]

In 2014, fourteen European countries have been involved in an in-depth review. Three of them (that is, Croatia, Italy, and Slovenia) have been considered as affected by excessive macroeconomic imbalances, and were hence asked to undertake strong policy actions. On the other hand, the imbalances of Belgium, Bulgaria, Germany, Ireland, Spain, France, Hungary, Netherlands, Finland, Sweden, and the United Kingdom were not found to be excessive.

The case of Italy is crucial for the problems under discussion, since its excessive macroeconomic imbalances are due to the possible incompatibility between a very high level of public debt and a too weak external

[3] This means that the recommendation of the European Commission is adopted unless the Council decides by qualified majority to reject it.

competitiveness. In the coming weeks Italy will possibly be able to implement the policy actions required by the European institutions. However, we are not confident that these actions will be sufficient to overcome the competitiveness gap of this important peripheral country and to stimulate a process of growth. This means that the MIP and the EIP are useful tools to improve the European control on the disequilibria inside the euro area and on the internal market; however, these tools are not adequate to design effective incentives to change the inertia of peripheral Member States and to structurally improve their competitiveness.

5.2.3 The new procedures for the prevention of imbalances

A similar conclusion applies to a related policy initiative: the so-called Two-Pack. In November 2011 the European Commission introduced two new regulations to strengthen budgetary and macroeconomic surveillance in the euro area. These two regulations (the Two-Pack) came into force in May 2013 for all the Eurozone countries. They are built on the Six-Pack reforms to the Stability and Growth Pact (SGP) and are aimed at integrating these reforms by strengthening the *ex ante* monitoring mechanisms.

The main novelties of the Two-Pack concern the management of the public balance sheet of euro area Member States, with special rules applying to those in the corrective arm of the new SGP, that is under the Excessive Deficit or Debt Procedures. Moreover, the new regulations provide rules designed to improve the *ex ante* surveillance on the budgetary plans of the euro area Member States (presentation to the European Commission by mid-October of each year), with strengthened rules applying to those under – or just exiting from – financial assistance programmes or affected by serious problems of financial stability. It follows that troubled Member States are asked to do whatever is identified as needed to improve their short-, medium-, and long-term economic and financial situation. The basis of the new procedures is the Article 136 of the Treaty allowing the Eurozone countries to strengthen the coordination and surveillance of budgetary discipline in order to ensure the functionality of the EMU.

Here we are not specifically interested in analysing these new mechanisms devoted to the *ex ante* control of the European fiscal aspects. This also explains why we neglect any specific reference to the so-called Fiscal Compact which, from the point of view of the contents, does not introduce significant novelties with respect to the Six-Pack and does not refer to the control of the current accounts imbalances. We are instead interested to stress that the Two-Pack also strengthens the *ex ante* monitoring of the euro area countries with macroeconomic imbalances, and in particular of those under Macroeconomic Imbalance Procedure (MIP).

5.3 THE EFFECTIVENESS OF THE NEW PROCEDURES

The previous analysis clarifies that the Six-Pack and the Two-Pack would have to be exclusively aimed at adjusting expected or actual macroeconomic disequilibria in the euro area. To reach their objective, these two legislative tools introduce a number of constraints, which can become binding, so that they tend to have a recessionary impact on the weakest economies of the European Member States. Hence the Six-Pack and the Two-Pack cannot be directly utilised to improve the structural competitiveness of the peripheral countries, at least according to our previous definition. Moreover, due to their potential recessionary impact, they cannot even offer a long-term solution to the imbalances in the euro area. Finally, if – despite these observations – we try to mix up the objective of the adjustment of European imbalances in the short term and the different objective of filling the gaps in competitiveness between the peripheral and the central Member States, the Six-Pack and the Two-Pack can lead to ambiguous and contradictory results.

In this section we focus our attention on the competitiveness problem. The ambiguity means that the Six-Pack and the Two-Pack denounce a number of specific weaknesses in their adjustment mechanisms even in the short term. In particular, the examination of the weak points of the Six-Pack shows that the related policy actions risk being ineffective in correcting European imbalances and useless in filling the competitive gaps between peripheral and central Member States.

5.3.1 Relative or absolute measures?

Many of the MIP scoreboard indicators are characterised by thresholds expressed in absolute terms, in the sense that these thresholds are unrelated to the average performances in the euro area. As an example, let us consider the ULCs. If the whole set of euro area countries were losing competitiveness due to the dynamics of this indicator, an increase above 6% of the ULC in a given peripheral country could have a very negative impact on the competitiveness of the area as a whole in the international market but may be not so relevant as a determinant of increasing imbalances of the specific country under examination. Moreover, the adjustment of ULC dynamics to the threshold in a given country could be insufficient to avoid the decrease in its structural competitiveness, since it could be exceeded by the negative performance of the area as a whole and it could have a negative impact on the internal demand. The opposite would be true, if the whole area gained competitiveness; in this case, a ULC dynamic above the threshold in a given country could be compatible with the reproduction of the competitiveness of the whole area but it would usually determine or increase imbalances between Member States. Hence, if the threshold of this indicator were normalised with respect either to the average European increase of the ULC or to the average variation of the ULC in the three best Europeans performers, the MIP scoreboard would become more effective in detecting one of the possible causes of the imbalances.

A similar methodological problem applies to the export market shares. Table 5.1 shows that the evolution of these shares in 2012 were below the negative threshold in almost all the European countries. However, if most of the countries fall out of the general threshold, the problem will be a systemic and not a country-specific one. Hence, the negative trend of this indicator cannot be considered a determinant of internal European imbalances but, at most, a signal of decrease in the competitiveness of the whole area. This means that the consequent policy actions must be taken at the European level and not only at the country level; moreover, their aim cannot be the direct re-absorption of the European imbalances of a specific country. A normalised version of this indicator (see above) could provide a more convincing microeconomic

analysis of the composition of European imbalances. On the other hand, different and more effective indicators can be used to assess the overall competitive deficit of the EMU area.

The same arguments can be applied to a large number of the other indicators included in the MIP scoreboard. Our conclusion is that, by using normalised indices, it will become possible to isolate the problem of rebalancing the macroeconomic disequilibria inside the euro area and to implement adequate policy actions. Conversely, the systemic problems of competitiveness, which affect the euro area a whole, must be managed by having recourse to different policy actions.

5.3.2 Trade and global value chains

The growing importance of the regional and global value chains reduces the informative significance of some of the indicators included in the Alert Mechanism. The fragmentation of production among many EU and non-EU Member States implies that intermediate products pass through different countries before being transformed into the final outputs in the last phase of the production processes. As Altomonte et al. (2011) specify, this fragmentation in the production processes implies that trade statistics incorporate the value of each of the different intermediate products in each of the outputs of subsequent productive phases, and hence they improperly calculate this value many and varying times. This generates an arbitrary and heterogeneous multiplication of the total amount and the total value of trade with respect to the actual value added of import and export flows of the different countries involved in the chain. One of the consequences of this overvaluation is a distortionary assessment of the trade and current account imbalances of the different countries. Another consequence is the record of strong and distortionary fluctuations in import and export values of intermediate products; and this is especially true during the crisis and the recovery phases (Alessandria et al. 2011).

Among the indicators included in the MIP scoreboard, the market shares of each of the Member States are particularly affected by the distortions due to the global and regional value chains. Export flows are calculated using standard trade statistics, which report the total value of

goods and services and not the domestic value added to them. This can imply some paradox. For instance, the reduction in the market share of a given country could be the signal of an improvement in its competitiveness at the international level. This apparent paradox is due to the fact that the reduction in the market share of the country under examination could be the effect of an increase in the value added of its exports which do not compensate the decrease in the total value of its imported intermediate products. Hence, to utilise the dynamics of the market shares of each European country as an indicator of its trade imbalances, it would be necessary to build value-added statistics. Unfortunately, these kind of data are not so widely available yet as to become a world standard of measurement.[4] As a rough proxy, the MIP scoreboard could at least refer to the value of the net exports in the different sectors of production.

In addition to the statistical problem of measurement, the global and regional value chains can affect trade measures by propagating shocks among countries. A reduction in the market share or in the current account balance can be the effect of negative shocks in other countries of the chain; moreover, it is obvious that the magnitude of the reduction is higher for upstream countries than for downstream ones (Zavacka 2012). In this context, even the national imbalances cannot be adjusted by means of country-specific actions. The latter can be ineffective in bringing the indicators above the negative threshold.

5.3.3 The drawbacks of an asymmetric approach

As we pointed out in the previous chapters, one of the main negative features of the European adjustment mechanisms lies in the fact that adjustments are asymmetric, in the sense that the relative costs must be borne in the main by deficit countries. It is also clearly evident that this applies to the MIP scoreboard as well. If we exclude the indicator on the current account imbalances and a few others, this scoreboard is only based on negative thresholds; moreover, even in the case of the current

[4] The OECD is the only institution collecting data on trade value added by means of the OECD-WTO TiVA database. In this respect, see http://stats.oecd.org/Index.aspx?DataSetCode=TIVA_OECD_WTO.

accounts, the threshold for surplus countries is less binding (6%) than that for deficit countries (4%) and it was never utilised to start a procedure for excessive macroeconomic imbalance. In this respect it is well known that, during the last three years as well as in the pre-crisis period, Germany recorded current account surpluses above the maximum threshold of 6%; however, according to the European Commission, these disequilibria were never threatening to compromise the stability of the euro area.

The German case is important since the asymmetry in the treatment of surplus and deficit countries is not only unfair, but it reproduces and strengthens the imbalances. The lack of monitoring and the absence of sanctions towards the evolution of the German trade surpluses allowed the country to make stronger its export-led growth model, based on wage moderation and structural competitiveness. However, such a model is not suitable for the dominant country in a currency union since it ends up in beggar-thy-neighbour style dynamics (Dullien 2014).[5]

This result corroborates the evidence provided in Chapter 4 of this book. Surpluses in some countries of the euro area very often correspond to equivalent deficits in other countries of the same area, meaning that both are crucial to understand spillovers of the macroeconomic imbalances across countries (Codogno 2013). Hence, negative current account imbalances in a number of European Member States are largely due to the poor functioning of the European institutions in putting under control the corresponding positive imbalances of Germany and a few other EMU countries. It follows that the asymmetric adjustments have detrimental and general effects. Let us elaborate further the case. As we showed in Chapters 1 and 4, the recent rebalancing processes in various peripheral Member States required deflation and deep recessions in these countries, which spread to the whole euro area.[6] A sym-

[5] In this perspective, it is not so crucial to distinguish between intra-EMU and extra-EU positive trade imbalances since, in both case, the surpluses of the leading countries have a negative impact on the potential growth of the rest of Europe.

[6] Another argument against the asymmetry in adjustments can be found in Collignon (2013). He argues that this approach is not consistent with the cooperation between the European Member States since policies are driven by the preferences of

metrical adjustment of the positive and negative current account imbalances instead, with surplus countries increasing their expenditure and reducing the relevance of the external sector in favor of domestic demand, could have partially avoided these negative and general results (see Guerrieri and Esposito 2012). Moreover, rules aimed to increase the contribution to the EU budget in proportion to the surpluses could help to reduce imbalances.

5.4 THE CURRENT POLICIES FOR GROWTH

The previous analysis showed that the Six-Pack and the Two-Pack are suitable for implementing neither policies aimed at filling the gaps of competitiveness between central and peripheral Member States nor policies aimed at supporting an equilibrated, sustainable growth path for the euro area. It follows that it would be necessary to re-design important aspects of the new European governance built by the European Council and the European Commission in the last four years. However, this is not a duty workable in the short term or even in the medium term. The question thus becomes: do the existing European economic institutions have in place policy measures able to achieve improvements in the competitiveness of the peripheral countries and to support a growth process in the area? And if the answer is negative, will it be possible to design new and effective policy tools for equilibrated growth?

Different proposals for the implementation of competitiveness and growth-enhancing policies have been put forward since May/June 2012. However, the implementation of these policies was hindered or limited by three main elements: (i) the binding fiscal constraints that each of the EMU Member States had to meet at national level to be compliant with the new Stability and Growth Pact and with the Six-Pack (or the Fiscal Compact) requirements; (ii) the rejection of the EMU central countries to undertake any systematic initiative which could imply a

stronger members. This undermines the social cohesion of the countries and the stability of the whole area.

transfer (even indirect) from the public and private national debts to the EU balance sheet; and (iii) the deleveraging of the European banking system, particularly in the peripheral Member States, due to the large stock of bad loans and troubled assets still stored on banks' balance sheets. These three elements prevented the actual launch of the various designs of the Industrial Compact or Growth Compact, proposed by the European Commission and approved by the European Council. However, they also made clear which are the two essential ingredients that would have to characterise any effective expansionary monetary policy in the euro area: a positive shock to the aggregate demand in the very short term, and the strengthening of the productive efficiency (in particular, in the peripheral Member States) by means of reforms enhancing the structural competitiveness in the medium term.

The last statement implies that growth-enhancing and competitiveness-enhancing policies in the euro area require as a necessary condition a virtuous combination between fiscal policy, reform initiatives, and monetary policy (see Draghi 2014). Here we do not analyse the reasons why the ECB has been unable to pursue an expansionary policy in the last two and a half years and is now facing severe constraints to implement a quantitative easing programme.[7] Moreover, we do not examine the main economic and institutional reforms which would have to be implemented in the different Member States to improve efficiency and social welfare in the euro area. We just focus our attention on the short- and medium-term initiatives which can stimulate the aggregate demand

[7] The LUISS School of European Political Economy (see Bastasin et al. 2014) has suggested a financial tool to ease the purchase of public bonds by the ECB in the secondary market (EQUIP). This tool is an asset-backed security (ABS) issued by financial intermediaries. The underlying components of the new ABS are the EMU Member States' sovereign bonds, combined in a proportion which has to be ex-ante determined by the ECB and which roughly reflects the national shares in the ECB capital. If the ECB committed itself to purchase the new ABS to implement its quantitative easing programme, the creation and supply of this new financial asset would become convenient for the private intermediaries; moreover, the mix of risk and return of this same asset would be appealing for a number of institutional investors and wealth owners. Hence, the European quantitative easing intermediated programme (EQUIP) could flow into the construction of a large and unified market for European public bonds.

and supply without affecting the fiscal equilibria or adjustments in the national balance sheets.

In this respect, the crucial reference is to a systematic project of public and private investments at the European level, since these components of the aggregate demand are the most effective bridge between short- and medium-term objectives and both can improve competitiveness and create the conditions for the reforms. The European Commission would have to identify the broad economic activities that enjoy a strategic priority, while leaving it to market decisions to translate these priorities into specific productive innovations and investments. Moreover, the European Commission would have to identify the public financial resources necessary to finance the public component of the investment project and to complement flows of private financing. Finally, it would have to implement an asymmetric allocation of the financial funds and the actual investments in order to grant an economic advantage to the peripheral Member States, and thus to reduce the gaps in competiveness inside the euro area.

Apparently, the European Commission has different tools at its disposal for financing and implementing these kind of investment programmes. One of the most promising seems to be the Europe 2020 Project Bond Initiative (EPBI, Regulation No. 670/2012). This initiative, which is based on the joint participation of the European Investment Bank (EIB), provides for the purchase of project bonds issued by public and private partners to finance eligible infrastructure investments. In particular, the EIB takes the responsibility to purchase the riskiest tranche of the bond in order to improve its rating and to lower the market cost of the other tranches. Thanks to this initial financing, it becomes feasible to build public-private partnerships (PPP) which can attract additional private finance from institutional investors; that is, according to the Commission's idea, "the aim is to attract institutional investors to the capital market financing of projects with stable and predictable cash flow generation potential by enhancing the credit quality of project bonds issued by private companies."[8]

[8] European Commission, *Europe 2020 Project Bond Initiative*, updated 12 September

It must be noted that the EPBI is interesting from the methodological point of view and succeeded in financing a number of infrastructure programmes; however, the original objective of this project was not to implement a massive European investment plan but rather "to support capital market financing of projects as a form of finance to complement loans, not to replace other sources of financing."[9] Hence, the size and the institutional frame of the EPBI are largely insufficient to boost the low investment to GDP ratio in the EU, and thus to launch a growth-enhancing policy.

A more systemic initiative has been taken up by the newly appointed president of the European Commission, Jean-Claude Juncker. In presenting his programme to the European Parliament, the new president acknowledged the need for a European investment project aimed at fuelling a growth process in the area. Investments should be focused on four main fields: energy, transport, broadband networks, and industry clusters. The financial resources devoted to this project would have to amount to more than 300bn euros over a 3-year horizon. According to Mr. Juncker, part of these resources would have to derive from the utilisation of the EU budget, which approximately amounts to 1% of the EU GDP. Additional sources of financing should come from the European Investment Bank and from the private sector.

At the end of November 2014 the European Commission elaborated a more detailed scheme of Juncker's investment project to be approved by the EU Council on December 9th (see Passacantando 2014). The original liquidity amounts to 13bn euros: 5bn come from the EIB, and a 8bn guarantee comes from the reallocation of existing EU budget resources (3.3bn from the Connecting Europe facility, 2.7bn from Europe's research program Horizon 2020 and 2bn from unused founds); the latter would secure a first-loss guarantee of 16bn euros, even if it was not necessary to prefund the additional 8bn. This original endowment of 21bn euros feeds a new fund (the European Fund for Strategic Investments, EFSI), which is simply an account of different projects and is bound to the EIB.

2014, http://ec.europa.eu/economy_finance/financial_operations/investment/europe_2020/index_en.htm.

[9] Ibidem.

The EFSI would have to allow an EIB funding of 63bn euros in three years, with an internal leverage of 3, and a consequent total amount of investment valued at 315bn euros, with an external leverage of five. More than 75% of the expected total financing (that is, about 240bn euros) should be allocated in the infrastructure sectors, the remaining part (about 75bn euros) in the financing of small and medium firms. Moreover, the EMU Member States are expected to freely contribute to the EFSI by paying in capital but without affecting the deficits of their balance sheets.[10]

The German government did not openly support the launch of the European investment projects. However, at mid-September 2014, Germany's and France's Finance Ministers maintained that the EIB would have to play a more active role by increasing its balance sheet and by improving its willingness to take risks; and at the end of November, the German government did not exclude giving a contribution to the EFSI. The point is that, to succeed, the core of Juncker's investment project cannot be based on a new fund of 21bn euros with just 2bn or 5bn of additional liquidity (see also Gros 2014:2).[11] As stated by many commentators, even if it was taken for granted a total leverage of fifteen which in fact appears to be too high, 315bn of new investments would be insufficient to reach the ambitious objectives of Juncker plan. Hence, the probabilities of Juncker's investment project to be implemented in the future are not so high; moreover, as in the case of the EPBI, this project has not the net size to change the negative inertia of the European economy.

It is thus not surprising that alternative proposals have been put forward by a number of Member States. Some of them follow the line of

[10] This is our provisional interpretation of the following statement: "the Commission will take a favourable position towards such capital contributions to the Fund". As far as we know, today (end of November 2014) it is impossible to enter into more details on the possible national contributions to the EFSI. The Juncker's investment programme has not been approved yet by Member States which – a fortiori – did not commit themselves to finance the new EFSI.

[11] It must be noted that the 5bn of capital, transferred by the EIB, would probably have been invested even outside the EFSI; on the other hand, at least 6bn out of the 8bn of prefunded guarantee come from the reallocation of the EU budget resources.

Juncker's programme, but at least double the financial effort over a longer horizon. In particular, the investment proposal from the Polish government (Szczurek 2014) is based on a financial flow of 700bn euros over five years and it is centred on a European Fund for Investment (EFI).[12] This fund, which probably inspired the EFSI, would have to be set up in the EIB's structure and would offer a risk-sharing tool or a guarantee to additional public and private investments. Hence, in the Polish proposal too, the financial flows are based on a leverage. Nevertheless, the organisation and the working of the EFI are different with respect to those of the EFSI: in spite of its link with the EIB, the former has to be a separate legal entity

The financing of the EFI is based on a mechanism similar to that designed for the European Stability Mechanism (ESM): all EU Member States inject gradually a paid-in capital and guarantee for the possible remaining capital. The financing of each European country does not directly increase its public deficit but just its public debt; in any case it is not a duplication of the EU budget financing. Thanks to its paid-in capital, the EFI can issue bonds in the international financial markets; and the consequent takings can leverage the liquidity transferred from the EU Member States. One of the possible features of EFI's financing is the asymmetric allocation of the new investments, which could be concentrated in countries where output lags behind output potential estimates (i.e., Greece, Portugal, and Spain).

A different plan centred on tax cuts rather than on public and private investments, has been recently proposed by Giavazzi and Tabellini (2014). The latter start from a common analytical ground. They argue that EMU needs a coordinated plan instead of national isolated actions due to the fact that all Member States share a common problem, that is the well-known lack of aggregate demand in the short term. From this point of view, tax cuts are more effective than investments to boost demand level and thus the rate of growth, due to the long lag time in the implementation of public and private investments and to the frequent

[12] As we will emphasise below, various aspects of the Polish investment programme seem to be included in the draft of Juncker's plan at the end of November 2014. However, the differences between the two plans are more important than their analogies.

misallocation of resources in the case of the public ones. Hence, Giavazzi and Tabellini (2014) propose a 5% tax cut combined with a five-year suspension of the SGP rules, which should allow the EMU countries to exploit the growth stimulus and to carry out a severe reduction in their public expenditures. The latter would have to allow the re-equilibration of public balance sheets. However, this rebalancing process could be coupled with an expansionary monetary policy, if the EMU countries financed the temporary public deficit in excess by issuing bonds with a thirty-year maturity to be purchased by the ECB through a radical quantitative easing programme. Moreover, in order to further strengthen the expansionary fiscal policy, the ECB could distribute the interests on these long-term bonds to its shareholders (that is, the same EMU Member States) in the form of seignorage.

This plan has several institutional and analytical shortcomings. From the first point of view, it violates the Treaties since the ECB would become a purchaser of public bonds in the primary market, the SGP would be programmatically broken, and the separation between monetary and fiscal policies would be systematically cancelled. However, the analytical shortcomings are still more significant since they propose a mild version of the misunderstandings characterising Blanchard and Giavazzi (2002). The main underlying assumption of that older paper is the perfect efficiency of the markets in the short and long term; the main underlying assumption of the new paper is that markets have some failures in the short term but are perfectly efficient in the medium and long term. Hence, according to Giavazzi and Tabellini (2014), it is necessary to stimulate the demand in the short term due to market failures; however, these monetary and fiscal stimuli will be sufficient to get an equilibrated path of growth due to long-term market efficiency.

In the light of the evidence collected throughout this book, we maintain that one of the lessons to be taken from the recent crises is that markets can fail in the short as well as in the long term; and a further lesson is that breaking the rules increases instability, so that the weakest Member States would face growing costs if they neglected the EMU's main constraints on the management of the public balance sheets. It follows that the solution to the problem of macroeconomic imbalances comes from the solution of the following puzzle: how to restore a path of

growth and to improve the structural competitiveness of countries in deficits, given the binding constraints imposed by the EMU's rules. To answer the second question raised at the beginning of this section (that is, will it be possible to design new and effective policy tools for equilibrated growth?), we have to sketch policy measures able to solve this puzzle.

5.5 GROWTH-ENHANCING POLICIES: SOME PROPOSALS

These measures are aimed at reaching various results and at facing different constraints. Giavazzi and Tabellini (2014) are right in stating that it takes too much time to design and implement a European investment project quantitatively adequate to restart a growth process in the euro area. Hence, the first policy measures have to support the aggregate demand in the very short term by stimulating consumption or investment in circulating capital either at the European level or at the national levels. Due to the severe fiscal constraints faced by governments of peripheral countries, the initiatives at the national levels mainly rely on unlikely expansionary decisions taken autonomously by the policy makers of the EMU central countries, as well as on some specific tax cuts and spending reallocation in a few peripheral countries (such as Italy). On the other hand, the initiatives at the European level have a wider range of possibilities. They can rely on the short-term effects of an expansionary monetary policy, on the positive impact of increasing European public spending, and on the combined effects of these two monetary and fiscal policies.[13]

In any case, the main solution would be the implementation of symmetric adjustments between central and peripheral countries. For instance: if the European institutions forced German policy makers to compensate the excessive positive imbalances in the current accounts

[13] In this respect, the main role can be played by unconventional monetary policies aimed at determining a positive exogenous demand shock in the European market. As stated above, we do not analyse monetary policies in details.

by means of an increase in the internal demand, there would be a positive short-term shock for the European aggregate demand.

Let us assume that these short-term stimuli to the aggregate demand were successful. As we have already shown, this would be insufficient to restart a process of European growth and to fill the competitiveness gaps inside the euro area in the medium term due to the fact that peripheral countries, and partly central countries, did not yet carry out reforms and did not recover their potential outputs. To achieve these last two results in the medium term, it would be necessary to implement a widespread European investment project as well as to introduce specific reforms to improve the structural competitiveness of different Member States.

Let us first refer to the European investment project. As previously stated, the European Commission would have to identify the broad economic activities that represent the strategic priorities, while leaving it to market decisions to translate these priorities into specific productive innovations and investments. Moreover, the Commission would have to identify the public financial resources necessary to finance the public component of the investment project and to complement flows of private financing. Finally, it would have to implement an asymmetric allocation of the financial funds and the actual investments in order to grant an economic advantage to the peripheral Member States, thus reducing the gaps in competitiveness inside the euro area.

Here we cannot enter into details with respect to the strategic priorities to be covered by the European investment project and with respect to the possible asymmetric allocation of the actual investments. In the first place, the four fields indicated by Mr. Juncker in his programme follow the direction suggested by a number of papers produced by the European institutions in recent years and by the agreed conclusions of several recent European Councils. In the second place, it is evident that the degree of asymmetry is determined by the need to reduce the competitiveness gaps between Member States. However, in order to really discuss the investment priorities, the relations between these priorities and the market decisions, the relative weight of public and private investments, and the efficient corrections of the competitive gaps between different countries, we would have to build a more specific framework and to have additional information. We can instead go a step forward

with respect to the public financial resources required to finance the European investment project.[14]

As we already pointed out, the EIB can play an important role as a purchaser of project bonds, but it cannot be the main source of financing for a European investment project quantitatively appropriate to re-start a growth process in the euro area. On the other hand, the financial support of public institutions with adequate information offers a kind of market guarantee to private and institutional investors, and it can thus strengthen the role played by the latter;[15] conversely, this also explains why private and institutional investors cannot fully replace the European public funds in financing the European investment project. Hence, if we want to avoid having the financial coverage of this project reduced to a mere clearing transaction, unable to actually finance the implementation of new initiatives, it will be necessary to identify a credible source of public funds. In principle, the most logical solution would be to have recourse to the European permanent institution with the highest amount of paid-in capital, that is the European Stability Mechanism (ESM).

A possible objection is that the ESM is asked to play an excessive number of roles on the scene. The ESM was born as a mechanism to manage the EMU sovereign debt crisis (December 2010); then, it has been proposed as one of the possible public backstops in the resolution mechanism designed by the banking union process (December 2013); and now it could become the main public financial support for the implementation of the European investment project. However, this objec-

[14] It must be noted that, according to many commentators, the definition of the investment priorities is more important than the identification of the public financial resources. The latter could be limited if the former were so appealing to mobilise the huge amount of liquidity hoarded by the private financial intermediaries and by the institutional investors. We partially share this point of view. However, we also believe that the long and severe European recession requires an important amount of public financing and investment in order to offer a kind of guarantee to the private financial resources: the public guarantee that the EMU is not condemned to be trapped in a long-term economic stagnation.

[15] The selection of a given borrower by a public institution with a rich set of information signals to the market players that this borrower is creditworthy. In this sense, the public institution offers an implicit market guarantee to the private investors.

tion would not matter if we made reference to the official scope of activity of the ESM. This scope explicitly lists the possibility to purchase debt instruments in the primary and secondary financial markets. Moreover, in specifying the purpose of this institution, Article 3 of the ESM Treaty acknowledges that the ESM itself aims at providing "stability support" to its members which "are threatened by severe financial problems"; and it is obvious that, without the implementation of a European investment plan to relaunch a growth process, EMU's peripheral Member States will be unable to manage their public deficits and debts in the near future.

An additional and more serious objection is that the ESM cannot face this new duty either without increasing its amount of paid-in capital or without exposing its other possible commitments. To overcome this problem, it would be sufficient to agree that the ECB can buy on the secondary market: (i) the project bonds issued by public and private institutions to finance parts of the European investment project and bought by the ESM on the primary market; (ii) the new bonds issued by the ESM to finance its purchase of the project bonds sub (i). Moreover, this possibility would offer a solution to the current dilemma of the ECB: its strong will to start a credible European quantitative easing programme to counter the risk of deflation in the euro area, and the lack of an adequate market supply of financial assets with a proper rating and without a direct link to the public debt issued by the different Member States.[16] The project bonds and the ESM's bonds could fill the lack of an adequate market supply of financial assets without involving the direct sale of sovereign debt bonds in the European secondary market. On the other hand, the expected purchase of the project bonds by the ECB would prime a virtuous circle: it would make these project bonds quite desirable for private and institutional investors, and it would thus lower their riskiness; as a consequence, the ECB and the EIB would have the stimulus to increase their purchases of these same assets.

[16] The ECB's possible choice to systematically buy public bonds of different Member States in the secondary market would not be a novelty (cf. the so called Securities Markets Programme, SMP) and – at least in our opinion – would not violate the spirit of the Treaty. However, this possible choice is opposed by Germany since it is conceived as a socialisation of the public debt accumulated by the peripheral countries.

The problem is that this possible source of financing of the European investment project, which could also help the implementation of the European quantitative easing by the ECB, crashes into the political opposition from most of the EMU Member States. Northern and surplus countries tend to read this kind of solution as a complex construction to hide the use of common financial resources to finance countries in deficits. On the contrary, the latter countries read this same kind of solution as a "Trojan Horse" to impose restrictive and binding measures, with an implicit loss of sovereignty for troubled countries.

In order to overcome this mistrust between EMU Member States, which is one of the main causes of the loss of legitimacy of the European institutions and of their representatives, it would be necessary to build an open and accountable "exchange" between the financing and the allocation of the European investment project, on the one hand, and the removal of the main weaknesses of the peripheral Member States by means of a set of reforms aimed at strengthening their structural competitiveness, on the other hand. This step would complete the medium-term policy measures aimed at restarting a European path of growth and at absorbing the competitive gaps inside the euro area.

It must be noted that the European institutions already elaborated a policy tool able to build the bridge to an accountable exchange. The tool is represented by the so-called "contractual arrangements" to be bilaterally signed between the European Commission and each of the EMU's Member States.[17] The latter, which have been discussed in the European Council of December 2013 but eliminated a few months later from the European institutional tables, were conceived to be part of the convergence and competitiveness tools, since they were a way to introduce an *ex ante* coordination to implement country-specific reforms in all the EMU Member States in order to boost their structural competitiveness.

[17] It must be emphasised that contractual arrangements also apply to each of the central Member States of the euro area. There are two reasons maintaining the point. First, if contractual arrangements just applied to the weakest European countries, the latter would refuse to sign in order to avoid the consequent stigma. Second, the lack of competitiveness also involves specific sectors of the EMU's core countries (for instance the German service sector).

In the view of the European Commission, the *ex ante* coordination would have had to imply that the structural reforms, initially elaborated by each of the Member States and voluntarily included in their specific contractual arrangement, were to be assessed and agreed by the Commission itself before their possible implementation at the national level. In this process, the European Commission was entitled to suggest important changes to the reform plan, and then had the responsibility to monitor the progress in the actual implementation of each of the agreed reforms. Our suggestion is that the successful implementation of the agreed reforms by a specific Member State could be tied up the allocation of a part of the European investments in this same State.

In this framework the contractual arrangements would offer an efficient answer to the fears of the central countries that the implementation of the European investment project risks giving an incentive to the peripheral countries to neglect the necessary reforms: the latter countries would not benefit from the European investment without carrying out the agreed reforms. On the other hand, this same tool would limit the extent of the external and binding constraints for the peripheral countries: the latter would not risk suffering an unexpected loss of sovereignty since they would just be committed to carry out the decided reform. As a consequence, the contractual arrangements could design a strong stimulus to the implementation of both the European investment project and the country-specific structural reforms.

The process just described mimics the results that the standard models attributed to the perfect functioning of the market. The difference is that, here, markets are partially replaced with active European institutions. The financial and capital inflows, actually recorded by the peripheral countries through the markets in the first years of the euro life, are here partially replaced with the allocation of the project bonds through institutional channels. Moreover, these inflows are not utilised by the peripheral countries to feed short-term speculative investments but they allow the implementation of the European investment project.[18] On

[18] An obvious objection is that our proposal just replaces the possibility of "market failures" with that of "government failures". However, our sketchy design of a European investment project is based on a strict interaction between the strategic decisions, taken

the other hand, the transfer of financial flows from Germany and other central Member States to peripheral countries is not just a market opportunity to improve trade and an accounting compensation for the related positive imbalances in the current accounts; this transfer also responds to the institutional design of stimulating the production of capital goods in the central countries and the related export of innovative organisational models to peripheral countries in order to structurally improve their competitiveness.

5.6 CONCLUSIONS

The empirical evidence collected in the previous chapters shows that EMU has a structural problem of competitiveness. Differently from the standard forecast, this problem has been exacerbated by the monetary and financial integration. This integration firstly fostered the dependence of EMU peripheral countries on the capital flows originating from the central Member States without enhancing the productivity and the structural competitiveness of the former. Then, it imposed severe readjustments in the peripheral Member States, when the crises started and the allocation of financial flows became determined by the "flight to quality", thus going back to the central Member States. This means that the current account imbalances inside the euro area were not absorbed by means of a "catching-up" process: they continued to increase during the expansion, and were adjusted during the international and European crises by means of a dramatic economic recession in the deficit countries.

In order to improve the mechanisms devoted to an early monitoring and an orderly reabsorption of macroeconomic imbalances, the European institutions since 2010 introduced new measures and rules. In this chapter we showed that these initiatives suffer from several shortcomings related both to their general approach and to the selection of the

by the European institutions, and the implementation of these guidelines devoted to the working of the market. Our rational belief is that this interaction can be virtuous and can thus minimise the joint possibility of "government failures" and "market failures".

indicators. Let us just recall here the most general problem. The new procedures continue to be based on the assumption that the costs of the adjustment have to be largely borne by the deficit countries instead of being shared with the surplus countries. The negative impact of this asymmetry is worsened by the fact that the growing disequilibria in the euro area imposed a dramatic increase in the adjustment costs without a corresponding additional amount of European resources.

In any case, the long European recession, from the last quarter of 2011 to the first quarter of 2013, and the threat of a substantial stagnation in the current year (2014) made it clear that these initiatives were inadequate to solve the structural problems of the euro area. Hence, since 2012 several proposals have been put forward to design and finance European strategic investments and to fill the gaps in competitiveness between different Member States. The European Commission introduced the convergence and competitiveness instrument, based on the project bond initiative of the Europe 2020 growth strategy. More recently, the newly-elected president of the European Commission, Jean-Claude Juncker, announced an investment plan of 300bn euros over a three-year horizon. One of the main weaknesses of this plan is that the new financial resources are limited. As other investment plans show (for instance, the Polish proposal), the amount of 300bn euros would be insufficient to finance a project adequate to restart a long-term growth process in the euro area; moreover, a large part of the 300bn euros of the Juncker plan does not appear to be an actual additional finance but it derives from an excessive leverage based on a too-fragile original capital already available from the EU budget. Hence, in order to build an effective European investment project, the crucial problem to be solved is the identification of an adequate source of finance; and the solution cannot lead to a direct transfer from the central to the peripheral countries.

This is the reason why we focused our attention on new policy measures financed by project bonds and linked to the contractual arrangements. In order to bring back the European investment-GDP ratio to the level reached in 2007, the issue of project bonds to finance the European investment project would have to be even larger than the Polish proposal (700bn euros over five-years). The recourse to the ESM (and possibly to the EIB) as the purchaser(s) of a large part of project

bonds on the primary market, and to the ECB as the purchaser of these same bonds on the secondary market would easily cover these amounts on the demand side. Moreover, to restart a process of growth in the euro area without excessive macroeconomic imbalances, it would be necessary to reduce the competiveness gaps between EMU countries; hence, we have to support peripheral Member States by means of an asymmetrical allocation of the new innovative investments. Contractual arrangements, which bind all the euro countries to implement the agreed reforms under the supervision of the European Commission, could be the tool to avoid that the financing of project bonds and the asymmetric allocation of investments were conceived as undesirable transfer devices by Germany and other central Member States. In this way, it would become possible to reach three important and related objectives in the euro area: to reduce the competitiveness gaps between Member States, to cut the link between economic expansion and macroeconomic imbalances, and to restart an equilibrated process of growth.

It is difficult to say whether our suggestions have a fair probability of implementation. It is well known that the "contractual arrangements" did not survive the scrutiny of the European Council in December 2013. Moreover, the ECB refused several times (for instance, in November 2011 and in July 2012) to build a preferential relationship with the ESM, and the latter is unwilling to be involved in initiatives which are not in its original purview of activity. Finally, several European institutions and the EMU central Member States are not ready to expand the ECB duties and to strengthen the overlapping between monetary and fiscal policies. On the other hand, it must be considered that the EMU is facing its third crisis in the last seven years. If the European institutions are not willing to find a solution to this negative situation in the next two or three months, the monetary union will be at risk of survival again. At this time, the main threat would probably be due to the break-up of social cohesion in the large part of the peripheral countries and to the subsequent dramatic impact on their macroeconomic fundamentals.

In order to avoid this perspective, the European institutions are asked to design an initiative comparable to the Financial Stability Plan, which was launched by Timothy Geithner in March 2009 and marked the exit from the financial crisis in the United States (see Messori 2009),

and to the "Outright Monetary Transactions", which was announced by Mario Draghi in September 2012 and froze the dramatic crisis of the European sovereign bonds (see Messori 2013). Obviously, our sketchy suggestions cannot be regarded as a fully-designed programme. Our hope is that these suggestions can offer some stimuli to the Italian presidency in order to prepare a proposal for the European Council in December 2014.

APPENDIX

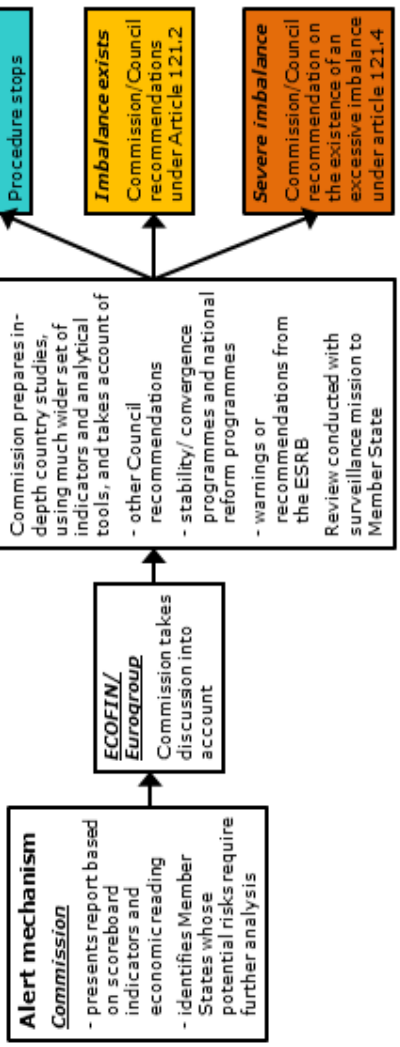


Figure 5.1. Overview of the Excessive Imbalance Procedure

Source: European Commission website.

Table 5.1. The MIP Scoreboard for EMU Countries, values for 2012

	External		Competitiveness			Internal					
	3-year average of current account balance as % of GDP	NIIP a % of GDP	% change (3 years) of REER (42 IC) with HICP deflators	% change (5 years) in export market shares	% change (3 years) in nominal ULC	% y-o-y change in deflated house prices	Private sector credit flow as % of GDP - consolidated	Private sector debt as % GDP, consolidated	General government debt as % of GDP	3-year average of unemployment rate	% y-o-y change in total financial sector liabilities
Thresholds	**<-4, >6**	**<-35**	**±-5**	**<-6**	**>9**	**>6**	**>14**	**>133**	**>60**	**>10**	**>16.5**
Austria	2.2	0.4	-4.7	-21.2	4.1	:	2.7	147.4	74.0	4.3	-0.9
Belgium	-0.4	47.6	-4.3	-14.9	6.6	-0.2	-1.5	146.4	99.8	7.7	-3.9
Cyprus	-6.7	-82.4	-5.8	-26.6	0.8	-2.2	10.0	299.2	86.6	8.7	-1.9
Estonia	0.9	-54.0	-3.4	6.5	-2.8	3.5	4.7	129.4	9.8	13.2	12.9
Finland	-0.5	18.4	-8.3	-30.8	4.8	0.5	9.0	157.8	53.6	8.0	-0.2
France	-1.8	-21.1	-7.8	-14.0	4.1	-2.3	3.5	140.6	90.2	9.9	-0.1
Germany	6.5	41.5	-8.9	-13.1	3.0	1.8	1.5	106.7	81.0	6.2	4.4
Greece	-7.5	-108.8	-4.5	-26.7	-8.1	-12.4	-6.8	129.1	156.9	18.2	-3.4
Ireland	2.3	-112.0	-12.2	-16.3	-10.4	-11.7	-1.6	306.4	117.4	14.4	-0.7
Italy	-2.3	-24.7	-6.2	-23.8	3.1	5.4	-1.0	126.4	127.0	9.2	7.1
Luxembourg	7.0	169.1	-2.3	-18.3	9.8	2.5	-5.0	317.4	21.7	4.8	11.3
Malta	-1.6	24.9	-7.7	4.5	4.9	0.3	-1.6	155.1	71.3	6.6	4.1
Netherlands	8.8	46.8	-6.0	-12.0	3.3	-8.7	0.2	219.3	71.3	4.7	4.9
Portugal	-6.5	-115.4	-4.0	-16.0	-5.3	8.6	-5.4	223.7	124.1	13.6	-3.6
Slovenia	1.2	-44.9	-4.5	-19.9	0.4	-8.4	-2.9	113.6	54.4	8.1	-0.8
Slovakia	-1.7	-64.1	-3.2	4.2	0.9	-5.9	3.2	73.1	52.4	14.0	2.6
Spain	-3.1	-93.2	-5.2	-14.6	-5.6	-16.9	-10.5	194.4	86.0	22.3	3.3

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The book shows that the overcoming of the negative imbalances in the current accounts of the large majority of peripheral Member States in the euro area is mainly due to a recession-driven decrease in import, a monetary wage compression, and below average rates of inflation. This re-equilibrating process thus leads to short-term adjustments, in the sense that it is unable to structurally fill the competitive gaps accumulated inside the euro area during the first decade of its life (1999-2007), owing to the inefficient allocation of the financial flows coming from the European central countries and invested in the European peripheral countries. Contrary to the predictions of the standard macroeconomic models based on the "catching up" mechanism, these financial flows did not adequately foster the productivity of lagged Member States in the euro area.

Our proposal is to replace the "invisible hand" of the market with the "visible hand" of a European policy project. We argue that an effective policy initiative would have to combine a programme of European public and private investments with "contractual arrangements" aimed at implementing crucial national reforms. This strategy might provide a short term positive demand shock as well as the long term strengthening of the structural competitiveness of the peripheral Member States without involving direct financial transfers but allowing an intergovernmental co-operation and a trust-building process under the control of the European institutions.

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