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Global and European Imbalances: A critical review

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Global and European Imbalances: A critical review

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Abstract: In this paper, we survey and analyse the economic literature on global and European imbalances and their connection with the global financial crisis. In the years preceding the crisis, there was increased attention to the existence of large current account imbalances among large economies worldwide. Research and policy papers divided into two positions regarding these imbalances. Some authors viewed global imbalances as part of a new equilibrium in the international financial system. Others urged policy intervention to reduce these imbalances. The Great Recession revived the debate over global imbalances and their influence on the gestation of the crisis. However, more recent work has clarified the relationship between the crisis and global imbalances, emphasising the roots of the crisis in financial liberalisation and the fragility of the international financial system. From this perspective, we highlight the need for deeper analysis of gross capital flows and the need to monitor credit levels as measures to prevent future financial crises.

Key words: savings glut, current account, global imbalances, financial fragility

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Global and European Imbalances: A critical review

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1. INTRODUCTION

The wave of "global imbalances" generated since the turn of the 21st century between the U.S. economy and those of the Southeast Asian emerging economies and oil-exporting countries were identified early as a fundamental cause of the global financial crisis. The argument linking the crisis to these imbalances, in broad strokes, was that current account surpluses generated by emerging economies were placed in U.S. financial assets. These flows, in the form of asset demand, pushed down long-term interest rates, which encouraged a credit boom that fuelled a real estate market bubble. In other words, the U.S. financial system came under strong pressure to receive and recycle capital flows from abroad.

Until the outbreak of the crisis, "global imbalances" were perceived, at least by some researchers, as a signal of a new global equilibrium that might persist over time. However, another group of researchers argued that these imbalances should be corrected by appropriate fiscal and monetary policies in the U.S. and by exchange rate adjustments in China to avoid a radical adjustment induced by a "sudden stop" of foreign capital flows into the U.S. economy, an event with a high probability of dragging the global economy into crisis. The financial crisis, however, revealed that both hypotheses were wrong. The chain broke in what was seen as the stronger link: the supposedly solvent U.S. financial system.

Moreover, research conducted after the start of the crisis pointed to two important developments that contributed to a weakening of the initial relationship between the

financial crisis and global imbalances. This research showed, first, that net capital flows into the U.S. economy from emerging markets were a relatively small part of overall flows. Second, this research showed that, although European countries on the whole manifested equilibrium in their external balances during the years preceding the crisis, their banking systems were active players in the U.S. financial system. The basic conclusion of the new research is that the roots of the crisis can be found in the fragility of the international monetary and financial system rather than in current account imbalances.

Nonetheless, current account imbalances demand attention, especially if we take European countries as a benchmark. While it is accepted that these imbalances are not the source of the crisis, they must be considered a "symptom" of a problem that requires a solution to avoid similar crises in the future. Southern European economies, running large external deficits during the years before the crisis, faced sudden stops of external flows, which forced these countries to make intensive internal adjustments and appeal for help from international aid programs to avoid default.

In this paper, we survey and analyse the economic literature on global and European imbalances and their connection to the global financial crisis, with the aim of clarifying this relationship. The paper is organised as follows. In the next section, we show how the research related to global imbalances evolved and arrived at a conclusion regarding the connection between the crisis and the global imbalances. In the second section, we focus on the relationship between current account imbalances and the crisis in the European Union. In a final section, we summarise and conclude. We highlight some of our conclusions presently. First, to better understand the crisis, deeper analysis of gross rather than net capital flows is needed. Second, due to the fragility of the international financial system, we recommend constant monitoring of credit levels as preventive indicators of future financial crises. Finally, given the European experience with current account imbalances, we argue that these imbalances must be addressed in the medium term to prevent future financial crises.

2. THE FINANCIAL CRISIS AND "GLOBAL IMBALANCES"

In 2005, the International Monetary Fund (IMF), in its annual report, drew attention to the risk to global economic and financial stability posed by increasing current account

imbalances chiefly involving the U.S. economy and those of the emerging economies of Asia and oil-exporting countries, where the former demanded exports from the latter, accumulating large deficits in its current account equivalent to the other economies' surpluses. From a financial perspective, the U.S. deficits were financed by capital flows into the U.S. capital market from emerging economies (the surpluses of their current account balances).[1]

Risk observed at the beginning of the century arose from the size of the economies involved in global imbalances, as a severe correction (e.g., a sudden stop) could negatively affect the global economy. However, in the years leading up to the crisis, there was no widespread consensus on the nature, origin and potential risks associated with these imbalances. Some argued that global imbalances reflected a new type of global equilibrium that could be maintained over time without necessarily ending in crisis. The notion of a "savings glut," proposed by Bernanke (2005), and the idea that a Bretton Woods II system had taken form (Dooley et al.; 2003, 2004) are paradigmatic examples of this view. On the other hand, for authors such as Cline (2005), Blanchard et al. (2006) and Obstfeld and Rogoff (2000, 2004), these global imbalances represented a dangerous situation that posed serious risks to international economic and financial stability. In a survey of the pre-crisis period, Xafa (2007) referred to the first group as representative of the "new paradigm" and the latter as representative of the "traditional view". For proponents of the traditional view, global imbalances were temporary aberrations that needed to be corrected through the use of economic policy, while proponents of the new paradigm viewed the situation as a new equilibrium that resulted from structural changes in the global economy and that would persist for years or decades.

For the "traditional view", the source of the problem lay in the decline of savings rates in the U.S., which led to large and prolonged current account deficits. This decline, in turn, resulted from overly lax fiscal and monetary policies (Blanchard, 2007) that needed to be corrected urgently, as otherwise financial markets could experience a loss of confidence. A sudden stop of capital flows into the U.S. would trigger an adjustment process and a general crisis for the U.S. and global economy, with massive sell-offs of dollar-denominated assets and an increase in U.S. interest rates.

[1] Data regarding these imbalances are well known, and due to space restrictions, we do not present them in this paper. Ferreiro et al. (2013) describe in detail the evolution of these imbalances and their geography.

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For the "new paradigm" advocates, global imbalances were explained as a product of structural changes and economic policies implemented in other countries, changes that caused savings rates in emerging market economies to increase. These savings accumulated in the form of financial assets issued in the U.S. While these changes and policies remained in force, global imbalances, these observers argued, would persist. Nonetheless, from this point of view, global imbalances did not involve serious risk to the global economy.

The economic crisis did not materialise in the way the advocates of the traditional view expected. A loss of confidence of international investors in the U.S. economy did not occur, and hence there was no sudden stop of capital flows into the U.S. economy, inducing a devaluation of the dollar along with an internal adjustment in the U.S. economy that would drag the global economy into crisis. Nevertheless, global imbalances were connected, at the beginning, with the global financial crisis.

The causal relationship between the financial crisis and the problem of "global imbalances" created a rupture in the equilibrium described by the "new paradigm". However, the break came in the presumably stronger component of the new global equilibrium: the U.S. financial system. The *Economic Report of the President* (2009) presents the following diagnosis of the origin of the crisis:

> "The roots of the current global financial crisis began in the late 1990s. A rapid increase in saving by developing countries (sometimes called the "global saving glut") resulted in a large influx of capital to the United States and other industrialized countries, driving down the return on safe assets. The relatively low yield on safe assets likely encouraged investors to look for higher yields from riskier assets, whose yields also went down. What turned out to be an underpricing of risk across a number of markets (housing, commercial real estate, and leveraged buyouts, among others) in the United States and abroad, and an uncertainty about how this risk was distributed throughout the global financial system, set the stage for subsequent financial distress" (p.61-62).

Ultimately, foreign capital flows into the U.S. from emerging economies pushed down long-term interest rates (Warnock and Warnock, 2009), forcing the U.S. financial system to recycle large amounts of capital through financial innovation. This innovation encouraged the growth of a speculative bubble that ended up dragging the entire financial system into an unprecedented crisis.

This interpretation of the origin of the crisis becomes paradoxical when we examine discussions of the global imbalances at the beginning of the century. It is possible to say that both paradigms, the traditional view and the new paradigm, failed to properly assess where the real problem was located, that is, in the inability of the U.S. financial system to intermediate "responsibly" (Portes, 2009) the large amount of capital arriving in the U.S. With the notable exception of the Bank for International Settlements, no observer appeared to recognise the weaknesses of the U.S. financial system. Below, we will show in greater detail that the dominant view was the opposite: capital flows were placed on U.S. assets due the quality and solvency of U.S. financial institutions (Forbes, 2008).

However, at present, consensus on the role played in the crisis by global imbalances is not broad. Initial differences in diagnosis, noted in the Economic Report of the President, arose from difficulties in explaining the extent of the crisis based on considerations of net capital inflows received by the U.S. economy from emerging and oil-exporting countries. In a financially liberalised world economy, i.e., with free capital movements, the relevant capital flows are the gross flows. Furthermore, not only these economies (emerging markets and oil-exporters) were involved in buying U.S. assets. The banking system of the European Monetary Union (EMU) was an active player in purchases of these assets. Consideration of this evidence has led some authors (Acharya and Schnabl, 2010, Borio and Disyatat, 2011) to deny a connection between the financial crisis and global imbalances. According to these authors, the origin of the crisis is found in the weakness of the U.S. financial system resulting from liberalisation and deregulation. However, other authors (Bernanke et al, 2011; Obstfeld, 2012a; Blanchard, 2007) take a less radical view. Accepting the analytical relevance of the weakness of the financial system, they still consider current account imbalances to be a policy-relevant issue in maintaining financial and economic stability.

Nevertheless, recent empirical evidence (Bertaut et al., 2012) does appear to indicate the existence of a relationship between capital inflows into the U.S. financial market (coming from both, emerging markets and European countries) and the decrease in the U.S. interest rates. This evidence would accept some part of the initial diagnosis noted in the Economic Report of the President. However, there is still an unsolved problem which is the understanding of the factors leading the capital inflows into the U.S. economy, i.e., whether these capital inflows were induced endogenously by financial innovation developed in the U.S. or, otherwise, it was the arrival of these capital inflows what brought about innovation as a way to recycle the excess liquidity in the U.S. market. The answer of this problem is relevant, since if the innovation precedes capital influx, then it would accept that capital flows are independent of the current account balances and, therefore, the origin of the

crisis can be found in the financial system liberalisation. Otherwise, the saving glut hypothesis (supplemented in terms proposed by Bernanke at al., 2011) would be a relevant explanation of the origin of the crisis, i.e., it is the excess of liquidity what "broke" the U.S. financial system. Nonetheless, from one explanation or from the other one, one conclusion can be reached: there is a need to regulate the financial system to prevent credit booms encouraging bubble creation.

2.1 The equilibrium approach

As noted above, under the savings glut approach, global imbalances originated as a result of structural factors and policies implemented by economic authorities in emerging and oil exporting countries, policies that led to a steady accumulation of U.S. assets by the rest of the world. The prevailing central thesis before the burst of the crisis argued that current account imbalances represented an equilibrium situation that could be sustained over time, as noted by Mendoza et al. (2007, p.36)[2]: "The large negative net foreign asset position of the U.S. is fully sustainable and does not lead to a worldwide financial crisis". To understand the basis for this opinion, it is necessary answer the following three questions:

i) What factors explain the increase in savings in emerging market and commodity-export oriented economies?

ii) Why were these savings not held in the financial systems of these countries and instead exported abroad?

iii) Why was the U.S. financial market the main recipient of these flows of savings?

2.1.1 Savings in emerging markets economies

[2] This work was subsequently published in the Journal of Political Economy (117 (3), 2009, pp.371-416), but with the citation noted above omitted. The crisis had already begun and this conclusion, extracted from a sophisticated model, could not be sustained. The idea that global imbalances represented a new kind of equilibrium, as proposed in many papers in the pre-crisis period, was simply a conviction lacking any scientific basis. This, however, did not prevent it from being accepted as an implication of sophisticated models.

Theoretical and empirical research has proposed different but complementary hypotheses to explain the growth of the savings rate observed since late 1990s in most emerging market economies. The first explanation (Dooley et al., 2003, 2004; Catte et al., 2011; King, 2011; Herrerias and Orts, 2010; Rodrik, 2008; Herr, 2008) focuses on the growth model selected by some emerging markets economies, especially in East Asia, with China in the lead. These economies have opted for a model of export-led growth, which requires depressed domestic consumption to maintain a devalued exchange rate. The maintenance of the exchange rate at competitive levels requires holding sufficient reserves to enable intervention in currency markets to maintain the desired parity. Empirical research (Cline and Williamson, 2008) has shown that the lower exchange rate variability observed in these economies (relative to past years) is associated with intervention strategies in foreign exchange markets by the monetary authorities of these countries, with the aim of maintaining a competitive exchange rate.

In addition, foreign currency reserve accumulation was associated with monetary policy in these countries. De Cecco (2012) emphasises that reserve accumulation in emerging market economies helped reduce the negative effects that the instability associated with the international monetary system had in advanced economies. Furthermore, empirical evidence sustains the view that developing countries, especially small open economies, with or without an Inflation Targeting (IT) monetary strategy, take the exchange rate into account in their monetary policies to avoid external instability (Aizenman et al., 2011; Porcile et al. 2011). For developing countries, this instability, along with the possible emergence of debt crises, increases their vulnerability to external shocks. Therefore, the accumulation of reserves has been used as an instrument to support the autonomy of monetary policy and financial stability (Taguchi, 2011).

A second argument connects foreign currency reserve accumulation with precautionary savings. Economic literature highlights three reasons for reserve accumulation associated with the precautionary savings motive:

i) Fear of external shocks that may induce sudden capital outflows or inflows. (Menkhoff, 2013, Dominguez et al., 2012; Porcile et al., 2011, King, 2011; Aizenman et al., 2011, Reinhart and Reinhart, 2011; Taguchi, 2011, Calvo and Reinhart, 2002). Since the liberalisation of capital markets, emerging economies have been subject to recurrent currency tensions caused by

capital flows. The costs of these tensions have been high, leading authorities in these countries to protect themselves by accumulating reserves.

ii) Another reason relates to the aging of the population (Horioka and Wan, 2007; Ferrucci and Miralles, 2007) and the lack of social protection schemes (public pensions or health care) that address the needs associated with an aging population (Carroll and Jeanne, 2009).

iii) In the case of commodity-exporting countries, reserve accumulation has been used by the monetary authorities to hedge against fluctuations in commodity prices. Through such accumulation, these countries have been able to control variations in domestic demand, preventing fluctuations in commodity prices from causing domestic demand fluctuations (Bems and Carvalho-Filho, 2011; Kilian et al., 2009, Le and Chang, 2013).

In addition, some papers have noted (Felipe et al., 2006; Chinn and Ito, 2008) that in emerging markets, the problem is not excess savings but an "investment drought" that arose in the aftermath of the financial crises in Southern Asia in 1997. The crisis, for these authors, led to a decrease in domestic credit levels along with the creation of excess capacity and a relative fall in profit rates, all of which combined contributed to a decline in investment across Asian emerging economies, leading them to implement export-led growth strategies.

A fourth reason relates the savings excess with underdevelopment of the financial and legal systems in emerging market countries (King, 2011; Ferrucci and Miralles, 2007). There are several reasons for this connection (Prasad, 2009). On the one hand, in fast-growing economies, such as the Asian emerging economies, desired consumption bundles shift toward durable goods like cars and houses. Due to the impossibility of borrowing against future income in the context of an underdeveloped financial system, households increase savings to self-finance purchases. From this perspective, precautionary savings arise because of a lack of diversification opportunities. In addition, low or negative interest rates due to financial repression could lead to higher savings rates. However, available empirical evidence does not find a clear relationship between savings rates and the degree of financial development (Chinn and Ito, 2007). Chinn and Ito (2007) show that for some key Asian countries, there is a positive relationship between financial development and savings rates. Furthermore, economies with more developed financial markets exhibit smaller

current account imbalances if they also have highly developed legal systems and open financial markets.

2.1.2 Savings exports to the U.S. financial market

In the years preceding the crisis, capital exports from emerging markets, especially to the U.S. financial market, were viewed as a logical consequence of an inter-temporal optimisation process. Global financial trade allowed countries to share and diversify risk. In this perspective, current account imbalances resulted from firms' and households' inter-temporal optimisation activities, leading to the efficient allocation of resources, and would thus not raise policy concerns. Papers by Caballero et al. (2008) and Mendoza et al. (2007) are especially clear exponents of this point of view. In both papers, capital exports from emerging markets arise as result of the heterogeneity of financial systems that are integrated as a consequence of the liberalization of financial markets. In Caballero et al. (2008), the ability to supply assets is captured as financial imperfections. Given financial underdevelopment, emerging economies are unable to generate financial assets sufficiently attractive to absorb domestic savings. Therefore, international savers re-direct their capital towards assets of countries with more developed financial systems. In Mendoza et al. (2007), financial imperfections directly affect savings via the demand for assets. Countries with developed financial systems tend to reduce savings and increase their accumulation of net foreign liabilities. From this perspective, financial heterogeneity results in changes in the portfolio composition of net foreign assets. Therefore, countries with deeper financial markets tend to increase borrowing from abroad and allocate their resources to risky assets, i.e., assets with high returns.

The selection of the U.S. financial market as the main recipient of savings from emerging market economies and oil-exporting countries was based, according to this view, on the characteristic quality and efficiency of the U.S. financial system. Perhaps the clearest expression of this perspective was provided by Forbes (2008) some months before the outbreak of the crisis in the concluding section of an NBER working paper[3]:

> "Although foreigners investing in U.S. equity and bond markets have earned lower returns over the past five years than if they had invested in the same asset classes in their own countries, there are still several reasons why they might choose to continue investing in the United States and financing

[3] This work was published in the *Journal of International Economics* in 2010. However, the conclusion presented in the working paper and reproduced in these pages had disappeared.

the large U.S. current account deficit. More specifically, foreign investors may choose to purchase U.S. portfolio investments *in order to benefit from the highly developed, liquid, and efficient U.S. financial markets, from the strong corporate governance and institutions in the United States, and/or to diversify risk (especially if returns in U.S. financial markets have a low correlation with returns in their own country's domestic financial markets"* (Forbes, 2008, p.32, emphasis added)

2.2 Beyond the "Saving glut" hypothesis: the financial fragility hypothesis

The speed and intensity with which the crisis spread through the financial systems of developed economies highlighted the degree of financial connectedness between these countries, interconnections that had not been accounted for in the "savings glut" hypothesis. In the one hand, European Union (EU) countries (with a relatively balanced current account) had been active agents, especially through their banks, in the U.S. financial markets, taking positions in both financial assets and liabilities. In the other hand, it was demonstrated that the compositions of their portfolios differed, depending on the origins of the capital flows.

Bernanke et al. (2011) present empirical evidence that emerging economies (which play a key role in the savings glut hypothesis) accumulated mainly safe and liquid assets, even when the profitability of such assets was declining. This marked preference for safe assets was related to foreign currency reserve management and accumulation undertaken in these countries. Regarding European banking, empirical evidence suggests a clear preference for risky assets financed through borrowing in the U.S. financial markets (McGuire and von Peter, 2009). Hence, the crisis of the U.S. financial system spread and expanded to various European countries' financial systems through the positions investors in these countries had taken in these assets. Moreover, the situation worsened due to a mismatch between maturity terms and the currency structure of assets and liabilities accumulated by European banks.

Taking into account the important role played by European banks in U.S. financial markets in the years preceding the crisis undermines the notion that global imbalances played a causal role in the crisis. The extent of the fall in long-term interest rates in the U.S. cannot be explained by the volumes of capital flows coming from emerging and oil-exporting countries. Only when considering flows from EU countries, it is possible to sustain the view that external capital flows affected interest rates (Bertaut et al., 2012).

New empirical evidence reveals the weakness of the relationship between current account imbalances and the crisis and turns analytical attention toward the fragility of the financial and monetary system as the fundamental cause of the crisis (Borio and Disyatat, 2011; Acharya and Schnabl, 2010; Taylor, 2012). In this new view, net capital flows, a key variable for savings glut advocates, have lost explanatory relevance, while gross capital flows have gained analytical importance. Net capital flows only account for a small part of all capital movements in global capital flows (Obstelfd, 2012b; Lane and Milesi-Ferretti, 2008). Moreover, the capital flows cycle of boom and burst must be analysed in the context of changing global financial conditions and not exclusively in the context of the domestic economies of destination economies (Forbes and Warnock, 2012).

As information about developments in the years preceding the crisis has been accumulated, the view that global imbalances were not the trigger of the crisis has gained increasing attraction. The U.S. financial market was stressed by large inflows of foreign capital. However, the management of such capital flows could have been avoided if the system had been subjected to strict controls. The same is true of European financial systems. The main lesson to be drawn from the new research is that, to prevent future financial crises, new regulations that limit expansions of credit are required. As shown by various empirical studies in recent years (Taylor, 2012; Jordà et al. 2011; Drehmann, 2013), the dominant predictors of financial crises are not current account imbalances but credit growth.

2.3. Rebalancing an unbalanced world

However, although the role of financial fragility in the crisis and the need for regulatory reform to address this fragility are widely recognised, views regarding the need to correct global imbalances to overcome the current crisis remain divergent. For most critical observers of the savings glut hypothesis (Borio and Disyatat, 2011), current account imbalances are irrelevant in the current economic context. Efforts, they argue, should instead focus on reforming the financial system. However, this view is not widely shared. In general, current account imbalances are considered relevant (Obstfeld, 2012a; Obstfeld and Rogoff, 2009; Ferreiro et al., 2013; Blanchard, 2007), and it is generally seen as necessary to take appropriate action to correct them, at least in the medium term, a view

also held by some international organisations such as the IMF. Among reasons advanced for correcting global imbalances are intersectoral changes that often accompany current account imbalances. These changes, which are mainly manifested as excessive growth of non-tradable goods sectors, have had costs in terms of reduced productivity growth. Furthermore, deficit financing still creates potential problems with respect to the credibility of capital markets. The various balance of payments crises that have been observed in past decades show that the possibility of "sudden stops" must be borne in mind. The latest paradigmatic example is provided by European Monetary Union (EMU) countries. After accumulating large external deficits in the years preceding the crisis, southern European economies have faced serious difficulties in financing their deficits in recent years.

In correcting these imbalances, both the U.S. economy and emerging market economies should be involved. The latter, for example, should implement economic policies and industrial changes that re-orient their economic growth models from export-led growth toward domestic demand-led growth (Blanchard and Milesi-Ferretti, 2009). The expansion of domestic demand would decrease savings rates in such countries, which would help contain current account surpluses while stimulating exports of developed economies. To move in this direction, various actions must be taken. First, and most immediately, governments in these countries should implement economic policies intended to reduce the rate of savings as a step toward stimulating domestic demand. A decline in the savings rate could be affected, for example, by addressing any of the precautionary savings motives noted above, especially that related to the absence of social protections in these countries, notably in China. Second, these economies should seek to improve their institutional frameworks, especially that of the financial system. More efficient financial systems would achieve several objectives. First, an improvement in access to credit, both for consumption and investment, would help to reduce the savings rate. Second, it would reduce the need to export capital abroad due an increased supply of attractive assets for domestic savers. Finally, as emphasised by Prasad et al. (2007), the development of financial markets in these countries would improve the absorptive capacity of foreign capital flows, leading to improvements in productivity and thus in economic growth.

3. INTERNAL EUROPEAN IMBALANCES

3.1. Imbalances and the convergence process

As mentioned above, European Union (EU), as a whole, had a balanced current account in the years leading up to the crisis. However, within the EU, countries had widely divergent balance of payments positions (Lane and Milesi-Ferretti, 2007a). Current account imbalances within the EU have characteristics substantially different from those identified by the savings glut hypothesis. In the case of the European Union, these imbalances correspond to what economic theory predicts, i.e., to what should occur when economies with differing development levels enter into a process of economic integration. Relatively less developed countries should shed their current account deficits, which are financed by capital imports from more developed economies (with current account surpluses). Theoretically, these imbalances should begin to reverse when the catching-up process ends due to real convergence between countries.

Figure 1 shows the pattern described above for the EU-28 and thus for Eurozone countries. On the X axis are all EU countries by income per capita in 1999. The per capita income of each country is expressed as a percentage of the income per capita of Germany in the same year. The Y axis shows the average current account balance of each EU country between 1999 and 2012. The countries with low levels of per capita income relative to Germany have run external deficits throughout the period. By contrast, countries with high per capita income relative to Germany have run current account surpluses throughout the period.

Insert Figure 1

However, this evidence does not necessarily imply that these imbalances are part of a process of real convergence between European economies. A lack of sectorial studies of the behaviour of the various components of the current account makes it impossible to conclude that imports of less developed economies have helped improve their productive assets and thus their overall productivity. Observed imbalances might respond, for instance, to expansionary policies in the southern economies that do not relate directly to the process of convergence. These imbalances could also result from a loss of competitiveness of the economies of Southern Europe, due to changes in real exchange rates or other factors, e.g., demographic factors. A combination of all these factors appears to be at the origin of the current account imbalances observed within the EU.

3.2. Determinants of European imbalances

The few studies that have examined the nature of these European imbalances, especially in deficit countries, point to a combination of the above factors. Campa and Gavilán (2011) note that in the cases of Portugal and Spain, deficits appear to be determined by expectations of future growth, which suggests that these deficits are part of a process of real convergence. In Belke and Dreger (2013), this conclusion is extended to all the deficit countries in the EU, although these authors maintain that the catching-up process does not fully explain the current account imbalances in the deficit countries. Loss of competitiveness is, for these authors, the key determinant of the deficits incurred by the countries at the centre of the crisis

The competitiveness problem of southern European economies is, in part, related to the growth model implemented by Germany following German reunification, as argued by Schnabl and Freitag (2012). These authors note that the gains in competitiveness of the German economy were obtained through a reduction in unit labour costs that resulted from reductions in public and private wages and an erosion of union bargaining power. The containment of German unit labour costs, along with an opposite movement of this variable in the deficit countries, helped reduce the competitiveness of the latter countries (Belke and Dreger, 2013).

Insert Figure 2

Figure 2 shows the unit labour cost index developed by the OECD for the period 1995-2010. The first graph of the figure shows selected southern European countries; the second graph shows core EMU countries. In relative terms, the increase in unit labour costs was significantly higher in deficit countries (Spain, Portugal, Greece, Ireland and Italy). In Germany, meanwhile, unit labour costs remained constant or even decreased just before the onset of the crisis. In the remainder of the core countries, the observed growth of unit labour costs is lower than in the southern countries.

A second factor that may have contributed to weakening competitiveness of the deficit economies has been the differential evolution of inflation rates. Southern economies as a whole benefited from entry into the single currency by importing price stability from northern economies. However, price stability coexisted with higher inflation in the southern countries, i.e., a positive inflation differential relative to core countries. Figure 3 shows

these differentials, which are explained by two factors. On the one hand, the relative slowness of some structural reforms in the southern countries and, on the other hand, the differences in their labour market institutions, with higher increases in wages than in productivity.

Insert Figure 3

The combined effects of the different trends in unit labour costs and inflation rates helped worsen the real exchange rates of the deficit countries. As shown in Figure 4, the real effective exchange rate index (1999=100) shows significant differences between countries. Since the establishment of the EMU, Germany managed to keep its real exchange rate at levels below those that prevailed before the formation of the EMU. The countries in the poorest position are Spain and Italy, where competitiveness dropped by almost 30 points in the former and 34 points the latter. Loss of competitiveness in Portugal was relatively less severe, with an overall increase of 6 points over its 1999 value.

Insert Figure 4

Empirical studies have also pointed to other possible factors that may have influenced the differing trajectories of the balance of payments among different countries of the EMU. Among these, demographic factors have received special attention. Empirical evidence (Hassan et al. 2011) has shown that the age structure of a population affects savings rates and thus current account balances. Contrary to what theory predicts, countries with relatively pronounced aging show rising savings rates and accordingly surpluses in their current account balances, while countries with younger populations, as predicted by theory, tend to take on greater indebtedness. Some studies have suggested (Barnes et al., 2010, Aizenman and Sengupta, 2011) that the current account imbalances within the EU[4] can be related to demographic differences between the northern European countries (with older populations) and southern European deficit countries (with population structures characterised by less negative dependency ratios). This would be particularly relevant for Ireland and, with some variations, Spain.

[4] The relationship between current account imbalances and population age structure was initially investigated as an explanatory factor in the current account imbalances between the U.S. and Japan in the 1980s by Feroli (2006), who shows a positive relationship.

Finally, some studies have examined the potential connection between public sector deficits and current account deficits, especially in the deficit countries. However, conclusions reached have ranged from no relationship (Blanchard, 2007) to a positive relationship that is less than one-to-one (Barnes et al., 2010). These results are to be expected in view of the differing conditions that characterise the deficit countries. While in the Spanish case, excess borrowing has been primarily private, in the cases of Italy and Greece (Brissimis et al., 2010), public sector borrowing has been the predominant source of financial difficulties. The connection between public sector deficits and current account deficits, therefore, cannot be generalised across countries.

3.3 Financial integration and internal imbalances

The process of financial and monetary integration that has occurred in the EU is critical to understanding how European countries have been able to maintain current account imbalances over time. In this regard, there are also differences between the direction of the flows observed in the EU and the financial flows that have led to global imbalances.

In the previous section, we noted that one reason for the seemingly contradictory direction of financial flows from emerging economies to the U.S. economy was the underdevelopment of financial markets in emerging economies (Caballero, et al., 2008), a problem that did not exist in the European case. Financial systems in EMU countries were relatively homogeneous at the time that the process of integration intensified, i.e., with a high degree of financial development and, in principle, high institutional quality in the field of regulation and supervision. Therefore, economic and financial integration helped to reduce transaction costs (Spiegel, 2008) and created conditions for free capital flows in response to "market signals". The "market signals" to which we refer are several. First, capital began to flow from surplus countries in the core of Europe to southern countries, encouraged by expectations generated by the process of European integration into a monetary union. As noted in the previous section, economic integration should in theory lead, through a process of real convergence, to a gradual reduction of differences in income levels across countries. Therefore, expectations of high relative yields, due to catching-up, encouraged capital to flow to peripheral countries (Spain, Portugal, Ireland and Greece). The demand for capital from the southern economies, on the other hand, was further incentivised. The first of these incentives was low interest rates (Schnabl and Freitag, 2012) that accompanied the process of monetary integration. In some years, real

interest rates in convergence countries became negative, leading to significant increases in the demand for credit. The second of these incentives came from the disappearance of transaction costs associated with adoption of the single currency (Lane and Milesi-Ferretti, 2007a; Lane, 2013). Ultimately, increased credit demand from convergence countries could be accommodated without serious difficulty by national banks in these countries through borrowing in European capital markets.

However, capital flows into these countries cannot be explained solely by current account imbalances. As noted above, it is necessary to differentiate between net capital flows (those associated with current account balances) and gross capital flows. To show this more clearly, in Figure 5, we plot the total stock of assets plus liabilities as a percentage of GDP in the years before the crisis (IFI ratio)[5] for a selected group of countries in the EMU. The data show that the accumulation of financial assets and liabilities is much higher in each country than what can be accounted for by the accumulation of current account deficits and surpluses. Countries characterised by high degrees of financialisation within the group of rescued countries include Ireland, Portugal and Spain. With respect to northern countries, relatively high intensity financialisation is seen in the Netherlands.

Insert Figure 5

In addition, the graphs show a turning point in the mid-1990s, a period in which the Southern economies had not incurred current account deficits of magnitudes similar to the levels that would be observed later. Capital movements from outside and inside the EU did not follow the logic of economic integration but a broader process of financial globalisation. Monetary and financial integration made the EMU a geographical space in which gross capital flows were more intense than in other parts of the world economy. The flows within the EMU responded to the same determinants, i.e., the level of expected volatility in global financial markets.

3.4 The financial crisis and the European crisis

[5] Data presented include capital movements from outside as well as inside the EMU. Unique data for (all) capital movements among EMU countries are not available.

The fragility of the financial system can also be identified as the main cause of the European crisis. Capital inflows into southern European economies allowed for an unprecedented credit expansion, which encouraged and maintained over time speculative bubbles in housing markets, especially in Spain and Ireland.

Banks in these countries financed the credit expansion by borrowing in European capital markets. The ease of access to credit for southern European banks, in addition to low prices, can only be understood as partly a result of the formation of the European Financial System that accompanied the creation of the single currency and partly a result of the state of future profitability expectations. The large-scale borrowing had both positive aspects and significant potential risks. Among the positive aspects was, of course, access to funds necessary to finance the process of real convergence in the southern countries. One of the most obvious risks arose from the temporal dimension of most of the credits. These were short-term loans, which heightened the vulnerability of the national banking systems to capital flow reversals.

The U.S. financial crisis created the necessary conditions to end the indebtedness process.[6] The crisis led to liquidity shortages, which hampered the ability of the Southern European banks to continue refinancing their loans in the European capital markets. The suppliers of capital in these markets, mainly banks from Germany, France and the Netherlands, found that their balance sheets were contaminated with toxic assets issued in the U.S., forcing them to cut credit lines that they had with the economies of Southern Europe. The banking systems of these countries, which were not heavily contaminated with these toxic assets (the Spanish case is the most significant), then had trouble refinancing their loans, which forced them to cut domestic credit. Without credit, the housing bubble burst, and the financial crisis morphed into an economic crisis. Banks then began to add to their problems with new liabilities, as they experienced new problems with assets.

This mutation entailed a dramatic revision in expected growth rates of these economies from those that were calculated when the single currency was introduced. International investors began to incorporate into their expectations formation process information

[6] It is possible that the indebtedness process would have become exhausted without the financial crisis. Capacity for indebtedness, for both private and public players, may be limited, especially in the private sector. Those limits are set by the rate of growth of the economy, which ultimately defines the bounds of debt sustainability. However, it is conceivable that the deleveraging process in the southern economies, in that hypothetical scenario, would be less traumatic than the current deleveraging process, as instruments exist to affect the process and smooth out its negative effects.

regarding macroeconomic fundamentals of the countries (Ca'Zorzi et al., 2012; Gibson et al., 2012; Beirne and Frantzscher, 2012), which translated into a sudden stop of external capital for some of these countries. Bailouts of Ireland, Greece and Portugal and the opening of a credit line to stabilise the banking system in Spain were the chosen alternatives to default in these economies.

Hence, the European experience also shows that, indeed, the financial system has played an important role in the creation and transmission of the crisis among financially integrated countries (Kalemli-Ozcan et al, forthcoming; Kollmann et al., 2011). However, countries with current account imbalances have faced funding problems that have aggravated the already delicate situation. Hence, these imbalances matter (Boissay, 2011).

Recovery of growth in the southern European economies is proving to be a long and complex process. There are several forces delaying recovery. The most obvious, of course, is the lack of a flexible nominal exchange rate that could correct balance of payments problems. This lack is forcing a restoration of external balances through harsh reductions in real wages (internal devaluation) and excessively restrictive fiscal policies in the context of depressed economies. Thus, the external sector has become the only potential source of renewed growth.

However, this solution is not exempt from difficulties. The housing bubble fuelled by credit expansion in the years preceding the crisis caused distortions in the allocation of resources between non-tradable and tradable sectors (Jaumotte and Sodsriwiboon, 2010). Non-tradable sectors grew more in relative terms than tradable sectors, with consequent negative effects on the productivity and competitiveness of the southern economies. Reallocation of resources, especially of employment, from non-tradable to tradable sectors is an inherently slow process that has, in addition, been hampered, first, by a lack of credit and, second, by competition between Southern European economies and non-European emerging market economies. This is especially important for economies whose distinctive

advantage is cost competition.[7] These economies thus face tough adjustment processes that are likely to be extended over time.

4. FINAL REMARKS

Research in the aftermath of the financial crisis has emphasised that the connection between global imbalances and the crisis is weak. This conclusion follows logically from the recognition that in a globalised world economy, it is gross flows rather than net flows what matter. Moreover, capital flows have not responded to macroeconomic fundamentals in either host or surplus countries but to the level of expected volatility in global financial markets. The roots of the crisis lie in the fragility of the international monetary and financial system. Therefore, stricter control and supervision of the international monetary and financial system is needed to avoid similar crises in the future.

However, the conclusion that the roots of the crisis lie in the fragility of the international monetary and financial system does not mean that current account imbalances have no relevance to an understanding the crisis. This is especially evident in the case of European economies. Deficit countries in Southern Europe faced sudden stops of capital inflows, forcing them to implement harsh adjustment policies in addition to resorting to international aid. It is not desirable to ignore current account imbalances, as they are a "symptom" of what can be triggered through an indebtedness process that ends in crisis.

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[7] There have been suggestions of alternative adjustment policies in the southern European countries, including expansionary policies in northern countries, especially Germany. An increase in aggregate demand in northern economies would generate an increase in demand for imports in those countries and thus increased demand for southern economies' exports. However, the effects of such expansionary policies in Northern Europe are likely to be limited due competition faced by southern European economies from emerging markets economies. This is especially important for economies when their distinctive ership is via cost competition.

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FIGURES

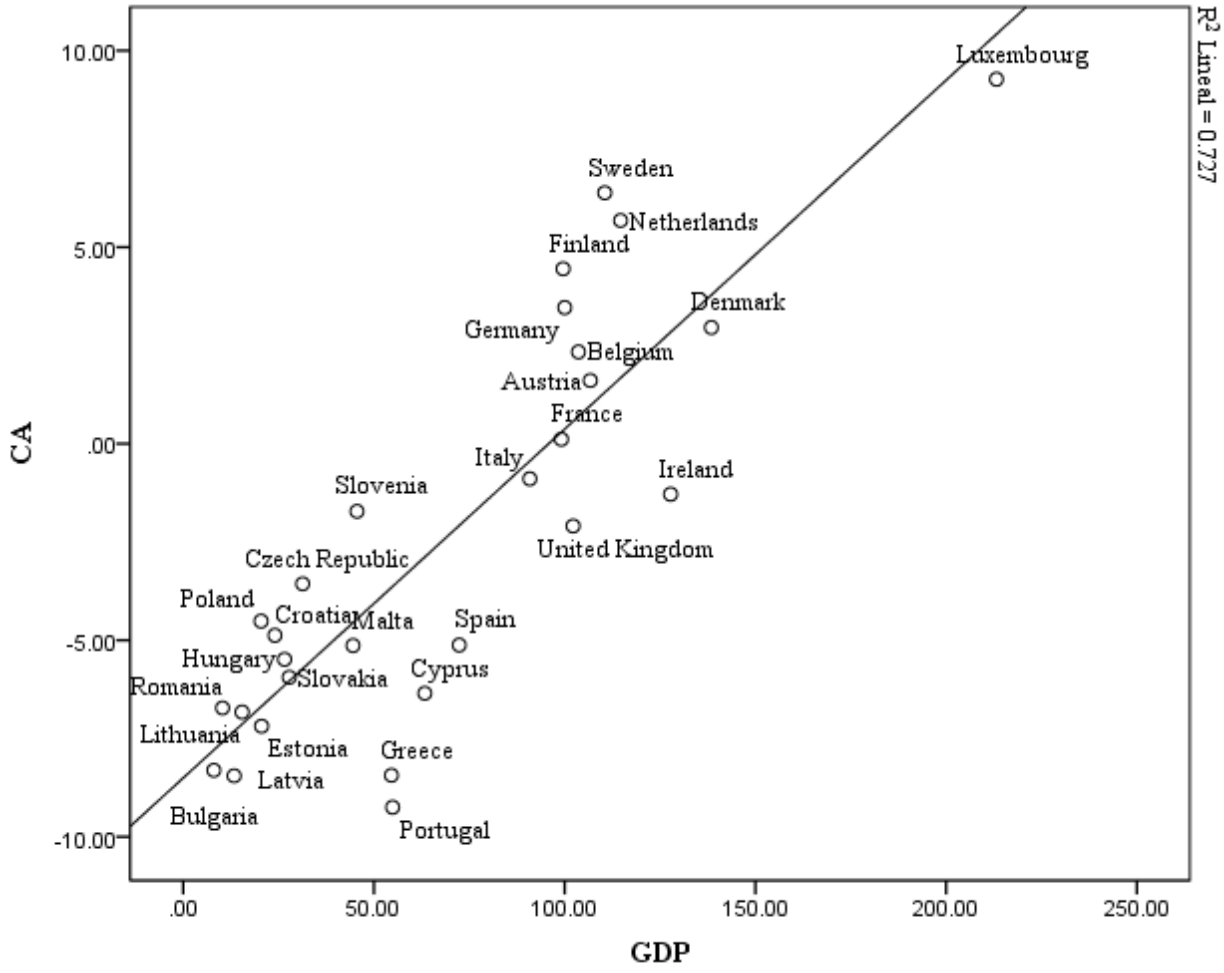

Figure 1. Initial (1999) GDP per capita (to Germany) VS Current Account Average (1999-2012) for EU-28

Notes: Initial GDP per capita for Ireland is from 2000. Data from Eurostat and the World Development Indicators.

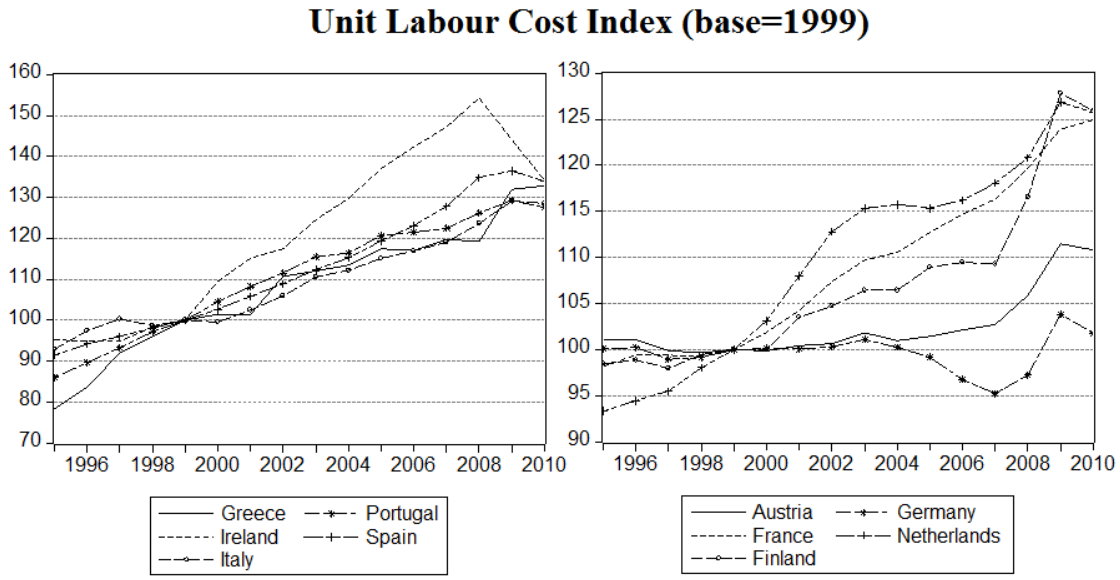

Figure 2. Unit labour costs index (base=1999)

Notes: Base=1999; own calculations from OECD database

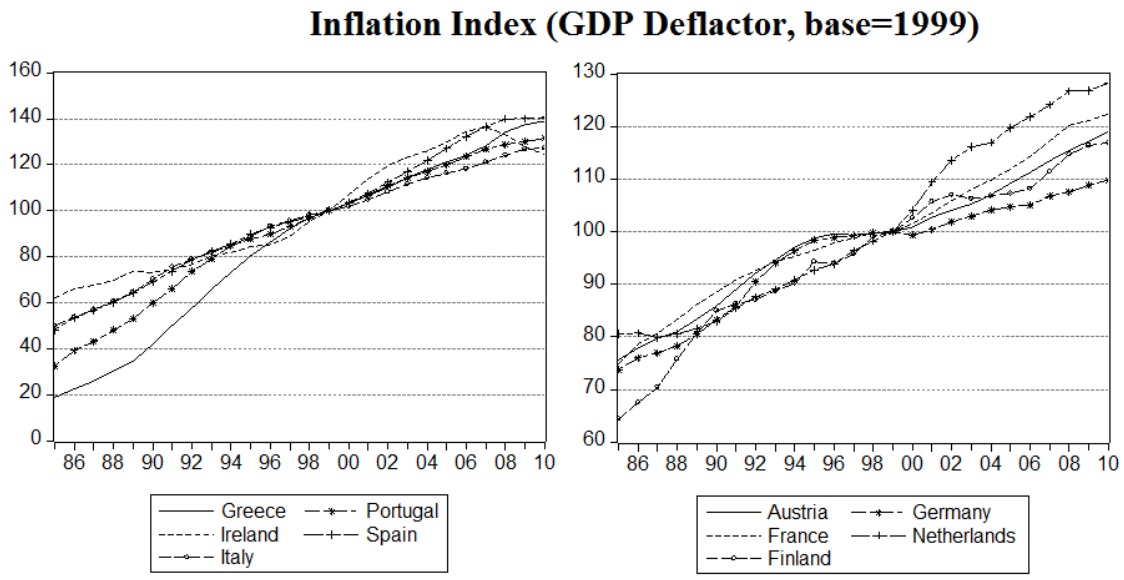

Figure 3. Inflation index (GDP deflactor, base=1999)

Notes: Data from World Development Indicators

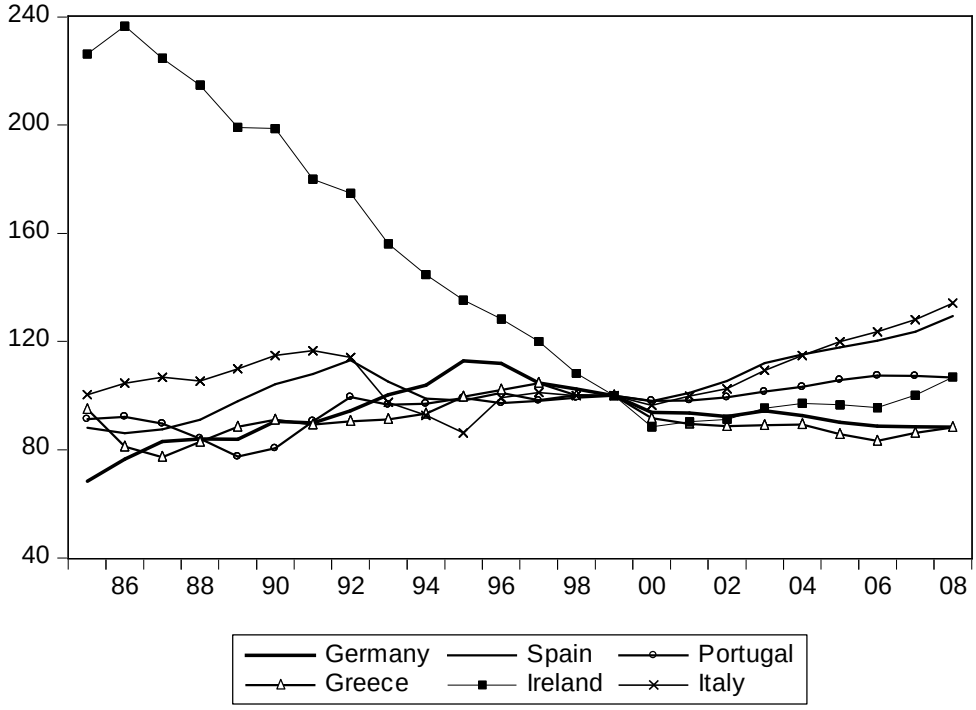

Figure 4. Real Effective Exchange Rate

Notes: Data from IMF-International Financial Statistics. For Germany, Spain, Ireland and Italy REER are based on Rulc, for Portugal on Ulc and for Greece on Rnulc.

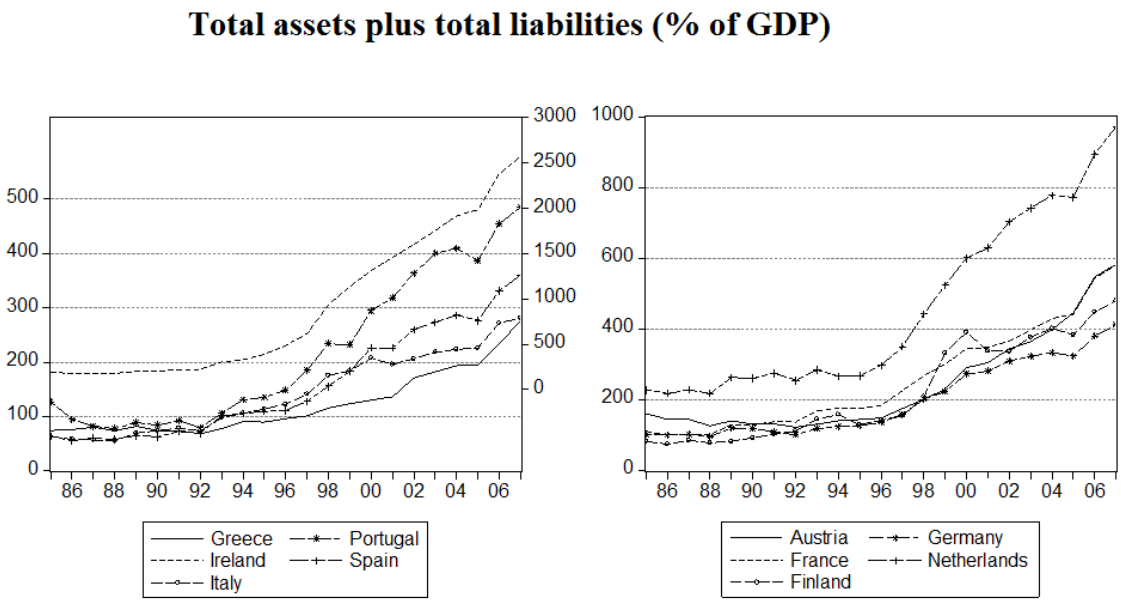

Figure 5. Total foreign assets plus total foreign liabilities (% of GDP)

Notes: Data from Lane and Milesi-Ferretti (2007b). Total assets include FDI assets, portfolio equity assets, debt assets, derivatives assets and FX reserves. Total liabilities include FDI liabilities+portfolio equity liabilities+debt liabilities+derivatives liabilities

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THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialisation; how has financialisation impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialisation and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialisation? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?'

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7	Tallin University of Technology	Estonia
8	Berlin School of Economics and Law	Germany
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