

# The euro imbalances and financial deregulation:

## A post Keynesian interpretation of the European debt crisis

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### Abstract

Conventional wisdom suggests that the European debt crisis, which has led to severe adjustment programs sponsored by the European Union (EU) and the International Monetary Fund (IMF) in Greece and Ireland so far, was caused by fiscal profligacy on the part of peripheral or non-core countries and a welfare state model, and that the role of the common currency, the Euro, was at best minimal. This paper tries to show that contrary to conventional wisdom, the crisis in Europe is the result of an imbalance between core and non-core countries inherent to the Euro economic model. Underpinned by a process of monetary unification and financial deregulation core-countries in the Euro Zone pursued export led growth policies or more specifically 'beggar-thy-neighbor policies' at the expense of mounting disequilibria and debt accumulation in the non-core countries or periphery. This imbalance became unsustainable and this surfaced in the course of the Global Crisis (2007-2008).

### Introduction

Conventional wisdom suggests that the European debt crisis, which has led to severe adjustment programs sponsored by the European Union (EU) and the International Monetary Fund (IMF) in Greece, Ireland and Portugal, was caused by fiscal profligacy on the part of peripheral or non-core countries and a welfare state model, and that the role of the common currency, the Euro, and the Maastricht Treaty (1992) was at best minimal.<sup>2</sup> In particular, the German view, as Charles Wyplosz (2010) aptly named it, is that a solution for the crisis involves the Eurozone's Stability and Growth Pact (SGP). The alternative view, still according to Wyplosz, is that a reform of the EU institutions is needed in order to impose fiscal discipline on the sovereign national institutions, since a revised SGP would be doomed to fail.

Both views, which dominate discussions within the EU, presume that the problem is fiscal in nature. In both cases, the crisis is seen as in traditional neoclassical models, in which excessive fiscal spending implies that at some point economic agents lose confidence in the ability of the State to pay and service its debts, and forces adjustment. Excessive spending, also leads, to inflationary pressures, and that would be the reason, in this view, for the loss of external competitiveness and not the abandonment of exchange rate policy implicit in a common currency. In other words, the conventional view implies that the balance of payments position is the result of the fiscal crisis.

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<sup>2</sup> The Euro was initially introduced as an accounting currency on 1 January 1999, replacing the former [European Currency Unit](#) (ECU) at a ratio of one-to-one. The Euro entered circulation on the 1 January 2002. Seventeen out of 27 member states of the European Union use the Euro as a common currency. These are: Belgium, Ireland, France, Luxembourg, Austria, Slovakia, Germany, Greece, Italy, Malta, Portugal, Finland, Estonia, Spain, Cyprus, The Netherlands and Slovenia. Among these, Austria, Belgium, France, Germany and the Netherlands are referred to as core countries. Greece, Ireland, Italy, Portugal and Spain are referred to as non-core or peripheral countries. The member countries of the European Union that have not adopted the Euro are , Bulgaria, Czech Republic, Denmark, Latvia, Lithuania, Hungary, Poland, Romania, Sweden and the United Kingdom.

Finally, the conventional story also relegates financial deregulation to a secondary place in the explanation of the crisis.<sup>3</sup> The idea is that if countries had balanced their budgets and avoided the temptation to create a welfare state, then excessive private spending would not have resulted from perverse public policy incentives, and investors and banks would have been more aware of the risks involved. So what is needed in Europe is a good dose of tough love. Non-core countries must adopt a realistic position regarding their fiscal accounts and ensure the compliance with the budget thresholds agreed in the Maastricht Treaty as well as renounce their welfare state objectives. A generalized commitment to fiscal discipline will allow Europe's economy to bounce back to its trend – often associated with some measure of the natural rate of unemployment – of its own volition, without the need of fiscal stimulus.

The old Treasury View, which Keynes and his disciples fought back in the 1930s, is alive and well not just in academia, but also in the corridors of power, in the Finance Ministries, Central Banks and international financial organizations that have been instrumental in the response to the crisis.<sup>4</sup> This paper presents an alternative view of the European crisis.

It sustains that contrary to conventional wisdom, both the Euro, and its effects on external competitiveness and particularly on the management of macroeconomic policy (both fiscal and monetary policies), and financial deregulation are central to explain the crisis.

More precisely, arguing from an aggregate demand perspective, this paper shows that the crisis in Europe is the result of an imbalance between core and non-core countries inherent to the Euro economic model. Underpinned by a process of monetary unification and financial deregulation core-countries in the Euro Zone pursued export led growth policies or more specifically 'beggar-thy-neighbor policies' at the expense of mounting disequilibria and debt accumulation in the non-core countries or periphery. This imbalance became unsustainable and this surfaced in the course of the Global Crisis (2007-2008). Unfortunately, due to the fact that in a crisis governments must increase expenditure (even if only through automatic stabilizers) in order to mitigate its impact while at the same time revenues tend to decline (due to output contraction or outright recession), budget deficits are inevitable and emerge as a favorite cause of the crisis itself.

The remainder of the paper is divided into three sections. The next section describes and analyzes the process of financial liberalization, deregulation and integration in Europe and its effects on financial flows and on the banking system of core and non-core countries. The second section explains the contradictions inherent to the Euro economic model using simple but macroeconomic indicators. The last section provides some conclusions, and sorts out the facts and the myths about the European crisis. A central conclusion is that the solution to the European crisis requires a profound reform of the Euro institutionality and its core principles,

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<sup>3</sup> See Soros (2010) for a different view. Soros understands the European Crisis as a banking, rather than fiscal crisis. More recently Soros (2011) has argued that the European Crisis is a by-product of the 2008 Crash which forced the financial system to 'substitute the sovereign credit of governments for the commercial credit that had collapsed.' From here it follows that the crisis made the health of the European Banks became prey to the state of European public finances. Note also that in spite of the blame put on lax government finances there is broad recognition that European governments have injected significant bailout packages of the financial sector and that this was necessary. As of September 2011, available data for Ireland, Greece and Spain show that government's support to the financial sector net of its estimated recovery amounted to 38%, 5.4%, and 2.1% of their respective GDP. See, IMF, Fiscal Monitor, 2011.

<sup>4</sup> For a survey of fiscal policy responses to the crisis see Pérez-Caldentey and Vernengo (2010).

not simply a fiscal or financial reform. It requires that the recycling of surpluses and that the burden of adjustment be shared by both debtor and creditor economies.

### **Financial integration/deregulation in Europe and the Euro**

The road to financial integration in Europe began early in 1957 with the signature of the Treaty of Rome that set out the basics for the creation of a European Single market for financial services. However, in spite of several initiatives in this direction, the progress was slow. Only by the late 1980's and early 1990's, spurred by the Single European Act (1987), did most European countries embark definitely on financial liberalization strategy.<sup>5</sup>

During this time most countries lifted capital controls, deregulated interest rates and adopted the European Directives, which are considered to be a crucial step towards the foundation for the Single Market Program in banking and financial services.<sup>6</sup> These were meant to harmonize rules, supervision and regulation of financial institutions, establish the principle of home country control and the so-called European Passport (branches and the provision of services across borders throughout the EC).<sup>7</sup> (See Table 1 below)

|                | Lifting of capital controls | Interest rate deregulation | First Banking Directive | Second Banking Directive |
|----------------|-----------------------------|----------------------------|-------------------------|--------------------------|
| Belgium        | 1991                        | 1990                       | 1993                    | 1994                     |
| Denmark        | 1982                        | 1988                       | 1980                    | 1991                     |
| France         | 1990                        | 1990                       | 1980                    | 1992                     |
| Germany        | 1967                        | 1981                       | 1978                    | 1992                     |
| Greece         | 1994                        | 1993                       | 1981                    | 1992                     |
| Ireland        | 1985                        | 1993                       | 1989                    | 1992                     |
| Italy          | 1983                        | 1990                       | 1985                    | 1992                     |
| Luxemburg      | 1990                        | 1990                       | 1981                    | 1993                     |
| Netherlands    | 1980                        | 1981                       | 1978                    | 1992                     |
| Portugal       | 1992                        | 1992                       | 1992                    | 1992                     |
| Spain          | 1992                        | 1992                       | 1987                    | 1994                     |
| United Kingdom | 1979                        | 1979                       | 1979                    | 1993                     |

Source: Buch and Heirich (2002)

The thrust for financial deregulation was further pursued by the adoption of a five year financial harmonization program, the Financial Services Action Plan (1999) (FSAP).

The FSAP was meant to harmonize the EU Member States' rules on the whole range of financial services including securities, banking, insurance, mortgages, pensions and other forms of financial transactions through the implementation of 42 measures in these different

<sup>5</sup> The Single European Act was signed in 1986 and came into effect in 1987.

<sup>6</sup> Directives are legislative acts requiring member states to achieve specific results without dictating the means.

<sup>7</sup> The first banking directive introduced the Single Banking License in 1989, a significant step towards the unification of banking legislation and regulation.

areas. More specifically its objectives included: i) the development of a single market for wholesale financial services; ii) the creation of open and secure retail markets; iii) the establishment of clear, efficient, prudential rules and supervision of financial services; and iv) the establishment of the conditions for an optimal single financial market.

Member country's commitment to the FSAP was reinforced by a series of initiatives including the Lisbon Agenda (2000), the re-launching of the Lisbon Strategy (2005) and the White Paper (2005). As stated in the latter: "Financial markets are pivotal for the functioning of modern economies. The more they are integrated, the more efficient the allocation of economic resources and long run economic performance will be. Completing the single market in financial services is thus a crucial part of the Lisbon economic reform process; and essential for the EU's global competitiveness."

Most of the measures of the FSAP passed the EU legislative process at the end of 2003 (See Kalemi-Ozcan et al. (2010)). The latest available public releases show that 25 out of 27 countries of the European Union had provided information on the entry into force of the directives of the FSAP <sup>8</sup>.

The progress of financial liberalization is reflected in the Chinn-Ito index (2011), which is measures openness in capital account transactions. The higher is the value of the index the greater is the degree of openness of an economy to cross-border capital transactions. As table 2 shows, the level of financial openness increased systematically throughout the 1990s, reflecting the fact that European countries, but in particular the core and non-core countries (that is, countries that adopted the Euro as their common currency) became on average more 'financially open'. Both groups of countries reached the status of full liberalization after the adoption of the Euro.

| <b>Table 2</b>  |           |           |           |           |
|---|-----------|-----------|-----------|-----------|
| <b>European Union</b>   |           |           |           |           |
| <b>Chinn-Ito Index of capital account liberalization for selected country groupings 1990-2009</b> |           |           |           |           |
|   | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 |
| Core Countries  | 83.2      | 96.1      | 97.4      | 100.0     |
| Non-Core Countries  | 19.5      | 80.5      | 96.6      | 100.0     |
| Other Euro Countries  | -37.9     | -9.5      | 24.7      | 81.3      |
| Non-Euro Countries  | 8.8       | 39.0      | 66.9      | 87.9      |

Note: The Chinn-Ito index is expressed in terms of its highest value for all countries considered in their sample. Thus a value of 100 means complete liberalization.  
 Core countries include: Austria, Belgium, France, Germany, The Netherlands. Non-core countries include: Greece, Ireland, Italy, Portugal, and Spain. Other Euro countries include Estonia, Malta, Slovak Republic, Slovenia. Non-Euro comprise Sweden and the United Kingdom.  
 Source: On the basis of Chin and Ito (2011)

<sup>8</sup> See, European Commission (2011) The countries that have not provided information are Bulgaria and Rumania. The directives for which there is no information on the date of entry into force include the directives on: takeover bids (2004/25); taking up and pursuit of the business of credit institutions (2006/48); capital adequacy (2006/49); transparency (2004/109); markets and financial institutions (2004/39) and money laundering (2005/60). Some of these are part of the Lamfalussy initiatives (directives 109 and 39). The money laundering is a complement to the FSAP. Since the global crisis the EU adopted post directives. See, [http://ec.europa.eu/internal\\_market/finances/actionplan/index\\_en.htm#transposition](http://ec.europa.eu/internal_market/finances/actionplan/index_en.htm#transposition)

The process of harmonization and intra-European liberalization of flows was parallel to the process of establishment and introduction of the Euro, which came into effect on the 1<sup>st</sup> of January 2002. The establishment of a single currency and monetary union was based on the prior compliance with convergence criteria including inflation, fiscal, exchange rate and interest rate convergence set out in the Maastricht Treaty.<sup>9</sup>

Exchange rate convergence was meant to avoid the manipulation of the exchange rate prior to the establishment of monetary union in order to achieve an improved competitive position at the time of entry. The justification of inflation and budget convergence was the avoidance of an inflationary bias in the monetary union.

Fiscal convergence meant in practice that governments had to achieve a ratio of planned or actual government deficit to GDP at market prices equal or less than 3% at any time.<sup>10</sup> The 3% budget sustainability criterion which was independent of the cycle combined with earlier legislation contained in the Pact for Growth and Stability (1997) required European countries to balance their budget or be in a surplus position in the medium run, i.e., countries had to run surpluses in good times in order to offset deficits in bad times.

Interest rate convergence is interpreted as a measure to limit arbitrage opportunities and, thus, capital gains and losses prior to the entry in force of the monetary union. However, this criterion is considered redundant (Kenen, 1995; De Grauwe, 2003). In fact financial deregulation, capital mobility and exchange rate convergence (and eventually the adoption of a unique currency) lead to nominal interest rate convergence. In this sense as put by De Grauwe (ibid, p. 136): "Once countries were expected to join EMU, long-term interest rates converged automatically." In addition, under interest rate parity theorem conditions, nominal exchange rate and inflation convergence were tantamount to real uncovered interest parity conditions.

The process of harmonization of EU financial legislation and regulation and the process of adoption of a single currency led to an increase in cross-border financial flows and as expected a process of convergence of interest rates. The growth of financial flows can also be ascertained by the expansion in the balance sheet in European countries. As shown in Table 3, the external position of member countries of the European Union (core, non-core and non-Euro included) banks *vis-à-vis* all sectors in assets and liabilities as percentages of GDP increased rapidly throughout the liberalization and the adoption of Euro period.

A similar phenomenon occurred with the evolution of the size of the capital markets (see Table 4). The size of capital measured in terms of GDP increased by more than a third in core

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<sup>9</sup> The four convergence criteria are defined in article 109j of the Maastricht Treaty (in its Chapter IV under the heading Transitional Provisions) and are explained in one of the protocols. The interest rate convergence criterion is defined as "the durability of convergence achieved by the Member State and of its participation in the Exchange Rate Mechanism of the European Monetary System being reflected in the long-term interest rate levels" and is explained in the protocols as follows: '

The criterion on the convergence of interest rates...of this Treaty shall mean that, observed over a period of one year before the examination, a Member State has had an average nominal long-term interest rate that does not exceed by more than 2 percentage points that of, at most, the three best performing Member States in terms of price stability. Interest rates shall be measured on the basis of long term government bonds or comparable securities, taking into account differences in national definitions.

See, <http://www.Eurotreaties.com/maastrichtec.pdf> and <http://www.Eurotreaties.com/maastrichtprotocols.pdf>

<sup>10</sup> See article 109j of the Maastricht Treaty and the protocol on fiscal sustainability.

countries and more than doubled in non-core countries during the consolidation period of financial liberalization and regulation and following the adoption of the Euro.<sup>11</sup>

| <b>Table 3</b><br><b>Growth in balance sheets in the European Union measured by the external position of banks (assets and liabilities) vis-à-vis all sectors as percentages of GDP</b><br>1990-2011 (Averages)      |                |                    |          |
|--|----------------|--------------------|----------|
| Assets   |                |                    |          |
| Period   | Core countries | Non-Core countries | Non-Euro |
| 1990-1995  | 47.40          | 22.52              | 58.97    |
| 1996-2001  | 61.96          | 55.74              | 76.40    |
| 2002-2010  | 118.31         | 96.15              | 131.37   |
| Liabilities  |                |                    |          |
| Period   | Core countries | Non-Core countries | Non-Euro |
| 1990-1995  | 41.79          | 19.89              | 63.26    |
| 1996-2001  | 63.40          | 60.31              | 84.35    |
| 2002-2010  | 102.44         | 107.22             | 148.44   |
| Note: Core countries include: Austria, Belgium, France, Germany, The Netherlands. Non-core countries include: Greece, Ireland, Italy, Portugal, and Spain. Non-Euro countries include Sweden and the United Kingdom. |                |                    |          |
| Source: Locational Bank Statistics. BIS (2011). Table 2A.  |                |                    |          |

| <b>Table 4</b><br><b>Size of Capital Markets 1990-2009 as percentage of GDP in core, non-core and Euro Zone countries of Europe</b><br>1990-2009 (Averages) |      |          |           |
|---|------|----------|-----------|
|   | Core | Non-Core | Euro Zone |
| 1990-1994   | 1.61 | 0.79     | n.a.      |
| 1995-1999   | 2.04 | 1.14     | 1.76      |
| 2000-2004   | 2.51 | 1.96     | 2.27      |
| 2005-2009   | 2.82 | 3.22     | 2.63      |
| Note: Core countries include: Austria, Belgium, France, Germany, The Netherlands. Non-core countries include: Greece, Ireland, Italy, Portugal, and Spain.  |      |          |           |
| Source: European Central Bank (2011)  |      |          |           |

The empirical evidence that has attempted to isolate the effects of financial liberalization and deregulation and that of the Euro on the increase in cross border flows, highlights the importance of both sets of policy but attributes greater importance to the latter (i.e., the adoption of the Euro). This is explained mainly due to the elimination of exchange rate risk due to the adoption of a single currency (Ibid). Recent evidence presented by Ozcan et al. (2010) indicates that bilateral bank holdings and transactions among the Euro area economies increased by roughly 40% following the adoption of the Euro.<sup>12</sup>

<sup>11</sup> Available evidence indicates that the majority of assets are nationally owned (75% according to Allen et al (2011)).

<sup>12</sup> Other estimates reach a much higher figure.

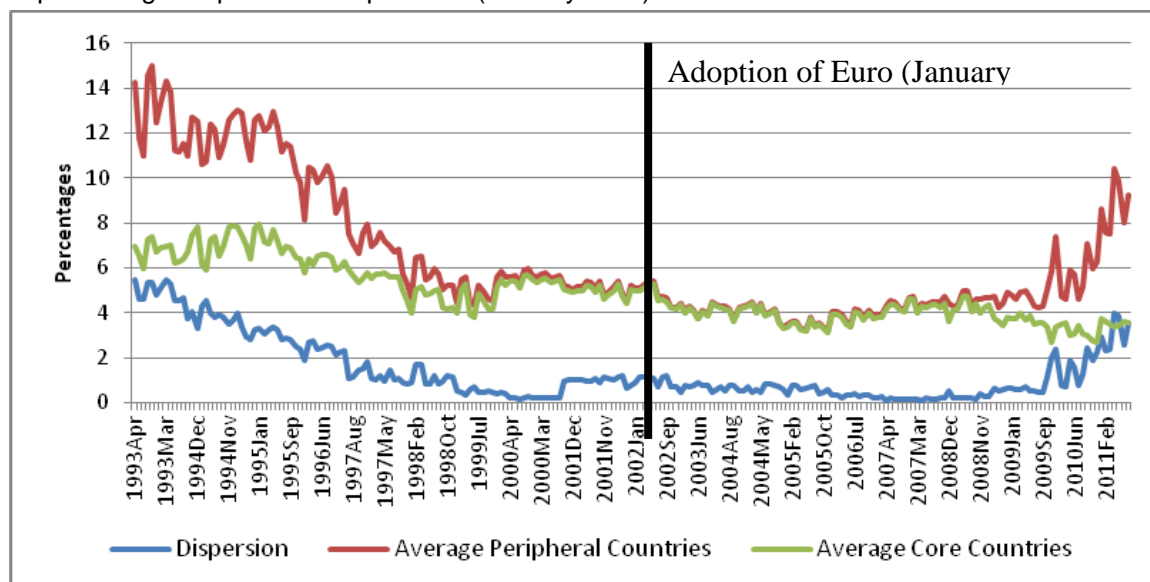


At the same time financial liberalization and the process of adoption of the Euro brought about a clear and marked convergence in both short and long term interest rates. Figure 1 below shows that the secondary market yields of 10 year government bonds for core and non-core (or peripheral) countries stood at 6% and 10% respectively and reached 5% for both country groupings on January 2002 (the month and year the Euro was implemented). As well, the dispersion for all Eurozone member states declined from 5% to 1% in the same period registered further declines thereafter until the 2008-2009 Global Crisis.

Interest rate convergence lowered interest rate margins especially in non-core countries. Between 1990-1995 and 1996-2001, interest rate margins as a percentage of total earning assets declined from 3.9% to 2.8% while these remained roughly constant in core countries. This translated into a decline in the rate of return over assets in non-core countries from 0.8% to 0.5% between 1990-1995 and 1996-2001 (see Table 5 below).

**Figure 1:**  
**European Union. Average secondary market yields of government bonds with maturities of close to ten years for core and non-core (peripheral) countries and dispersion.**

In percentages: April 1993 – April 2011 (Monthly Data)



Source: Authors' own on the basis of European Central Bank (2011).

In the face of a decline in ROA as in the case of non-core countries between 1990-1995 and 1996-2007 or for a roughly constant ROE as in the case of both core and non-core countries between 1996-2001 and 2002-2007, the levels of profitability (ROE) of the financial system can be maintained or increased by higher levels of leverage (or indebtedness).<sup>13</sup> The levels of

<sup>13</sup> The simple banking profit identity, also known as the Du Pont de Nemours and Company return over equity (ROE) decomposition states that the ratio of earnings to equity equals the product of the ratio of earnings to assets and assets to equity. That is,

leverage were particularly high in some of the core countries. Available evidence on Germany provided by Bloomberg shows that leverage for the major banks increased on average from 27 to 45 between 1996 and 2007. As well data for 2007 for 14 of the major financial institutions of Europe (located in core countries) indicates that the average leverage ratio was 34 (with a maximum of 50).<sup>14</sup>

The freedom of financial flows to move throughout Europe and abroad, low borrowing costs and easy access to liquidity via leveraging coupled with no exchange rate risk provided a false sense of prosperity in a low risk environment.

### **Stylized facts of the Euro imbalances**

The constraints imposed by the Maastricht Treaty (jointly with the Stability and Growth Pact) in the name of 'fiscal sustainability' on government activities, placed private expenditure, and/exports at the center stage of aggregate demand and as the linchpins of growth.

Core countries were able to pursue wage moderation and restraint policies as in the case of Germany and Austria and more generally in the case of the others (Belgium, France and the Netherlands) to contain labor costs below those of non-core countries. As Table 6 below shows between 2000 and 2007, unit labor costs remain essentially constant, increasing merely 7 percent on average for core countries. Contrarily labor unit costs for non-core countries witnessed a clear upward trend increasing by 24% for the same period. Under a fixed regime and within a context where the bulk of trade is intraregional (roughly around 70% using the export market share<sup>15</sup>), this amounted to a real devaluation and a basis to pursue export led growth policies and indeed more precisely 'beggar thy neighbor policies.'

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$$\frac{Earnings}{Equity} = \left(\frac{Earnings}{Assets}\right) * \left(\frac{Assets}{Equity}\right)$$

where  $\frac{Assets}{Equity} = Leverage$  and thus,

$$\frac{Earnings}{Equity} = \frac{Earnings}{Assets} * Leverage$$

As a result for a given assets to equity ratio the greater is the leverage the greater are profit opportunities captured by the ratio of earnings over equity.

<sup>14</sup> To put things in perspective If the leverage ratio is equal to 10, then debt and equity finance represent 90% and 10% of the financial intermediary's acquisition of assets respectively. With a leverage ratio of 34, the respective debt and equity ratios are 97% and 3% respectively.

<sup>15</sup> Computations were undertaken with WITS (2011) for the 27 European Union member states for 2006 using the SITC Rev.3.



| <b>Table 5</b>   |                     |              |                  |     |               |         |
|--|---------------------|--------------|------------------|-----|---------------|---------|
| <b>Selected indicators of the performance of the banking system in the European Union (1990-2007)</b>  |                     |              |                  |     |               |         |
| <b>Core Countries</b>  |                     |              |                  |     |               |         |
| Period   | Financial Deepening | Costs/Income | Interest margins | ROA | Concentration | Z-Score |
| 1990-1995  | 92.5                | 72.8         | 2.3              | 0.3 | 67.2          | 15.4    |
| 1996-2001  | 103.5               | 67.8         | 2.5              | 0.9 | 67.2          | 9.4     |
| 2002-2007  | 108.2               | 70.2         | 2.1              | 1.0 | 68.2          | 7.3     |
| <b>Non-core countries</b>  |                     |              |                  |     |               |         |
| Period   | Financial Deepening | Costs/Income | Interest margins | ROA | Concentration | Z-Score |
| 1990-1995  | 56.8                | 67.6         | 3.9              | 0.8 | 72.1          | 23.9    |
| 1996-2001  | 73.3                | 70.8         | 2.8              | 0.5 | 66.7          | 25.6    |
| 2002-2007  | 112.8               | 66.5         | 2.2              | 0.4 | 68.9          | 15.8    |
| <b>Eurozone Countries</b>  |                     |              |                  |     |               |         |
| Period   | Financial Deepening | Costs/Income | Interest margins | ROA | Concentration | Z-Score |
| 1990-1995  | 77.0                | 65.8         | 3.1              | 0.6 | 73.7          | 18.1    |
| 1996-2001  | 77.3                | 69.9         | 2.7              | 0.7 | 68.8          | 12.7    |
| 2002-2007  | 101.3               | 67.6         | 2.4              | 0.8 | 70.8          | 10.4    |
| <p>Note: Core countries include: Austria, Belgium, France, Germany, The Netherlands. Non-core countries include: Greece, Ireland, Italy, Portugal, and Spain. Financial deepening is measured by private credit, by deposit money banks and other financial institutions. Costs/Income is measured as total costs as a share of total income of all commercial banks. Interest margins equal the accounting value of bank's net interest revenue as a share of its interest-bearing (total earning) assets. ROA= rate of return over assets. Concentration refers to assets of the three largest banks as a share of assets of all commercial banks. Z-Score is estimated as <math>ROA+equity/assets/sd(ROA)</math>; the standard deviation of ROA, <math>sd(ROA)</math>, is estimated as a 5-year moving average.</p> <p>Source: Based on Thortsen Beck and Asli Demirgüç-Kunt, "Financial Institutions and Markets Across Countries and over Time: Data and Analysis", World Bank Policy Research Working Paper No. 4943, May 2009</p> |                     |              |                  |     |               |         |

|      | Average Non Core countries | Average Core countries | Ratio of non-core to core country unit labor costs |
|------|----------------------------|------------------------|--|
| 2000 | 100                        | 100                    | 1.00   |
| 2001 | 102.5                      | 102.4                  | 1.00   |
| 2002 | 106.5                      | 104.6                  | 1.02   |
| 2003 | 110.1                      | 106.0                  | 1.04   |
| 2004 | 112.4                      | 106.0                  | 1.06   |
| 2005 | 116.9                      | 106.7                  | 1.10   |
| 2006 | 120.4                      | 107.4                  | 1.12   |
| 2007 | 124.3                      | 108.5                  | 1.15   |
| 2008 | 130.1                      | 111.5                  | 1.17   |
| 2009 | 132.0                      | 116.7                  | 1.13   |
| 2010 | 129.5                      | 116.2                  | 1.11   |

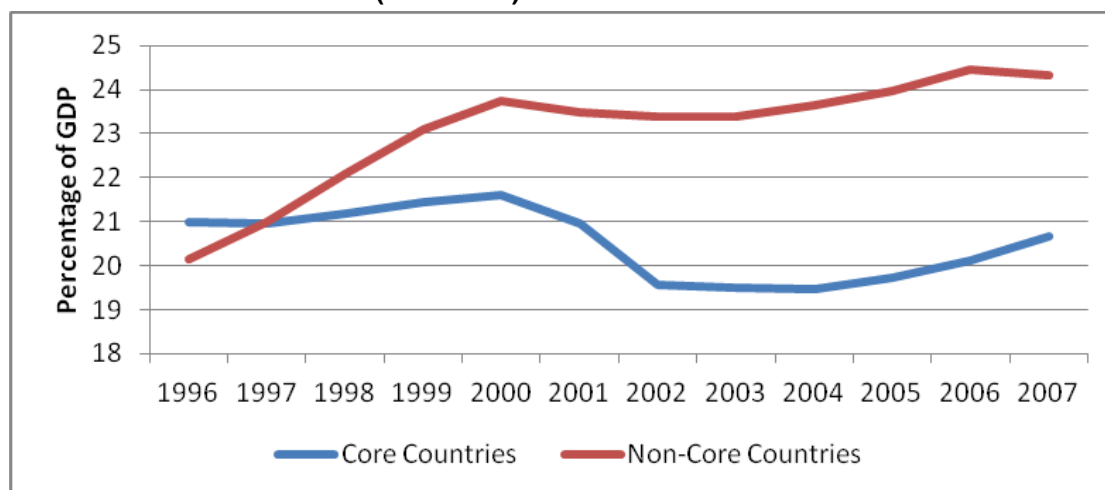
Source: On the basis of Eurostat (2011)

Non-core countries did not have the means to counteract and offset core countries 'beggar thy neighbor policies.' The Euro common currency arrangement precludes nominal depreciations to compensate the increase in wages in the periphery relative to those in non-core countries. Further, there are few mechanisms for large fiscal transfers that would compensate the loss of output associated to reduced competitiveness in the countries with higher costs.

Faced with higher relative labor costs and real exchange appreciations, which undermined their external competitiveness, non-core countries were left with the option of growing by increasing internal aggregate demand. This is illustrated in Figure 2 which shows gross formation of fixed capital (GFFC, i.e. investment demand) as a percentage in GDP between 1996 and 2007, the year prior to the explosion of the Global Crisis. In 1996, both core and non-core countries had a similar GFFC relative to GDP (20% and 21% respectively). Thereafter, the GFFC shot up in non-core countries while in core countries it stagnated or declined. From the year of the implementation of the Euro (2002) until 2007, GFFC in non-core countries was roughly 4 percentage points of GDP above that of core countries.<sup>i</sup>

<sup>i</sup> A similar exercise using domestic final consumption over GDP, instead of investment shows a similar result. For the period 2002-2007, non-core countries final consumption averaged 78% and 75% of GDP for non-core and core countries.

**Figure 2: Eurozone: Gross formation of fixed capital (GFFC) as a percentage of GDP for core and non-core countries (1996-2007)**



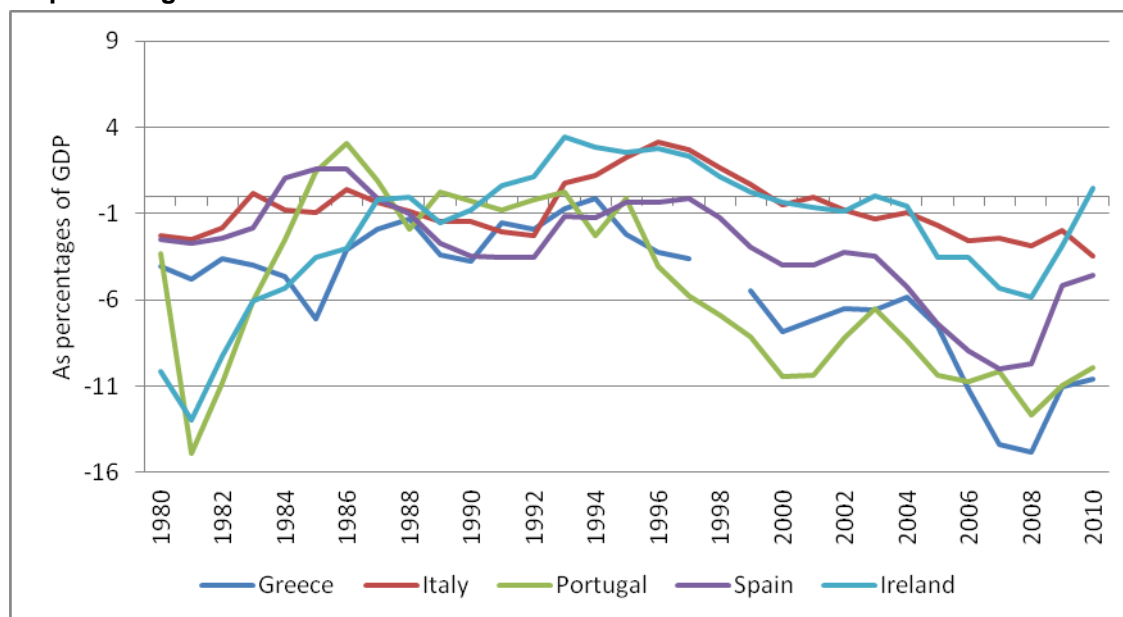
Source: On the basis of World Development Indicators (WDI) and Global Development Finance (GDF) 2011

Greater domestic demand and higher labor costs (real exchange rate appreciation) in the periphery had a negative impact on its constituent countries external position. As shown in figure 3 and table 7 below the current account balance for non-core countries deteriorated during the finalization of the European integration process and even more so following the introduction of the Euro. In other words, it seems fairly reasonable to believe that unit labor costs impacted the external performance of European economies, and that the common currency was central for the outcome.

Contrarily core countries external position remained in surplus and improved following the introduction of the Euro. In 2001, core countries registered on average a surplus on their current account equivalent to 0.9% of GDP. In 2007 the surplus had increased to 3.6% of GDP on average (see Annex for data at the country level).<sup>ii</sup>

<sup>ii</sup> In the period 2001-2007, at the country level, only France in 2005, 2006 and 2007 and Austria in 2001 registered deficits in the current accounts. With the exception of France in 2007, the current account deficits were below 1% of GDP. See Annex.

**Figure 3: Current account balances for Non-core countries 1980-2010**  
**As percentages of GDP**



Source: World Development Indicators and Global Finance. World Bank (2011)

|   | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009  | 2010  |
|---|------|------|------|------|------|------|------|------|-------|-------|
| <b>Current account balance</b>  |      |      |      |      |      |      |      |      |       |       |
| Average Core Countries  | 0.9  | 2.6  | 2.7  | 3.6  | 3.2  | 3.9  | 3.6  | 2.5  | 2.5   | 3.0   |
| Average Non-Core Countries  | -4.4 | -3.9 | -3.6 | -4.2 | -6.1 | -7.4 | -8.5 | -9.2 | -6.4  | -5.6  |
| <b>Fiscal Balance</b>   |      |      |      |      |      |      |      |      |       |       |
| Average Core Countries  | -1.0 | -2.3 | -2.8 | -2.4 | -2.3 | -0.8 | -0.6 | -1.0 | -5.5  | -5.0  |
| Average Non-Core Countries  | -2.3 | -2.3 | -2.4 | -2.7 | -2.6 | -1.7 | -1.8 | -5.5 | -11.3 | -13.2 |
| <b>Private Sector Balance</b>   |      |      |      |      |      |      |      |      |       |       |
| Average Core Countries  | 1.5  | 4.4  | 4.9  | 5.5  | 5.0  | 4.5  | 4.1  | 3.2  | 6.8   | 6.9   |
| Average Non-Core Countries  | -2.1 | -1.6 | -1.2 | -1.5 | -3.5 | -5.7 | -6.7 | -3.7 | 4.9   | 7.5   |
| Sources: On the basis of World Development Indicators and Global Finance (2011) and Eurostat (2011) |      |      |      |      |      |      |      |      |       |       |

Yet, while the external sector deteriorated, and contrary to the conventional wisdom non-core countries managed to maintain fiscal positions within the guidelines set out in the Maastricht Treaty. Following the adoption of the Euro and until the onset of the crisis, all non-core countries fiscal deficits on average were below 3% of GDP and with the exception of 2006 and 2007, were below or at the level of average core countries fiscal deficits.

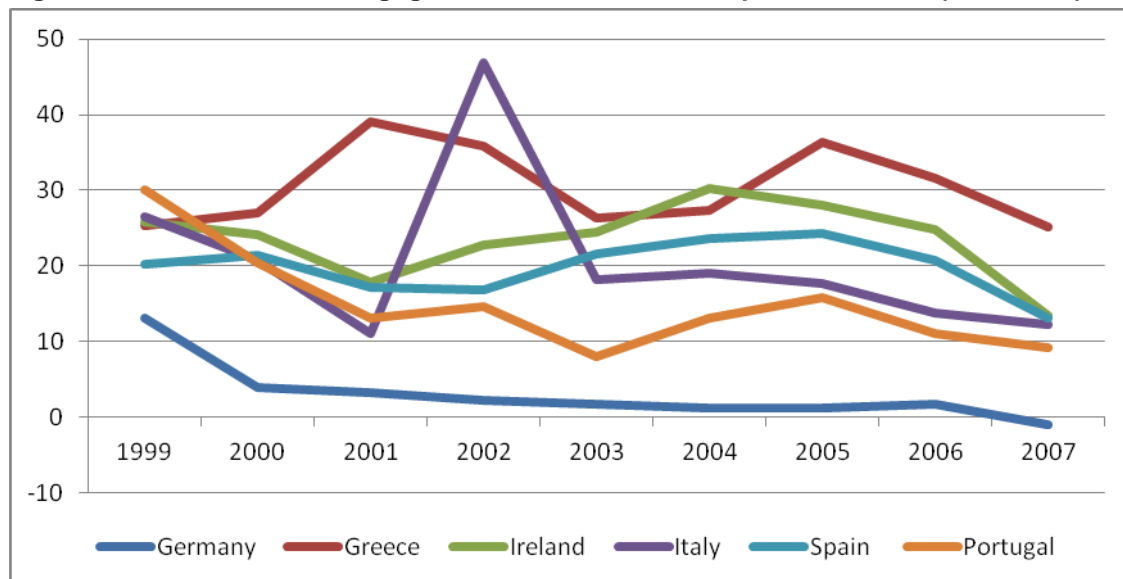
Moreover a more detailed analysis at the country level also shows that fiscal deficits were not endemic to non-core countries. Ireland and Spain two non-core countries were able to reach fiscal surpluses. Ireland fiscal accounts were in surplus continually between 2001 and 2007. Spain was able to register budget surpluses between 2005 and 2007 (See, Annex).

The expansion of internal demand was sustained by the decline in interest rates (i.e., interest rate convergence) in the non-core countries and more importantly by the process of financial integration and deregulation. The latter, permitted finance to flow from core to non-core countries where the relative rates of return were higher. Easy access to finance permitted the funding of increasing current account deficits and also private debt accumulation.

As shown in Table 7 above private balances show a rising average deficit for non-core countries since the introduction of the Euro. In 2002, the private sector deficit of the non-core countries averaged 1.6% of GDP and increased to reach in 2007, 6.7% of GDP.

The private sector deficits are due to a great extent the result of household indebtedness, particularly significant in some of the peripheral countries of Europe like Ireland, Portugal and Spain, and to a lesser degree in Greece and Italy. As noted by Zarco (2009, p.4) the total liabilities of households and non-profit institutions serving households as a percentage of their disposable income increased in most countries between 2000 and 2007, and it was over 100%, in 2007, for Germany, Spain, and Portugal, and was over 200% for in the same year.

**Figure 4: Growth rate of mortgage loans for selected European countries (1999-2007).**



Source: ECB (2009)

Further according to the European Central Bank (2009) the growth rates of mortgage loans in the peripheral countries increased significantly (see Figure 4 above). Arguably in certain countries of the periphery a housing bubble, similar to the one in the United States, had developed with the process of financial deregulation.

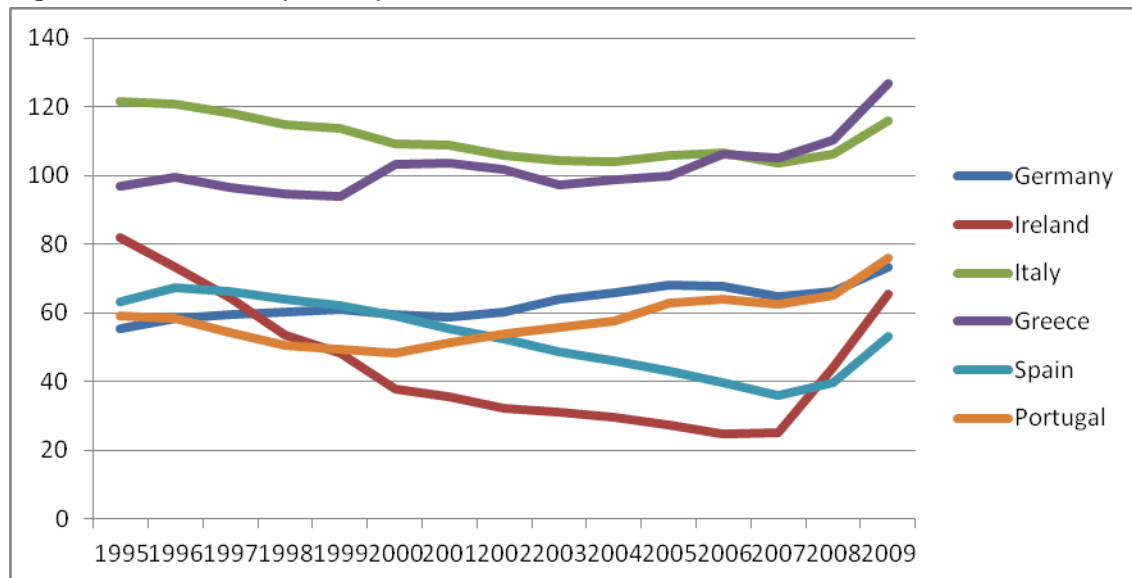
Private debt accumulation (underpinned by financial liberalization which allowed finance to flow from core to non-core countries) in turn contributed to underpin internal aggregate

demand growth and imports. Thus the lending boom in the periphery allowed core countries to pursue a strategy of export-led growth.

The imbalances between a set of core-countries growing at the expense of mounting disequilibria and debt accumulation in the non-core countries or periphery made them vulnerable to changing external conditions as shown by onset and impact of the Global Crisis (2007-2008).<sup>iii</sup>

Unfortunately, due to the fact that in a time of crisis governments must increase expenditure (even if only through automatic stabilizers) in order to mitigate its impact while at the same time revenues tend to decline (due to output contraction or outright recession), budget deficits are inevitable and emerge as a favorite cause of the crises itself. As shown in figure 5 below public debt was relatively constant or decreasing in the case of both core and non-core countries, without exception, up to the 2007-8 crisis. Only then did the levels of public debt increased at a significant rate. A similar conclusion emerges from the evidence presented on budget deficits in Table 7 above.

**Figure 5: Public debt (% GDP)**



Source: Eurostat (2011)

### The myths and facts of policy

These stylized macroeconomic facts of the Euro Zone imbalances underscore that central to the different views of neoclassical and post-Keynesian authors, with respect to the European crisis, is the question of causality relating the fiscal and external crisis. From our post-Keynesian point of view the evidence against a fiscal crisis is so clear cut that is somewhat perplexing that the academic and political debate is fundamentally about whether the SGP should be strengthened or a new arrangement should be implemented to promote fiscal centralization at the supra-national level. Note that the effort for fiscal centralization is seen

<sup>iii</sup> Cesaratto and Stirati (2011) suggest that German mercantilism, that is the stagnant wages and export-led strategy of growth in Germany, is at the center of the crisis. Our analysis suggests that export-led strategy was a feature of the ensemble of core-countries.

as a necessary step towards more stringent fiscal adjustment, and not to reduce the problems associated with the common currency, promoting fiscal transfers to the distressed economies.

In fact, the IMF supported adjustment programs for three non-core countries, Greece, Ireland and Portugal clearly accept the notion that fiscal consolidation and adjustment is essential, even in the face of a recession. Greece, Ireland and Portugal were committed to reduce their respective budget deficits from an estimated 8%, 32% and 9% in 2010 respectively to a level below 3% in 2014. As well, the two other peripheral countries, Italy and Spain also contemplate important reductions in their budget balances from -4.5% to -2.4% and from -9.2% to -5.2% of GDP between 2010 and 2012 respectively. <sup>iv</sup> (See Table 8 below.).

| <b>Table 8</b>   |  |                               |   |
|--|--|-------------------------------|---|
| <b>IMF supported adjustment programs for Euro countries (2011)</b>   |  |                               |   |
| Country  | Type and date of program               | Size of program               | Main fiscal measures  |
| Greece   | Stand-by-Arrangement (May 2010)        | US\$ 30 billion or 11% of GDP | Restore Fiscal sustainability. Lower the overall deficit from 8.1% in 2010 to below 3% of GDP by 2014 (with a primary fiscal balance surplus). Fiscal effort mainly through public sector wage cuts to regain market access. Place the debt-to-GDP ratio on a declining trend. The consolidation measures are estimated to be equivalent to |
| Ireland  | Extended Fund Facility (December 2010) | US\$ 30.1 billion             | Sizable fiscal adjustment to bring the overall deficit from -32% of GDP to below 3% of GDP by 2015. The fiscal adjustment focuses on significant declines in public expenditure (wages and employment) with some capital expenditure cuts. The consolidation measures are estimated to be equivalent to 9% of GDP.                          |
| Portugal   | Extended Fund Facility (May 2011)      | US\$ 37.8 billion             | Reach a 3% of GDP deficit by 2013 with stable debt to GDP ratios. The deficit in 2010 was estimated at 9.1% of GDP. The bulk of the adjustment is placed on public current and capital expenditure. The overall required fiscal adjustment was estimated at 10% of GDP.   |
| <p>Note: In the year the IMF programs were approved the overall fiscal balances for Greece, Ireland and Portugal were -10.4%, -32% and -9.1% respectively.</p> <p>Sources: On the basis of Regional Economic Outlook, IMF (2011); Press Release No. 10/187 May 9, 2010 <a href="http://www.imf.org/external/np/sec/pr/2010/pr10187.htm">http://www.imf.org/external/np/sec/pr/2010/pr10187.htm</a> . Press Release No. 10/496, December 16, 2010 <a href="http://www.imf.org/external/np/sec/pr/2010/pr10496.htm">http://www.imf.org/external/np/sec/pr/2010/pr10496.htm</a> . IMF Country Report No. 11/127 (Portugal), June 2011 <a href="http://www.imf.org/external/pubs/ft/scr/2011/cr11127.pdf">http://www.imf.org/external/pubs/ft/scr/2011/cr11127.pdf</a></p> |  |                               |   |

<sup>iv</sup> See, IMF's, Fiscal Monitor. September, 2011.



In the particular case of Greece the public deficit turned out to be higher than the estimated 8% for 2010 (the actual deficit turned out to be 10.5% of GDP). Moreover, the government declared that it will not be able to meet its target reduction deficit for 2011 (8.5% of GDP). This has prompted well founded fears of debt default and financial contagion throughout Europe and other parts of the World. More recently doubts have also been cast over other non-core countries ability to comply with their fiscal targets.

The contractionary fiscal stance and the slack in private demand (as show in table 7 above private sector balances of both core and non-core countries began to be in surplus following the global crisis) implies that recovery is expected to come from the external sector. However, in a context such as the European where the bulk of trade is intraregional, and in a situation of stagnant internal demand in particular in non-core countries, external sector led recovery can only imply an expectation that low wages and deflation will do the work of increasing external competitiveness. This is from our point of view a self-defeating strategy as it comes at high costs in terms of unemployment and this will contract aggregate demand even further.

Average annual unemployment rate in the Euro Zone averaged above 8% in the period 2001-2007 increasing to 10% following the Global Crisis. In the non-core countries the post crisis unemployment rate was almost twice that of the pre-crisis period (7.8% and 14% respectively; see Table 9 below).

|  | 2001       | 2002-2007  | 2008-2009  | 2010        | 2011        | 2012        |
|--|------------|------------|------------|-------------|-------------|-------------|
| Euro area  | <b>8.1</b> | <b>8.6</b> | <b>8.6</b> | <b>10.1</b> | <b>10.0</b> | <b>9.9</b>  |
| Belgium  | 6.6        | 8.1        | 7.5        | 8.3         | 7.4         | 7.2         |
| Germany  | 7.6        | 9.6        | 7.7        | 7.1         | 6.1         | 5.9         |
| France   | 8.3        | 9.0        | 8.7        | 9.8         | 9.6         | 9.3         |
| Netherlands  | 2.5        | 4.3        | 3.4        | 4.5         | 4.4         | 4.8         |
| Austria  | 3.6        | 4.6        | 4.3        | 4.4         | 4.2         | 4.3         |
| Ireland  | 3.9        | 4.5        | 9.1        | 13.7        | 14.5        | 14.3        |
| Greece   | 10.7       | 9.6        | 8.6        | 12.6        | 15.7        | 15.9        |
| Spain  | 10.3       | 9.8        | 14.7       | 20.1        | 21.0        | 21.1        |
| Portugal   | 4.6        | 7.7        | 9.6        | 12.0        | 12.7        | 13.5        |
| Italy  | 9.1        | 7.6        | 7.3        | 8.4         | 8.1         | 8.2         |
| <b>Core Countries</b>                                    | <b>5.7</b> | <b>7.1</b> | <b>6.3</b> | <b>6.8</b>  | <b>6.3</b>  | <b>6.3</b>  |
| <b>Non-Core countries</b>                                | <b>7.7</b> | <b>7.9</b> | <b>9.8</b> | <b>13.4</b> | <b>14.4</b> | <b>14.6</b> |
| Unemployment rate differential<br>(in percentage points) | 2.0        | 0.7        | 3.5        | 6.5         | 8.1         | 8.3         |

Source: Eurostat (2011)  
[http://epp.Eurostat.ec.Europa.eu/portal/page/portal/employment\\_unemployment\\_ifs/data/database](http://epp.Eurostat.ec.Europa.eu/portal/page/portal/employment_unemployment_ifs/data/database)  
 And Ernst and Young, September 2011

These developments do not bode well for the future of the European recovery, for the Euro, and consequently for the world economy, that will be negatively impacted by a sluggish recovery in Europe. According to our own estimates based on an optimistic outlook, the rate of growth of GDP per capita in the core countries will be close to 1% in 2012 while in non-core countries it will contract to below -1.5% on average.

As noted by our discussion it seems that the evidence does not support the conventional wisdom according to which the European crisis has been fiscal in nature. Even in the case of Greece, which has encountered more fiscal problems in the years preceding the crisis, interest rates converged, and the fiscal imbalances only increased after 2007. From our point of view the crisis is emblematic of internal imbalances between core and non-core countries under financial deregulation that did not prove to be sustainable over time.

Imbalances in a Monetary or Currency Union are bound to occur when its state members are economically heterogeneous and different. Recognition of this fact requires that the establishing Union must create as part of its constituent charter mechanisms to solve and clear the imbalances rather than making them cumulative over time as in the case of the Euro Zone. In practice this amounted to recycle balances from surplus to deficit countries to maintain the dynamics of aggregate demand. This implies that the creditor country should play an active role as part of an equilibrating mechanism and that the brunt of the adjustment should not be borne by the debtor country which happens to be the weaker and less developed country.<sup>v</sup>

Placing an equilibrating principle at the center of monetary integration would help to produce a rebalancing of external accounts and would increase the policy space for fiscal expansion and to undertake economic growth and full-employment policies. As important, in the current juncture, it would preempt to a great extent the need to design and implement rescue package funds such as the Financial Stability Facility or for the European Central Bank to bail out governments through the purchase of government bonds.<sup>vi</sup> In a similar manner, the survival of the Euro Zone would not be, as dependent as it currently is, on commercial bank recapitalization or nationalization.<sup>vii</sup>

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<sup>v</sup> This is similar to John Maynard Keynes' (1941 [1980]) banking principle (the 'equality of credits and debits, of assets and liabilities', *Ibid.* p.44) as guiding principle for the Clearing Union.

<sup>vi</sup> The Financial Stability Facility (EFSF) was created in May 2010. It provides (in conjunction with the IMF) financial assistance to Euro country member states with guarantees up to 440 billion Euros which has been recently enlarged to 780 billion Euros. The EFSF is a funding mechanism though bond issues backed by the more developed European economies while the authority to spend the money is left to the governments of member states (See, Soros, 2011). The Financial Stability Facility (EFSF) will be replaced in 2013 by the European Stability Mechanism. Since May 2010, the purchase of bonds by the European Central Bank amount to 156,500 million Euros.

<sup>vii</sup> The current level of capitalization is 5%. A proposal has been tabled to include it to 9%. The recent credit downgrading of non-core countries has increased the pressure to recapitalize banks (and obviously the push for fiscal consolidation).

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**Annex**

| <b>Table 10</b>  |         |         |        |         |             |        |         |       |       |                            |                        |                     |
|--|---------|---------|--------|---------|-------------|--------|---------|-------|-------|----------------------------|------------------------|---------------------|
| <b>Unit labor costs for core and non-core countries 2000-2010 (2000=100)</b> |         |         |        |         |             |        |         |       |       |                            |                        |                     |
|  | Austria | Belgium | France | Germany | Netherlands | Greece | Ireland | Italy | Spain | Average Non Core countries | Average Core countries | Ratio of NC to Core |
| 2000   | 100     | 100     | 100    | 100     | 100         | 100    | 100     | 100   | 100   | 100                        | 100                    | 1.00                |
| 2001   | 101.0   | 103.7   | 102.3  | 100.4   | 104.7       | 100.0  | 103.8   | 103.3 | 103.1 | 102.5                      | 102.4                  | 1.00                |
| 2002   | 101.3   | 106.3   | 105.2  | 100.8   | 109.3       | 109.1  | 103.9   | 106.8 | 106.2 | 106.5                      | 104.6                  | 1.02                |
| 2003   | 102.4   | 107.1   | 107.2  | 101.5   | 111.8       | 110.4  | 108.8   | 111.5 | 109.6 | 110.1                      | 106.0                  | 1.04                |
| 2004   | 101.8   | 107.1   | 108.2  | 100.6   | 112.2       | 111.8  | 112.4   | 113.2 | 112.3 | 112.4                      | 106.0                  | 1.06                |
| 2005   | 103.0   | 108.7   | 110.2  | 99.7    | 111.8       | 115.8  | 119.1   | 116.6 | 116.1 | 116.9                      | 106.7                  | 1.10                |
| 2006   | 103.5   | 110.8   | 112.4  | 97.8    | 112.6       | 119.2  | 124.0   | 118.7 | 119.8 | 120.4                      | 107.4                  | 1.12                |
| 2007   | 104.0   | 113.2   | 113.8  | 97.2    | 114.5       | 123.7  | 128.0   | 121.3 | 124.3 | 124.3                      | 108.5                  | 1.15                |
| 2008   | 106.1   | 117.8   | 116.6  | 99.5    | 117.3       | 130.4  | 133.6   | 126.2 | 130.1 | 130.1                      | 111.5                  | 1.17                |
| 2009   | 111.6   | 123.0   | 119.8  | 105.8   | 123.5       | 136.6  | 128.8   | 131.5 | 131.1 | 132.0                      | 116.7                  | 1.13                |
| 2010   | 111.8   | 122.6   | 120.7  | 104.0   | 121.9       | 135.8  | 121.8   | 131.2 | 129.3 | 129.5                      | 116.2                  | 1.11                |
| Source: Eurostat (2011)  |         |         |        |         |             |        |         |       |       |                            |                        |                     |

| <b>Table 11</b>   |       |      |      |      |       |       |       |       |       |       |
|---|-------|------|------|------|-------|-------|-------|-------|-------|-------|
| <b>Financial balances of core and non-core European countries as percentages of GDP 2001-2010</b> |       |      |      |      |       |       |       |       |       |       |
|   | 2001  | 2002 | 2003 | 2004 | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  |
| <b>Current account balance</b>  |       |      |      |      |       |       |       |       |       |       |
| France  | 1.8   | 1.2  | 0.7  | 0.5  | -0.5  | -0.6  | -1.0  | -1.8  | -1.5  | -1.7  |
| Germany   | 0.0   | 2.0  | 1.9  | 4.7  | 5.0   | 6.3   | 7.5   | 6.3   | 5.7   | 5.7   |
| Belgium   |       | 4.6  | 3.5  | 3.2  | 2.0   | 1.9   | 1.5   | -1.6  | 0.4   | 1.0   |
| Austria   | -0.8  | 2.7  | 1.7  | 2.1  | 2.1   | 2.4   | 3.5   | 4.9   | 2.9   | 2.8   |
| Netherlands   | 2.4   | 2.5  | 5.5  | 7.6  | 7.3   | 9.3   | 6.7   | 4.5   | 4.9   | 7.2   |
| Greece  | -7.2  | -6.5 | -6.6 | -5.9 | -7.5  | -11.2 | -14.3 | -14.8 | -11.0 | -10.6 |
| Italy   | -0.1  | -0.8 | -1.3 | -1.0 | -1.7  | -2.6  | -2.4  | -2.9  | -1.9  | -3.5  |
| Portugal  | -10.3 | -8.2 | -6.5 | -8.4 | -10.4 | -10.7 | -10.1 | -12.6 | -10.9 | -9.9  |
| Spain   | -4.0  | -3.2 | -3.5 | -5.3 | -7.4  | -9.0  | -10.0 | -9.7  | -5.1  | -4.6  |
| Ireland   | -0.7  | -0.9 | 0.1  | -0.6 | -3.5  | -3.5  | -5.3  | -5.8  | -2.8  | 0.5   |
| Average Core Countries  | 0.9   | 2.6  | 2.7  | 3.6  | 3.2   | 3.9   | 3.6   | 2.5   | 2.5   | 3.0   |
| Average Non-Core Countries  | -4.4  | -3.9 | -3.6 | -4.2 | -6.1  | -7.4  | -8.5  | -9.2  | -6.4  | -5.6  |
| <b>Fiscal Balance</b>   |       |      |      |      |       |       |       |       |       |       |
| France  | -1.5  | -3.1 | -4.1 | -3.6 | -2.9  | -2.3  | -2.7  | -3.3  | -7.5  | -7.0  |
| Germany   | -2.8  | -3.7 | -4.0 | -3.8 | -3.3  | -1.6  | 0.3   | 0.1   | -3.0  | -3.3  |
| Belgium   | 0.4   | -0.1 | -0.1 | -0.3 | -2.7  | 0.1   | -0.3  | -1.3  | -5.9  | -4.1  |
| Austria   |       |      |      |      |       |       |       |       |       |       |
| Netherlands   | -0.2  | -2.1 | -3.1 | -1.7 | -0.3  | 0.5   | 0.2   | 0.6   | -5.5  | -5.4  |
| Greece  | -4.5  | -4.8 | -5.6 | -7.5 | -5.2  | -5.7  | -6.4  | -9.8  | -15.4 | -10.5 |
| Italy   | -3.1  | -2.9 | -3.5 | -3.5 | -4.3  | -3.4  | -1.5  | -2.7  | -5.4  | -4.6  |
| Portugal  | -4.3  | -2.9 | -3.0 | -3.4 | -5.9  | -4.1  | -3.1  | -3.5  | -10.1 | -9.1  |
| Spain   | -0.6  | -0.5 | -0.2 | -0.3 | 1.0   | 2.0   | 1.9   | -4.2  | -11.1 | -9.2  |

|   |      |      |      |      |      |       |       |      |       |       |
|---|------|------|------|------|------|-------|-------|------|-------|-------|
| Ireland   | 0.9  | -0.4 | 0.4  | 1.4  | 1.6  | 2.9   | 0.1   | -7.3 | -14.3 | -32.4 |
| Average Core Countries  | -1.0 | -2.3 | -2.8 | -2.4 | -2.3 | -0.8  | -0.6  | -1.0 | -5.5  | -5.0  |
| Average Non-Core Countries  | -2.3 | -2.3 | -2.4 | -2.7 | -2.6 | -1.7  | -1.8  | -5.5 | -11.3 | -13.2 |
| <b>Private Sector Balance</b>   |      |      |      |      |      |       |       |      |       |       |
| France  | 3.3  | 4.3  | 4.8  | 4.1  | 2.4  | 1.7   | 1.7   | 1.5  | 6.0   | 5.3   |
| Germany   | 2.8  | 5.7  | 5.9  | 8.5  | 8.3  | 7.9   | 7.2   | 6.2  | 8.7   | 9.0   |
| Belgium   | -0.4 | 4.7  | 3.6  | 3.5  | 4.7  | 1.8   | 1.8   | -0.3 | 6.3   | 5.1   |
| Austria   | -0.8 | 2.7  | 1.7  | 2.1  | 2.1  | 2.4   | 3.5   | 4.9  | 2.9   | 2.8   |
| Netherlands   | 2.6  | 4.6  | 8.6  | 9.3  | 7.6  | 8.8   | 6.5   | 3.9  | 10.4  | 12.6  |
| Greece  | -2.7 | -1.7 | -1.0 | 1.6  | -2.3 | -5.5  | -7.9  | -5.0 | 4.4   | -0.1  |
| Italy   | 3.0  | 2.1  | 2.2  | 2.5  | 2.6  | 0.8   | -0.9  | -0.2 | 3.5   | 1.1   |
| Portugal  | -6.0 | -5.3 | -3.5 | -5.0 | -4.5 | -6.6  | -7.0  | -9.1 | -0.8  | -0.8  |
| Spain   | -3.4 | -2.7 | -3.3 | -5.0 | -8.4 | -11.0 | -11.9 | -5.5 | 6.0   | 4.6   |
| Ireland   | -1.6 | -0.5 | -0.3 | -2.0 | -5.1 | -6.4  | -5.4  | 1.5  | 11.5  | 32.9  |
| Average Core Countries  | 1.5  | 4.4  | 4.9  | 5.5  | 5.0  | 4.5   | 4.1   | 3.2  | 6.8   | 6.9   |
| Average Non-Core Countries  | -2.1 | -1.6 | -1.2 | -1.5 | -3.5 | -5.7  | -6.7  | -3.7 | 4.9   | 7.5   |
| Source: Eurostat (2011) and World Bank Development Indicators and Global Development Finance (2011) |      |      |      |      |      |       |       |      |       |       |