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Financial Integration in the European Union: an
Analysis of the ECB's role

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Title: Financial Integration in the European Union: an Analysis of ECB's role

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Abstract: The aim of this document is twofold: first, to provide a critical survey of the European Central Bank (ECB hereafter) official documents concerning the process of financial integration in the Euro area; second, to offer an outline of the recent developments in the actual policies adopted by the ECB and by the other European institutions in order to improve that process. To this end, the paper also relies on further sources of literature, such as other institutional papers from other international organizations and several scientific articles. Notice that the most part of considered works are characterized by a clear 'quantitativist' and 'equilibristic' bias that often prevents their authors to provide a critical reading of the ongoing economic and financial tendencies. One of the main, although preliminary, conclusions is that what ECB's reports regarded as a process of (nominal) convergence, and hence of increasing integration of Eurozone's economies, has rather turned into process of real divergence (and hence disintegration), due mainly to national differentials in both unit labour costs of production and income growth rates. In any case, the 'bank-based' monetary policies adopted by ECB, coupled with the imposition of national 'austerity' fiscal policies, appear to be unable to insure the Euro area against the growing financial instability and the risk of a prolonged economic recession.

Key words: B41; D78; E52; E58; F65

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ABBREVIATIONS

ACRONYMS

<i>ABS</i>	Asset-Backed Securities
<i>CBPP</i>	Covered Bond Purchase Program
<i>CCBM2</i>	Collateral Central Bank Management
<i>CDO</i>	Collateralised Debt Obligations
<i>CDS</i>	Credit Default Swap
<i>CMBS</i>	Commercial Mortgage-Backed Securities
<i>DDF</i>	Deposit Facility
<i>EBA</i>	European Banking Authority
<i>ECB</i>	European Central Bank
<i>ECS</i>	Enhanced Credit Support
<i>EDP</i>	Excessive Debt Procedure
<i>EEC</i>	European Economic Community
<i>EFSSF</i>	European Financial Stability Facility
<i>EFSM</i>	European Financial Stabilisation Mechanism
<i>EIOPA</i>	European Insurance and Occupational Pensions Authority
<i>EMU</i>	European Monetary Union
<i>EONIA</i>	Euro Overnight Index Average (unsecured money market)
<i>ESA</i>	European Supervisory Authority
<i>ESCB</i>	European System of Central Banks
<i>ESM</i>	European Stability Mechanism
<i>ESMA</i>	European Securities Markets Authority
<i>ESRB</i>	European Systemic Risk Board
<i>EU</i>	European Union
<i>EURIBOR</i>	Euro Interbank Offered Rate (unsecured money market)
<i>FC</i>	Fiscal Compact
<i>FDI</i>	Foreign Direct Investments
<i>FTO</i>	Fine Tuning Operation
<i>HICP</i>	Harmonized Index of Consumer Prices

<i>LTRO</i>	Longer-Term Refinancing Operation
<i>MFI</i>	Monetary Financial Institution
<i>MLF</i>	Marginal Lending Facility
<i>MRO</i>	Main Refinancing Operation
<i>MTO</i>	Medium Term Objective
<i>M&A</i>	Mergers and Acquisitions
<i>NCB</i>	National Central Bank
<i>NIESR</i>	National Institute of Economic & Social Research
<i>OFI</i>	Other Financial Intermediary
<i>OMO</i>	Open Market Operation
<i>OMT</i>	Outright Monetary Transaction
<i>OTC</i>	Over The Counter
<i>QE</i>	Quantitative Easing
<i>REPO</i>	Repurchase Agreement
<i>RMBS</i>	Residential Mortgage-Backed Securities
<i>RT</i>	Reform Treaty (Lisbon, 2007 [2009])
<i>SGP</i>	Stability and Growth Pact
<i>SMP</i>	Securities Market Programme
<i>TARGET</i>	Trans-European Automated Real-Time Gross Settlement Express Transfer System
<i>TEU</i>	Treaty on the European Union (Maastricht, 1992 [1993])
<i>TFEU</i>	Treaty on the Functioning of the European Union (Rome, 1957 [1958])
<i>TSCG</i>	Treaty on Stability, Coordination and Government (signed on March 2 2012 [2013])
<i>T2</i>	TARGET 2
<i>T2S</i>	TARGET 2 Securities

OTHER DEFINITIONS

ESCB = *ECB* + *NCBs* of all *EU* Member States

Eurosystem = *ECB* + *NCBs* of *EMU* Member States (currently 17)

INTRODUCTION

The aim of this document is twofold: i. to provide a critical survey of the European Central Bank (ECB hereafter) official documents concerning the process of financial integration in the Euro area; ii. to offer an outline (and a preliminary analysis) of the recent developments in the actual policies adopted by European institutional bodies in order to improve that process. To this purpose, the paper is split into four main parts (each of which is further subdivided in a number of autonomous sections) and some final remarks, followed by two appendix which thoroughly delve into some theoretical issues.

The first part of the document is *theoretical*. As mentioned, a critical review of ECB's official releases and working papers is provided. More precisely, we will show that the most part of those documents are characterized by a clear 'quantitativist' and 'equilibristic' bias that has prevented the ECB's staff rightly interpreting the signals and the nature of the crisis of the Euro area. It is true that this latter has been triggered by the *Lehman Brothers'* collapse and the resulting 'flight to safety' of international investors, as stated by ECB's staff. But if the bursting of the US asset bubble has been the trigger, it is the unsustainable (permanent) external imbalances of EMU Member States which are the structural factor that has fed the turmoil of 'peripheral' countries' sovereign bond markets. By contrast, the common hypothesis of ECB's reports is (or was) that every national business cycle is (was) converging into a common cycle. In this regard, evidences of the convergence would be provided by the converging trend, over the early period after the launch of the Euro, in a number of nominal indicators, and even in inflation and growth rates of EU (particularly EMU) Member States. As a consequence, the usual 'one size fit all' policy (i.e. the steering of the interest rate on the unsecured money market) preached by the ECB would be the best way to pursue the monetary stability and *hence* the financial soundness of the Euro area. This, in turn, would enhance the process of financial integration of European economies as well. Yet, by now it should be clear that the basic issue with the Euro area is not the nominal convergence of a number of EMU Member States' parameters per se, but

the persistence of positive spreads in national inflation and income growth levels after the adoption of the single currency. In other words, the problem is not whether the short-term interest rate targeted by the ECB should either raise or decrease (and how much) when EMU countries are hit by a shock, but that a unique real rate of interest does not exist at all, because of the deep differences characterizing EMU Member States' unit labor costs (and income growth rates).

The second part of the document is *analytical*. It deals with the set of instruments at the disposal of the ECB in order to achieve and maintain price stability (main target), while pursuing the stabilization and the integration of the Euro area financial markets (regarded as derived or secondary objectives). In this regard, although the ECB's 'two-pillar' policy does not mean to emulate wholesale 'inflation targeting' model adopted in the past by other major central banks, ECB's *one instrument (short-term interest rate), one objective (price stability)* philosophy seems to be even more radically underpinned by the same three basic principles: i. economic and financial stability is a result of price stability, and therefore all is required is a credible anchoring of medium-run inflation expectations of economic agents; ii. only independent central banks can conduct 'scientific' (monetary) policies, whereas discretionary (fiscal) policies implemented by governments are not only ineffective, but also theoretically weak and politically biased; iii. the free market is the most efficient institution in allocating resources. Thus, the only task of the ECB would be to steer the interest rate through a mix of open market operations, reserve requirements imposed on credit institutions and standing facilities. The underlying hypothesis is that, by directly affecting liquidity conditions in one short-term money market (namely, the unsecured interbank market), the central banker would indirectly steer the whole structure of interest rates, therefore anchoring the yield curve expectations. This, in turn, would transmit to the whole economy, so affecting aggregate demand components and the price level. Against this context, the process of capital flow liberalization endorsed by European authorities since the early 1980s can be regarded as the other side of the process of creation of a single integrated economic area which could be ruled through the sole steering of the short-term

interest rate. As we will argue, it is as if the mainstream 'medium-run' 'natural' (and socially optimal) equilibrium would cease to be just a logical dimension to become a historical-time condition of a wide geographical economic area. It seems to us that the very recent crisis of Euro area has radically questioned both this project and its underlying theoretical foundations.

The third part of the document is *historical*. It provides an overview of the set of policies adopted by the ECB to cope with the crisis. Although, as mentioned, the ECB plainly underestimated the structural causes (and hence the *long-term nature*) of the Euro area crisis, it clearly saw the early signals of the possible trans-Atlantic financial markets' contagion. In this regard, it must be recognized that the Eurosystem took measures that have been unprecedented in nature, scope and magnitude, in order to face the Euro area crisis. In addition to the reduction of the target interest rate to "historical low levels", the ECB adopted a number of unconventional "credit support measures" (including the lengthening of the maturities of open market operations, the adoption of a "fixed-rate tender" and "full-allotment" lending procedure, and the extension of the list of assets eligible as collaterals by credit institutions) and introduced the "securities market programme" (SMP hereafter) to restore liquidity in Euro area government (and private) secondary debt security markets. Actually, the magnitude of the outright purchases of sovereign bonds (that is, of 'market-based' measures) remained always narrow compared to both the 'credit-' or 'bank-based' measures and the overall debt market of Euro Member States. As has been observed (see mainly Gabor 2012a,b), this choice was based upon a 'functionalist' argument about the structural features of the Euro area financial system, which was regarded as corresponding to a pure bank-based type. It was this theoretical position that, to a degree at least, justified the reluctance of the ECB to intervene directly in the sovereign bond market of members in difficulty. However, financial stability depends crucially on collateral market conditions, as these latter indirectly affect interbank funding. More precisely, the perceived degree of liquidity of collaterals determines the single bank's chance to access market funding, and government bonds of high income countries have

become the most important collateral in 'repurchase agreements' (REPOs hereafter). As a consequence, if the central bank chooses to support uncollateralized funding markets (through liquidity provisions), without supporting collateral markets as well, this is likely to be insufficient to restore financial stability. This is the reason why, in recent years, some scholars have been arguing that both duration and timing of the unconventional measures adopted since the outbreak of the crisis seem to suggest that the ECB mainly used those measures as a political instrument to extract fiscal commitments from national governments.

Finally, the fourth part of the document is *policy-related*. More precisely, it aims to address the following questions: has an integrated European financial market been created? What has been the impact of the current crisis on the process of financial integration? What about the effectiveness of crisis policy measures? As we will try to argue, answers to previous questions are not as straightforward as the most part of official documents seem to claim. On the one hand, European institutions have implemented a number of both institutional and policy adjustments in order to react to the crisis and support the process of financial integration of Euro area members. In addition to the reforms introduced by European authorities, other endogenous changes have occurred in the financial-banking sector. The cross-border activity of banks increased considerably since the launch of the single currency, and the same went for foreign investment within the Euro area and for value and number of M&As (until 2008 at least). In the same period, intra-euro bank exposure also increased remarkably, with euro area banks increasingly lending to economic units from other euro area countries. Against this context, 'peripheral' EMU economies attracted sizeable amounts of additional funds in the years prior to the crisis, mostly from German and French banks. However, the post-Lehman turmoil and the onset of the so-called 'sovereign bond' crisis of Eurozone's Member States impacted heavily on the cross-border capital flows. In fact, the integration trend was suddenly replaced by 'home-bias' tendencies and 'flight-to-safety' behaviors of investors. Ironically, in the case of many peripheral countries, the standard mainstream measure of financial

integration, that is, the intensity and amount of foreign investments, has turned into their main factor of fragility, rather than a means of integration in the Euro area.

1. ECB'S FINANCIAL INTEGRATION REPORTS: THEORETICAL ASPECTS

1.1 Convergence, compatibility and harmonization within the EMU

As is well known, countries committed by the European Treaties (notably, the Treaty on European Union, Maastricht 1992; and the Treaty on the Functioning of the European Union, Lisbon 2007) to adopt the Euro must strive to fulfil a number of common macroeconomic convergence criteria (concerning price stability, soundness of government finance, exchange-rate stability, and converging long-term interest rates). In addition, the Lisbon Treaty states that the national legislation has to be *compatible* with the same treaty, and the statutory requirements have to be fulfilled for National Central Banks (NCBs, hereafter) to become part of the Eurosystem. Yet, seldom has it been stressed that the requirement for national legislation to be 'compatible' with the Treaties and the Statute does not mean that the 'harmonization' of the NCBs' statutes is required (see ECB 2010c, p. 17; see also ECB 2011b, p. 14). This is an important point as it allows each single national system to maintain a certain degree of autonomy over the specific legislation concerning its NCB's working. Arguably, such an autonomy cannot but be, in turn, a direct function of the economic and political weight of the single Member State.

Obviously, the adoption of common convergence criteria raises the question of what about the deep differences among the countries involved in the unique currency constitution process. In this regard, it is interesting to note that many of ECB's reports and working papers raised the problem, but this is considered either just a temporary condition doomed to disappear as the integration process proceeds or the result of wrong national policies. The usual argument of the ECB's staff is that inflation, income and output growth differentials between the countries of the Euro area "are moderate and broadly in line with other large currency areas such as the United States". Those differentials would be none

other than the result of “ongoing adjustments leading to a more efficient allocation of resources” (ECB 2011b, p. 52). By contrast, nothing is usually said about: i. the absence not only of something similar to the US Federal Government, but also of a non-paltry common European budget; ii. the fact that Euro has not the particular international status of the US Dollar and hence that, in the European case, cross-country permanent imbalances in national current accounts still matter.

Looking at the most recent reports, it is sometimes admitted that “the persistence of inflation and growth differentials of individual Euro area countries over longer period of time [...] may be worrisome and would need to be assessed by national policy adjustments” (ECB 2011b, p. 52-53). In order to measure the dispersion of inflation across the Euro area, ECB’s staff usually looks at the un-weighted standard deviation of the HICP inflation rate. In this regard, the curve for the 12 Euro area countries shows a broadly stable dispersion since the late 1990s, at a level similar to that of the 14 US Metropolitan Statistical Areas, but higher than that of the four US census regions (see Chart 1, left-hand figure). In 2009 and the early months of 2010, the dispersion of inflation in the Euro area increased somewhat (ECB 2011b, p. 54) and the ECB’s reports seemed to be concerned about this point. More precisely, they suggested that the rise in the inflation dispersion could highlight “the need for domestic economic policy adjustments to tackle previously accumulated imbalances at a national level” (ECB 2011b, p. 53).

However, the roots of the EMU Member States’ imbalances are always traced back to some supposed “structural inefficiencies or misaligned national policies”, and not to the adoption of the *single money* coupled with persistent differentials in productivity, income and wage growth rates amongst countries (in the absence of an appropriate institutional structure and of a central bank as the lender of last resort). As we are going to show, the statement that the diseases affecting the Euro area are wrong and uncoordinated national policies is a constant of the ECB analysis and communication policy.

1.2 Financial integration and market efficiency

"On 1 January 1999 a new currency – the Euro – was created. Today the Euro is [...] an anchor of stability for Europe". These are the words used by then-President of the ECB, Jean-Claude Trichet, in his foreword to an official release dated back April 2011 (see ECB 2011b, p. 7). Just a few weeks later, the so-called "sovereign debt crisis" of EMU Member States affected Spain' and then Italy's government bond markets. Yet, if one looks at the previous (and subsequent) ECB's literature, Trichet's optimistic omen sounds neither surprising nor isolated. The theoretical starting point of every ECB report is indeed the assumption that *integrated and developed financial systems are highly efficient* in allocating financial resources. In a sense, enduring financial crises are excluded by hypothesis (we will come back to this point in the next sections).

Of course, it is sometimes explicitly admitted that today's financially sophisticated economies *are also exposed to risks of instability*. More precisely, according to ECB's staff, recent 'twin' crises of western economies have shown that an extensive and under-regulated combination of securitisation and shadow banking, along with the increasing complexity of financial products involved by the process of securitization, "tends to erode bank credit monitoring and *undermine market transparency* fuelling systemic risk. A high degree of geographical and sectoral interconnection of banking and financial markets *in such conditions* compounds the problem by spreading *contagion across institutions and markets*" (see ECB 2010b, p. 68, our emphasis added). Such instability – it is argued – is further increased by the adoption of mark-to-market accounting and over-the-counter (OTC) transactions. In other words, recent crises showed that integrated and developed financial systems entail *necessarily* neither efficiency in the allocation of funds nor stability.

Yet, according to the ECB's staff, the reason is that financial integration and development increase efficiency *only if* they go along with *adequate* legal and regulatory frameworks, corporate governance, market infrastructures, and other institutional requisites. Notice that it is admitted that the process of *financialisation*, in turn, impacts adversely on incentive structures and information asymmetries. The problem is further

complicated by the fact that large financial crises are “rather rare and idiosyncratic events, rendering empirical tests of relevant hypotheses particularly difficult” (ECB 2010b, p. 69). Yet, here ECB positions seems to conflate, and confuse, two different argument levels. It is certainly true that time series used, say, by Anglo-Saxon banks and non-banking operators to estimate the risk linked to the new financial products were too short and distorted to be employed in forecast analysis, therefore making empirical tests scarcely reliable. However, as Chart 2 shows, financial crises (i.e. bank, currency and sovereign debt crises) have been anything but rare events in the last two decades¹!

The point is that, on the one hand, ECB’ staff claims that financial integration can *normally* (that is, *theoretically*) assumed to be beneficial, as access to international capital market would expand the opportunities for portfolio diversification and therefore would reduce the investors’ risk. On the other hand, it is admitted that, in the real-world economies, financial integration increases “the risk of volatility and abrupt reversals of capitals flows, contagion and cross-border transmission of financial shocks” (ECB 2010b, p. 69). Furthermore, the very portfolio diversification may be into countries where crisis occurs, therefore increasing (and not reducing) investors’ risk. It also involve additional foreign exchange risk. Still, on the one hand, it is claimed that, since financialisation provides access to a wider range of assets, it would improve risk-sharing, liquidity and resilience to shocks. On the other hand, it is admitted that the available empirical evidence suggests “that there might be *a point beyond which a country becomes ‘over-integrated’,* in the sense that further integration is associated with movement away from rather than towards optimal diversification” (ECB 2010b, p. 70, our emphasis added). Here “optimal diversification” means the convergence of the economy “towards a diversification benchmark based on the idea of allocative efficiency”, so that investors’ risk would not be (better) diversified by an international portfolio. Yet, the breaking point (beyond which integration increases investment’s risk) is never clearly identified, either theoretically or

¹ On the recurrence of financial crises, see, for instance, recent works of Laeven and Valencia (2008, 2012). Among the economists who predict the US twin crises, see mainly Godley (1999).

empirically. On the contrary, the attempt to make the efficient market assumption consistent with the economic reality (marked by cross-border contagion risks, domino effects, short-termism, and high volatility in capital flows) ends up producing theoretical eclecticism and even logical *aporiae* within ECB's releases.

1.3 Effects of financial integration on financial stability

In the analysis of the relationship between financial integration and financial stability, contained in ECB's official reports, three factors are explicitly considered: i. the degree of foreign bank penetration; ii. the degree of interbank market integration; iii. the degree of cross-market integration.

As for the first factor, in 2010 *foreign banks* accounted for the ownership of over a quarter of domestic bank sector asset value in the Euro area. According to ECB's staff, banking market integration "offers the prospect of important gains in terms of efficiency and diversification, but it also creates potential systemic risks" (ECB 2010b, p. 71). To this regard, it is admitted that the so-called 'financial accelerator' – that is, the degree in which a negative shock to the real economic magnitudes is amplified by a worsening in financial market conditions (see, mainly, Bernanke 1983; Bernanke et al. 1996) – may be higher when foreign-owned banks are involved. The reason is that, during periods of economic weakness and higher uncertainty, foreign banks are prone to repatriate their assets to their own national base, therefore reducing domestic firms' possibilities to borrow. This may lead to a feedback cycle of falling domestic asset prices, deteriorating balance sheets of domestic firms and banks, tightening conditions on financial and credit markets and real economy's downturn. Notice that this is what really happened in most part of Euro Member States since 2007 and even more after 2010. We will come back thoroughly to this point in section (4.4).

Turning to the second factor, the *interbank market* was regarded as the most successful example of the beneficial effects of European integration before the crisis. However, as we will show, it also turned to be "one of the first victims of the current crisis, with signs of

segmentation and even re-nationalisation” from mid 2007 (ECB 2010b, p. 72)(see Chart 9). According to ECB’s reports, the main reason of such turn-round was not linked to the fragility of the integration process *per se*, but, on the contrary, to the “absence of *sufficient* retail market integration” which allowed free-riding on liquidity provision to limit the achievable level of risk sharing, as argued by Fecht et al. (2007)².

Finally, before the crisis, the idea that *cross-dependencies and cross-penetrations* between different financial markets were positive, and that both benefited from the activity of institutional investors (such as pension funds, insurance companies, private equity companies, and hedge funds) was unquestionable. After the burst of the crisis, ECB’s reports have begun to explicitly recognize that those actors can threaten the systemic stability and accelerate emerging “liquidity spirals” and market segmentation. The point is that institutional investors “have altered the channels of funds available to corporations and have changed the set of incentives faced by corporations” (ECB 2011b, p. 40). However, a ‘liquidity fetishism’ bias still permeates the ECB’s documents. Thus, it still happens to find the assertion that “*regular* hedge fund activities tend to improve liquidity conditions” (ECB 2010b, p. 73). By contrast, the Keynesian idea that what is liquid (and hence beneficial) for the single individual agent is illiquid (and potentially detrimental) for the economic system as a whole is totally neglected by ECB’s statements.

1.4 Financialisation and financial instability

As has been mentioned, the relationship between the development of financial markets, institutions and products, and the financial stability of the whole economy appears to be much disputed. On the one hand, it is always asserted that financial innovation contributes to enhancing investors’ risk diversification. On the other hand, recent ECB’s reports admit that the same phenomenon has the “*potential* to undermine financial stability” (ECB 2010b,

² According to Fecht et al. (2007), “[t]he secured interbank market is an optimal risk-sharing device when banks report liquidity needs truthfully. It allows diversification without the risk of cross-regional financial contagion. However, free-riding on the liquidity provision in this market restrains the achievable risk-sharing as the number of integrated regions increases. In too large an area this moral hazard problem becomes so severe that either unsecured interbank lending or, ultimately, the penetration of retail markets is preferable”.

p. 75, our emphasis added), though the allocation efficiency of market is never really challenged.

In this regard, the position of the ECB's staff about the securitization process is a good example. As can be read in ECB's reports, "[p]rior to current the crisis, the benefits of securitization were *widely* recognized". Thus, "[t]he large and increasing amount of securitization was interpreted as evidence that capital markets were working" (*Ibidem*). Obviously, the outbreak of the crisis of 2007 has undermined the idea that securitization should always be regarded as a beneficial process. However, once again, the ECB's staff does not trace back the problem to the securitization practice *per se*, but just to *the way in which it was implemented* and to the *excessive* complexity of financial products. Hence, it is not surprising that the assertion that securitization "worked well for more than thirty years, but, *in practice*, instead of dispersing the risks associated with bank lending, securitization had the perverse effect of concentrating them in the banking system" (ECB 2010b, p. 77, our emphasis added) sounds intrinsically inconsistent.

The same considerations go for two other recognized factors of instability: the adoption of the mark-to-market (or fair-value) accounting rules and the increasing variety and volume of financial derivatives and securitised products (whose trend is reported in Chart 3 and Chart 4). As for the first factor, it is acknowledged that fair-value rules are prone to "lead to pro-cyclical trades", and to "understate a financial institution's solvency, which may deter potential lenders or shareholders, thus exacerbating the liquidity crisis" (ECB 2010c, p. 79). Moreover, such accounting is prone to increase the risk of bank contagion, therefore raising the systemic risk. However, this would happen just "under *extreme circumstances*" which are regarded as the result of a "shock that depresses the market value of assets", thus leading to "their forced disposal to avoid violation of capital requirements, depressing their price still further" (*Ibidem*)³. Turning to the derivative products, even though it is admitted that *relatively new derivatives* played a major role in

³ The solution proposed by the ECB's staff is the redefining of capital requirements, so as to make them counter-cyclical (see ECB 2010c, p. 80).

the recent financial turmoil, it is also claimed that they generally have an important role for the efficient allocation of financial and real capital in the economy (see ECB 2010b, p. 80). Once again, a clear gap between ECB's analysis theoretical foundations and real-world economy's issues emerges.

Against this background, one could ask what the role of the ECB and the European System of Central Banks (ESCB) in the pursuing of financial stability and integration is. In this regard, the position expressed in ECB's official documents is plain: unlike central banks with an explicit mandate for financial stability, the contribution of the ECB to this latter must be *always subordinated* to the main objective of *price stability*. Such a position is the result of the belief that "the maintenance of price stability is ultimately the best contribution monetary policy can make in support of financial stability" and of cross-country financial integration as well (ECB 2011b, p. 83, our emphasis added). In other words, in the wake of Bernanke and Gertler (2011), price stability is regarded as the *precondition for financial stability*. The reason is that, even in the presence of asset price bubbles, every other systemic and discretionary policy would end up destabilising inflation expectations of economic agents (see ECB 2011b, p. 84). In this sense, instability causes are seen as purely psychological, whereas any economic imbalance is regarded as the *result* of the destabilization of inflation expectations.

Notice also that ECB's staff seems to be aware of the fact that, in principle, the central bank could respond to asset price bubbles in two radical and somewhat opposite ways: i. by including asset prices directly in the price index defining the condition of price stability; ii. by limiting itself to "clean up" the effects of the asset price bubble just after it has burst. However, the first solution – according to ECB's staff – would lead to the "pricking" of bubbles, therefore increasing the risk of a financial contagion. As for the second solution, it is not consistent with the ECB's price-stability-oriented monetary policy. This is the reason why, after *Lehman Brothers'* collapse, the ECB chose to follow a "lean against the wind" approach. Such an approach should incorporate "an analysis of risks to price stability over medium to long-term horizons stemming from asset price developments". In practice, the

ECB adopted “a somewhat tighter policy stance in the face of an inflating asset market than it would have done” (ECB 2011b, p. 85) under *normal* circumstances. We will come back thoroughly to this point in Section 3.3.

1.5 Bank-based vs. market-based financing

While dealing with the role and the nature of the European financial system, ECB’s reports explicitly refer to the standard *market-based vs. bank-based financing dichotomy*, implicitly coupled with a *loanable funds theory* of interest rates. In particular, we can read that “[t]he financial system performs the essential economic function of channelling funds from those who are net savers [...] to those who are net spenders” (ECB 2011b, p. 39). As usual, households are regarded as the “the most important lenders”, whereas “the principal borrowers are typically firms and the government”. More precisely, the basic idea is that money, regarded as a given amount of previously accumulated funds, flows from lenders (households) to borrowers (firms, *in contention with* governments) through two different routes. In the case of *market-based* (or *direct* financing) systems, “debtors borrow funds directly from lenders in financial markets by selling them financial instruments”. By contrast, “if financial intermediaries play an additional role in the channelling of funds”, mainstream economists usually refer to those cases as *bank-based* (or *indirect* financing) systems (see ECB 2011b, p. 39).

Notice that, although it is never explicitly asserted that the market-based *ideal-type* is better than the bank-based one⁴, one might derive an implicit value judgment from the ECB staff’s definitions. More precisely, since market-based systems are defined as the ‘direct’ way to obtain funds, this should be supposed to involve lower costs of intermediation. By contrast, bank-based or ‘indirect’ financing should be expected to entail higher costs,

⁴ By contrast, the US labour market is explicitly regarded as *better* (namely, less regulated) than the European labour market. For an opposite opinion, see Galbraith (2012), according to whom the European labour market, considered as a whole, is more flexible than the US one. Oddly enough, in ECB’s reports nothing is said about the Japanese labour market, which is always included in the shown charts and is unanimously considered rather *rigid*, even though this doesn’t seem to impact negatively on the employment rate (see ECB 2011b, p. 31).

linked, say, to higher transaction barriers (see Figure 1). However, this would contrast with the recent literature: for instance, Levine (2002, p. 23) argues that “[t]he data provide no evidence for the bank based or market based views”. Moreover, such ‘positive analysis’ preference would jar with the ‘normative position’ of the ECB to mainly rely on bank-based policies (see Sections 3.3 and 3.6). In any case, a noteworthy corollary of ECB’s viewpoint is that banks are regarded as a mere subset of the financial intermediaries’ broader class, which includes other non-banking monetary operators. This leads to two further considerations. First, the *endogenist money* idea that the (logical) function of the banking system (as a whole) is to *create* means of payments required by productive sectors is totally neglected in ECB’s releases and working papers. But, unlike the old bank-based vs. market-based dichotomy, the passive role attributed to the banking system by official reports, in the wake of the *cloak-room attendant’s* positive theory of Cannan (1921), is consistent with the practical philosophy (or normative position) of the ECB. More precisely, such position goes along with the idea that the only institutional subject which ought to be able to take *autonomous* decisions (and hence to affect the monetary magnitudes) within a monetary union is the central bank. Second, a clear theoretical misunderstanding emerges. The point is that one thing is to maintain that “financial markets and financial intermediaries [...] are strongly interlinked” on the *empirical* plan; but another (different) thing is to claim that they “are not separate entities” on the *theoretical* plan (*Ibidem*). Here the position maintained by the ECB’s staff ends up again conflating two different levels of the economic discussion. In particular, it overlaps a concrete feature of modern financially-sophisticated economies with the *logical* role in the circuit of monetary payments of banking sector and financial markets, respectively (on this point, see Passarella 2012 and Appendix 1).

Finally, notice that the market-based vs. bank-based dichotomy is not limited to affect just the theoretical work of the ECB. On the contrary, it also impacts on the effective monetary policies adopted by the Governing Council of Frankfurt. On this point, we discuss this in Section 3.3.

1.6 Inflation differentials in the Euro area

Since the EMU started, unit labour costs, productivity and income differentials across countries have been regarded by several economists of different schools as its *original sin*⁵. The main point is that the single money project appeared to be in clear contrast with the prescriptions deriving from *Optimal Currency Area* literature⁶. Yet, as we mentioned in section 1.1, seldom have the ECB's reports tackled this theme as it would deserve. Obviously, the existence of differentials in both income growth and inflation rates across EMU Member States has never been concealed. However, such phenomena have been always traced back to "the fact that *some economies in the area are in a structural 'catching-up' process*", so that "their inflation rates will be higher than the average" (ECB 2011b, p. 67, our emphasis added). To a certain degree such a spread would depend, in turn, on the lack of market liberalization (and hence on the lower relative productivity of non-fully liberalized sectors) which affects movements in national price levels and hence the purchasing power parity balance. Thus, even though the so called 'Harrod-Balassa-Samuelson hypothesis' is never explicitly quoted, it seems to be an implicit constant reference of ECB's reports⁷.

In this regard, one should observe that it is one thing to claim that inflation differentials across regions (see Chart 5) are a "normal feature of any monetary union", that certainly is the case. But another thing is to argue that those differentials "are an *integral part of the adjustment mechanism*" of market forces, are "*due to transitory factors* and may thus be only temporary" (*Ibidem*, our emphasis added). Notice that, right after the introduction of the single currency, there was the argument put in the literature that the inflation differences arose from the real exchange rates between member countries being

⁵ With regard to mainstream economics positions, we refer the reader to the sceptical view of Milton Friedman in the debate with Robert Mundell (see IRPP 2001). A "heterodox" path-breaking critical reading of the Eurozone project was provided, among others, by Graziani (2002).

⁶ See, for instance, Ricci (2008) and Bagnai (2010).

⁷ According to the so-called 'Harrod-Balassa-Samuelson hypothesis', productivity growth by country is higher in the traded goods' sectors than in other sectors.

incorrectly set when EMU was formed. In other words, inflation differentials were the proof that an adjustment process with regard to the real exchange rates was working. That view is in contrast with the now dominant view that some countries within EMU have become uncompetitive (due to low productivity growth). But if it is so, it should be admitted that the adjustment of the exchange rate due to inflation difference was in the 'wrong' direction! By contrast, ECB scholars concluded that inflation differentials were just the result of "long term catching-up processes, or ongoing adjustments leading to a more efficient allocation of resources" (*Ibidem*). Yet, this is an explanation which has been clearly refuted by the current EMU Member States' crisis, whose roots should be traced back to the very *permanent* trade imbalances between core and peripheral economies (see, among others, Uxò et al 2011; Fitoussi and Stiglitz 2009; Horn et al. 2009; see also Chart 24 and Chart 25).

Also notice that, even when ECB's scholars admit that inflation differentials across countries could represent a persistent condition, the *causality nexus* is often reversed. In other words, it should be plain that inflation differentials across EMU Member States are not the *result* of the incomplete convergence (and hence of the real imbalances) between EMU Member States, as sometimes it is claimed in ECB's reports. Rather, wage and income growth rate differentials, and in a lower degree productivity trends, are the *cause* of the real imbalances and hence of the real divergence between core and peripheral countries (see Charts 39 to 42).

1.7 A critical assessment: one size did not fit all

From a theoretical viewpoint, most of the (considered) ECB's releases on the process of financial integration of the EU, and in particular of the EMU, seems to be 'off the mark'. The common hypothesis of ECB's reports is that every national business cycle is *converging into a common cycle*. In this regard, evidences of the convergence would be provided by the converging trend, over the early period after the launch of the Euro, in a number of nominal indicators (including share prices and ten-year government bond yields) and even in inflation and growth rates (see Charts 1, 5, 10 and 23). Consequently, the usual *one size fit*

all policy preached by European monetary authorities would be the best way to pursue monetary stability and *hence* financial soundness, therefore enhancing the process of financial integration as well. Actually, even the most part of the mainstream literature on asymmetric shocks and convergence seems to start (either explicitly or implicitly) from this premise.

Yet, the occurrence of the recent crisis should have taught that the basic issue was not the *nominal convergence* of a number of EMU Member States' parameters per se, but the *persistence* of positive spreads in national inflation and income growth levels. In other words, the problem is not whether the short-term interest rate targeted by the ECB should either raise or decrease (and how much) when EMU countries are hit by a shock, but that *a unique real rate of interest does not exist at all*, because of the deep differences characterizing EMU Member States' degree of competitiveness (see Chart 35). On this point, the theoretical work of the ECB, as well as its *concrete* analysis of the causes of the crisis and of the policies to face it, seem to be rather late. We will come back to this point in the next sections. For a further examination of the theoretical issues raised by ECB's official reports, we refer the reader to Appendix 2.

2. INSTITUTIONAL DEVELOPMENTS

2.1 The ECB's target: price stability

The focus of the EMU authorities, as already mentioned, is on achieving and maintaining price stability in the medium-run. This is also regarded as the main road to improve the process of financial integration of European economies. We must now add that, in ECB's reports, the price stability objective is assumed to be best served by a fully independent central bank. This is the reason why the Treaty of Lisbon requires the *ECB independence* from both national governments and other national and supranational institutions. Notice that this condition entails, *inter alia*, the prohibition of direct monetary financing in favour of governments and other public institutions. The rationale of the rule is twofold: i. to ensure

that the objective to maintain price stability is not jeopardized by *loose* national fiscal policies; ii. to avoid that the financing of the government expenditure lessens the pressure for fiscal “austerity” and labour market “reforms” (see ECB 2010c, p. 24)⁸. Both requirements are clearly linked to the idea to transform the whole Europe into an export-led economic area, in the wake of the German model.

In this purpose, price stability has been defined by ECB Governing Council in *quantitative terms* as “a year-on-year increase in the HICP for the Euro area of below 2%”. Furthermore, price stability must be pursued and maintained over the medium-run. More precisely, “in the pursuit of price stability, the ECB aims to maintain inflation rates *below but close* to 2%. This underlines its commitment to provide a sufficient safety margin to guard against the risk of deflation” (ECB 2011a, p. 20-21, our emphasis added; see also ECB 2011b, p. 9). On the other hand, the reason why monetary policy needs to be forward-looking (i.e. to be focused on the medium-run) is twofold: i. there are significant lags in the transmission mechanism of the monetary policy; ii. it is necessary to anchor inflation expectations of economic agents over time. Notice that ECB’s staff never denies that, in theory, other objectives could be pursued (in the wake of the Article 245a of the Treaty of Lisbon which clarify that other economic objectives can be pursued “without prejudice” to price stability, though financial stability is never explicitly mentioned). However, it is always stressed that “in an environment of financial stability, price stability is the best contribution monetary policy can make to achieving other objectives” (ECB 2011b, p. 16). Actually, it is sometimes admitted that financial instability (i.e. asset price bubbles and banking system excessive exposure) may undermine the ECB’s ability to ensure price stability. However,

⁸ As ECB’s staff admits, Euro area is characterised “by a unique combination of centralised monetary policy-making and largely decentralised, albeit closely coordinated, fiscal policy making” (ECB 2011b, p. 15). Yet, national fiscal policies could affect significantly economic growth, macroeconomic stability and inflation rates. In order to limit the risk to price stability, and to allow the ECB to rule the whole EMU economy through the steering of the target interest rate, a number of institutional ties (labelled “arrangements” in ECB’s reports) have been introduced by the TFEU. These ties include: i. the prohibition of monetary financing (Article 123); ii. the prohibition of privileged access to financial institutions (Article 124); iii. the no-bail-out clause (Article 125); iv. the fiscal provisions for avoiding excessive government deficits and the concerning procedure (Article 126); v. the Stability and Growth Pact. On this point, we also refer the reader to section (3.8).

this never leads the ECB to explicitly recognize that the priority pursuing of price stability can be either insufficient or even in contrast with the pursuing of financial stability (until 6 September 2012 Draghi's speech at least).

As for the process of financial integration, it is mainly regarded as a *market-driven process*. It is, of course, admitted that the legislative and regulatory framework for the financial system could play an important "facilitating role". In this regard, the aim of interventions implemented by the European System of Central Banks (ESCB, hereafter) should be to "lower legal and regulatory impediments" to cross-country financial integration and "provide a level playing-field" (ECB 2010b, p. 83). However, the support to policies aiming to sustain integration of financial markets and financial stability must not to involve any prejudice to the main objective of price stability (see ECB 2011b, p. 14). In this sense, the ECB philosophy is very close to the model of central banking prevailing in the advanced countries prior to *Lehman Brothers'* bankruptcy. That model "was portrayed as a singularly successful case of policy transfer and emulation". On the one hand, it had been *exported* to an increasingly large number of (both high-income and developing) countries "with remarkably little modifications in its distinctive set of practices: narrow mandate of price stability through interest rate manipulation; strict separation of the domains of macroeconomic governance; liquidity management focused on [...] the interbank money market" (Gabor 2012a, p. 2-3). On the other hand, its rapid spread across countries was traced back (by mainstream and ECB's economists) to its superiority in achieving the price stability objective over a certain time horizon, thanks to the *scientific-based* steering of the unsecured market short-term interest rate⁹.

Over time, this observation had taken "the form of an explicit commitment to a certain inflation target (or band), a regime described as *inflation targeting*" (Gabor 2012a, p. 4, our emphasis added). In this regard, notice that the Frankfurt's 'two-pillar' policy does not mean to emulate inflation targeting model completely. The ECB is unusual in retaining the

⁹ On this position, see mainly IMF (2006). See also Blanchard et al. (2010); Clarida et al. (1999).

monetary aggregate instrument, and seems to retain to some degree the exogenous money view (see Arestis and Sawyer 2012). However, its *one instrument (short-term interest rate), one objective (price stability)* philosophy is underpinned by the same three basic principles. First, *economic and financial stability is a result of price stability*. The fine tuning of the short-term interest rate allows the central banker to both bring the output back to its potential volume (that is, the full-employment one) and set inflation to its targeted level. The hidden hypothesis is that target interest rate changes transmit to aggregate demand in fairly predictable way. In any case, all is required is a credible anchoring of medium-run inflation expectations of economic agents. This, in turn, is the rationale of the independence of the ECB from national governments' interferences.

Second, *only independent central banks are able to conduct 'scientific' (monetary) policies*. By contrast, discretionary (fiscal) policies implemented by governments are always theoretically weak and politically biased¹⁰. Furthermore, fiscal policy is assumed to be less effective than monetary policy (to affect aggregate demand), because of the effect on expectations of the *Ricardian equivalence*. This is the reason why it is necessary to “discourage discretionary policies while allowing for automatic stabilizers to smooth (some of) the negative effects of business cycle” (Blanchard et al, 2010). In this regard, an *austere* monetary policy is also necessary, as loose monetary measures would induce governments to do discretionary spending and abandon fiscal discipline (see Issing 2008).

Third, the *free market is the most efficient institution in allocating (financial) resources*. The *one instrument one target* framework adopted by the ECB premised on this very assumption. The point is that the central banker indirectly steers the whole structure of interest rates by directly affecting (mainly through OMOs) liquidity conditions in one short-term *money market*, namely the *unsecured interbank market*. In this regard, market efficiency ensures that “short-term interest rate changes filter through to long-term

¹⁰ On this point, we refer the reader to Leeper 2010.

interest rates and asset prices” (Gabor 2012a, pp. 5-6)¹¹. Thus, under the efficient market hypothesis, the central bank can anchor yield curve expectations. This will transmit to the whole economy, by affecting aggregate demand components and the price level¹².

2.2 The monetary policy of ECB: strategy and instruments

In order to achieve price stability, as mentioned, the ECB steers the unsecured interbank market interest rate¹³. The transmission mechanism (ensured by the hypothesis that effects of short-term interest rate on demand are fairly predictable) would then allow ECB’s decision to indirectly affect beneficially the main macroeconomic variables and smooth the inflation rate. Price stability, in turn, would lead to financial stability, therefore enforcing the *natural* process of financial integration of European economies. Notice that this assumption has been, *inter alia*, a significant component in advocating inflation targeting and there being no need to have financial stability as a separate objective.

To preserve price stability, the Eurosystem (namely, the integrated system constituted by ECB and NCBs) has at its disposal three policy instruments: i. open market operations (OMOs, hereafter); ii. reserve requirements; iii. standing facilities. First, the buying or selling of government bonds on the secondary market is regarded as the primary means of steering the short-term interest rate. OMOs include main financing operations (MROs, i.e. liquidity-providing measures with both frequency and maturity up to one week), longer-term refinancing operations (LTROs, i.e. liquidity-providing measures with monthly frequency and maturity of three or more months), fine tuning operations (FTOs, i.e. *ad hoc* interventions) and other structural operations (concerning reserve and outright transactions, as well as the issuance of debt certificates).

Second, banks are required to hold minimum reserves in accounts with their NCBs. A short-term interest rate is paid on these accounts in order to stabilize money market

¹¹ This is clearly asserted in Blanchard et al. (2010).

¹² For a criticism of the inflation targeting model see, among others, Arestis and Sawyer (2008), Fontana (2009), and Gabor (2012b).

¹³ For a complete description of the consolidated balance-sheet of the Eurosystem, see ECB (2011b, p. 111-114).

interest rates and therefore create (or enlarge) a structural *liquidity deficit* in the banking system (see ECB 2011a, p. 22; see also ECB 2011b, p. 95-110). More precisely, the “first key-function of the minimum reserve system is to stabilise money market interest rates”. Such function is performed by the averaging provision which “allows credit institutions to smooth out daily liquidity fluctuations”, as “transitory reserve imbalances can be offset by opposite reserve imbalances generated within the same maintenance period”. Notice that “the amount of required reserves to be held by each institution is determined by its reserve base”. This latter, in turn, “is defined in relation to the elements of its balance sheet” (ECB 2011b, p. 101). In practice, the reserve ratio has been set at 2% at the start of Stage Three of EMU. Liabilities which are subject to a positive reserve ratio are deposits and deposit securities up to two years, whereas neither long-term liabilities (deposits and debt securities with maturity of over two years) nor repurchase agreements (REPOs, hereafter) are subject to it. Finally, notice that banks’ holdings of required reserves are remunerated according “to the average, over the maintenance period, of the ‘marginal rate of allotment’” (ECB 2011b, p. 102). This latter, in *normal* times, is close to the market rate.

Finally, in addition to OMOs and reserve requirements, the Eurosystem has at its disposal another instrument to implement monetary policy decisions: the so-called standing facilities. These latter include the *marginal lending facility* (MLF, by which credit institutions obtain reserves against other financial assets) and the *deposit facility* (DDF, that is, the possibility for credit institutions to hold deposits at the central bank). Both instruments have an overnight maturity and are available to banks and other counterparties on their own initiative. The main purpose of standing facilities is to restrict the volatility of short-term interest rates in the money market. Their fixing should allow the central bank to set boundaries (ceilings and floors) for overnight market interest rates. To this aim, the interest rate on the MLF is usually much higher than the corresponding money market rate, whereas the return on the DDF is normally much lower than the monetary market rate. Consequently, banks “normally only use the standing facilities in the absence of other alternatives. As there are no limits on access to these facilities (except for the

collateral requirements of the MLFs), the rate on the marginal lending facility and the rate on the deposit facility normally *provide a ceiling and a floor, respectively, for the overnight rate* in the money market”. The idea is that, by providing and absorbing liquidity through MLF and DDF, the ESCBs is effectively able to determinate “*the corridor* within which the overnight money market rate can fluctuate” (ECB 2011b, p. 99-100, our emphasis added). In this regard, notice that, before the crisis (that is, in “normal times”, according to the ECB staff’s terminology), not only has the Euro Over Night Index Average (EONIA)¹⁴ generally remained in the corridor, but it also has been remaining close to the rate on the MROs implemented by the ECB. However, as ECB’s staff observed (ECB 2011b, p. 100), such behaviour changed after October 2008, when the Eurosystem adopted non-standard measures in order to face the risk of contagion coming from the *Lehman Brothers’* bankruptcy and the US financial crisis (see Chart 6 and Chart 7).

2.3 Harmonization in the post-trading sector

Despite the process of integration, the provision of post-trading services (namely, clearing and settlements) to financial operators has remained fragmented along national lines. The lack of harmonization concerns technical arrangements, market practices, regulatory requirements, and legal frameworks. Consequently, according to ECB’s staff, cross-border transactions of securities still entail high costs (linked to excess intermediation) and additional risks (linked, for instance, to different rules for credit and default). More precisely, domestic transactions in the EU have remained far more expensive than in the US. In this regard, the 2011 *Giovannini Report* showed that a typical cross-border equity transaction could require the involvement of as many as 11 intermediaries, compared with 5 necessary for an equivalent domestic transaction. This enlargement in the transaction chain obviously entails additional costs. Furthermore, according to ECB’s reports, the lack of harmonization creates uncertainty about rules, complexity for economic units active in

¹⁴ The EONIA is computed as a weighted average of all overnight unsecured lending transactions in the interbank market. Along with the Euro Interbank Offered Rate (EURIBOR), it represents the benchmark rate for the money markets of the Euro zone.

more than one jurisdiction, and additional problems in emergency situations (see ECB 2010b, pp. 57-58). The main specific measures adopted by ECB and other institutions in order to enforce the harmonization process will be discussed in the next Section.

2.4 The Target 2 system

The very presence of barriers to cross-border financial transactions is at the origin of the implementation (and future introduction) of a number of harmonization systems. The most important one, the *Target 2* system (T2, hereafter), is defined in ECB's reports as "a uniform service and pricing structure for the settlement of large-value payments" which is operated on a single shared platform (ECB 2010b, p. 62). In other words, the T2 system is a device allowing the ECB to manage cross-border payments, and hence credit/debit relationships, between NCBs of the EU's Member States (see Garber 2010). The declared rationale of T2 is to facilitate a rapid integration of the Euro area money markets. To this purpose, between November 2007 and May 2008 the first generation of Target systems (which started operations in January 1999) was replaced by T2. While the first generation of target systems was based on a technically decentralized structure made up of several systems, T2 is based on a single technical platform (SSP, Single Share Platform), jointly developed and operated by *Deutsche Bundesbank*, *Banque de France* and *Banca d'Italia*. At present, 23 central banks of the EU participate in the single platform (ECB 2010b, p. 94)¹⁵.

Notice that, in spite of the heated discussion raised by Sinn (2012), in official releases and documents the T2 system is always presented as a mere payment harmonization system allowing the removal of some barriers to financial integration. In this regard, more emphasis is put on other parallel European programmes, such as the Target 2 Securities (T2S) and the Correspondent Central Banking Model 2 (CCBM2), both at their second

¹⁵ Notice that, before the crisis at least, the T2 market share was stable, with 89% of the total value of payments in Euro large-value payments systems being executed via T2. In 2009, the average number of payments processed by the T2 system each day was 345,771, while the average value was 2,153 billion Euros.

generation¹⁶. Yet, a thorough analysis of its effective function reveals that the T2 system has had a much more important role than that described in ECB's official reports, in the last decade at least. A simple example can be useful in order to understand this point. Consider the case of a Spanish consumer who borrows from a Spanish commercial bank in order to buy, say, a German car. In that case, the Spanish consumer goes in debt with his commercial bank, which goes in debt with (or reduces its deposits at) the Spanish central bank, i.e. the *Banco de Espana*, which, in turn, goes in debt with (or reduces its deposits at) the ECB. Similarly, the German car producer goes in credit with its German commercial (or cooperative) bank, which goes in credit with (or increases its deposits at) the German central bank, i.e. the *Bundesbank*, which, in turn, goes in credit with (or increases its deposits at) the ECB. If the story stopped here, the ECB would act just a mere clearing house of cross-border payments, without raising any academic and political dispute. This is indeed what happened until the 2007. However, after the burst of the Eurozone's crisis, the flow of capitals from Germany to peripheral countries (Spain, in our example) has been progressively reducing. As a result, German export proceeds have been increasingly deposited in German banks, instead of being "voluntarily" recycled in peripheral (say, Spanish) assets. Consequently, these sums have been deposited at the *Bundesbank*, which, in turn, has increased German deposits at the ECB. When, due to the aggravation of the sovereign bond crisis, the NCBs started lending to peripheral countries' banks in order to avoid their collapse, it was as if the ECB was turning the *Bundesbank's* deposits (namely, the surpluses accumulated by the German banking system) to the peripheral banks (see Chart 8). In other words, the T2 system allowed the ECB to do indirectly what German investors no longer wanted to do directly, that is, to finance peripheral countries' foreign deficits, therefore sustaining their domestic banks. These latter, in turn, sustained government bonds market. Here is the reason why Sinn accused the ECB of infringing the prohibition of monetary financing of governments' and other institutions' debt by recycling

¹⁶ The T2S system is being employed in the settling of European securities transactions in central bank money, whereas the CCBM2 system is being used in the managing of collaterals for central bank operations.

German surpluses in favour of peripheral countries. Yet, what Sinn did not consider is that without the T2 system the Eurozone would have collapsed, and German credits would have become irrecoverable. In this sense, the T2 has not only represented an important instrument of financial harmonization and integration, but has also acted as the *glue* of the Eurosystem (and hence of the whole Euro area), although it appears to be no longer sufficient as the crisis deepens.

2.5 Capital market liberalization in the 1980 and the 1990s

Since the early 1980s, European institutions have been pursuing the progressive liberalization of financial markets, regarded as the means to both increase economic efficiency and fully integrate national economic systems (its practical implementation has been mainly pursued at the national level though¹⁷). From a historical perspective, the early stages of economic and financial integration in Europe, dated back to the mid 1950s, focused on national barriers to trade in goods. Afterwards, the focus was extended to other aspects. More precisely, “[i]n the 1960s and 1970s the Commission also addressed issues of competition between firms and the co-ordination of industrial and trade policy”. Finally, since 1986 the so-called *Single Market Programme* “turned its attention to barriers to competition and factor mobility in financial and other services” (NIESR 1996, p 1-2). The declared rationale of the removal of barriers in financial markets was to “allow capital to become more mobile and move to the location with the highest return” (*Ibidem*). This was expected to support the development of the European countries with the lowest degree of capital accumulation (through the increase in direct investment and hence in their productivity level), as they are usually marked by the highest rates of return on investment. Furthermore, competition for resources was also expected “to galvanise other factors of production in the region that is the source of the capital”, namely, in the *core* economies of Europe. In the wake of the efficient market hypothesis, the basic idea was that the process

¹⁷ This, along with the *dating* of the process of liberalization, is the main reason why seldom recent official reports of ECB and other supranational institutions deal with the implementation of financial integration measures in the EU.

of opening and liberalization of national financial systems would have enhanced the efficient and mutually beneficial allocation of resources within Europe. Hence, to the extent that private capitals were free to move, changes in prices of capital assets would have been similar in every country and region (and, as Chart 23 shows, this happened for a while). Here comes a (supposed) clear theoretical causality from the removal of institutional barriers and market imperfections to the convergence in capital asset prices. Against this theoretical background, once any “artificial” (that is, national) barrier would have been removed, convergence in nominal values of economic variables would have entailed a real convergence as well. This convergence is/was seen as the *natural* result of capital market liberalization indeed (for an overview of the institutional steps affecting the process of financial integration of the European economy, see Table 1 in Appendix 3; see also Inoue 2011).

As we have mentioned, the *Single Market Programme* aimed mainly to remove national barriers to capital flows. In fact, since the mid 1990s, the portfolio composition of European investors has become more diversified. Moreover, as the *National Institute of Economic & Social Research* (NIESR, hereafter)¹⁸ complacently observed, “countries that have done most to liberalize their markets have [had] the most varied portfolios” (*Ibidem*). More precisely, already in the mid 1990s, between a third and a half of assets of the European core countries (such as Germany and the UK) were held abroad. According to the NIESR, the stimulus of the *Single Market Programme* and other liberalization measures (such as the *Capital Liberalization Directives* and the two *OECD Codes of Liberalization*¹⁹) was more important for Mediterranean economies and France than for Anglo-Saxon economies, because the latter group removed capital barriers since the early 1970s. As a consequence, the diversification of investors’ portfolios between the mid 1980s and the mid 1990s proceeded more rapidly, say, in France, Italy and Spain than in the UK. In this regard, notice

¹⁸ The National Institute of Economic and Social Research is a British independent economic research institute (visit: <http://www.niesr.ac.uk/index.html>).

¹⁹ Both measures require their members to eliminate restrictions on capital movements and on current invisible transactions and transfers.

that capital controls were common across Europe at the end of the 1970s: “[o]nly Germany, the Netherlands and Belgium/Luxembourg had a reasonably long history of low levels of controls” (*Ibidem*), whereas the UK had just liberalized. By contrast, controls were significant in the most part of ‘Southern’ economies, where they directly affected capital asset price dynamics and portfolio flows.

The very adoption of the *Single Market Programme* led to the dismantling of direct controls on capital movements across the most part of European countries. Yet, in the late 1990s, NIESR’s staff complained that a number of indirect measures were still in place. Furthermore, European monetary authorities could influence interests rate on ‘offshore’ (namely, non-domestic-located) assets just through an indirect and non-fully effective way. The reason was that, prior to 1980s ‘reforms’, monetary authorities of big countries such as France and Italy “were able to push a wedge between onshore and offshore rates on identical assets, giving themselves some degree of monetary autonomy” (*Ibidem*). Hence, when national controls on interest rates have been removed, this was expected to lead to a rapid convergence between onshore and offshore assets’ return rates. That certainly seemed to be the case, until the burst of the crisis in 2007 at least (we refer again the reader to Chart 23). However, the recent European crisis has revealed the intrinsic fragility of the *Single Market Programme*’s theoretical pillars (namely, market efficiency, medium-run neutrality of money, and irrelevance of finance). The very increase in cross-country capital flows has been one of the factors contributing to feed financial instability, through excess borrowing and asset bubbles, therefore showing that free markets are not necessarily efficient, and that money and financial structure are neither neutral nor irrelevant.

Notice, in addition, that the removal of capital controls was assumed to facilitate cross-country borrowing and lending. The reason that is usually provided is that, in the absence of capital controls, each country should no longer have to rely solely on its own domestic saving to finance investment (see Blanchard and Giavazzi 2001). In other words, capital flows between European countries were expected to increase as national barriers reduced,

therefore increasing the amount of funds available to *finance* investment. This, in turn, would have entailed “a more coherent relationship between asset prices”, that is, a *convergence* in asset price levels and rates of return on capitals with different national base (see Chart 22). Furthermore, the increase in the cross-country flow of capitals would have allowed countries to increase ‘productive’ investment, while reducing (i.e. *sharing*) its risk²⁰. Both saving and investment flows within each single European economy were expected to “become less immediately linked, with excess borrowing being matched by excess saving some years later” (*Ibidem*). In other words, in the wake of Feldstein and Horioka (1980), it was argued that the free mobility of capital would have involved the weakening of the constraint given by the availability of national savings. The explicit theoretical rationale can be explained as follows: “[i]f one economy suffers a temporary reduction in its income, then it should be able to borrow from abroad to maintain consumption and investment. Hence high capital mobility should break the immediate connection between domestic saving and domestic investment” (NIESR 1996, p. 4).

2.6 Capital market liberalization and the Euro project

Turning to the actual situation of the European area, the NIESR’s document observes that, over the period 1960 to 1994, there was a “considerable degree of heterogeneity” across different countries. Furthermore, capital mobility appeared to be higher in years in which the European economy “faced impulses from outside” that had “asymmetric effects” on national economies. On the one hand, in the short-run there was “little correlation between saving and investment in countries with liberal capital regimes”, such as Germany and the UK. These latter appeared “to be able to borrow (or lend) easily when needed”. On the other hand, Mediterranean countries such as Greece, and for much of the period France and Italy, maintained capital controls (until the early 1990s at least). Hence, in these countries a rise in investment was “strongly associated with a rise in domestic saving”, even in the

²⁰ According to the NIESR report, “[i]f rates of returns on assets are becoming more coherent then it is more likely that trade in assets is increasing the sharing of risks in the world economy” (NIESR 1996, p. 2).

short-run. This, in turn, reflected “barriers to trade in assets or contingencies” (NIESR 1996, p. 5).

In this regard, notice that NIESR’s scholars, like ECB’s scholars, seem to implicit refer to the pre-Keynesian idea that there is a causality which goes from saving to investment. As we have already mentioned, such an idea is strictly linked to the conception of *money* as a given stock of (loanable) funds constraining the financing of the investment. Of course, if that hypothesis were dropped, then it would be easy to see that the level of accumulated saving can never be a constraint to investment decisions (in the presence of monetary sovereignty and balanced balance of payments). It is indeed the investment volume that determines, through the *income multiplier*, the levels of national output and saving, and not *vice versa*. Here is the reason why “closed” European economies were marked by a high correlation (although with a reversed causality) between saving and investment even in the short-run. By contrast, the pre-Keynesian position of NIESR’s scholars led them to argue that the removal of capital controls would have allowed increasing the sources of funding of the investment. This latter was assumed to be affected neither by expected demand volume nor by expected asset return rates, but only by institutional (i.e. national) barriers to free capital movements.

The reduction in barriers to capital mobility was also expected to increase the correlation between returns on equities and other assets across countries over time. That was effectively what happened until the burst of the crisis of 2007, but since then the situation has been changing (see Chart 23). According to NIESR’s analysis, “in the mid 1980s outflows of portfolio investment were highest in the countries with the most liberal capital control regimes, such as the UK and the Netherlands. This suggest[ed] that liberal capital market regimes allowed more international diversification of portfolios in this period. However, deregulation of domestic markets, for instance in London in 1986, also helped increase flows”. Still, increasing cross-country capital flows led to increasing stocks of foreign assets in investors’ portfolios “and hence greater international diversification of risk bearing in international capital markets. In the UK, for instance, outward portfolio

investment stocks rose from 6% to 60% of GDP between 1979 and 1993, whilst the inward stock rose from 6% to 42% of GDP over the same period” (NIESR 1996, p. 3). In general, the process of financial integration was interrupted by the currency crisis of the early 1990s, but it seemed to re-gain momentum since the end of the same decade (and until the 2007).

By concluding their report, NIESR’s scholars stressed again that barriers to the free movement of capital would “lead to inefficient resource allocation across and within countries”. Such barriers would “also limit effective competition in many markets for financial services, reducing the gains from the operation of the market”. Still, despite evidence that a considerable degree of liberalization took place in the EU since the end of the 1980s, along with a process of privatization of public activities (see Chart 27), NIESR’s scholars complained that capital movements were “not yet fully mobile between countries”. There certainly were “signs that the removal of barriers in some countries [was] beginning to have the desired effects”, especially in the countries that have had liberal capital regimes for some time (notably, the UK, Germany and the Netherlands). Yet, even in those cases, “prudential regulation and other internal financial market policies have continued to form barriers, albeit more opaque ones than those observed elsewhere in the Union”. Those barriers depended mainly “on national regulation of financial systems and on divergent tax systems”. Even though the natural process of European integration was expected to “lead to the removal of many of these barriers”, fiscal co-ordination was regarded as a necessary measure “in order to remove tax-based barriers to the movement of capital” (NIESR 1996, 6-7).

Against this context, the aim of the Monetary Union – which took place just a few years after the NIESR’s report – was straightforward: to avoid that “exchange rate uncertainty will continue to inhibit capital flows and restrain the efficient allocation of capital within the Single Market” (*Ibidem*). In this sense, efficient market hypothesis (theoretical pillar) and financial liberalization measures (policy pillar) appear to be the two sides of the Euro project.

2.7 A critical assessment: integration and national sovereignty

To sum up, the common aim of all institutional developments, as well as of the policy measures adopted by the ECB and by the other European supranational institutions since the early 1990s, appears to be the reduction in the autonomy of (less competitive) Member States in financial, fiscal and monetary policy spheres (see, for instance, ECB 2010b, p. 70). This is regarded as the precondition to allow market forces to spread over, so maximizing efficiency and growth of the European Union. In this regard, notice that, as Trichet made explicit, “the Government Council of the ECB has set itself a very clear numerical benchmark, against which [European] citizens can assess the performance of their single monetary policy” (Foreword to ECB 2011b, p. 7). It should be plain, therefore, that the rationale of the fiscal Maastricht parameters was not economic, but *political*. The same goes for the inflation benchmark of the ECB and the financial liberalization policies of the 1980 and 1990s²¹.

Since the 1990s, the hidden idea surrounding all official documents of ECB was that, once national market barriers had been removed, and once any residual fiscal policy autonomy of national governments had been eliminated, the whole EMU economy would have been ruled through the sole monetary policy, i.e. through the ECB’s steering of the target interest rate on the unsecured short-term funding market. In a sense, it is as if the mainstream’s ‘medium-run’ ‘natural’ (and socially optimal) equilibrium would cease to be just a logical dimension to become a historical condition of a wide geographical economic area. At the moment, in spite of the crisis of 2007, this still seems to be the idea underpinning ECB’s policies.

²¹ Here comes an outward paradox: as Major (2012) noted, the whole *neoliberalization* can be regarded as “a process of reregulation as *depoliticization*, or the movement of regulatory activities into technocratic, insular institutions dominated by public finance officials (finance ministries and central banks) and private financial institutions” (Major 2012, p. 538). In this sense, inflation targeting regimes are themselves “part of a larger neoliberal process of shifting regulatory activities into bodies that are insulated from mass political pressure, like central banks” (Major 2012, p. 543). Thus, this depoliticization process is anything but an ‘apolitical’ claim.

3. ECB'S POLICY DURING THE CRISIS OF 2007-2012

3.1 Origin of the crisis

In the ECB's reports the current crisis of Euro area is regarded as a consequence of the US crisis of 2007. The flight to safety, triggered by the implosion of the US real-estate and securitization markets, eventually affected government bonds of peripheral Eurozone's States. The US crisis, in turn, is usually considered as the result of the so-called 'global saving glut' – according to the well-known Ben Bernanke's reading (see Bernanke 2005, 2007; Bernanke et al. 2011). More precisely, the pre-crisis boom in the US real estate and securitization markets would have been stemming from foreign demand for US assets resulting from the "excess world savings", in the context of persistent global imbalances. Foreign asset demand, in turn, would have pushed down interest rates. Eventually, the low cost of financing, along with the introduction of securitized products, would have increased the leverage of the US financial sector and therefore the systemic risk (ECB 2010b, p. 70).

Leaving aside the controversial global saving glut thesis²², ECB's scholars clearly link the global financial crisis to the incorrect handling by policy makers of the *Lehman Brothers'* collapse. In ECB's reading, the causality goes from the US crisis to the European crisis, and from financial markets to the real sector. In other words, following the collapse of *Lehman Brothers* on 15 September 2008, "the financial turmoil turned into a global financial and economic crisis. Growing uncertainty about the financial health of major banks worldwide led to a collapse in activity in a large number of financial market segments. The crisis also began to spread to the real sector" (ECB 2010b, p. 124). Furthermore, the tensions in the financial markets resulted in a tendency of many segments to retrench within national borders. Such tendency affected mainly the money markets (see Chart 9). Against that background, the ECB not only reduced the target

²² A mainstream criticism to Bernanke's 'saving glut' thesis was provided by Taylor (2007, 2009, 2010), on the basis of Taylor (1993, 1999). According to Taylor, the crisis is rather the result of the low level of the target interest rate set by the Federal Reserve. For a heterodox critical examination of both mainstream readings of the crisis, see, for instance, Barba and Pivetti (2010), and Bertocco (2011).

interest rate (although it did so with a delay), but also “adopted a number of temporary non-standard measures to support financing conditions and credit flows to the Euro area economy” (*Ibidem*). Such measures were incorporated in the so-called *Enhanced Credit Support* (ECS, hereafter) programme and other credit easing devices. Paradoxically, the very initial (outward) success of those measures led the ECB to erroneously think that “in the course of 2009, there were increasing signs of improvement in financial market conditions”. Therefore, “in December 2009 the Government Council initiated a gradual phasing-out of those non-standard measures” (*Ibidem*).

Yet, the crisis was anything but a transient, short-term, phenomenon, as the early reports of the ECB claimed. Hence, in early 2010 tensions re-emerged mainly in the government bond market of peripheral Euro area countries (see Charts 10 and 36. According to the ECB’s reports, those tensions would have been, in turn, “mainly the result of increasing market concerns about the sustainability of public finances”. Actually, sometimes it is explicitly admitted not only that the crisis “started as a private [...] debt crisis”, but also that the problem arose from the fact that “governments came to rescue of their national banking systems and provided significant state aid to financial institutions”. In addition, it is acknowledged that many European governments “were confronted with steep declines in tax revenues and increased expenditures” (see ECB 2012, pp. 8-9), therefore implicitly recognizing the ‘endogenous’ nature of the most part of government deficits. Finally, it is also clearly stated that “in addition to the structural weaknesses in the banking sector and the wider financial system, the financial crisis exposed a number of structural problems”. More precisely, since the introduction of the unique currency, the competitiveness of the peripheral countries compared to the core economies of the Euro area reduced. The increasing spread in national labour costs per unit of output (due also to the labour-market ‘reforms’ introduced in Germany during the early 2000s), along with marked national income growth rate differentials, translated into increasing current account imbalances within the Euro area over time (see Chart 24 and Chart 25). Countries, such as Spain, Portugal and Ireland, eventually “became increasingly dependent on capital

inflows". However, when the crisis hit, foreign private capital flows suddenly reversed. The reason why this did not lead to the implosion of the Eurozone is that private capital flows "were largely replaced with ECB and official financing" (ECB 2012, p. 10) and through the T2 system as well (see Section 2.4).

Obviously, the aggravation of the economic situation in Greece, Ireland and Portugal (and then in Spain and Italy) "led to important changes in the portfolio composition of banks' holdings of public debt [see Chart 11]. Banks and other monetary financial institutions (MFIs, hereafter) from countries in difficulties started to increase their holdings of domestic public debt, while banks from other Member States cut down their exposures to debt in the high-spread countries" (ECB 2012, p. 11). This, in turn, led not only to a collapse of the peripheral governments' bond markets, but even of the secured (REPO) interbank market. We will come back to this issue in the next sections.

3.2 ECB's policy vis-à-vis the crisis

The ECB dramatically underestimated the structural causes, and hence the *long-period nature*, of the crisis and its impact on the process of financial integration of the Euro area. For instance, still in Spring 2010 ECB's official reports were reassuring that the "high degree of financial integration achieved in the Euro area in the decade prior to the crisis appears to have acted as an anchor, preventing a widespread disintegration of markets at the peak of the crisis and limiting the risks of a more lasting impact from it" (ECB 2010b, p. 12). Just a few months later, the sharp increase in the spreads of Spanish and Italian government bond returns vis-à-vis German bond returns glaringly contradicted such rather optimistic analysis. Yet, the ECB's staff clearly saw the early signals of the possible trans-Atlantic financial markets' contagion. In this regard, it must be recognized that the Eurosystem took measures that have been unprecedented in nature, scope and magnitude, in order to face the Euro area crisis. In addition to the reduction of the target interest rate to "historical low levels", the ECB adopted a number of unconventional measures, such as the Enhanced Credit Support ECS and the Security Market Programme (SMP,

hereafter)(see ECB 2011b, p. 90). More precisely, the refinancing techniques adopted by the ECB's Council to face financial instability phases were strengthened in the autumn 2008. Such techniques included: i. the lengthening of the maturities of OMOs; ii. the adoption of a "fixed-rate tender" and "full-allotment" lending procedure²³; iii. the extension of the list of assets eligible as collaterals by credit institutions (see ECB 2010b, p. 11; see also ECB 2011d,e). In addition to those measures, in Spring 2009 the ECB's Government Council also adopted: iv. a three one-year Longer-Term Refinancing Operations (LTROs, hereafter – for a detailed description, see ECB 2010b, p. 13); v. a further set of ECS measures, such as the purchase of covered bonds. Finally, in May 2010 the SMP was introduced in response to tensions in the peripheral countries' sovereign bond markets (shown in Chart 10 and Chart 36). The aim of the SMP was to allow the Eurosystem to conduct outright purchased in distressed Euro area public (and private) *secondary* debt security markets in order to restore their liquidity.

In general, the crisis of the Euro area demonstrated the "need for central banks to act as liquidity providers in time of liquidity strains" (ECB 2010b, p. 73). Yet, according to ECB's

²³ Notice, in this regard, that "[f]rom the beginning of 1999 to June 2000 the Eurosystem conducted its MROs as fixed rate tenders. From 27 June 2000 the MROs were conducted as variable rate tenders with a minimum bid rate using a multiple rate procedure. Starting from the operation settled on 15 October 2008, the MROs were conducted as fixed rate tenders with full allotment. The reason for the change in 2000 was the severe 'overbidding' in the fixed rate MROs, which was the result of a wide and persistent spread between money market interest rates and the fixed rate applied to the MROs in early 2000. [...] The spread [...] made it very attractive for banks to obtain funds from the central bank and led to very high bids by the banks. In a variable rate tender, by contrast, banks have no incentive overbid, since they would have to pay a higher price if they wanted to obtain more liquidity. However, a different problem arose [...] 'underbidding'. [...] In October 2008 a fixed rate full allotment procedure was introduced for all refinancing operations for a certain period" (The Monetary Policy of the ECB, April 2011, p. 105-106; see also Box 4.1). To sum up, six different phases can be distinguished in the ECB's conduct of monetary policy: "[a] first phase was the transition to the Monetary Union: in response to downward risks to price stability, the Government Council lowered the ECB's main refinancing rate by 50 basis points to 2.5% in April 1999. Second, in order to contain inflationary pressures [it raised the interest rate] in the period from November 1999 to October 2000. This brought the main refinancing rate to 4.75% in that month. Third, in response to receding inflationary pressures [it] cut the key interest rates [...] between May 2001 and June 2003, thereby reducing the main refining rate to 2%. Fourth, [...] interest rates unchanged until December 2005. Fifth, with inflation increasing [...] main refinancing rate to 4.25 in July 2008, Sixth, [...] the Government Council reduced the main refinancing rate rapidly [...] to 1% between October 2008 and May 2009. In addition, [it] has adopted a number of temporary non-standard measures" (ECB 2011b, p. 117-118).

scholars, this could entail a problem of 'moral hazard', namely, of excess risk-taking by economic agents because of the strengthening in their confidence in a future public aid. This very concern, along with the inclusion of the Euro area financial system in the 'bank-based financing' typology and the price stability commitment, acted as a brake in the range of policies adopted by the ECB to face the crisis. For the same reasons, the purchases of government bonds entailed by the SMP were strictly limited to *secondary markets*. Besides, in order to ensure that liquidity conditions (and therefore inflation expectations of economic agents) were not affected by the SMP, all Eurosystem purchases were fully *sterilized* through liquidity-absorbing operations (see ECB 2011b, p. 128). In this regard, notice that the choice of the policy instruments to be implemented, as well as the rationale of the exit strategy of ECB from the non-standard measures, relied on two main pillars. First, as soon as the maintenance of the adopted measures would have been posing a threat to the achievement of price stability their prompt withdrawal would have been unavoidable. Second, all ECB's measures were exclusively of a temporary nature. This is the reason why the most part of them was designed to phase out automatically after a short period. We will discuss thoroughly this point in next sections.

3.3 Bank-based vs. market-based dichotomy and the 'two pillar' model

The type of stability (and integration) policy measures adopted by the ECB can be traced back to its analysis of the *nature* of the Euro area financial system, to a certain degree at least. More precisely, after the bankruptcy of *Lehman Brothers*, the ECB opted for a set of credit support interventions (the already mentioned ECS programme) as the main non-standard way to contain the financial contagion. It is interesting to note that the ECS programme was based upon a 'functionalist argument' about the structural features of the Euro area financial system, which was regarded as corresponding to the 'bank-based financing' pure-type (see Gabor 2012b). As it has been argued, this theoretical position had important practical consequences, as it was one the reasons which justified the reluctance of the ECB to intervene directly in the sovereign bond market of European peripheral

countries (in spite of the fact that the very sovereign bond market represents the core collateral market, and hence the ground of the “market-based” lending). In fact, not only the magnitude of the SMP remained always narrow, but the ECB seemed to use SMP more “as a political instrument to extract fiscal commitments from national governments and preserve its pre-crisis role in the institutional architecture of the Eurozone” (Gabor 2012b, p. 1), than as a policy instrument to smooth instability and restore the process of financial integration.

As mentioned in Section 2.1, in formal terms at least, the ECB’s ‘two-pillar’ philosophy was not meant to entirely correspond to the inflation targeting model prescribed by both the New Keynesian theory and other supranational institutions such as the IMF. The ECB itself “attributed its reluctance to move to a fully-fledged inflation-targeting regime to two distinct reasons: the difficulties of constructing reliable structural economic models for the euro-area on the one hand, and the theoretical treatment of money and financial intermediation in New Keynesian models on the other hand” (Gabor 2012b, p. 7; see also Issing 2008). The point is that New Keynesian dynamic stochastic general equilibrium (DSGE) models eventually rely on the ‘efficient market hypothesis’ (according to which traded assets’ prices reflect all available information) and the ‘Modigliani-Miller theorem’ (according to which, under a number of restrictive assumptions, the value of a firm is unaffected by how that firm is financed), in the medium to long-run at least. As a result, given an enough ‘long’ period of time, the specific nature (market-based or bank-based) of the financial system would not affect real magnitudes of the economy. By contrast, the ‘two-pillar’ model adopted by the ECB aims to take into account the institutional specificities of the Euro area. More precisely, it aims to consider explicitly the so-called ‘bank lending channel’ of the monetary policy. The reason is that the lending activities of the largest banks are regarded as “less responsive to changes in the stance of monetary policy given the availability of diversified sources of funding” (*Ibidem*).

However, a closer examination reveals that “the ECB’s two-pillar regime did not mark a significant departure from the prevailing wisdom” (*Ibidem*), the main difference being just

in the *favourite* policy instruments. It deserves to be noted that the two-pillar strategy would aim to ensure that no relevant information is overlooked. In this regard, the maintenance of price stability is said to be based on two complementary analytical perspectives, namely, the two pillars: the economic analysis and the monetary analysis (see, for instance, ECB 2011b). The former would be aimed at evaluating the short-term determinants of price developments, which are influenced mainly by the interplay of supply and demand in the market. The latter, by contrast, would focus on a longer-term horizon, on the basis of the *long-run neutrality of money* 'quantitivist' hypothesis. Yet, in practice, the repeated conflicting signals coming from the two different analytical perspectives were always resolved in favour of the short-term pillar (see Arestis and Sawyer 2008). The final result has been that the "flexibility of the two-pillar approach paradoxically functioned to divorce the conduct of monetary policy from broader concerns with financial intermediation" (*Ibidem*). Actually, this is not a surprising outcome, as it is in line with the mainstream idea that price stability would eventually ensure financial stability (see Bernanke and Gertler 2001) and cross-country integration too.

Finally, ECB implicitly recognized that the adoption of its *one market one target* philosophy, in the presence of relevant differences in the trends in national labour costs per unit of product (and hence in the inflation rates), could compromise the financial stability of the Eurozone. Indeed, the resulting *loose* monetary conditions (namely, the lower real interest rates) faced by less-competitive economies could feed domestic asset price bubbles and external trade imbalances. Yet, according to the ECB, the only way to reduce the risk of instability was to propel weakest economies' governments to implement austerity (national) fiscal policies and deflationary wage measures (see Enderlein and Verdun 2009; for a criticism, see Gabor 2012b, p. 8).

3.4 On ECB policy again

Unlike the other major central banks, after the onset of the 2007 US crisis the ECB Governing Council decided to rely mainly (if not only) on enhanced credit support measures,

i.e. on the ECS programme. Notice that it is the same set of measures which did not achieve appreciable results during the Japanese 1990s crisis²⁴. In this regard, as Gabor (2012b, p. 16) stressed, the ECB “invoked the bank-based nature of the European financial system to argue that crisis measures should act on the banking refinancing segment” (see

²⁴ It has been convincingly argued that the 2001 shift of Bank of Japan to quantitative easing measures (aimed to overcome 1990s deflationary pressures) should not be considered as a “paradigmatic shift” in its monetary policy regime (see Gabor 2012b). Rather, it should be regarded as a sort of return to the old-fashioned monetarist policy rule which prescribes the manipulation of money supply (through the change in the bank reserve requirement) in order to set the desired inflation level (see Goodhart 1994; summarised by Gabor 2012b). In a sense, the position of the Bank of Japan during the recession remained somewhat ambiguous. On the one hand, it seemed to detach itself from the conventional economics wisdom. We refer to “its decision to rely on (increasingly) large outright purchases of government bonds in order to ensure the achievement of [some preannounced and adjustable] CAB targets” (Gabor 2012b, p. 11). In this regard, Notice that, “since the early 1980s, direct interventions in sovereign bond markets beyond day-to-day open market operations (purchases of short-term government bills [usually on the secondary market] to enforce interest rate decisions) disappeared from central banks’ toolkits” (Gabor 2012a, p. 11). The reasons are: i. the ‘monetizing’ of government debt would just encourage fiscal misbehaviour (that is a corollary of the principle of long-run money neutrality); ii. in any case, the institutional context (stressed by the strict separation of monetary policy domain, aiming to price stability, from fiscal policy domain) makes it difficult; iii. the efficient market hypothesis entails that it would be impossible for central banks to alter yields through outright purchases of sales, as argued by Eggertson and Woodford (2003). On the other hand, Bank of Japan “did not contemplate an outright commitment to benchmark yield on government bonds” (Ibidem). In this regard, it has been also observed that “although the perfect substitutability assumption excludes the possibility that financial activities would generate premiums (Eggertson & Woodford, 2003), the literature on Japan recognized that investors may prefer certain assets in moment of crisis (Bernanke & Reinhart, 2004; Ugai [2007]). In such cases, central bank intervention will trigger portfolio rebalancing effects as outright purchases of sovereign bonds [...] would lower yields and shift investor preferences to higher yielding, privately issued debt instruments. Outright purchases can ease credit conditions at the lower bund if these reduce risk spreads and/or term premiums [...] (Blinder, 2010)” (Gabor 2012a, p. 12-13; see also Borio and Disyatat 2009; Cecioni et al 2011; Gabor 2012b). However, “the empirical exploration of the portfolio-rebalancing channel in Japan produced conflicting results” (Ibidem). In any case, initially at least, the Japan’s recession and the ineffectiveness of the monetary policy adopted by its central bank “did not trigger a fundamental reconsideration of the principles guiding the conduct of central banking” (Gabor 2012b, p. 13). In particular, quantitative easing (QE, hereafter) measures continued to be regarded just as an instrument to be used in “extremely adverse circumstances [in which] a central bank can cut the nominal interest rate all the way to zero and still be unable to stimulate its economy sufficiently” (Blinder 2010, p. 466). Nonetheless, after the collapse of Lehman Brothers, the behaviour of the most part of central bankers seemed to take into account the Japanese lesson. As Bernanke (2009) recognized, bank-lending decisions in times of uncertainty depend on “a wide range of concerns with asset quality and credit risk rather than simply access to central bank liquidity” (Gabor 2012b, p. 15). Consequently, standard credit easing measures pursued by central banks are no longer sufficient to restore either the transmission mechanism of the monetary policy or a climate of confidence in financial markets. Rather, it becomes also necessary to implement a direct intervention on long-term sovereign bond markets (namely, to adopt QE measures) in order to both bring down private yields and sustain bank lending (see Bini Smaghi 2009; Posen 2009). That was what the US Fed and the Bank of England effectively have been doing since March 2009.

Trichet 2010; ECB 2010d). More precisely, the aim of the ECS of October 2008 was to provide unlimited liquidity to the banking sector and *hence*, in the intention of the ECB at least, to the whole private sector (and, indirectly, to the sovereign bond market). The ECB did so through “fixed rate, full allotment” open market operations, with longer maturities (up to six months), extended participation (from 140 to around 2,200 eligible counterparts) and eased collateral requirements (in order to include a broader range of private assets). The final effect was supposed to be very similar to that of credit easing policies (see Trichet 2009). By contrast, the reasons why ECB didn’t adopt QE programmes were as follows: i. the will to reduce the (pre-crisis) dependence of the European banking sector on short-term collateralized market funding (i.e. REPO), regarded as a factor of financial fragility (see Bini Smaghi 2009, 2010); ii. the idea that ECB’s outright purchases of government bonds would have compromised the separation between monetary policy (in the hands of the central bank) and fiscal policy (pertaining to national governments, given the limits imposed by the treaties), and would have been politically harder to reverse (see Borio and Disyatat 2009). By contrast, the ECS programme “engendered an automatic exit mechanism: at the end of the operation, the central bank returns the collateral in exchange for the liquidity it had provided” (Gabor 2012b, p. 17; see also Gabor 2012a).

Notice that, in May 2009, ECB was forced to expand its unconventional measures, by improving the ECS scheme with three subsequent LTROs, and by introducing outright purchases of European covered bonds. As these extraordinary liquidity measures appeared to be successful (leading to an improvement in money markets and the covered bond markets conditions), at the end of 2009 the ECB announced its intention to exit them (see Beirne et al 2011; ECB 2010d; Gabor 2012a,b). However, just a few months later the ECB backed off. As we have already mentioned, on May 2010 ECB Governing Council approved both a six-month LTRO and the SMP. The latter consisted in outright purchases of government bonds (focused mainly on peripheral countries of Eurozone) in the secondary market. Also notice that “ECB actions were not governed by New Keynesian concerns with yield curves”, but by practical concerns with “the Greek sovereign debt crisis and the

threats of contagion [which] placed severe constraints on the transmission of monetary policy signals” (Gabor 2012b, p. 18; see also ECB 2010d). This is the reason why ECB never announced a specific volume of purchases of government bonds.

3.5 The strategic role of collateral markets

Unsurprisingly, a number of authors argued that the impact of collateral-based funding on central bank’s conduct seems to have been disregarded by ECB (see Singh and Stella 2012; Gabor 2012a,b). The point is that financial stability depends crucially on collateral market conditions, as these latter directly affect interbank funding (see Gabor 2012a,b; ECB 2010d). More precisely, the perceived degree of liquidity of collaterals determines the single bank’s chance to access market funding. Against this context, government bonds of high income countries have become the most important collateral in REPO transactions. In normal times, around 80% of REPO agreements in EU are secured with government bonds as collaterals. In June 2012 the share of all government bonds within the pool of EU-originated collaterals was 78.7% (see ICMA 2012; data are reported in Chart 12). Such a share shows a tendency to increase during instability phases, but, at the same time, bond market of countries in difficulty are prone to sudden flights out of capitals. A noteworthy corollary is that if the central bank chooses to support uncollateralized funding markets (through liquidity provisions) without supporting collateral markets as well, this cannot be sufficient to restore financial stability.

In this regard, notice that “during normal times, the cost of issuing new debt typically reflects issue-specific and bank-specific factors. In contrast, bank and sovereign funding conditions become closely correlated in times of crisis” (Gabor 2012a, p. 16; see also Bernanke and Reinhart 2004; Cecioni et al 2011; Joyce et al 2010). This means that the monetary transmission mechanism deteriorates as the sovereign bond market situation worsens. Actual bank interest rates in a given country become increasingly linked to the related national government bond return rates, rather than to the interest rate targeted by the central bank. In fact, since 2010 the 50% of the spread on new bonds issued by banks of

peripheral countries reflected the conditions of their home sovereign bond market, whereas only 10% reflected bank-specific factors (data from Bank of International Settlements 2011, reported in Gabor 2012a, p. 16).

3.6 Bank-based vs. market-based policy measures

In previous sections we mentioned that, in order to achieve price stability, the ECB steers the unsecured interbank market interest rate. To this end, the Eurosystem has at its disposal a number of policy instruments, the most important of which is OMOs. In this regard, by referring the mainstream literature, we can distinguish between “market-based” and “bank-based” operations. The former are *direct* interventions in collateral markets, including mainly central bank’s outright purchases of government bonds. The latter are *indirect* interventions on the liquidity conditions, through a support to the banking sector. QE operations pioneered by Bank of Japan and adopted by the most part of central banks after *Lehman Brothers’* bankruptcy belong to the market-based policy measures. By contrast, ECB chose to rely mainly on a set of bank-based interventions. Obviously, bank-based operations are characterized by less predictable results and demonstrated to be less effective too.

On the theoretical plane, the distinction between the two sets of measures, as well as the choice of the suitable one, are usually brought back to either the specific nature of the financial system (see Fahr et al. 2011) or the political constraints on exit strategies (see Bini Smaghi 2009 and Trichet 2009). In practice, the choice of either one or the other reflects *timing* (long-period vs. short-period), *typology* (targeted asset purchases vs. bank-refinancing) and *objectives* (easing financial conditions vs. restoring of the policy rate transmission mechanism) of the central banker (see Gabor 2012a, p. 8, Table 1). Notice that in the early literature on Japan’s depression, the above distinction was usually linked to the *nature* of the impact of the two sets of measures on the central banks’ balance-sheet. For instance, Bernanke and Reinhart (2004) distinguished between government bond purchases which just modify the *composition* of the central bank’s balance-sheet (replacing short-

term with long-term securities and *vice versa*) and large-scale purchases which also expand the *magnitude* of the balance-sheet. The different impact on central bank's balance sheets explains why the former kind of purchases, at the ground of bank-based policies, are also labelled 'credit easing' operations; whereas the latter kind of purchases, at the ground of market-based policies, are also known as 'quantitative easing' (QE) operations.

In this sense, the ECB relied mainly (if not exclusively) on credit easing (or market-based) operations. The dilemma of the best policy to be adopted to face financial instability triggered by *Lehman Brothers'* collapse has been addressed, by ECB's staff, "by reclaiming the analytical importance of distinctive financial systems, defined through the traditional market-based and bank-based dichotomy" (Gabor 2012a, p. 10). From this viewpoint, the choice of ECB can be derived from a simple syllogism: credit easing measures are better suited to improve liquidity conditions in bank-based financial systems, *and* the Euro area as a whole can be regarded as a bank-based financial system; *therefore* credit easing measures are the better way to improve liquidity conditions in the Euro area (see Bini Smaghi 2009; ECB 2010d; Fahr et al. 2011; Trichet 2009). In practice, such measures materialized in a set of LTROs, that is, in "an extension of traditional liquidity injections through open market operations, with higher volumes, conducted at longer maturities, with an increased number of counterparties and relaxed collateral requirements" (Gabor 2012a, p. 10).

Notice that bank-based operations, and hence the ECB's measures, were supposed to operate through two direct channels (money multiplier and collateral channels) and one indirect channel (portfolio rebalancing channel). The existence of the *money multiplier channel* is one of the theoretical pillars of the old-fashioned *quantitivist* (or Monetarist) exogenous theory of money, according to which bank lending would be a stable multiplier of the monetary base (reserves) provided by the central bank. By contrast, the *collateral channel*, central to the New Keynesian *weakly-endogeneist* approach, explicitly considers that lending may be rationed because banks hold illiquid assets. This can prevent or restrict their access to collateral-based funding, which is the main source of interbank

financing. As Bini Smaghi (2010, quoted in Gabor 2012a, p. 11) argued, in order to unlock this channel, the central bank should “liquify” banks’ balance sheets by accepting illiquid private assets as collateral. This would allow banks to redirect high-liquidity collaterals in the private market funding, therefore restoring liquidity conditions in the financial markets. Finally, to the extent that banks spend the liquidity provided by the central bank to subscribe government (or private) bonds, bank-based policies would also entail a *(indirect) portfolio rebalancing* effect.

Apart from the (presumed) bank-based nature of the European financial system, the reluctance of ECB to adopt market-based unconventional measures depends on three additional arguments. The first is *legal*: the Treaty prohibits the monetizing of the public debt. The second is *theoretical*: market-based measures would distort market signals (see Belke 2010), which are assumed to lead to a unique, stable and maximally efficient economic equilibrium. The third is *political*: those measures would reduce the urgency for ‘structural reforms’ (i.e. labour market liberalization and privatizations) and fiscal discipline. Moreover, ECB wants to have at its disposal a quick exit strategy. In this regard, market-based measures are seen as (more) politically contentious and intrinsically affected by moral hazard. By contrast, bank-based measures are prone to be coupled with automatic exit mechanisms. This would reduce the scope for political pressures from national governments (Fahr et al. 2011; Trichet 2009).

To sum up, the main non-legal rationales behind the ECB’s refusal of quantitative easing policies (in favour of credit easing measures), can be traced back to: i. the standard theoretical ‘market-based vs. bank-based’ dichotomy of financial systems; ii. the assumption that markets are maximally efficient in allocating resources; iii. political concerns. Once one drops the standard dichotomy (it will be argued why that should be done in Appendix 1) and takes cognizance that real-world markets are always marked by remarkable inefficiencies, the will to preserve the independency of the central bank (in order to compel national governments to adopt the structural reforms) remains the only rationale of ECB’s position. However, the ‘political’ explanation raises, in turn, three major

criticisms: i. the distinction between politically-affected market-based and politically-unaffected bank-based policies sounds 'artificial', as the latter can be subject to (public and private) pressures as well²⁵; ii. the emphasis put on advantages of automatic exit mechanisms neglects the dramatic "collateral consequences of reverting to 'normal' liquidity policies"; iii. "new business models in banking blur the traditional bank vs. market-based dichotomy" (Gabor 2012a, p. 14) therefore further weakening the rationale for bank-based policies.

3.7 ECB's OMOs as political instrument

Leaving aside theoretical doubts raised by ECB's position, what about the effectiveness of its post-*Lehman* unconventional policies? Initially at least, extraordinary measures (namely, LTRO and SMP) adopted by the ECB entailed a stabilizing effect on collateral markets, because banks really channelled part of LTRO liquidity into the government bond markets. Yet, "the events throughout the first months of 2010 demonstrated that this fragile equilibrium rested on the ECB's willingness to maintain its generous liquidity provision" (Gabor 2012b, p. 21). As for the SMP, although ECB (2010d) explicitly justified it on the basis of the relevance of government bonds as collaterals in interbank lending, the stabilization of collateral markets never became a priority. The result has been an increasing instability of sovereign bond markets since 2010, temporarily smoothed by *easing* measures (and/or statements and speeches of the ECB's President) though.

This should not sound surprising. According to the *one instrument (short-term interest rate) one objective (price stability)* ECB's philosophy, it would be sufficient to manage liquidity conditions in the unsecured interbank market in order to steer interest rates' structure (see Klee and Stebunov 2011; see also ECB 2011d). The theoretical reason is quite straightforward: the efficient market hypothesis entails that the arbitrage activity of economic agents would make central bank's interventions in other monetary market

²⁵ In this regard, Pollin (1995) argued that is a plus for the bank-based system in that requirements can be imposed on their loan allocation.

segments “either redundant, or inconsistent” (Blanchard et al 2010, p. 4, quoted in Gabor 2012a, p. 5). Consequently, liquidity policies pursued by ECB aim to fine-tune, through OMOs, the supply of money. This, in turn, would ensure that effective overnight interbank interest rate tracks closely the ECB’s target rate, i.e. the EONIA. In this regard, notice that, in theory, ECB’s OMOs can take two forms: outright purchases of bonds (mainly, government bonds) and REPOs. Both operations have commercial banks as main counterparties. Yet, the specific form of OMOs “owes more to historical circumstances than to firm theoretical foundations”. For instance, the ECB’s large conventional REPOs operations *pre-crisis* (i.e. the MROs presented in section 2.2) “reflected the reluctance to engage into large outright purchases of sovereign bonds” (Gabor 2012a, p. 6), and hence the discussed ECB’s bias in favour bank-based policies (see Chart 28 and Chart 29).

On the other hand, both the duration and timing of the unconventional measures (i.e. LTROs and SMP) adopted *since the outbreak of the crisis* “suggest that the ECB used it as a political instrument to extract fiscal commitments from national governments”. In other words, the ECB seemed to use government bond purchases “to cement its role as a key political actor in European crisis” (Gabor 2012b, p. 23-24). Furthermore, although the ECB alternated bank-based with market-based measures, the former “played a far greater role, in quantitative terms, than outright asset purchases” (Gabor 2012a, p. 22; see also p. 23, Table 2 and Figure 3). As we have already mentioned, since May 2010 the ECB has been committed to the purchase of Eurozone government bonds in the secondary market, no matter what their credit rating. However, ECB also committed to reabsorb the whole additional liquidity through sterilization operations. Hence, not only SMP was thought, since the beginning, as a temporary measure, but it was much smaller than “bank-based” liquidity injections. Moreover, SMP volume remained always negligible compared to the overall size of European government debt markets²⁶ (see Chart 28 and Chart 29). This is the reason why ECB measures have been insufficient to restore a climate of confidence in the

²⁶ About 60 billion Euro compared to 6 trillion Euro.



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sovereign bond market, therefore being insufficient to support the interbank lending market too.

4. RECENT CHANGES IN THE EUROPEAN FINANCIAL SECTOR

4.1 Economic governance and reforms of the financial sector

Even though one may not to agree with the direction of specific changes, one would be wrong to think that European institutions did not implement any change in order to react to the crisis and support the process of financial integration. On the contrary, a number of both institutional and policy adjustments have been approved.

a) *Intergovernmental funding mechanisms.* In 2011 the EU enhanced the funding mechanisms available to Member States in need of financial assistance. In this regard, it created the European Stability Mechanism (ESM), that is, a permanent intergovernmental fund that should act as the 'backstop' in case of reoccurrence of (sovereign debt) crisis of some of EU Member States. The ESM should act along with the European Financial Stabilization Mechanism (EFSM)²⁷ and the European Financial Stability Facility (EFSF) in supplying a *(conditional) financial aid* to member states. To this aim, the EFSF issues bonds in the market, which are collectively guaranteed by the Euro area countries. Notice that the EFSF can: i. provide financial assistance to Member States; ii. purchase bonds in both secondary and primary markets; iii. provide loans for the specific aim of recapitalizing banks and financial institutions. However, aids to a country in difficulty are accompanied by a detailed and demanding set of policy conditions. Turning to the ESM, it has been established via an intergovernmental Treaty and it was signed in January 2012. After that, the process of ratification within national Parliaments started, and culminated in the positive response of the German Federal Constitutional Court in September 2012. Notice that the ESM is the largest international financial institution in the world, with a total authorized capital of 700 billion Euros. In the intentions of European authorities at least, it would be characterized by a quicker decision-making and therefore a more effective capacity of intervention with respect to the other mechanisms. However, in practice, the set

²⁷ Notice that, on the one hand, the EFSM will continue to perform its responsibilities; on the other hand, in July 2011, it was decided to make the EFSF lending capacity of 440 billion Euro fully effective.

of “austerity” conditions imposed to governments requesting financial aid (which, *inter alia*, imply further cessions of political sovereignty) has limited their recourse to the ESM.

b) *Monetary policy measures.* As we have already mentioned, over 2011 the ECB has been improving its bank-based (or credit easing), measures. In addition, it has been strengthening its market-based measures: it expanded the SMP and launched a new Covered Bond Purchase Programme (CBPP hereafter). The SMP was activated in May 2010 for Greece, Ireland and Portugal. In August 2011 the SMP was extended to Italian and Spanish sovereign bonds. Notice that the explicit objective of the SMP was “to *restore an appropriate monetary policy transmission mechanism*, and thus the effective conduct of monetary policy oriented towards *price stability* in the medium run” (ECB 2012, p. 48, our emphasis added). In other words, the official target of the SMP was not the achieving of financial stability, but the maintaining of price stability, regarded as a precondition of the former. This is the reason why, as we have already stressed, the Eurosystem committed to re-absorb the whole liquidity (put into the market through the SMP) by means of weekly liquidity-absorbing operations.

c) *European economic governance.* A number of changes in the European economic governance have been introduced in the last few years. First, the cornerstone of the EU response to the weaknesses in economic governance revealed by the current crisis has been a set of six legislative proposals put forward by the European Commission in September 2010. The “six-pack”, as it has been relabelled, is based on two pillars: i. the strengthening of fiscal surveillance governed by the Stability and Growth Pact (SGP, hereafter); ii. the creation of a macroeconomic surveillance procedure. The aim is to strengthen both the preventive and corrective arms of the SGP. As is well known, the *preventive arm* of the SGP requires EU member states “to make significant progress towards medium-term budgetary objectives for their budgetary balances”. To this end, a public deficit benchmark has been created. Deviations from the benchmark can lead to the obligation for the unfulfilling member state “to lodge an interest bearing deposit (of 0.2% of GDP as a rule) in case of continuous non-correction”. The *preventive arm* of the SGP has

been further enforced too. The launch of an *excessive deficit procedure* can now be the result of either deficit or debt development parameters. More precisely, member states “with debt in excess of 60% of GDP will have to ensure its decline at a defined ‘satisfactory pace’” (ECB 2012, p. 49).

Second, it has been formally recognized that, over the past decade, (permanent and growing) competitiveness divergences and macroeconomic imbalances have been taking place within the EU. Notice that, oddly enough, such phenomena are traced back by ECB’s scholars to (wrong) policy choices of (peripheral) Member States. In any case, in order “to identify and correct such divergences, a new surveillance mechanism called the Macroeconomic Imbalances Procedure (MIP) has been established” (ECB 2012, p. 50).

Third, on March 2nd 2012 the Treaty on Stability, Coordination and Governance (TSCG, hereafter) of the EU was introduced. It was adopted by all EU member states, with the exception of the United Kingdom and the Czech Republic. The main pillar of the TSCG is the *Fiscal Compact* (FC, hereafter) which came into force on 1st January 2013. This latter aims to compel (signatory) Member States to more severe budgetary discipline and better “coordinated” fiscal policies (but notice that “coordinated”, in ECB’s jargon, means simply that all members have to reduce budget deficits at the same time, thereby making it more difficult for each to achieve the deficit reduction!). More precisely, FC requires national budgets to be in balance or in surplus. In addition, a medium-term budgetary objective (MTO) has been defined, with a lower limit for the government structural deficit “of 0.5% of GDP at market prices”. If “significant deviations” from this percentage are recorded, a correction mechanism should be “triggered automatically”. Finally, starting from March 1 2013, “any granting of financial assistance under the European Stability Mechanism will be *conditional on ratification of the TSCG and transposition of the balanced budget rule* into national legislation in due time” (ECB 2012, p. 53, our emphasis added).

This point is worth some further considerations. First, insofar as the ‘60% parameter’ will be applied, this will lead to a devastating cuts in government budget of Eurozone’s Member States. For instance, in the case of Italy, the commitment to achieve the 60%

threshold in 20 years (dictated by the FC agreement) would require the government to 'save' 40-50 billion Euros per year (in addition to the possible higher sums due to interest payments which increase, every year, the outstanding debt of 80 billion Euros), i.e. more than 3 percent of Italian GDP! Second, a look at the main national accounting relationships reveals that government balance is a *residual* magnitude, given the balances of private and foreign sectors. Consequently, given the competitiveness of domestic productions, every attempt to reduce the government deficit by cutting expenditure and by increasing taxation either is a logical *non-sequitur* or requires households and firms to autonomously decide to go in debt (and/or cut their saving) for an equivalent amount (see Sawyer 2012). However, it is not clear how this could happen. In any case, recessionary effects would be tremendous.

Finally, notice that there is a difficulty in discussing "European" economic governance, as to whether it is the EU level or the EMU level. In some cases policy measures are adopted which directly relate to EMU, though may have some implications for non-EMU-members, whereas, in other cases, policy measures which are adopted at the EU level apply directly to all Member States.

d) *Reforms of the financial sector.* After the European sovereign bond crisis, the European Commission adopted "a programme of reforms that target structural issues in the EU financial sector and the main sources of its vulnerability". The main innovation of the Commission's reform package is "the new architecture for financial supervision which involved the establishment of three new European Supervisory Authorities (ESAs) responsible for banking (European Banking Authority or EBA), insurance (European Insurance and Occupational Pensions Authority or EIOPA) and securities market (European Securities Markets Authority [or] ESMA)" (ECB 2012, p. 54). All those bodies started their operations in 2011. In the same year, the European Systemic Risk Board (ESRB, hereafter) became fully operational.

4.2 Structural changes in the banking sector

In addition to the reforms introduced by European authorities, other *endogenous* changes have occurred in the European financial-banking sector (for the ECB's definition of "bank", see Appendix 1). In a sense, the process of restructuring has been relatively slow and limited, at least if compared to the stress suffered by the banking sector since the beginning of the crisis. However, according to ECB's analysis, "bank sector restructuring can be expected to continue and intensify over the years to come" in terms of both more M&A operations (and hence fewer banks) and more cross-border activities. More precisely, it still has not observed "a marked decrease in the size of the banking sector in Europe, as measured by total assets of EU banks, but a halt in growth compared to the pre-crisis years is nonetheless apparent". Moreover, EU aggregate analysis "mask the significant differences in sector size and growth rates between countries" (ECB 2012, p. 61). In this regard, a disaggregated examination reveals that Ireland and Spain experienced the highest *rate of growth* in bank assets, with double digit annual growth during 2001 and 2008 (see Chart 13). High growth rates in bank assets were also observed in the new member states. By contrast, German bank assets grew significantly less.

Even regarding the *absolute size* of the banking sector, the impact of the financial crisis varied significantly by country. While the banking sector of *core* European economies (such as the UK, France and Germany) continued to grow after 2009, other countries (especially, peripheral ones, such as Ireland) faced a reduction in their banking sector asset value. Notice, however, that "consolidation of EU banking sector and a decline in the total number of banks started long before the crisis" (ECB 2012, p. 62). In fact, the crisis did not have a dramatic effect on either the consolidation process or the number of exits and entries into the EU banking sector (see Chart 14). Furthermore, both EU and non-EU bank branches and subsidiaries substantially maintained their national market share compared to domestic banks. This means that the cross-border activity of banks "remained largely resilient to the effects of the crisis, even if the trend to further integration appears to have been halted" (*Ibidem*).

Here a question arises: what are the reasons of the (relatively) limited impact of the crisis on the structure of the EU banking sector? For ECB's scholars, a partial answer is to be found in "the significant liquidity support provided by central banks and the state aid granted to banks by national governments" (*Ibidem*). Notice, in this regard, that in period 2008-2011 the European Commission approved total member state aid measures of 4.5 trillion Euros, equal to the 36.7% of EU GDP. The majority of those measures were guarantees on bank liabilities. Hundreds billion Euros have been spent for bank recapitalisations, asset relief and other liquidity measures. Also notice that state aid granted since the onset of the crisis have been concentrated in a few member states (notably, Ireland and Denmark, with respectively 269% and 67% of used aid to GDP) and in a restricted number of institutions (see Chart 15). Initially at least, the state aid seemed to have been effective "in reducing financial instability and cushioning adverse effects of the crisis on the real economy". According to ECB's scholars, even state aid control by the European Commission seemed "to have been effective in limiting the distortions of competition within the internal market and contributed to pushing EU banks on a path of long-term viability" (ECB 2012, p. 63).

Yet, as ECB's scholars admitted, "the state bail-outs of financial institutions have raised serious concerns about moral hazard" (ECB 2012, p. 64). Furthermore, the flare-up of the peripheral sovereign bond crisis in Spring 2011 produced a new wave of uncertainty and instability on financial markets which have exposed a number of banks (notably, the whole Spanish banking sector) to the risk of default. The problem has been further worsened by the fact that, as ECB's releases stress, "most Member States did not have an adequate crisis management mechanism for the resolution of banks". Hence, in EU there have been just a few liquidations of small banks, unlike what happened in the US. Paradoxically, "the significant amounts of state support to banks have stabilized the banking market structure in the EU and prevented (or at least delayed) the reorganization to avoid financial instability and adverse negative consequences on the economy" (ECB 2012, p. 62).

Turning to mergers and acquisitions (M&A, hereafter) occurred in the EU financial services industry, the instability on financial markets and the worsening of the funding conditions, coupled with the need to reduce leverage ratios, have had a dramatic effect on their number and size. More precisely, the value of M&As dropped markedly after the peak of 2008 (see Chart 16). According to ECB's scholars, the forced "participation of governments and resulting shift in the ownership structure of the relevant banks was one of the factors that contributed to the decline in private M&A activity in 2009". By contrast, the "low volumes of M&A deals in 2010 and 2011 can to a large extent be attributed to the sovereign debt crisis and the exceptional levels of volatility observed in European financial markets". The reason is that banks "focused on repairing their balance sheets and solving short-term problems (e.g. funding) rather than expanding their businesses through M&A" (ECB 2012, p. 64). Notice, however, that, despite the ongoing uncertainty, ECB's scholars expected "more M&A activity and wider sector restructuring [...] in 2012 and beyond" (ECB 2012, p. 65)

4.3 Cross-border capital flows in the Euro area

The introduction of the Euro on January 1st 2002 was preceded by a climate of confidence pervading both European institutions and the most part of mainstream (European) economics literature. The same atmosphere permeated the early years of the EMU. The common belief was (not without any empirical evidence) that the European unification process was raising a growing degree of integration, particularly among countries which adopted the single currency. It was admitted that the degree of financial integration of money markets (measured by the so-called 'uncovered interest rate parity' condition applied to asset prices) had been highly volatile over the previous decade. However, the Euro area equity market – it was said – has been gaining in importance in world financial markets since the mid-1990s. Against that context, reduced exchange rate uncertainty (linked to the adoption of the Euro), along with the convergence in interest and inflation rates (see Chart 1, Chart 5 and Chart 35), were regarded as the driving force behind the

process of development of a fully integrated European financial market. In fact, according to Fratzscher (2002, p. 190), it was mainly “the reduction of exchange rate uncertainty that explains much of the high degree of volatility in financial integration in the 1990s, especially the periods of low integration during the ERM crisis in 1992–93 and 1995 as well as the rapid increase in integration since 1996, leading up to the adoption of the Euro in January 1999”.

Obviously, it was admitted that the process of European financial integration could pose some ‘challenges’ or ‘costs’, besides the well-known supposed benefits (notably, risk sharing, lower intermediation costs, higher specialization and efficiency of domestic productions). In particular, the onset of the crisis of 2007 shifted progressively the focus of ECB’s scholars from the advantages to the “potentially destabilizing impact of financial integration” (Forster et al. 2011, p. 11). In this regard, it was admitted that the increasing interdependence of individual Euro area markets could increase the risk of systemic contagion and bankruptcy chain-reactions in the case of financial turmoil. In addition, the misallocation of resources (leading to domestic asset bubbles and debt-based unproductive consumption), the pro-cyclical and volatile nature of cross-border capital flows, as well as the increasing external imbalances of peripheral countries (due to the relative loss in price competitiveness, under the fixed exchange rate regime imposed by the monetary union), were cited as costs linked to the process of integration. However, the prevalent opinion (within the European institutions at least) was that the constitution of prudential supervising mechanisms and authorities, along with the adoption of austerity fiscal measures, were sufficient to reduce the risk to an acceptable level.

The two decades of increasing world financial integration, before the meltdown of the US subprime mortgage market, led ECB’s analysts to remain quite confident even after the burst of the crisis. Some statistics could help to explain. First, overall, the Euro area sum of cross-border assets and liabilities increased from 188% of GDP in 1999 to 325% of GDP in 2007, and the rise was even sharper in the case of the UK (see Chart 17). Both net purchases by Euro area residents of foreign assets (reported in the asset side of Euro area

financial account) and financial investment by non-residents (liability side of financial account) increased sharply until 2007, with net flows being close to balance for most of the period (see Chart 18). Second, foreign investment within the Euro area increased remarkably after the launch of the single currency. Intra-Euro area portfolio investment expanded significantly from 2001 to 2007 and remained quite high even until 2009 (see Chart 19). This contributed to the decline of yield spreads vis-à-vis German *bunds* until September 2008 (see Chart 36). Third, in the same period, “intra-euro bank exposure also increased remarkably with euro area credit institutions increasingly allocating available savings to euro area countries”. In particular, ‘peripheral’ EMU Member States “attracted sizeable amounts of additional funds in the years prior to the crisis, mostly from German and French banks” (Forster et al. 2011, p. 14). In fact, until 2007 German and French banks expanded their cross-border operations and increased lending (through local subsidiaries and branches) especially within the Euro area, “with the claims of German and French banks on the aforementioned countries increasing from about 15% to about 20-25% of their total foreign claims” (Forster et al. 2011, p. 15, see Chart 20). Against this background, a further increase in the degree of financial integration was expected even in 2010, after a short period of financial and economic resetting though. This is the reason why the ECB’s staff remained always quite confident about the process of integration.

4.4 Has an integrated European financial market developed? Does it still exist?

Yet, the post-*Lehman* turmoil and the onset of the so-called ‘sovereign bond crisis’ of Eurozone’s Member States impacted heavily on the cross-border capital flows, which were (and are still) regarded as the main means of integration. In fact, the integration trend was suddenly replaced by ‘home-bias’ tendencies and ‘flight-to-safety’ behaviors of investors. More precisely, the crisis entailed a “sizeable deleveraging of external financial exposures by the private sector and, in particular, the banking sector”. In addition, there were “significant changes in the composition of euro area cross-border portfolio flows, as investors shifted from equity to debt instruments and from private to public sector

securities” (Forster et al. 2011, p. 4; see also Chart 21). Still, the advanced European economies “which have traditionally dominated global capital flows and were considered immune from sudden capital withdrawals, were particularly affected” by the crisis (Forster et al. 2011, p. 5). Not only capital flow reversed, but their volatility sharply increased. Finally, after a decade marked by a progressive retrenchment of government sector, this latter became the main (and often the only) net borrower from abroad (see Chart 38).

In 2009, due mainly to ECB’s interventions, the retrenching trend seemed to reverse, leading ECB’s staff (and other mainstream economists) to prefigure a ‘medium-period’ return on pre-crisis levels of cross-border financial activity. In this regard, the enhancing of financial regulation and supervision, coupled with ECB’s credit support measures and the strengthening of governments’ ‘macroeconomic discipline’, were regarded as the main road to restore financial markets’ confidence and *hence* economic growth and financial integration. It was admitted that too low (real) financing costs in ‘peripheral’ countries could contribute to rise current account divergences in the Euro area, but ECB’s staff kept focusing just on ‘structural reforms’ which would have been “inadequate to support growth *over the long-term horizons*” (Forster et al. 2011, p. 15, our emphasis added). Notice that, in the ECB’s jargon, “long-term horizons” means that the growth did not have to be pursued through expansive fiscal policies, which were regarded as mere short-run palliatives. Rather, the growth had to be obtained through the enforcing of economic agents’ expectations, that is, through ‘credible’ government debt-cut plans. The rationale was that, in the medium to long-run, tight fiscal austerity (and expectations on that) would have unleashed private expenditure. This, in turn, would have restored the process of financial integration as well.

Yet, recent official reports of international institutions clearly recognize that austerity policies are depressive and that the size of the fiscal multipliers in advanced economies (during recessions) has been dramatically underestimated, with the government spending multipliers usually being ‘well above 1’ (IMF 2012b, p. 43; preceded by Batini et al. 2012; Coenen et al. 2012; see also the self-criticism of Blanchard and Leigh 2013). Furthermore,

in the case of many peripheral countries (particularly, Spain and Ireland) the standard mainstream measure of financial integration, that is, the intensity and the amount of foreign investments, disclosed their main factor of fragility, rather than the degree of integration of their economic and financial systems within the Euro area. Notice that the majority of peripheral countries capital inflows (in the period from the launch of Euro to 2007) were relatively short-term financing (mainly in the form of cross border deposits from abroad). By contrast, FDI, which are usually considered a less volatile form of investment than portfolio investment, played a secondary role (see Chart 37). Thus, if it seems undeniable that a new gigantic financial space was created in Europe from the 1980s to the 2000s, the absence of an adequate European institutional framework has made it more similar to a 'giant with feet of clay' (highly exposed to external shocks, however small), than to a fully integrated European market.

5. FINAL REMARKS

In this paper we have provided a critical survey of the ECB's official documents concerning the process of financial integration of the Euro area, coupled with a preliminary outline of recent developments in that process. This has allowed us to show that the most part of ECB's official releases and working papers are characterized by a number of theoretical biases which prevented the ECB to regard the post-*Lehman* financial turmoil as the other side of a structural crisis of the Euro area (and not just a temporary deviation from the 'natural equilibrium' path of some European economies triggered by the burst of US asset bubbles and fueled by fiscal indiscipline and profligacy). More precisely, the adoption of equilibrium models (grounded on the efficient market hypothesis and the loanable fund theory of money), as well as the inclusion of Continental Europe in the 'market-based financial system' pure-type, led ECB's staff to look uncritically at (and even encourage) the process of capital flow liberalization that took place since the early 1980s. Such process was regarded as a mutually beneficial process for all EU (and especially EMU) Member States.

In this regard, the sharp increase in the external imbalances of Euro-member countries, triggered by the introduction of the single currency, was regarded as a sign of the proper working of market forces. More precisely, it was interpreted as the signal that capitals have been spontaneously flowing from low-return investment of highly-developed economies to high-return investment of lower-developed economies, allowing the latter to 'catch up' the former. In other words, cross-border capital flows were regarded as the proof that the process of European financial integration was improving, also driving the process of 'leveling' of economic fundamentals of European economies. Against this background, there would have been no space for national discretionary fiscal policy. These latter would only have interfered with market price signals, and hence with expectations of economic agents. The only active institutional actor of the system should be the central bank, whose only aim is to steer the short-run interest rate on the unsecured money market. A set of

transmission mechanisms, in turn, would ensure that the central banker's decisions both anchor economic agents' medium-run inflation expectations and bring output and employment back to their 'natural' volumes.

Yet, as the worsening of the crisis of EU countries, and especially of EMU Member States, should have shown, the analysis of the change in European financial (and economic) system provided by ECB's staff was rather optimistic. The point is that increasing foreign investments are not always a positive phenomenon for weakest economies. On the contrary, the inflow of capitals in EU peripheral countries ended up financing domestic asset price bubbles, rather than productive investment, and, along with the rigid *one target (price stability) one instrument (nominal interest rate)* policy of the ECB, contributed to push real divergences among Euro area countries to unsustainable levels. We think that, in the absence of any prompt radical change in the institutional framework of the Eurozone (leading to both a re-definition of the nature of the ECB, in order to include full-employment as its main target, and the creation of a relevant European federal budget), the survival of the unique currency area, and of the whole EU as well, could be at risk.

APPENDIX 1. THE CIRCUIT OF MONETARY PAYMENTS

In the analysis of the nature of the Eurozone's financial sector, ECB's reports explicitly refer to the 'market-based vs. bank-based financing dichotomy'. According to that distinction, market-based (or 'direct financing') systems are those under which firms mainly fund investment by issuing new securities. These latter are directly subscribed by households in the financial market (with or without the brokerage of some non-banking financial operator). By contrast, bank-based (or 'indirect financing') systems are those under which firms mainly borrow from banks or credit institutions. These latter are defined as "*any institution that is either (i) an undertaking whose business is to receive deposits or other repayable funds from the public and to grant credit for its own account, or (ii) an undertaking or any other legal person, other than those under (i), which issues means of payment in the form of electronic money*" (definition from ECB website's glossary, our emphasis added). Thus, the only difference between market-based and bank-based systems seems to be the length of the intermediation chain. As for the rest, financial markets (and hence non-banking financial operators) and banking sector are regarded as perfect substitutes (see Passarella 2012). Their common role is to channel the available funds, i.e. previously stored saving (being them in the form of legal tender or bank deposits), from lenders to borrowers (see Figure 1, quadrant *b*).

Yet, the adoption of an *endogenist* theory of money reveals that the 'market-based vs. bank-based' typology²⁸ is grounded on a two-fold theoretical misunderstanding. First, to the extent that the whole circuit of payments of a capitalistic economy (depicted in Fig. 1, quadrant *a*) is considered, it becomes clear that the banking sector is not, and has never been, the 'cloak-room attendant' of Cannan (1921). Rather, banks are capitalistic institutions whose function is to create means of payments (namely, loans), without any

²⁸ Notice that, as is shown in Figure 1, quadrant *b*, there is a plain link between: i. the market-based vs. bank-based dichotomy; ii. the loanable fund theory (and, in general, the exogenous theories of money); iii. the theoretical neglecting of the production sphere, i.e. the adoption of a pure market system as the core analytical model; iv. the 'microeconomic bias'.

need for previously stored savings (see arrow (1) in Figure 1, quadrant *a*). In other words, loans create deposits, and not *vice versa*. Second, the logical macroeconomic function of financial markets is to allow firms to recover the liquidity they inflated in the circuit at the beginning of the period (see arrow (4') in Figure 1, quadrant *a*). By contrast, firms cannot turn to financial market until household saving is formed, namely, until firms themselves start the process of production (by requiring an initial finance to banks – see arrow 1 in Figure 1, quadrant *a*) and distribute incomes to the participants in that process (namely, to households). Household saving (be it either voluntary or 'forced'), in turn, will always *ex-post* match firms' investment through the price level setting (see Graziani 2003). This is the reason why *endogenist* authors sometimes call the bank financing channel 'the initial finance', whereas the liquidity coming from the placing of newly-issued securities in the financial markets is usually denominated 'the final finance'. The former is the necessary condition to start both the process of production and the circuit of payments among sectors; the latter determines the degree of final indebtedness (towards either banks or households) of corporations.

In this regard, notice that the sequence (1)-(2) in quadrant *b*, that is, the *direct financing* of ECB's reports, corresponds to the sequence (3')-(4') in quadrant *a*, that is, what we have labelled the 'final financing'. Quadrant *a* also shows that, to the extent that households hold a fraction of their income in the form of bank deposit (3''), this decision subtracts (instead of increasing) liquidity to firms. Obviously, in the subsequent period the banking sector could decide to increase its lending to corporations in the same measure of deposits it collected from households. This would create the illusion that households' deposits were really *financing* (however *indirectly*) the corporate activity. However, quadrant *a* clearly shows that, to the extent that households hold bank deposits, firms remain indebted towards the banking system at the end of the correspondent circuit (call it the circuit *t*). This means that, in the subsequent circuit (the circuit *t* + 1), firms will be able to keep the scale of production unchanged only if the banking sector is available to increase its lending (in spite of the increase in corporate leverage ratio).

APPENDIX 2. SIX CONTROVERSIAL THEORETICAL ASPECTS IN ECB'S PUBLICATIONS

a) Inflation and monetary policy

As it has been mentioned, ECB's reports embrace a *quantitativist* and *exogenist* conception of money-supply, namely, the theory of loanable funds. Actually, in ECB's reports it is sometimes admitted that "for a long time, mainstream economics has neglected the analysis of monetary data and the developments in theoretical and empirical research on interpreting the interaction between money demand and money creation and its impact on the determination of prices". This might give the false impression of openness either to the non-mainstream monetary contributions or to the faint *endogenism* of a part of *New Keynesian* authors at least. However, the same reports claim that "it is an undisputed fact that [1] prolonged periods of high inflation are associated with high money growth and that [2] inflation is ultimately a monetary phenomenon" (ECB 2011b, p. 10; see also ECB 2011b, pp. 77-78)²⁹.

To this regard, notice that proposition [1] is none other than a tautology, which does not involve any specific causality (until one states which monetary aggregate refers to, at least). By contrast, proposition [2] entails a specific and much disputed causality (from money supply to price level), as well as a specific theoretical background (i.e. the mainstream general equilibrium theory, and the related notions of medium-run equilibrium and natural rate of unemployment). Also notice that the empirical findings (defined as "the most robust and enduring [...] in the entire economic literature") the ECB's staff refers to, focus on the relationship between the HIPC and the M3 aggregate (see Chart 22). In this regard, it is true

²⁹ Sometimes, ECB's reports embrace an outward pluralism in economic modelling. For instance, it is explicitly admitted that: i. a successful monetary policy "cannot rely on a single model of the economy" (ECB 2011b, p. 63); ii. in a "situation of model uncertainty, it is preferable to employ a variety of [models]" (ECB 2011b, p. 76); iii. macroeconomic projections used by the ECB "have their limitations", as they depend "to a considerable extent on the underlying conceptual framework and the techniques employed" (ECB 2011b, p. 77). However, such admissions never lead ECB's scholars to open to non-general-equilibrium-based theories and/or models.

that data analysis show that the causality goes from the harmonized index of consumer prices (HICP) to M3. Yet, M3 could be regarded as a proxy of the *monetary base* (and hence of the central bank policy *looseness*) only if one assumed that the former (which is a broader aggregate) is a *stable multiple* of the latter³⁰. If one drops that hypothesis, the assertion that changes in M3 (whose amount is the result of the demand of money from the private sector³¹) determines the inflation rate comes to be very different from the assertion that changes in the monetary base (autonomously set by the central bank) determine the inflation rate: the former is a tautology, whereas the latter is a much controversial assertion.

b) Inflation and fiscal policy

The distrust of ECB of discretionary (national) fiscal policies is not a secret. Apart for a few recent exceptions, the most part of ECB's reports and working papers reflect the same, mistrustful, position. More precisely, the prevailing idea is that "unbalanced public finances may result in demand and inflationary pressures, forcing the monetary authority to keep short-term interest rates at a higher level than would otherwise be necessary". Yet, when analysing the effect of fiscal stimuli on prices, it is admitted that inflationary pressure can occur only "when *the economy is already operating at close to full capacity*" (ECB 2011b, p. 32-33, our emphasis added). Hence, a question arises: as it should be plain that European economies are operating far below the full employment of factors of production³², how

³⁰ According to the ECB's definition, the monetary base of the euro area "consists of currency (banknotes and coins) in circulation, the reserves held by counterparties with the Eurosystem and recourse by credit institutions to the Eurosystem's deposit facility. These items are liabilities on the Eurosystem balance sheet" (ECB 2011b, p. 93).

³¹ Within the specific French-Italian Post Keynesian declension of the endogenous theory of money, also called the *Circulation or Circuistist* approach, the reason is that corporations demand a higher initial inflow of credit-money because of the increase in the price of some productive factor, be it labour-force or capital good. The cause of that increase is, in turn, the growth in the bargaining power of either wage-earners vs. firms or capital-good producers vs. consumer-good producers. This, of course, may turn into a higher market price level for the final output, given the mark-up set by firms. However, here inflation is a completely endogenous phenomenon. The central bank has a scarce control on the monetary aggregates. It can only meet the private sector's demand at the given targeted interest rate.

³² Notice that, at least in the UK, there are many who would argue (including those in the Treasury and, to a degree, Bank of England) that the economy is not that far below full capacity. According to their estimates of

could expansive fiscal policies result in inflationary pressures in the present context? Oddly enough, this question is never answered in the official reports, even though some recent working papers edited by the ECB seem to reveal a trend reversal in its doctrine.

There is also a second (theoretical) set of reasons why the most part of ECB's documents show a distrust of discretionary (national) fiscal stimuli. It is the belief that high levels of government deficit and debt may: i. endanger financial stability; ii. slow down the integration process; iii. and entail "adverse effects" on the real economy. In the wake of the *Monetarist* "crowding out" effect, it is maintained that "*excessive* recourse to capital markets by governments tends to raise the cost of capital and possibly reduce private investment" (ECB 2011b, p. 33). Once again, the ECB's viewpoint implicitly refers to a conception of money as a given *stock* of liquidity (and not, as it would be expected in the case of an advanced monetary economy of production, as an endogenously demand-driven flow of monetary and financial means), and to the idea that the interest rate is none other than the price that clears the loanable funds' market³³. Out of that specific (and rather outdated) theory of money, the statement that the real rate of interest *has* to increase, and hence that the investment *has* to decrease, as the government deficit increases, becomes a logical *non sequitur*. By contrast, as we are going to argue in the next sections, recent facts should have confirmed that the actual level of real interests rates depends on both competitiveness (and income) differentials across countries and the central banker's decisions, and not on the right-ward shifting of the *IS curve* coupled with a positively-sloped *LM curve*³⁴. Secondly, not only is the role of government expenditure as a support of the

potential output, the output gap can be relatively small (say, order of 2 per cent). However, this is the result of the substantial fall in potential output around the time of the financial crisis.

³³ Actually, sometimes ECB's staff winks at a somewhat *endogenous* theory of money. For instance, we can read that "the banking system demands money issued by the central bank (known as 'base money') to meet the public demand for currency, to clear interbank balances and to meet the requirements for minimum reserves" (ECB 2011b, p. 39). However, these seem to be just isolated considerations.

³⁴ The impact on the interest rate of the speech, in September 6th 2012, of the ECB President Mario Draghi, further confirmed this point. The news that Governing Council "decided on the modalities for undertaking Outright Monetary Transactions [OMT] in secondary markets for sovereign bonds in the euro area" (though just "to safeguard the monetary policy transmission mechanism in all countries of the euro area") made the

level of aggregate demand (*income effect*) disregarded in ECB's reports, but the *balance-sheet stabilization effect* and the *portfolio effect* involved in the issue/placing of government bonds are totally neglected³⁵. Finally, insofar as one accepts that investments undertaken by firms are linked to the volume of expected (effective) demand, the crowding out effect becomes irrelevant.

c) The transmission mechanism and the long-run

The "monetary policy transmission mechanism" is the way in which, in the short-run, a change in the money market interest rate (induced by central bank's operations) affects economic variables such as total output or prices. Once again, in ECB's documents it is (apparently) admitted that "there is no unique and undisputed view of all the aspect involved" (ECB 2011, p. 55) in central banks' monetary policy. Notwithstanding that, in the same report ECB's scholars assert that the "neutrality of money is a widely accepted and empirically validated proposition in the economic profession" (*Ibidem*). As is well known, this means claiming that, in the *medium run* (sometimes referred as the *long run*) "a change in the quantity of money in the economy [...] will be reflected in a change in the general level of prices and will not induce permanent changes in real variables such as real output or employment" (*Ibidem*). In other words, a variation in the volume of money in circulation would ultimately represent "a change in the unit of account (and thereby in the general price level) which leaves all other variables unchanged" (*Ibidem*).

Here the influence of the *New Keynesian Economics*, and more specifically of the *New Consensus Model*, clearly emerges. According to ECB's scholars, the principle of the *long-run neutrality of money* would even underlie "all standard macroeconomic thinking and theoretical frameworks". In short, it is the idea that "real income or the level of employment in the economy are, in the long run, essentially determined by real (supply-

Spanish and Italian government bond interest spreads decrease sensitively. An interesting hypothesis on the role played by the central banker, while steering the interest rate, as the arbiter of the inter-capitalistic conflict, see Brancaccio and Fontana (2012).

³⁵ See mainly Minsky (1986).

side) factors” (*ibidem*), namely, by technology, population growth, the preferences of economic agents and other institutional aspect. A threefold corollary follows: first, “in the long run, the central bank cannot influence economic growth by changing the money supply”; second, inflation is ultimately regarded as a pure “monetary phenomenon”; third, while several factors may affect prices in the short-run, “over time their effects can be offset by some degree of adjustment of the money stock” (ECB 2011b, pp. 55-56). In this regard, notice that the ECB aims to pursue price stability over the *medium-run*, because “monetary policy cannot, and therefore *should not*, attempt to fine-tune developments in prices or inflation over short horizons of a few weeks or months” (ECB 2011, p. 68, our emphasis added). Notice that this is precisely what inflation targeting attempts to do, in spite the professed specificity of the ‘two-pillar model’.

This corollary is worth some comments. First, within dominant literature and textbooks, the *medium run* (or *long run*, if one adopts the notation used in some ECB’s reports) is usually defined as that logical-time dimension in which inflation expectations of economic agents are totally fulfilled, and therefore there is no “monetary illusion” (see, for instance, Blanchard 2008). This entails, *inter alia*, complete (perfect competition) future markets for every good and service traded in the economy³⁶. Yet, the original definition of ‘medium run’ has faced a semantic shift over time, ending up meaning a historical period which would be enough long to allow market forces to fully deploy. Thus, mainstream (and ECB’s) economists moved surreptitiously from a *logical* dimension (i.e. a specific set of abstract hypotheses, called ‘long *run*’ within the Marshallian tradition) to a *historical* one (called ‘long *period*’ within the same tradition). Notice that such shift is pregnant with consequences, as it follows that (short-period) financial turbulences and economic inefficiencies affecting the real-world economies should be regarded as transient and exceptional phenomena. By contrast, it suffices to take cognizance of the fact that, out of the abstract modelling, real-world economies are always signed by radical uncertainty, to

³⁶ On the issues linked to this assumption and, particularly, on the lack of correspondence between the perfect foresight hypothesis and the hypothesis of complete markets, see Fratini and Levrero (2009).

assign to the short run the status of the *rule*, and to the medium run the role of mere “hypothetical case”. This would allow ECB’s scholars to both avoid the theoretical inconsistencies discussed above and improve their analysis of the causes of the current crisis. However, this is still far from being the case. Second, unsurprisingly, in ECB’s reports nothing is said either about the *path-dependency* and the *non-ergodicity* of capitalist economies, or about the demand-driven nature of the process of money creation. Within the endogenous view, the expansion of money is linked with credit creation, and the credit is spent on something: when spent on investment has an impact on path of the economy. By contrast, the neutrality of money depends on the exogenous money assumption (and even then with Friedman’s helicopter money, it depends on who picks up the money and how they spend it). Third, it is often unclear what “money” is, and in which way it enters the economy. Official reports usually refer to the sole monetary base, and not, say, to the bank money. Fourth, the ‘benchmark’ position (as in Wicksell with the “natural rate”) entails an economy without money, therefore making it impossible to envisage how such an economy would operate. Analogously, the change in relative prices is almost totally neglected: price movements are taken into account just insofar they affect the general price level.

d) The price stability objective

As it has been mentioned, price stability is the main (if not the *unique*) objective of ECB’s policy. It is defined in quantitative terms as a year-on-year increase in the *Harmonized Index of Consumer Prices* (HICP) for the Euro area below (but *close* to) 2% over the *medium-period*³⁷. The rationale of the price stability objective is three-fold: i. to assure that the monetary policy is transparent; ii. to provide a clear benchmark against which economic agents can hold the ECB accountable; iii. to anchor expectations of future prices

³⁷ Notice that it is clearly stated that “the ECB’s monetary policy has a Euro area-wide focus. Accordingly, price stability is assessed on the basis of price developments in the Euro area viewed as a whole”. The point is that “within a monetary union, monetary policy can only steer the average money market interest rate level in the area” (ECB 2011b, p. 64).

(see ECB 2011b, p. 64). In other words, price stability would make it easier for economic agents to disentangle changes in relative prices from changes in the general price level. Against this context, they would “know that movements in prices typically mirror changes in the ‘relative scarcity’ of the individual goods and services”. This, in turn, would allow “the market to allocate resources more efficiently” (ECB 2011b, p. 56).

Once again, the mainstream economics bias of ECB’s reports clearly comes out. Nothing is said about the ascertained logical fallacy of the old *Marginalist* theory of price and distribution, and of the connected idea that prices could be regarded as ‘indexes’ of the relative scarcity of goods. On the contrary, it is simply *assumed* that rational economic agents, when taking their decisions, use the ‘marginalist’ model of pricing (and income fixing). Notice that here comes not so much a theoretical or academic dispute as a practical issue. The point is that “the basic and widely shared principles outlined above – as ECB’s scholars define their implicit *quantitativist-marginalist* approach – are reflected in the sound allocation of objectives and responsibilities to the different policy-making authorities in the European Monetary Union” (ECB 2011b, p. 57). The ECB’s analysis of both the process of financial integration and the current crisis, as well the adopted policy measures, are indeed based on those principles. In other words, the conception of the ECB as the ‘guardian of price stability’ is a coherent conclusion deriving from a specific set of (disputed) theoretical premises. Against this background, “assigning monetary policy an objective for real income or employment would have been sub-optimal, since monetary policy has no scope for exerting any lasting influence on real variable in the short to medium term” (ECB 2011b, p. 58).

e) Monetary policy and asset prices

ECB’s reports recognize that, in the short run at least, monetary policy decisions can affect other variables in addition to interest rates, investment, consumption, aggregate demand, and price level. More precisely, ECB’s decisions are prone to impact on the asset price level (e.g. the stock market quotations and real-estate prices) and on the exchange rate. A particular emphasis is put on changes in asset prices, as they affect “inflation indirectly, to

the extent that wealth effects impact on the private sector's consumption decisions. This may also have implications for financial stability when protracted asset bubbles suddenly burst". Yet, the implicit admission that, in the capitalist economies, prices are not mere indices of the (expected) relative scarcity of goods, but they directly affect (in the short run at least) *autonomous* expenditure (and hence output, employment and income levels), does not lead to a reversal in ECB staff's position about monetary policy. On the contrary, this enhances the idea that the primary target has to be the price stability, as "[b]oom-bust cycles in asset prices are often associated with periods of prolonged loose monetary policy" (ECB 2011b, p. 60).

As we mentioned, the maintenance of price stability is mainly pursued through the fine tuning of the money market interest rate. First, ECB's staff observes that excessive growth in interest rates can affect negatively balance sheets of firms, as it "leads to a lower net worth of firms which means a lower collateral value and thus reduced ability to borrow" (ECB 2011b p. 60). In this regard, the most important reason why recent interventions to sustain the European banking sector have not worked is that, oddly enough, ECB seemed to forget that the very inter-bank lending market is strictly dependent on the collateral market.

Second, even a too low target interest rate can affect negatively the financial soundness of the banking sector. Indeed, "a 'risk-taking' channel may exist when banks' incentive to bear risk related to the provision of loans is affected". This channel operates through two different ways, as low interest rates: i. "boost asset and collateral values" leading "both borrowers and banks to accept higher risks"; ii. "make riskier assets more attractive, as agents search for higher yields". This, in turn, may translate "into a softening of credit standards, which can lead to an excessive increase in loan supply" (ECB 2011b, p. 61) and leverage ratios. The latter considerations seem to be more close to the post-Keynesian theory and, in particular, to the financial instability analysis of Hyman Minsky. But, once again, the theoretical convergence is more outward than effective.

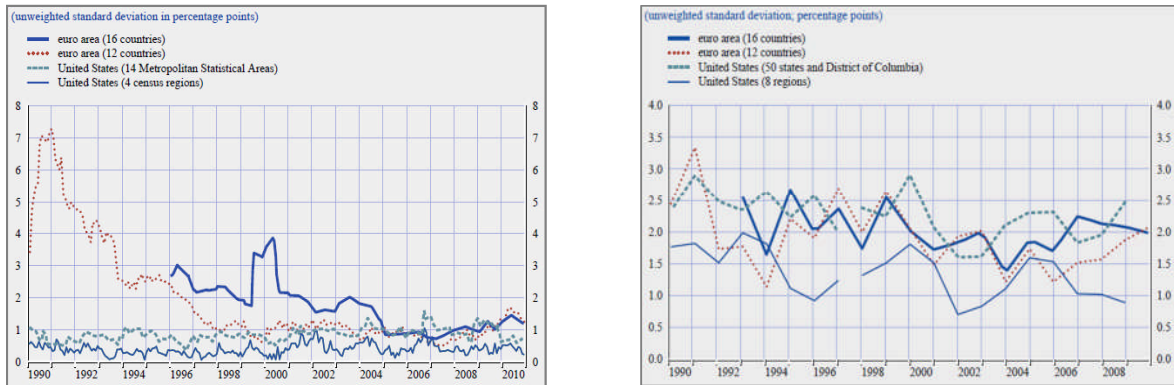
f) Credibility and the monetary policy transmission mechanisms

In ECB's reports great emphasis is put on the point that the effectiveness of the monetary policy crucially depends on the *credibility* of the central banker's communication. This, in turn, relies on the clear definition of its main objective, namely, the price stability. Yet, long and uncertain lags may "exist in the transmission of monetary impulses to the domestic price level" (ECB 2011b, p. 62). To this regard, ECB's staff usually distinguishes between *normal times* (to be identified with the medium to long run) and *crisis periods* (the short run). During normal times, monetary policy rests mainly on the so-called *interest rate channel*. For instance, a rise in the targeted interest rate "leads to a *transitory* decrease in output, which is estimated to reach its maximum between one and two years after the interest rate increase", whereas prices "tend to decline more gradually, and respond more sluggishly" (*Ibidem*, our emphasis added). Against this background, central bank's interventions focus on the interbank market only (in the wake of Allen et al. 2008). The basic idea is that "[u]nder the *efficient market hypothesis*, steering the interbank rate allows central banks to influence broader financing conditions in the economy" (*Ibidem*, our emphasis added). In addition, a change in the target interest rate also affects economy through the so-called *credit channel*, that is, through its impact on firms' cash-flows and the supply of bank loans.

By contrast, the theoretical foundations of ECB's interventions in crisis periods are anything but straightforward. It is true that, in the wake of Bernanke and Reinhart (2004), it is now admitted that central banks "may resort to non-standard interventions once policy interest rates have been lowered to zero". However, it cannot escape that the very acknowledgement of the necessity of such unconventional measures entails "the abandonment of the *efficient market hypothesis*" (Gabor 2012b, p. 2-3), during periods of crisis at least. Yet, if it is so, the *efficient market hypothesis* is no longer an analytical law (that is, the 'medium-run' rule of market economies), but just a mere empirical (and indeed rather controversial) regularity.

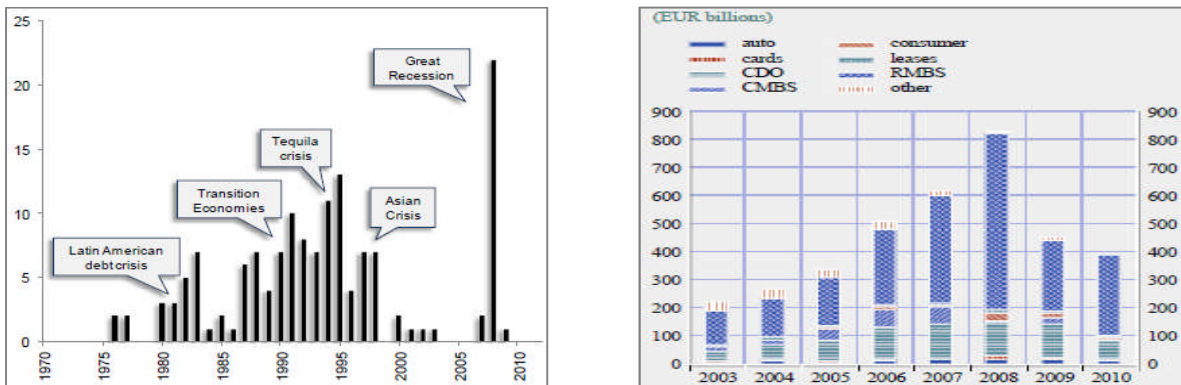
CHARTS

Chart 1. Dispersions of annual inflation [left-hand figure] and real GDP growth [right-hand figure] across Euro area countries and the United State.



From: ECB (2011b). Source: Eurostat, US Bureau of Labor Statistics and US Bureau of Economic Analysis.

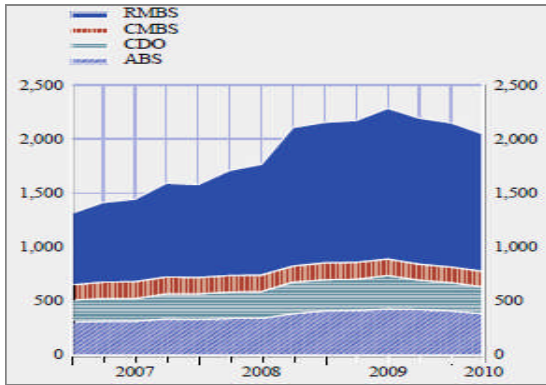
Chart 2. Total number of worldwide bank crisis cycles since the 1970s. **Chart 3.** Issued volumes of all securitised products in EU.



From: ECB (2011b). Source: Eurostat, US Bureau of Labor Statistics and US Bureau of Economic Analysis.

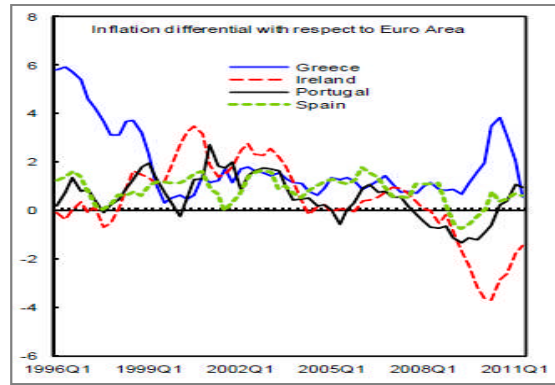
From ECB (2011f). Source: JP Morgan. Note: ABS are split into 'auto', 'card', 'consumer' and 'leases'.

Chart 4. Outstanding volumes of securitised products in EU.



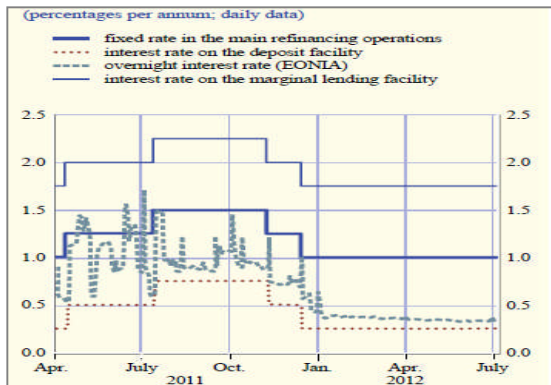
From: ECB (2011f). Source: JP Morgan.

Chart 5. Inflation differentials of some 'peripheral' Eurozone Member States with respect to Euro Area.



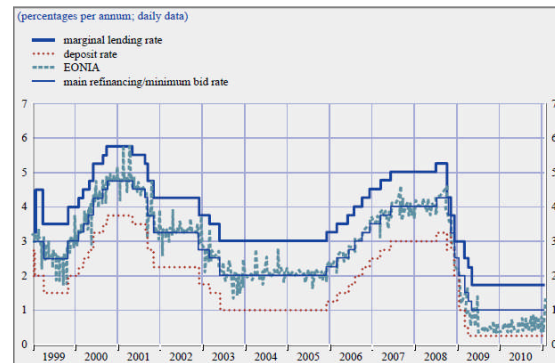
From: Jaumotte and Morsy (2012). Source: IMF staff's calculations on Eurostat statistics.

Chart 6. Key ECB interest rates and the EONIA from 1999 to 2010.



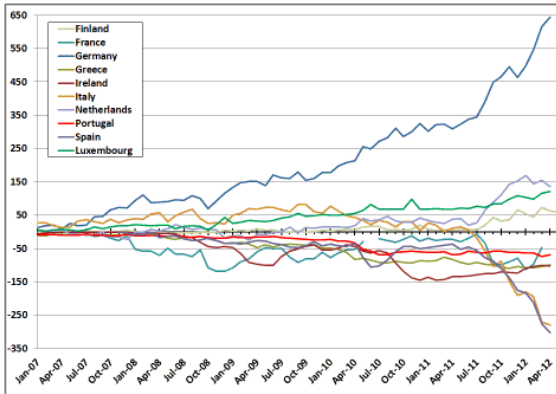
From: ECB (2012b). Source: ECB.

Chart 7. Key ECB interest rates and the EONIA in the last two years.



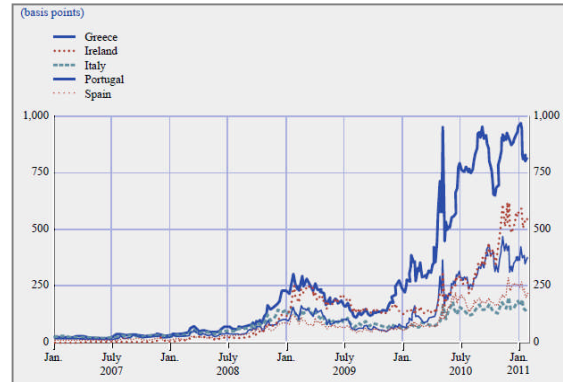
From: ECB (2012b). Source: ECB.

Chart 8. Net balance with the Eurosystem, namely Target 2 credits and debits (Euros, billions).



Source: Institute of Empirical Economic Research, Universität Osnabrück.

Chart 10. Spreads of the ten-year government bonds of selected Euro area countries against the German Bunds.



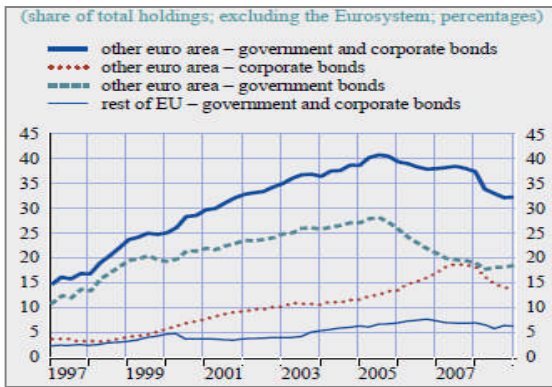
From: ECB (2011b). Source: Thomson Reuters and ECB calculations.

Chart 9. Cross-country standard deviation of both the average unsecured interbank lending rates [left-hand figure] and the average interbank secured (i.e. REPO) rates [right-hand figure] across Euro area countries.



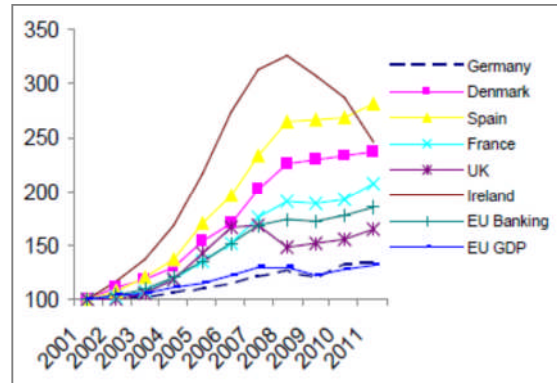
From: ECB (2010b). Source: EBF and ECB calculations.

Chart 11. The share of MFI cross-border holdings of debt securities issued by Euro area and EU non-MFIs (outstanding amounts, by residency of the issuer).



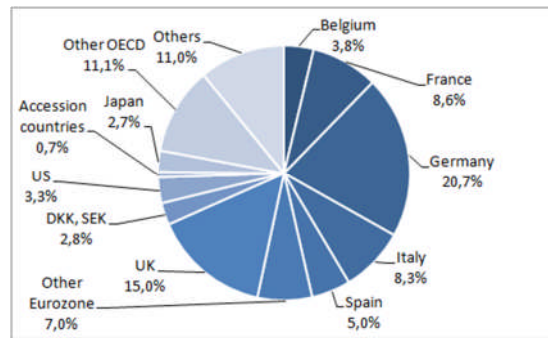
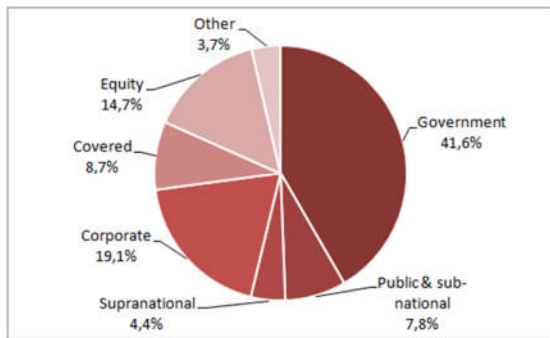
From: ECB (2010b). Source: ECB.

Chart 13. bank sector assets (index, 2001=100).



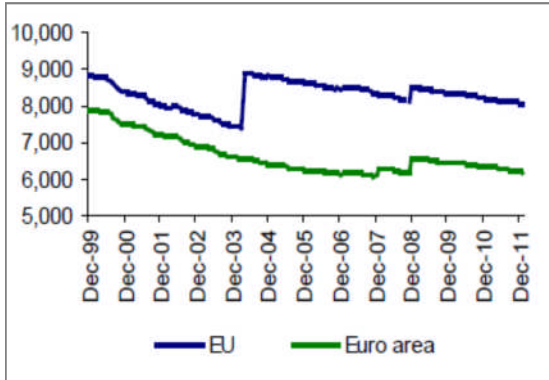
From: ECB (2012a). Source: ECB.

Chart 12. REPOs collateral analysis by type of security (left-hand picture) and by country (right-hand picture) on June 2012.



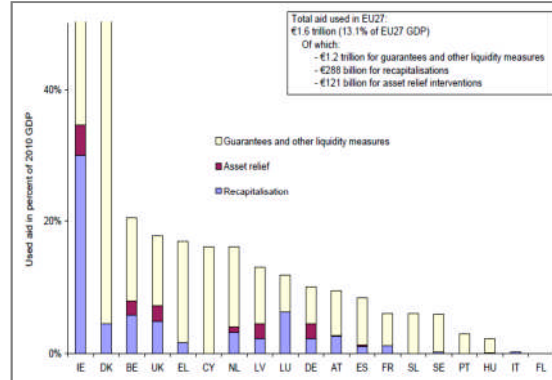
Source: our elaboration on ICMA's statistics. From: ECB (2012a). Source: ECB.

Chart 14. Number of monetary financial institutions in both EU and Euro Area.



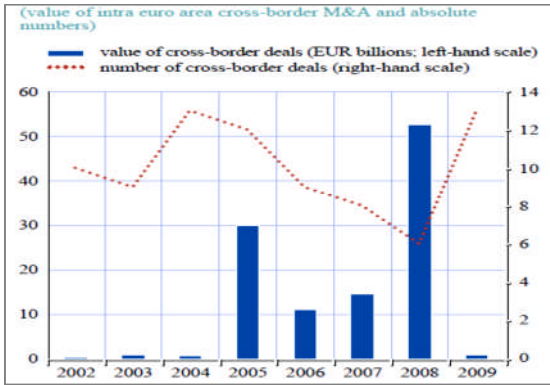
From: ECB (2012a). Source: ECB.
 Notes: the breaks are due to EU accession and more countries adopting the Euro.

Chart 15. Amount of State aid actually used by the financial sector.



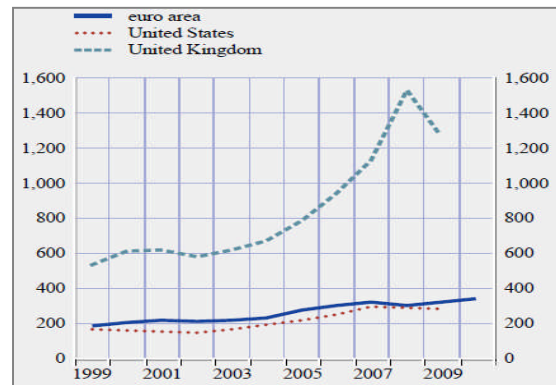
From: ECB (2012a). Source: Commission Services (2011), "Facts and figures on state aid in the EU Member States", Commission Staff Working Document, SEC(2011)1487, December.
 Note: shows total amounts of used aid during October 2008 and December 2010, in percent of 2010 GDP Vertical axis cut at 50%, such that high values for Ireland (269%) and Denmark (67%) are not shown. Eight Member States with zero amounts of used aid are omitted.

Chart 16. Euro area cross-border bank M&A activity.



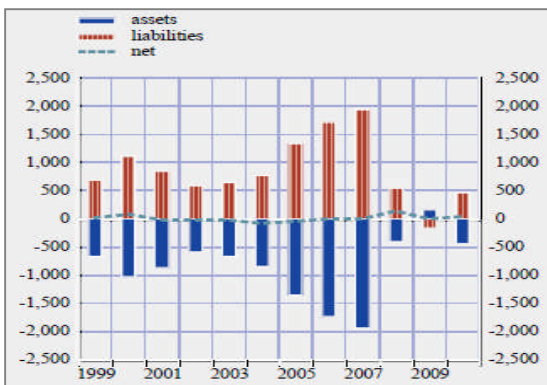
From: ECB (2010b). Source: Bureau van Dijk (Zephyr database) and ECB calculations.

Chart 17. Financial integration of Euro area, US and UK prior to the crisis (sum of outstanding amounts of cross-border assets and liabilities as a percentage to GDP).



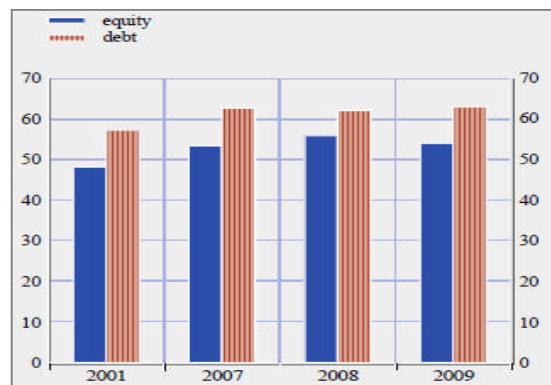
From: Forster et al. (2011). Source: ECB and Haver Analytics.

Chart 18. Euro area financial account (billions Euros, annual flows).



From: Forster et al. (2011). Source: ECB.

Chart 19. Intra-Euro area portfolio holdings of debt and equity (as percentage of total holdings, billion Euros).



From: Forster et al. (2011). Source: CPIS and ECB staff calculations.

Chart 20. Foreign claims of 'core' EMU countries vis-à-vis Greece, Ireland, Italy, Portugal and Spain (as a percentage of total foreign claims).

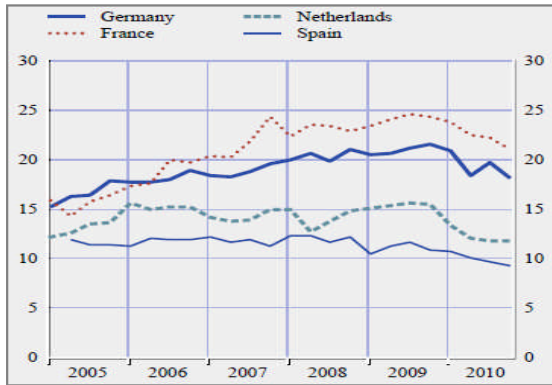
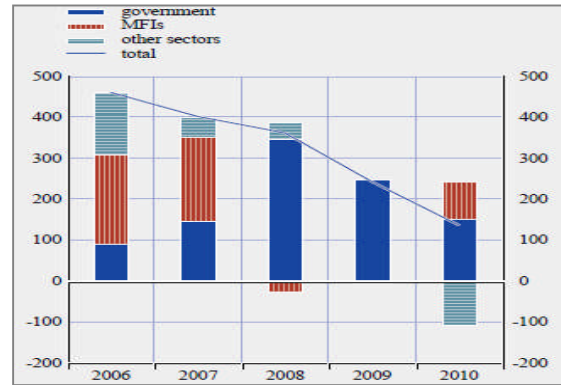


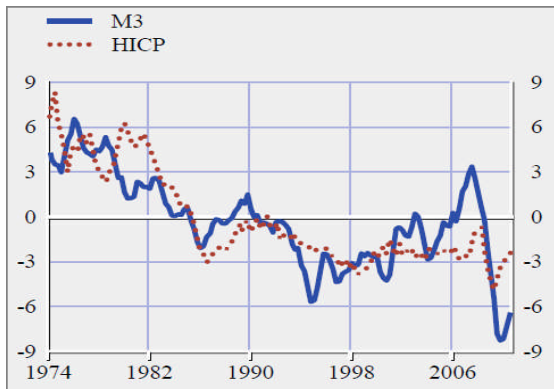
Chart 21. Non-Euro area residents' investment in Euro area debt by issuing sector (billion Euros, annual flows).



From: Forster et al. (2011). Source: BIS and ECB staff calculations.

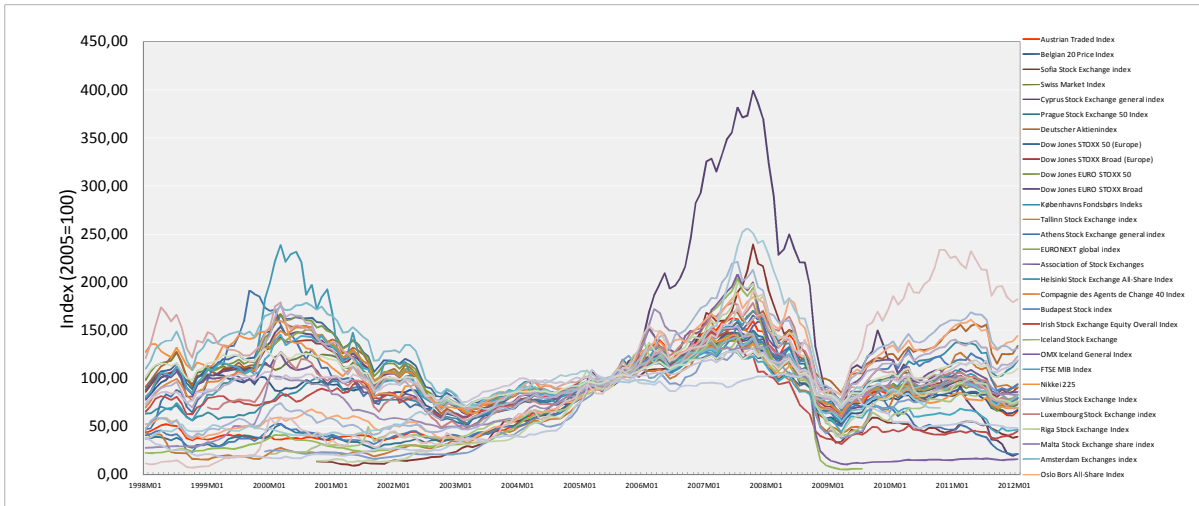
From: Forster et al. (2011). Source: ECB.

Chart 22. Frequency decomposition of M3 and HICP (annual percentage changes; deviations from mean).



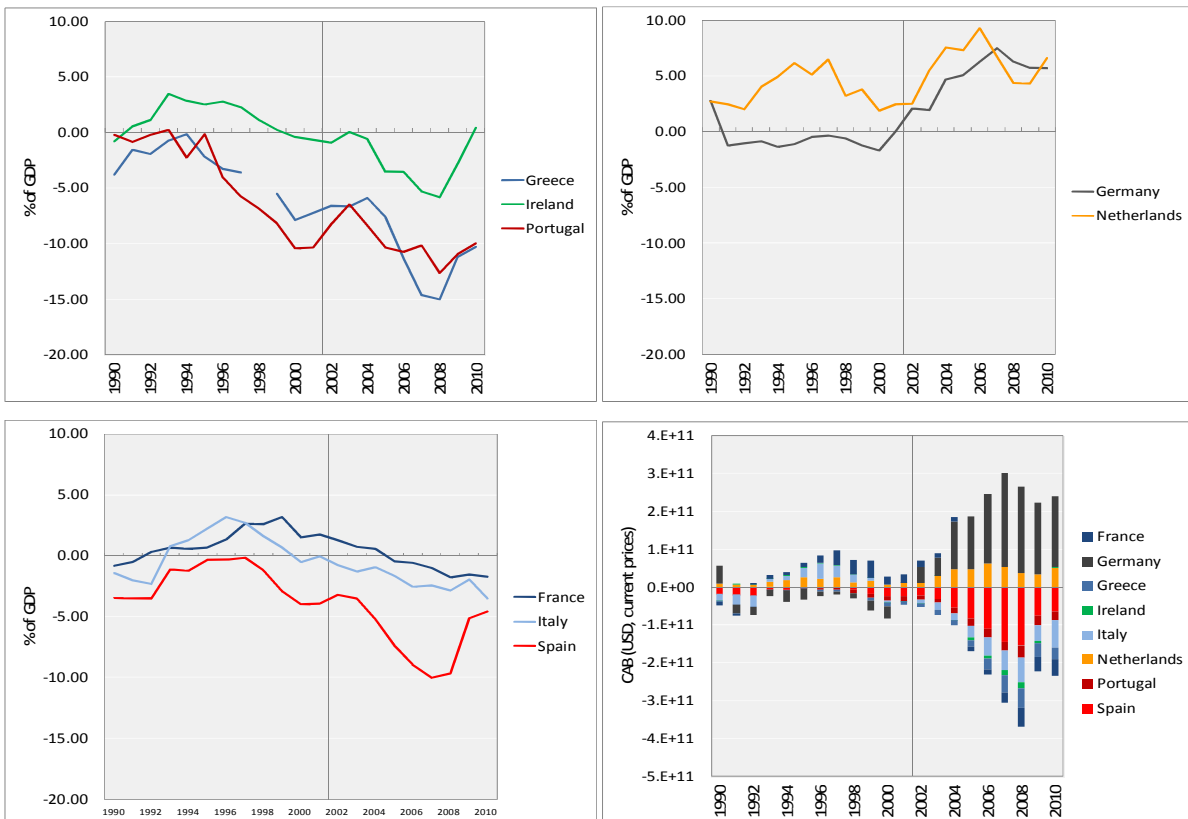
From: ECB (2011b). Source: ECB, ECB calculations.

Chart 23. Share market indices for a number of European selected countries.



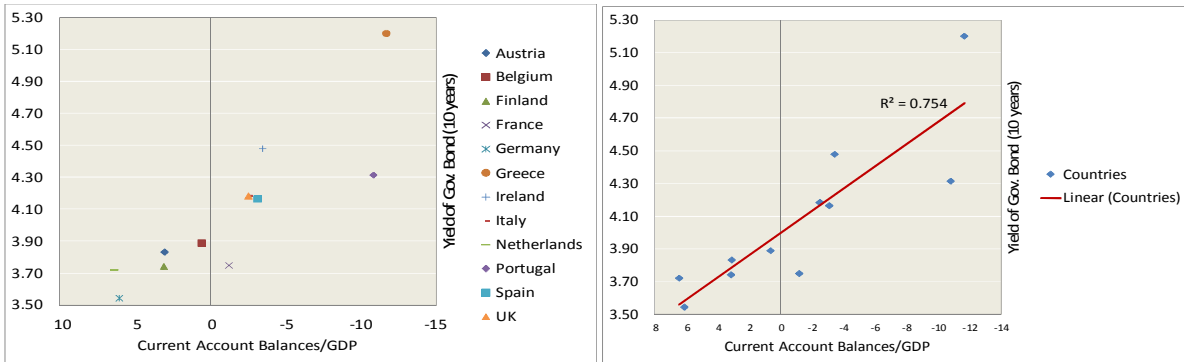
Source: our elaboration on Eurostat statistics, March 2012.

Chart 24. Current account imbalances of a number of selected Eurozone's countries.



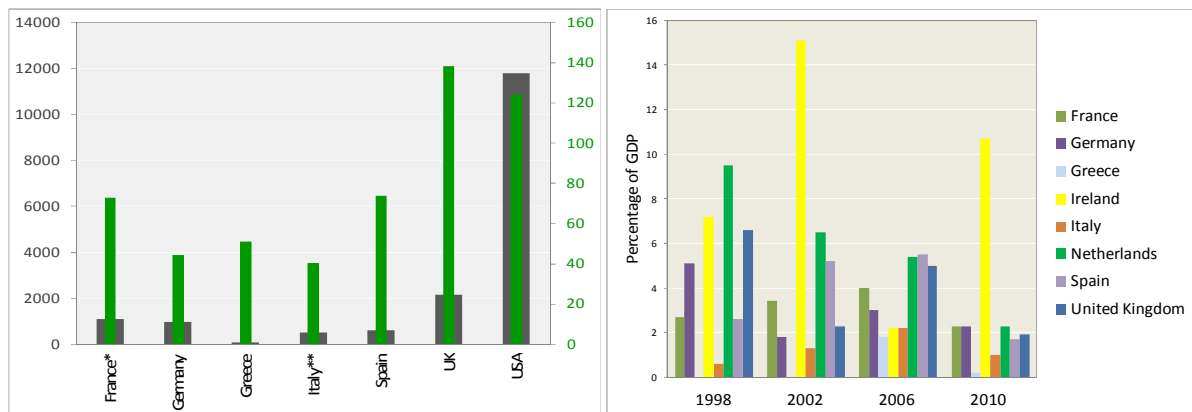
Source: our elaboration on World Bank statistics, February 2012.

Chart 25. Current account imbalances (to GDP) and yield of government bonds of a number of selected Eurozone's Member States plus the UK (average 2005-2010).



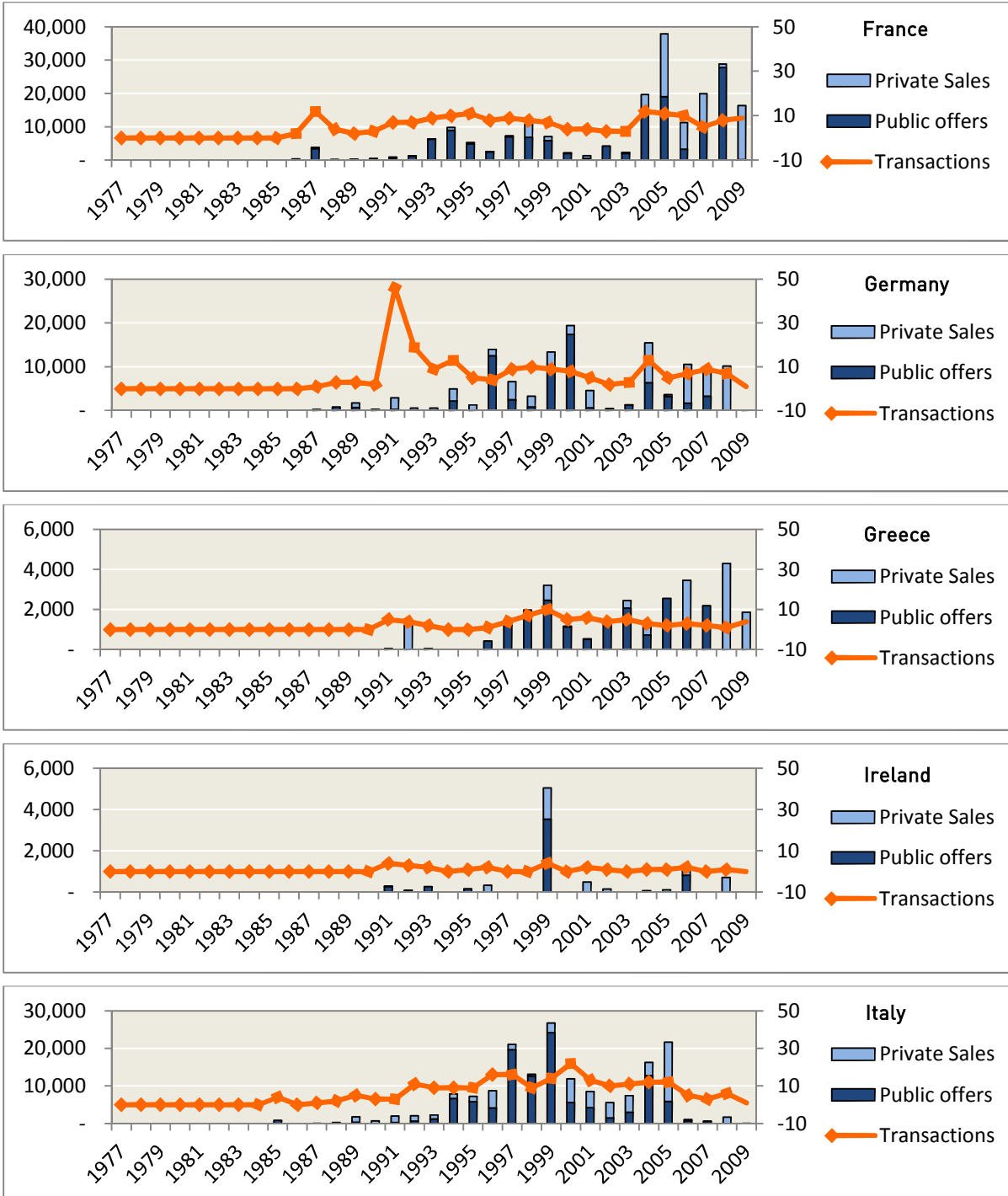
Source: our elaboration on World Bank statistics and ECB statistics, March 2012.

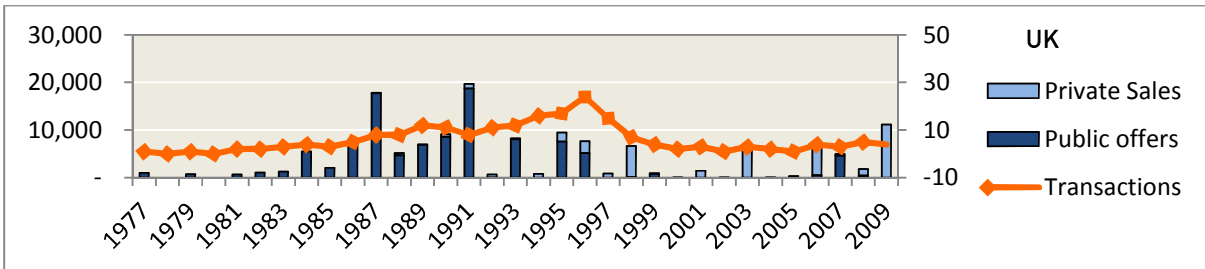
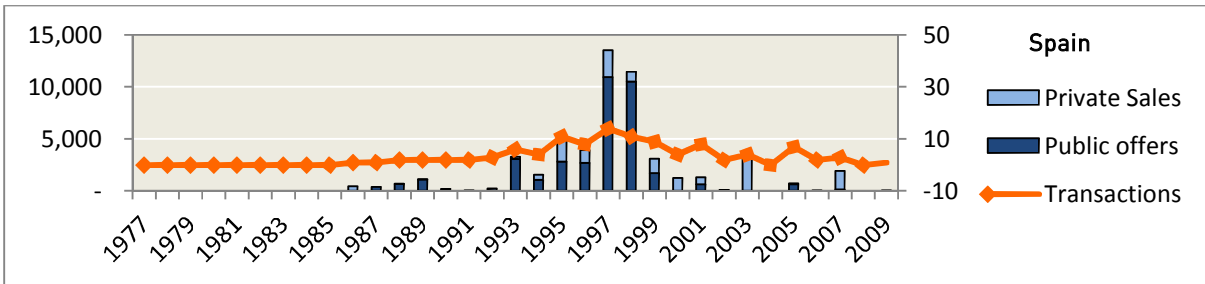
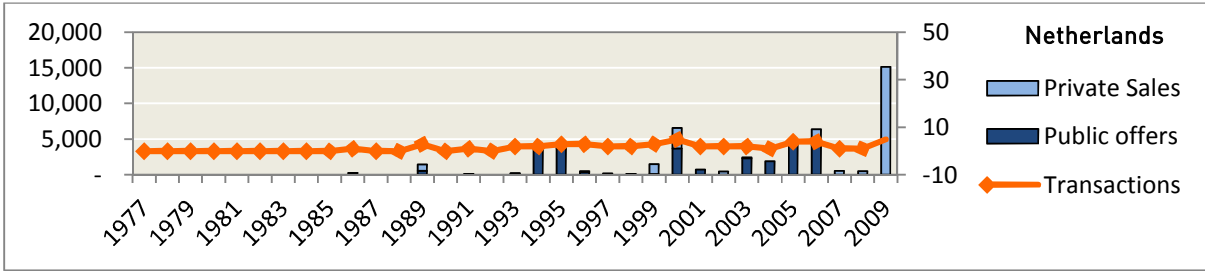
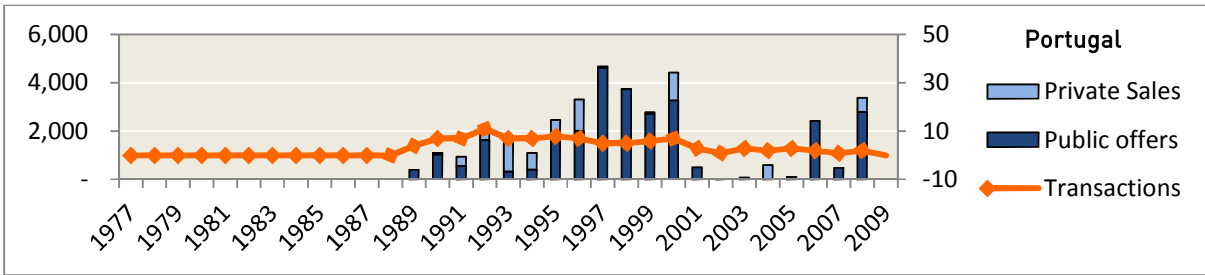
Chart 26. Left-hand picture shows the market capitalization of a number of selected economies: amount (average 2005-2010, milliards of ECU/EUR) is reported on the left axis, whereas the percentage of GDP is reported on the right axis. Right-hand picture shows market integration (average value of inward and outward FDI flows) of some UE countries.



Source: our elaboration on Eurostat statistics, March 2012.

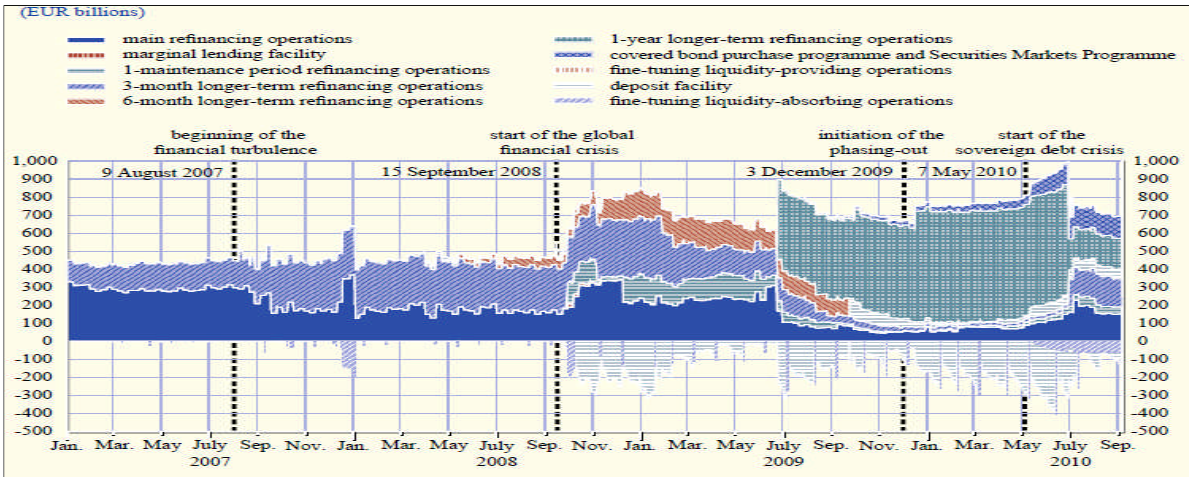
Chart 27. Privatizations in a number of selected EU Member States: total amount (US Dollars, millions) and number of transactions.





Source: our elaboration on Privatization Barometer statistics, March 2012.

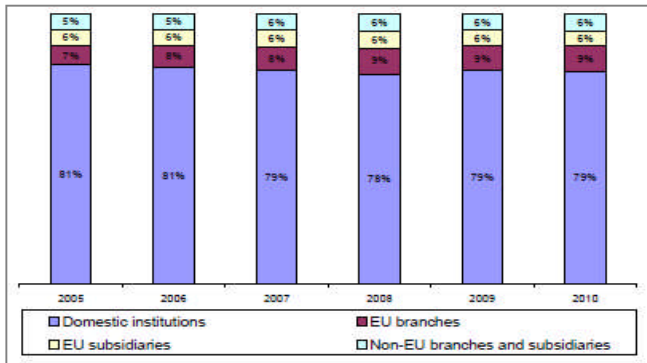
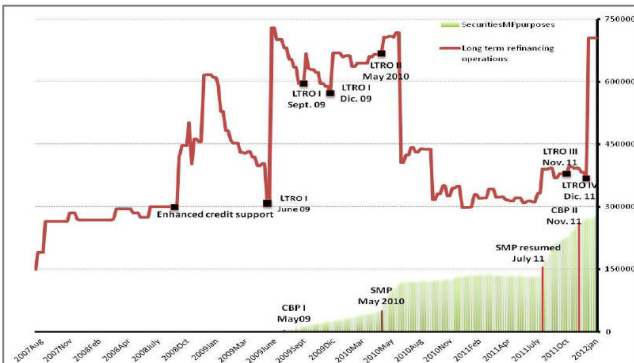
Chart 28. Provision and absorption of liquidity by the Eurosystem.



From: ECB (2010d). Source: ECB.

Chart 29. Market-based and bank-based crisis measures adopted by ECB since 2008.

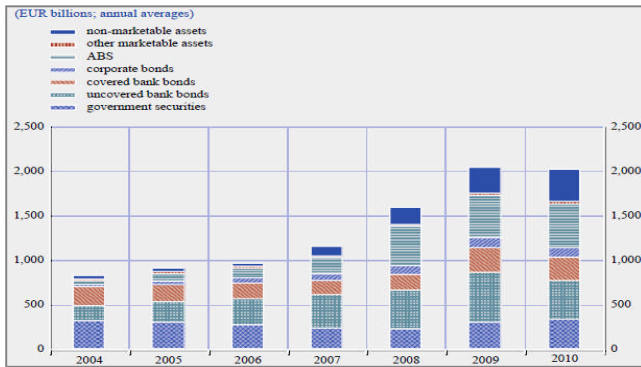
Chart 30. Domestic and foreign banks: number in percentage of total.



From: Gabor (2012a). Source: ECB.

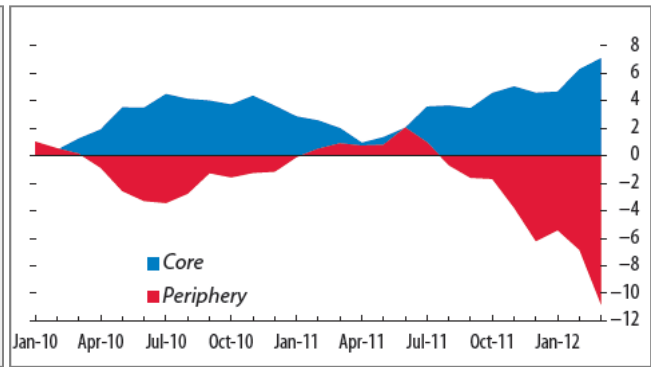
From: ECB (2012a). Source: ECB struct. indicators.

Chart 31. Breakdown of assets submitted as collaterals to ECB.



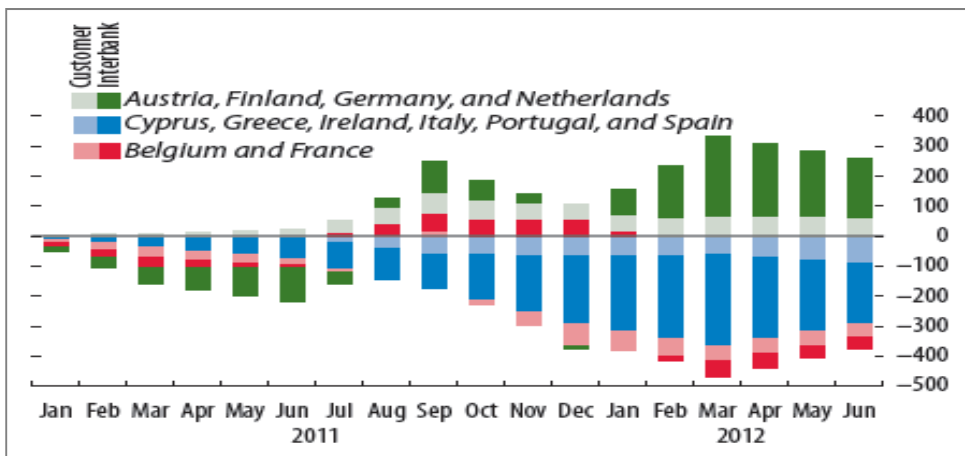
From: ECB (2011b). Source: ECB.

Chart 32. Portfolio and Other Investment Capital Flows in the Euro Area Excluding Central Banks (Cumulative from December 2009, in percent of GDP in preceding year).



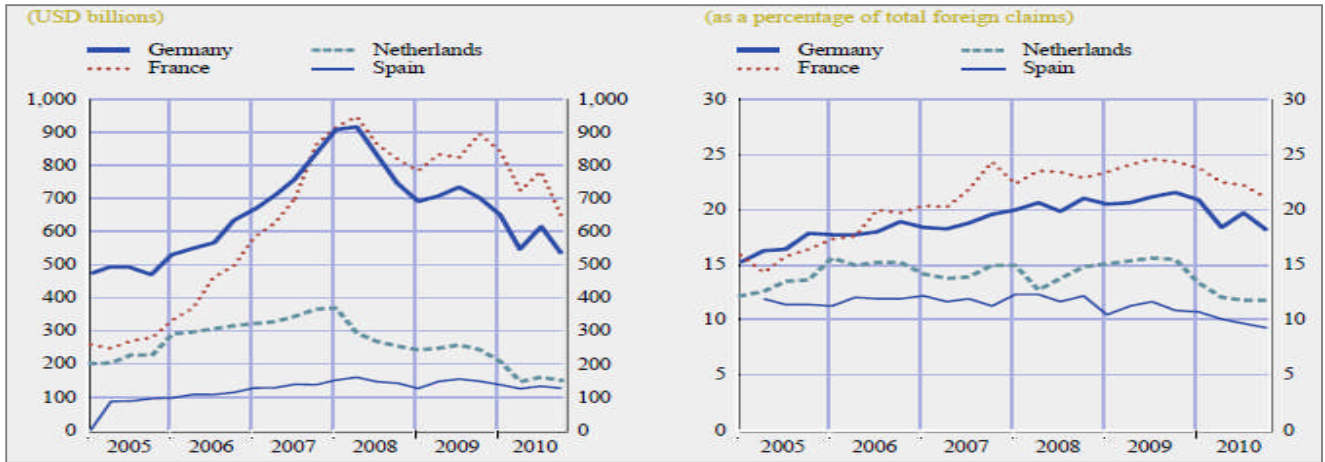
From: IMF (2012a). Sources: Haver Analytics and IMF staff estimates.

Chart 33. Bank deposit flows in the Euro area (billions Euros, cumulative change since December 2010).



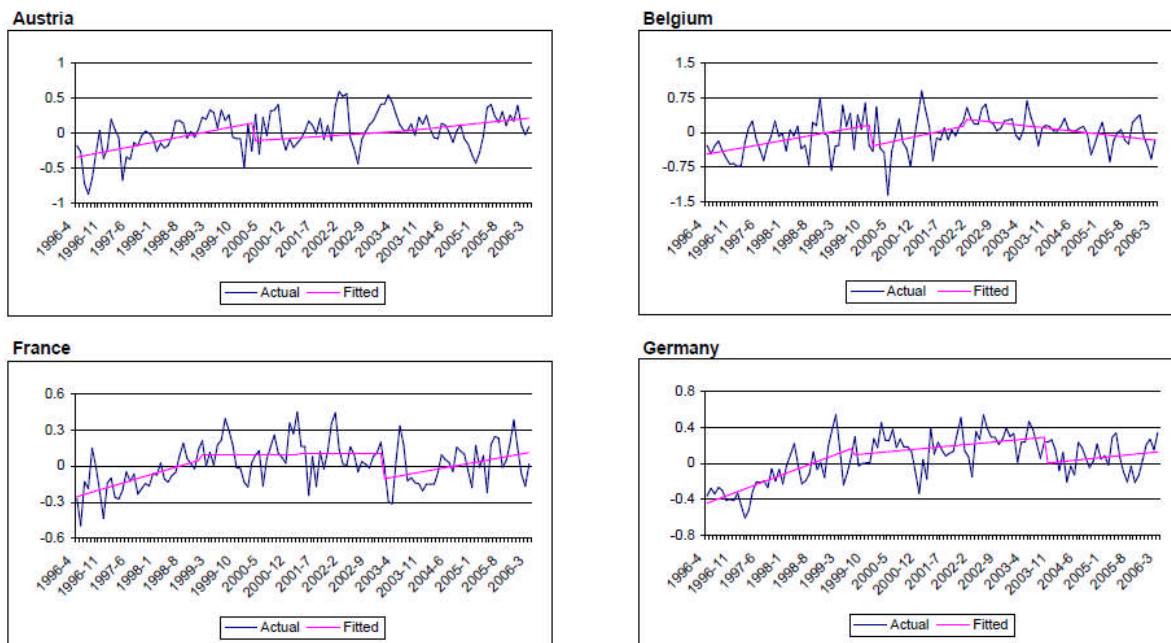
From: IMF (2012a). Sources: Haver Analytics; and IMF staff estimates.

Chart 34. Foreign claims of selected Euro area countries ('core' countries plus Spain) vis-à-vis 'peripheral' countries (Greece, Ireland, Italy, Portugal and Spain).

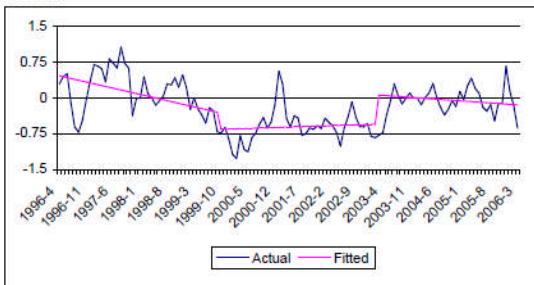


From: Forster et al. (2011). Source: BIS and ECB staff calculations.

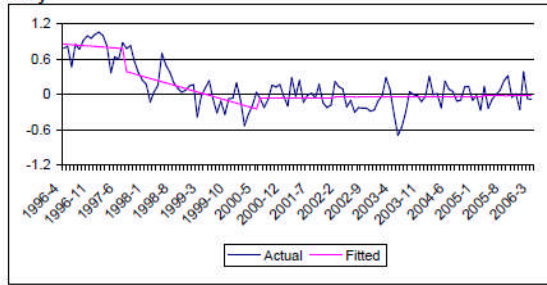
Chart 35. Real interest rate differentials against the EMU average in a number of selected countries (1996-2006). Actual values (blue lined) against the fitted deterministic-trend in three-sub periods (pink line).



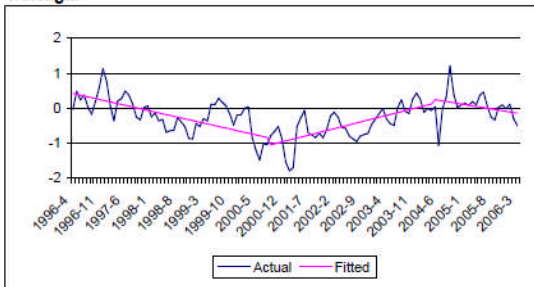
Ireland



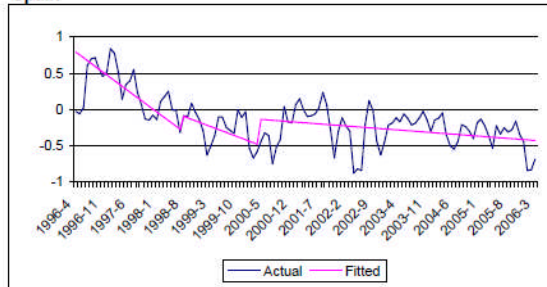
Italy



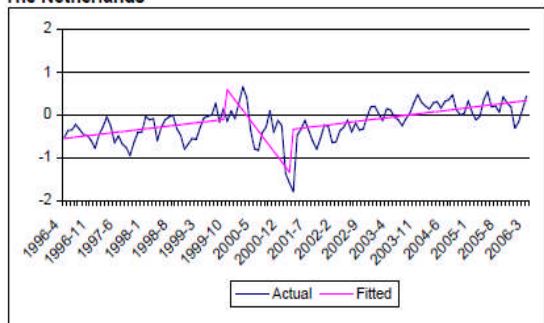
Portugal



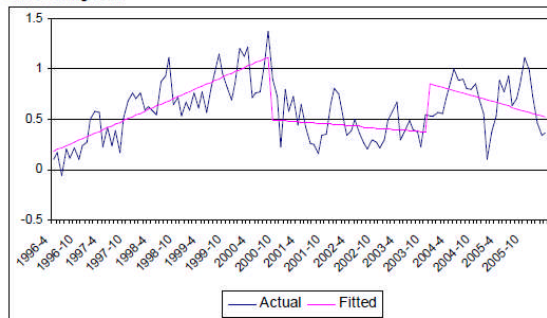
Spain



The Netherlands

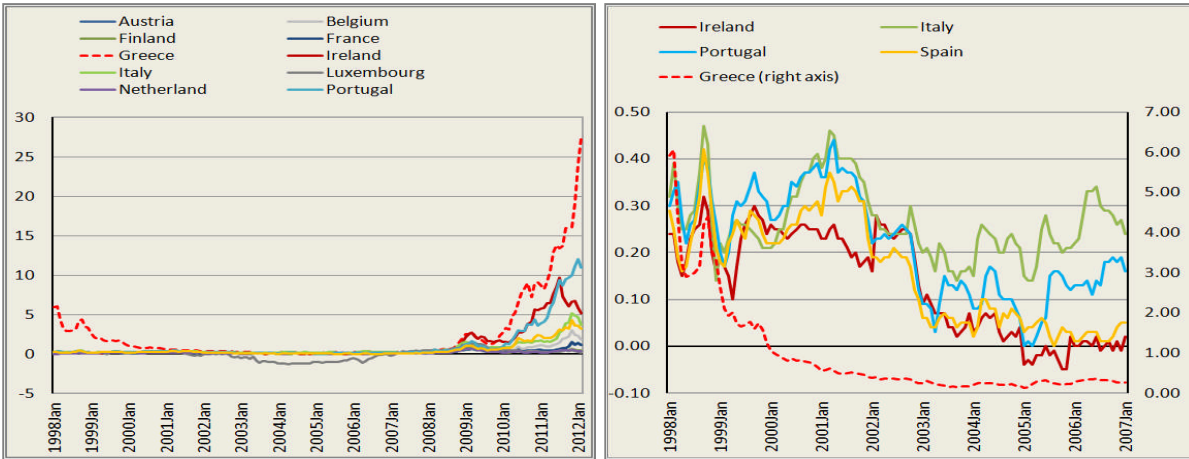


United Kingdom



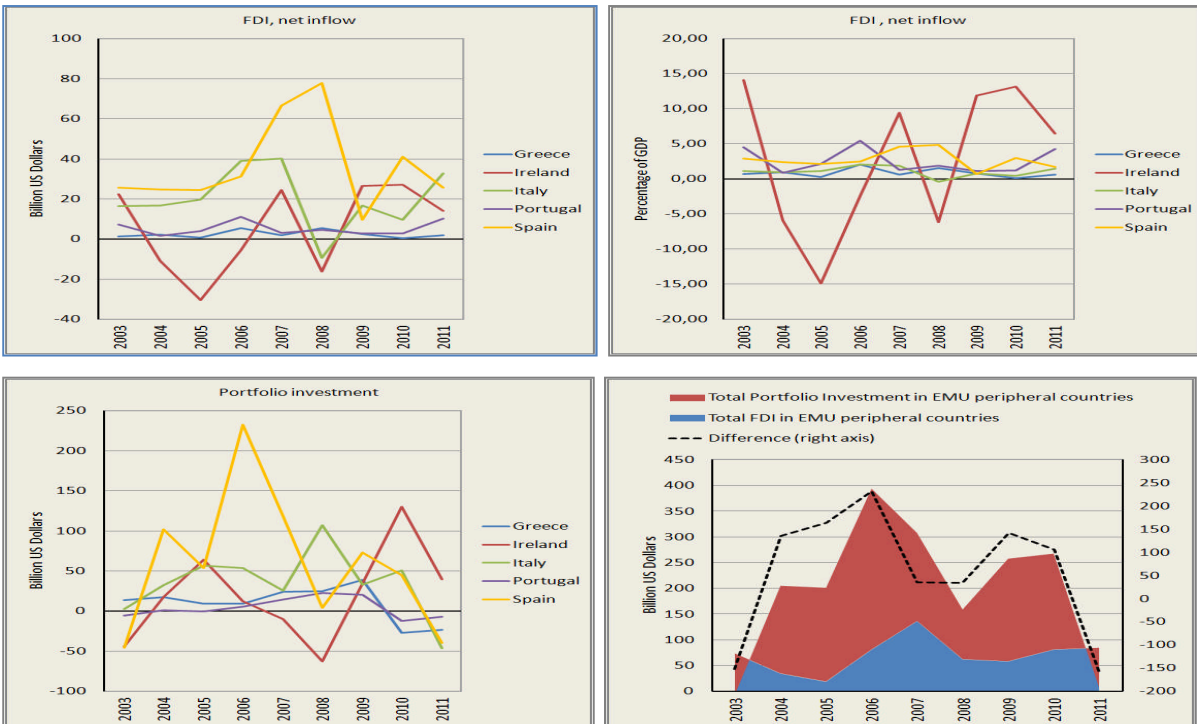
From: Argyrou et al. (2009). Source: Argyrou et al. (2009)'s calculations.

Chart 36. Trend in spreads of 10-year government bond yields (of a number of selected EMU countries) vis-à-vis returns on German bunds. Right-hand picture shows the convergence of peripheral government bond returns in the proximity of Euro launch (and until the US crisis).



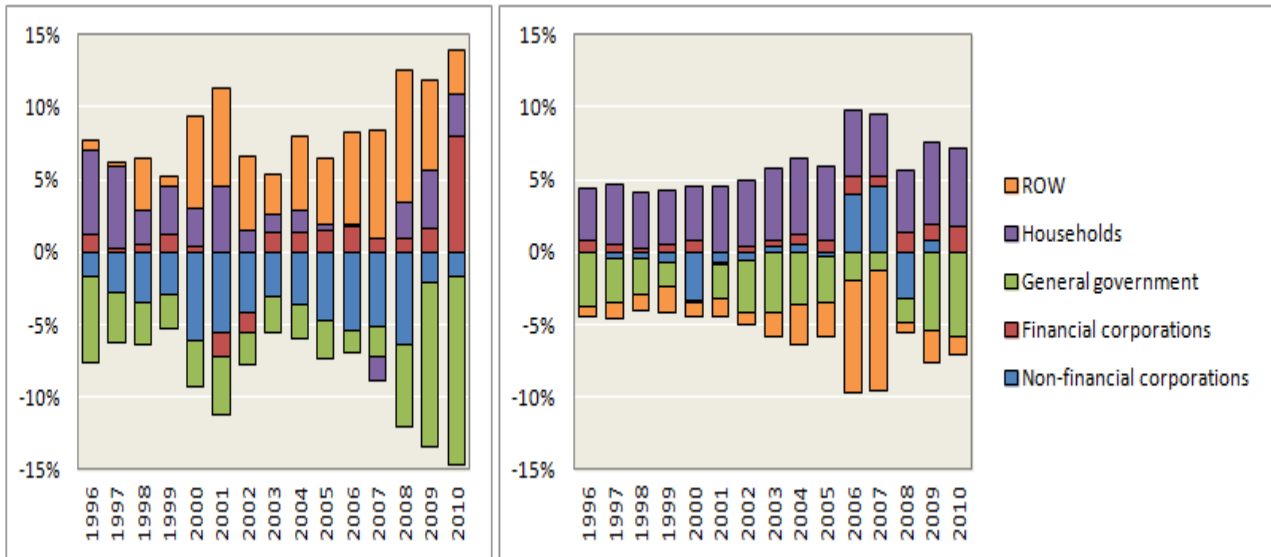
Source: our elaboration on ECB statistics, March 2012.

Chart 37. Foreign Direct Investment and Portfolio Investment (net of 'liabilities constituting foreign authorities' reserves', LCFAR) in a number of selected EMU countries.



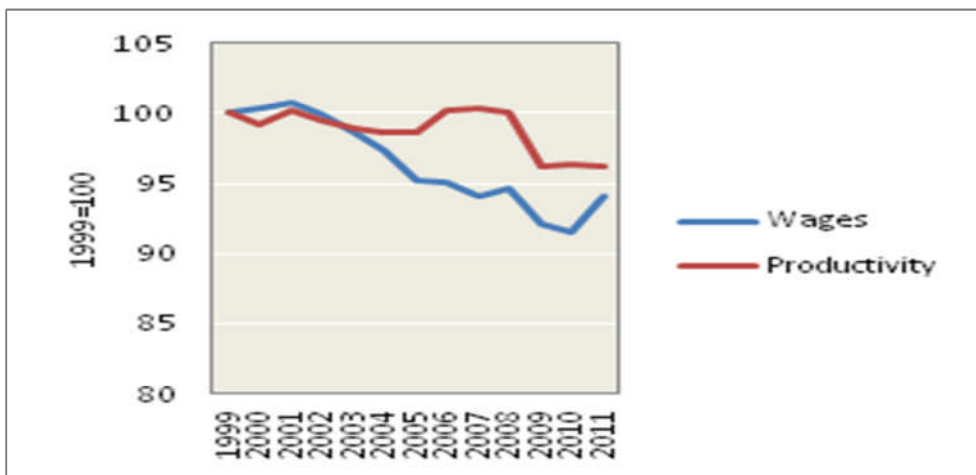
Source: our elaboration on statistics by WB (IMF and Balance of Payments Statistics Yearbook), October 2012.

Chart 38. Financial accounts by sector: average of EMU peripheral countries (Portugal, Ireland, Italy, Greece and Spain – left-hand axis) vs. average of core countries (France and Germany – right-hand axis).



Source: our elaboration on OECD statistics, March 2013.

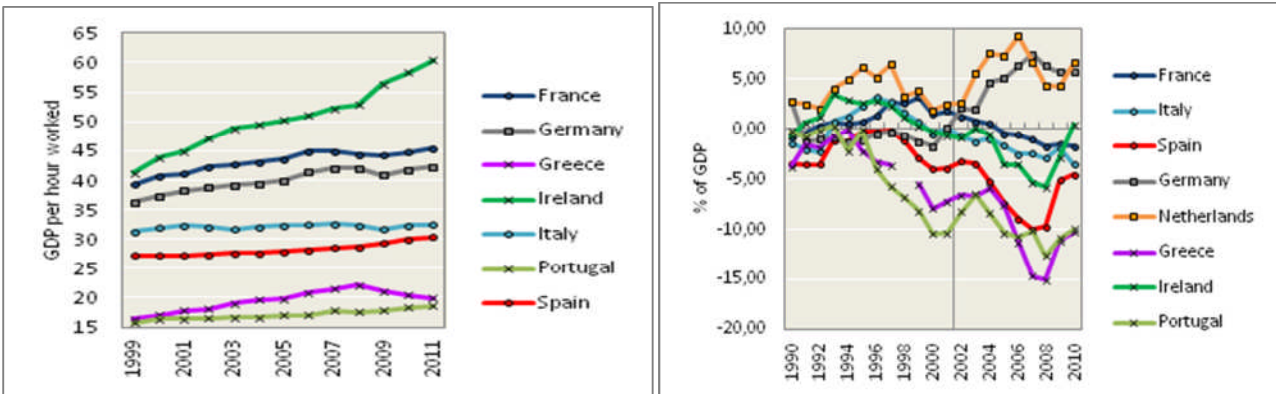
Chart 39. Trends in both hourly wages (PPPs) and labour productivities (GDP per worked hour, constant prices). Ratios of Germany to Average of Portugal, Ireland, Italy, Greece, Spain and France.



Source: our elaboration on OECD statistics, March 2013.

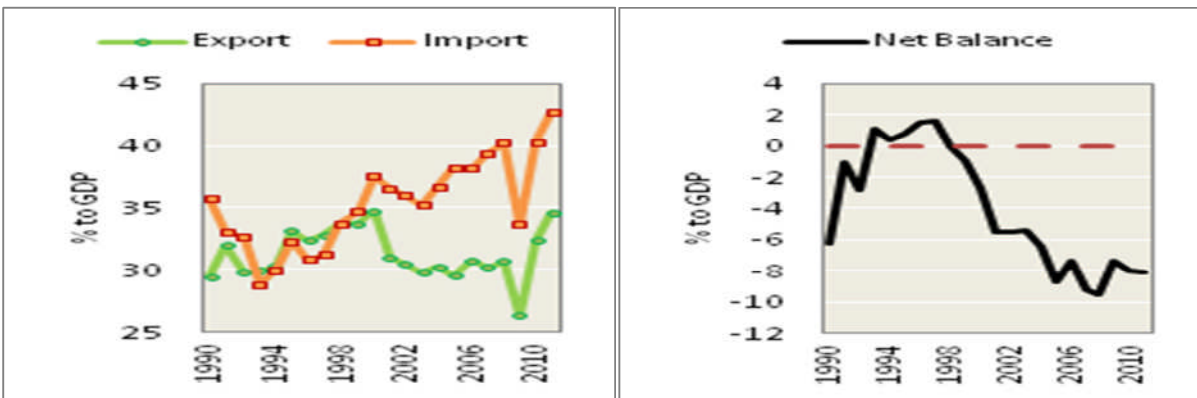
Chart 41. Current account balances (as % of GDP) in

Chart 40. Absolute level of labour productivity (GDP a number of selected EMU countries. per worked hour, constant prices) in a number of selected EMU countries.



Source: our elaboration on OECD statistics, March 2013.

Chart 42 Export, import and trade deficit of France vis-à-vis Germany (% of French GDP).



Source: our elaboration on OECD statistics, March 20113.

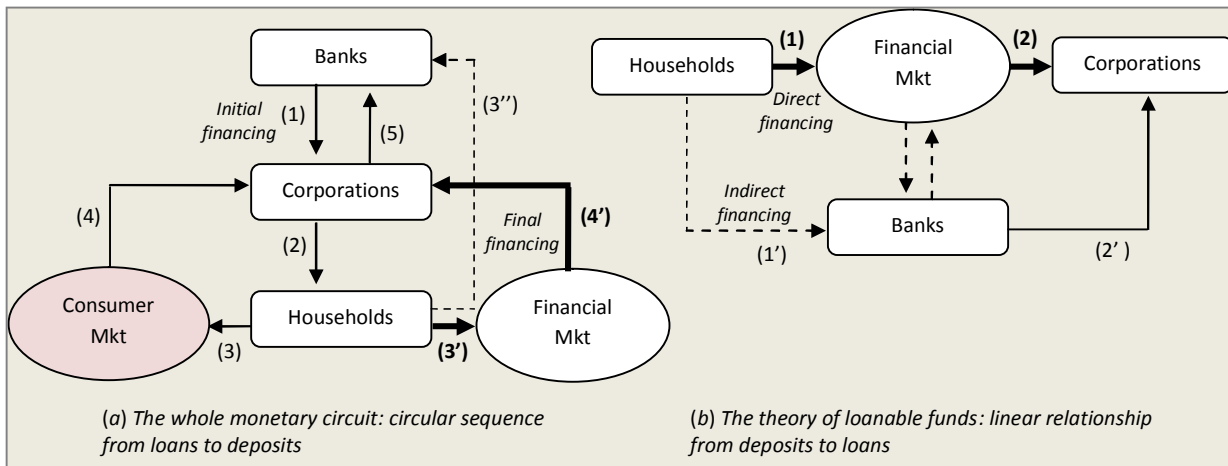
TABLES

Table 1. Institutional steps in the process of financial integration of European economies since the 1980s.

Year	Treaty / agreement	Content	Participants
1986	Single Market Programme (SMP)	Enhances the process of removal of the (remaining) national barriers to intra-European trade and capital flows.	EEC members (12)
1987	Single European Act (SEA)	Aims to ensure the 'four freedoms' (in the wake of Cockfield's White Paper named 'Completing Internal Market') within the Europe, namely, the free movement of: i. people; ii. goods; iii. services; iv. capital. Introduces the 'qualified majority voting' in order to facilitate the removal of national barriers.	EEC members (12)
1992	Treaty of the European Union (or Maastricht Treaty)	Creates the Euro and the 'pillar structure' of the European (Monetary) Union. Introduces the 'convergence criteria'.	EEC members (12)
1997	Stability and Growth Pact (SGP)	Ensures the maintenance and the enforcing of 'fiscal discipline' through: i. the strengthening of the surveillance of budgetary positions and economic policies (the 'preventive arm'); ii. the speeding up of the excessive deficit procedure (the 'dissuasive arm').	EU (27)
2005	First Reform of the SGP	Relaxes the SGP's excess deficit procedure.	EU (27)
2011	Second Reform of the SGP (or Euro-Plus Pact)	Entails, <i>inter alia</i> , the reinforcing of financial stability measures in the EU. Benchmark levels (to be included in national legislations) of private debt (for banks, households and non-financial firms) are established.	EU (27)
2012	Treaty on Stability, Coordination and Governance in the Economic and Monetary Union (TSCG, also called Fiscal Compact)	Establishes that, no later than one year after it enters into force, Member States are required to have enacted laws requiring their national budgets to be in balance (i.e. a general budget deficit less than 3.0% of GDP, and a structural deficit of less than 0.5% of GDP, or 1% in the case of debt significantly below the 60%) or in surplus. National laws must provide for a self-correcting mechanism to prevent their breach. New "debt brake" criteria are also introduced: Member States whose government debt-to-GDP ratio exceeds the 60% have to reduce it at an average rate of (minimum) 5% per year of the exceeded percentage points	EU (27) except for the UK and Czech Republic

FIGURES

Figure 1. A comparison between the whole monetary circuit and the loanable funds' framework (the latter is drawn by ECB 2011b, Chart 2.3, p. 39).



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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?'

THE PARTNERS IN THE CONSORTIUM ARE:

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1 (Coordinator)	University of Leeds	UK
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3	School of Oriental and African Studies	UK
4	Fondation Nationale des Sciences Politiques	France
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