IMF STAFF DISCUSSION NOTE

July 2014

SDN/14/7

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Thierry Tressel, Shengzu Wang, Joong Shik Kang, and Jay Shambaugh, directed by Jörg Decressin and Petya Koeva Brooks

INTERNATIONAL MONETARY FUND

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Prepared by Thierry Tressel, Shengzu Wang, Joong Shik Kang, and Jay Shambaugh, directed by Jörg Decressin and Petya Koeva Brooks[1]

Authorized for distribution by Reza Moghadam and Olivier Blanchard

July 2014



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| JEL Classification Numbers: | F10, F14, F16, O52, P51 |
| Keywords: | Euro Area; Crisis; Current account; Rebalancing; Competitiveness; External stability; Labor market; Structural reforms |
| Authors' E-mail Addresses: | Ttressel@imf.org; Swang2@imf.org; Jkang@imf.org; jshambaugh@email.gwu.edu |

[1] The authors are grateful to Olivier Blanchard, Mahmood Pradhan, Antonio Spilimbergo, and colleagues in the European, Communication, Research, and Strategy, Policy, and Review Departments of the IMF for useful discussions and comments.

# Contents

# EXECUTIVE SUMMARY

- Imbalances within the euro area have been a defining feature of the crisis. Since the start of Economic and Monetary Union (EMU), several euro area "deficit" economies have accumulated large net foreign liabilities (NFLs) on the back of domestic demand booms and large capital inflows. These included Greece, Ireland, Portugal, and Spain. When the crisis hit, capital inflows stopped, and liquidity dried up. The deficit economies suffered deep recessions and very large increases in unemployment rates. The primitive forces that caused external imbalances have partly been reined in, including scaled-back expectations about future productivity growth and related capital flows and reduced implicit guarantees owing to financial sector reforms and policy actions, including debt restructuring.

- However, many additional adjustments are needed to achieve the dual objectives of restoring external balance—that is, a NFL position that is deemed sustainable by market participants—and internal balance, namely sufficiently high and sustainable growth to reduce unemployment to acceptable levels. Given the absence of nominal exchange rates, relative price adjustment needs to come via relative changes in prices and costs: internal devaluations. To the extent that these devaluations are achieved mainly by falling prices in deficit rather than rising prices in surplus economies, they can reduce domestic demand and exacerbate debt overhang problems.

- Relative price adjustments have been proceeding gradually. The real effective exchange rates of the deficit countries have depreciated by 10–25 percent. These depreciations have been driven largely by reductions in unit labor costs (ULCs) due to shedding of labor. While exports have typically rebounded, slumping internal demand (and imports) account for much of the reduction in current account deficits. This trend has not been matched by stronger demand and narrower current account surpluses elsewhere in the euro area. Thus the current account balance of the euro area as a whole has shifted from deficit into surplus, and internal rebalancing has come with subdued activity, notably very high unemployment in the deficit economies, contributing to more painful adjustment. Under current projections, it will take a long time before the NFLs of the deficit countries decline to levels that are common elsewhere. In the meantime, the net foreign assets of surplus economies, such as Germany and the Netherlands, have continued to expand.

- In the short run, weak demand for exports from euro-area partner economies and very low inflation in the euro area are hindering the internal rebalancing. Therefore, macroeconomic policies are needed to support demand and bring inflation in line with the "below but close to 2 percent" medium-term price stability objective, as well as further bank balance sheet repair to improve prospects for credit and investment. Structural reforms in labor and product markets are critical to improve productivity and support the reallocation of resources to tradable sectors in the medium run, thereby helping deficit countries to grow within a tighter external budget constraint. Continued institutional reforms at the EU and euro area levels, particularly to complete the Banking Union and develop capital markets, are important to ensure proper financial intermediation. Going forward, elements of a Fiscal Union to create some fiscal integration among Member States would facilitate risk sharing and adjustments in the euro area.

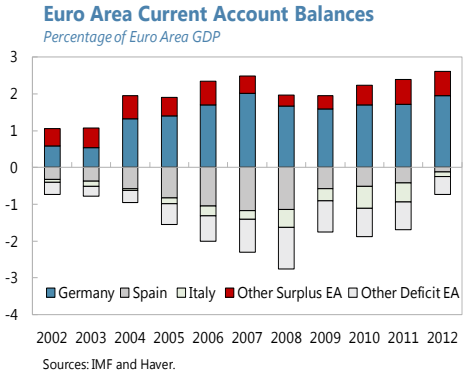
# INTRODUCTION

*"A major effect of EMU is that balance of payments constraints will disappear in the way they are experienced in international relations. Private markets will finance all viable borrowers, and savings and investment balances will no longer be constraints at the national level."(European Commission, 1990, "One Money, One Market")*

1. ***The Economic and Monetary Union: origins.*** In 1989, The Delors Report made the case for the EMU, arguing that a union with perfect capital mobility would strengthen the EU single market.[2] It would eliminate exchange rate volatility, prevent balance-of-payment crises, and therefore foster trade and financial integration among participating countries. Institutional convergence would follow, while trade and cross-border financial integration would ensure that viable private consumption and investment of member countries would always be financed.

2. ***Concerns***. Many were concerned about the viability of a monetary union that did not seem to meet key criteria of an optimal currency area, such as very similar national business cycles, a high degree of labor mobility, and significant cross-country fiscal risk sharing. In the event, the creation of the euro triggered a substantial convergence of nominal interest rates on the back of important but uneven financial market integration and wide divergences in national economic developments (Laeven and Tressel, 2013a). Relatively little attention was given to the ballooning NFLs of several economies, as external adjustment of individual countries was expected to occur progressively through expansions or contractions of monetary aggregates (see Wyplosz, 2006, for a review of the debates). However, some commentators noted that the macroeconomic heterogeneity across member states could become a source of concern (Mongelli and Wyplosz, 2008; Lane, 2006).

3. ***The crisis***. After the creation of the euro, market perceptions about risks related to banks, firms, and governments had become increasingly less related to nationality. As capital flowed into the deficit economies—particularly Greece, Ireland, Portugal, and Spain, this fuelled domestic demand and housing booms. Their current account balances, which in some cases already posted significant deficits, recorded very large declines, and NFLs accumulated to very high levels. The hoped-for progressive external adjustment through monetary aggregates did not occur. Rather, market perceptions about risks became again strongly associated with individual countries, for example Greece and Portugal, and the euro area countries with large NFLs experienced sudden reversals of capital inflows in 2010–2012 (IMF, 2011). As private capital withdrew from the stressed economies, adverse sovereign-bank-real economy feedback loops exacerbated the crisis (IMF,




[2] Report on Economic and Monetary Union in the European Community, Committee for the Study of Economic and Monetary Union, chaired by Jacques Delors President of the European Commission, 1989.

2012; Shambaugh, 2012). In part, these feedback loops arose because safety nets and backstops remained national. This provided fertile ground for fears of exits from the monetary union. As a result, the balance of payment of individual countries——which normally should not matter in a monetary union——became a critical source of risk. Various interventions from the European Central Bank (ECB), member states, and multilateral organizations were needed to stabilize the situation, including official financing and debt restructuring.

4. ***The adjustment.*** Since then, external imbalances within the euro area have narrowed, while large internal imbalances have emerged. External adjustment has been asymmetric. Economies with current account deficits have seen those narrow appreciably (even turning into surpluses in some cases), whereas those with surpluses have not seen commensurate declines. A large share of the decline in current account deficits is related to slumping activity. Thus, progress with respect to reducing external imbalances and rebuilding competiveness has been associated with large internal imbalances, notably very high unemployment. Furthermore, while current account deficits are greatly reduced, the large NFLs have declined only very moderately.

5. ***Scope of the paper.*** To contribute to the ongoing debate, this paper provides a critical analysis of the rebalancing of euro area deficit countries. The paper focuses on "deficit economies," defined as the euro area economies that accumulated very large current account deficits and net external liability positions in recent years and suffered severe market pressure: Greece, Ireland, Portugal, and Spain. While Italy also suffered severe market pressure and an erosion of external competitiveness, its current account deficit and net external liability position in percent of GDP were much smaller than those of the deficit economies. The critical role of surplus economies in helping along relative price adjustment within the euro area is left to future research. Nonetheless, developments in Germany, along with those in Italy and France, are discussed in various places for the sake of comparison and completeness. After providing some background on the causes of the imbalances and a brief narrative of the crisis (section II), the paper describes the adjustment mechanisms within a monetary union (section III), before presenting stylized facts on the progress with rebalancing and remaining adjustments going forward (section IV). Section V discusses policies to facilitate the internal and external rebalancing of deficit countries. Section VI concludes.

# BACKGROUND

## A. What Caused Euro Area Imbalances?

6. ***Expectations of economic convergence.*** [3] The build-up of large external imbalances in the deficit economies had multiple, intertwined causes. A commonly held view at the start of EMU was that the removal of exchange rate risk and of other transaction costs would trigger "downhill" capital flows, leading to the convergence of income levels within the euro area

[3] The emergence of large external imbalances was also a global phenomenon (Blanchard and Milesi-Ferretti, 2009). With a strong global expansion and the apparent success of the "great moderation", global risk aversion and interest rates declined and were accompanied by a large increase in cross-border capital flows.

(Blanchard and Giavazzi, 2002; Schmitz and von Hagen, 2007).[4] Current account deficits, real exchange rate appreciations, and positive inflation differentials of deficit countries vis-à-vis the rest of the euro area would then be healthy by-products of a Balassa-Samuelson effect (European Commission, 2008).

7. ***Exuberant investors fuelled domestic demand booms in deficit economies in search of higher yields.*** Capital flowed steadily from core euro area countries, especially Germany and France (and the United Kingdom in the case of Ireland), mostly toward deficit countries' sovereigns or banks (Chen and others, 2012). The capital flows financed property booms (especially in Ireland and Spain, but also in Greece), at the expense of tradable sectors (IMF, 2011). The latter undermined prospects for repaying debts in the future (Giavazzi and Spaventa, 2010). Higher growth and domestic demand helped fuel wage growth in excess of that elsewhere in the euro area and in other trading partners, with the increase in ULCs coming primarily in the non-traded sectors.[5] Interest rates no longer served as signals of macroeconomic pressure points, because market discipline had weakened (IMF, 2011; Honohan, 2009). As sovereign ratings converged, markets adopted procyclical behaviors, and risks were not priced in (Laeven and Tressel, 2013a).

8. ***Asymmetric trade shocks.*** Asymmetric effects of world trade developments turned out to be significant and exacerbated real exchange rate overvaluations in several deficit countries (Chen and others, 2012). The rise of China displaced several countries' exports from their foreign markets. And higher oil prices contributed to rising trade deficits. At the same time, higher income in oil-producing countries—together with the rise of China—generated strong demand for machinery and equipment exported by Germany (IMF, 2011). German firms continued their outwards integration by setting up production platforms in emerging Europe, boosting its competitiveness and exports to the deficit economies, which by contrast attracted little foreign direct investment (IMF, 2013e).

9. ***Decline in transfers and rising income payments***. In many deficit economies, the current account balance worsened more than the trade balance, because of declining private and official transfers and rising net income payments. Typically, falling transfers lead to lower consumption and an improved trade balance, as the recipient country adjusts to the income shock. But this did not happen, perhaps because private agents in the deficit economies anticipated rising incomes and thus took advantage of rising capital inflows to maintain their consumption or investment plans (Kang and Shambaugh, 2013).

10. ***Sizeable overvaluations and deteriorating competitiveness.*** Signs of overvaluations became visible in several deficit countries (Jaumotte and Sodsriwiboon, 2010). However, the lion's share of the real exchange rate appreciations between 2000 and 2009 was accounted for by the nominal appreciation of the euro vis-à-vis other currencies, even for the countries such as

[4] The boom in Latvia was also triggered by EU accession and optimistic belief of convergence to EU per capita income (Blanchard and others, 2013).

[5] Between 2000 and 2009, the ULCs in Germany declined slightly, which helped moderate the average ULC inflation of the euro area.

Greece and Portugal that entered EMU at a potentially overvalued real exchange rate (Chen and others, 2012).[6] The contribution of relative prices and ULC was smaller. Also, the fact that most of the ULC increase came in the non-tradable sector may explain why exports did not substantially weaken. With the exception of Ireland, none of the crisis countries saw appreciable declines in export market shares during that period.[7] But their shares stagnated within the euro area, despite the removal of exchange rate risk. While not conclusive, this suggests that booming domestic demand and related developments were important factors behind the build-up of external imbalances, with deteriorating competitiveness and labor market rigidities exacerbating these imbalances.[8]

11. ***Low productivity and structural rigidities.*** Initial expectations about productivity growth in the deficit economies turned out overly optimistic, and real labor productivity growth declined relative to the euro area average (Chen and others, 2012; van Ark, 2013). Rigidities in labor market institutions meant that even at the peak of the boom, unemployment rates in the deficit economies remained relatively high, except in Ireland, while ULCs increased.

12. ***Set-up of the Economic and Monetary Union***. The functioning of the EMU reinforced the accumulation of large external imbalances.

- *Weak banking supervision*. The large current account deficits, rising external indebtedness, and growing asset-liability maturity mismatch of banks did not translate into policies to rein in related risks. Banks continued to easily expand across borders. National banking regulators could not constrain the behavior of foreign branches, while foreign regulators did not internalize cross-border spillovers of their banks (Goyal and others, 2013). No supervisor had a full picture of the growing risks. Supervisory bias toward "national champions" reinforced incentives to ignore the buildup of financial excesses in parts of the euro area (Veron, 2013).

- *Weak demand management*. By targeting interest rates that are adequate for the average inflation rate in the euro area, the single monetary policy may have exacerbated the divergence of domestic demand conditions (the so-called "Walters critique").[9] In deficit economies, where inflation rates were higher than in other parts of the currency area, low real interest rates contributed to booming domestic demand and widening the current account deficits (Mongelli and Wyplosz, 2008; Lane, 2006). Fiscal policies did not mitigate the demand expansions, partly because output gains caused by the booms were mistaken for permanent improvements (IMF, 2011; European Commission, 2008) and partly because there are political limits to running large fiscal surpluses. The Stability and Growth Pact was not

[6] While experiences varied across countries, export competitiveness remained weak or worsened during the early 2000s (ECB, 2005; Baumann and di Mauro, 2007; di Mauro and Foster, 2008; Bennett and others, 2008).
[7] While Ireland lost market share in merchandise trade as part of a shift over toward a more services-intensive economy, its service market share increased in 2000s (Nkusu, 2012).
[8] A well-studied example is the case of Portugal. At the start of the EMU, Portugal's commitment to join EMU had created expectations of convergence, but productivity stagnated and ULCs rose, hurting external competitiveness (Blanchard, 2007).
[9] Suarez (2010), for example, argued that the single monetary policy was excessively loose for Spain.

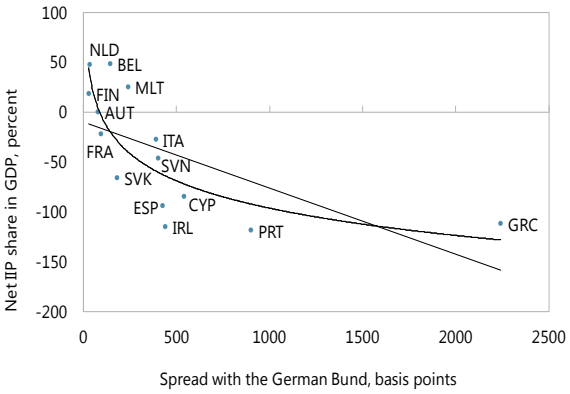
enforced, including by France and Germany. But lack of fiscal discipline was a major factor behind external imbalances mainly in Greece and, to a much lesser extent, in Portugal (IMF, 2011; Blanchard, 2007).

- *Implicit guarantees.* Under EU prudential rules, sovereign exposures carried a zero risk weight in all euro area countries. The ECB collateral policy treated all euro area sovereign bonds as safe assets and accepted a broad set of financial assets as collateral (Cheun and others, 2009). This helped reduce credit risk and enhanced refinancing and funding capacities of euro area banks, thereby contributing to their cross-border expansions and the mispricing of risks (Buiter and Sibert, 2005). Such factors helped create perceptions of implicit guarantees, in spite of the "no bail-out" clause enshrined in the Treaty on the Functioning of the European Union.

## B. Imbalances and the Euro Area Crisis

13. ***Events.*** All euro area countries that had large external imbalances experienced severe financial stress when the crisis started. Against the backdrop of the rise in global risk aversion, the trigger was Greece's fiscal data in the fall of 2009, which had vastly understated the true fiscal deficit of the country. Greece lost access to capital markets. The Troika program of May 2010 provided official funding. The ensuing crisis further destabilized Ireland's banking system and its sovereign in September of 2010, and spread to Portugal in the spring of 2011. The systemic nature of the crisis intensified in the summer of 2011, as market concerns about banks and sovereigns spread to Italy and Spain. A generalized freeze of wholesale funding hit euro area banks, including those from core countries in the fall of 2011. In the first half of 2012, adverse sovereign-bank loops intensified financial stress in Spain and Italy, with markets concerns about euro area exit (IMF, 2012 and IMF, 2012b).

**Net IIP and Sovereign Spreads, 2012**




Sources: IMF, World Economic Outlook database.

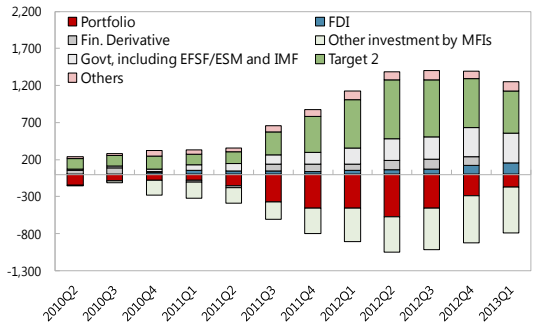
14. ***Fragmentation.*** The reassessment of macro-financial risks resulted in a drastic reduction of cross-border exposures within the euro area, causing a sudden stop of capital flows and generating adverse sovereign-bank links in the deficit countries (Merler and Pisani-Ferry, 2012; Tressel, 2012; Laeven and Tressel, 2013b). Conditions in retail deposit and lending markets diverged. The fragmentation of the financial system severely tightened the external budget constraint of euro area deficit countries, forcing a drastic rebalancing of current accounts, and slowed the internal rebalancing by disrupting the transmission channels of monetary policy and creating procyclical macroeconomic conditions (Goyal and others, 2013; Al-Eyed and Berkmen, 2013).

# ADJUSTMENT MECHANISMS IN A MONETARY UNION

15. ***Adjustment mechanisms.*** In the short run, faced with a tighter external funding constraint, the deficit countries need official financing and bank liquidity support to fill a financing gap in the balance of payments. In the medium term, with no nominal exchange rate adjustment, these economies need to achieve an internal devaluation to close output gaps and lower unemployment rates via an expansion of their tradable sectors, including more exports and fewer imports. This change will also ensure that once financing constraints ease, current accounts will not deteriorate again. The internal devaluation entails a decline in domestic ULCs relative to those of trading partners—through a decline in relative wages or/and increases in labor productivity and other non-price adjustments (e.g., related to product quality).

16. ***Role of the central bank and of official support.*** Adjustment has been supported by the provision of official financing to the three program countries—Greece, Ireland, and Portugal. The overall support provided by the Eurosystem to banks or sovereigns of various euro area countries is reflected in the Target 2 balances, which indicate that the interventions filled a private financing gap in the balance of payments of individual countries.[10] This support provided a necessary cushion and policy space for these countries to undergo structural adjustments under tighter external budget constraints.[11]

**Change in IIP Liabilities: Greece, Italy, Ireland, Portugal, and Spain** (cumulative change from 2010 Q1 to latest, billion euros)




Sources: Eurostat, ECB, and IMF.

17. ***Real exchange rate adjustments.*** In the absence of a nominal exchange rate at the country level, two interrelated relative price adjustments are necessary to achieve an "internal devaluation."

[10] Target 2 balances are settlement operations between national central banks and the ECB in a decentralized system. These balances are linked to the balance of payment of individual countries and reflect a discrepancy between net private capital flows and the current account (Cour-Thimann, 2013). Liquidity operations of the Eurosystem included the Long-Term Refinancing Operations (LTROs) and the Securities Market Program (SMP) of the ECB and the Emergency Liquidity Assistance (ELA) operations by national central banks.

[11] The magnitude of official support is broadly comparable to what the U.S. Federal bodies provided during the crisis. But in the United States, federal official guarantees and direct capital injections also played an important role (IMF, 2010). In the euro area, total official lending disbursed support reached about €400 billion at the end of the first quarter of 2013, the Securities Markets Programme was valued at approximately €200 billion in January 2013, and the total value of Target 2 liabilities of deficit countries reached a maximum of €794 billion at the end of the second quarter of 2012, hence a total of about 45 percent of 2012 GDP of the five deficit countries. By comparison, in the United States support to the private sector from the Treasury, Federal Deposit Insurance Corporation, and the Federal Reserve reached a maximum of 32 percent of GDP during 2008–2010. Some support may not require actual use of financial resources, such as the Outright Monetary Transactions, which played an important role in stabilizing the euro area by providing a strongly credible backstop to sovereign bond yields.

- *Domestic prices versus foreign prices.* The first adjustment involves a decline in the price of domestic tradable goods relative to foreign tradable goods to boost exports and enhance the attractiveness of domestically produced tradable goods relative to imports. On the supply side, these price adjustments involve adjustments in production costs, including wages. On the demand side, they generate changes in final consumption prices that induce expenditure switching from foreign to domestically produced goods.

- *Tradable versus non-tradable.* The second adjustment involves an increase in the profitability of tradable goods relative to non-tradable goods. This facilitates a reallocation of resources from the production of non-tradable goods to tradable goods, which is needed to restore full employment within a tighter external funding constraint. This reallocation can come through falling ULCs in tradable (relative to non-tradable) sectors or via falling non-tradable prices (which can also help lower the production costs of domestically produced tradable goods that require intermediate non-tradable inputs).

18. ***Export competitiveness.*** Gains in export competitiveness can be realized through higher productivity in tradable production or by moving up product quality ladders. A higher quality of products or differentiation from competitors ensures that the initial improvement in price competitiveness achieved through relative price adjustment is sustained over time.[12]

19. ***Internal rebalancing.*** Together with external rebalancing, adjustments are also needed to restore the internal balance, that is, closing large output gaps and reducing very high unemployment rates. While achieving external rebalancing through expenditure switching would be desirable, cross-country evidence on global rebalancing since the crisis shows that deficit countries have achieved external adjustment primarily through demand compression. The result has been disappointing growth and stubbornly high joblessness (Lane and Milesi-Ferreti, 2011).

20. ***Labor mobility.*** Labor mobility across member states can play a significant contribution in the adjustment by cushioning the need for demand compression arising from lower wages and higher unemployment during the internal devaluation process. Evidence from the United States suggests that labor mobility (outflows of workers to more productive member states) is an important adjustment mechanism to state specific shocks (Blanchard and Katz, 1992). However, various studies document that labor mobility is significantly weaker in European countries than in the United States (see Decressin and Fatás, 1995; Dao, Furceri and Loungani, 2014; Obstfeld and Peri, 1998). Also, labor outflows can aggravate debt overhang problems and thereby slow down the adjustment (Shambaugh, 2012).

21. ***Financial support from the center to smooth adjustment***. In a monetary union with complete banking and fiscal unions, such as the United States, individual member states' inter-temporal budget constraints are less relevant than in the euro area. Sudden stops of capital impacting entire states are unlikely events. Various mechanisms play a critical role in

[12] Tressel and Wang (2013) present trade similarity indices. See also ECB (2008) for a detailed analysis of the structure of exports of euro area countries.

diversification of risks and mitigating procyclical forces at the local level, and thus facilitate the adjustment to shocks.

- *Fiscal transfers from the center.* Various studies that have quantified the extent of fiscal risk sharing in monetary unions, in particular in the United States, find that about 15 to 30 percent of the initial shock is typically smoothed.[13] Beyond cyclical smoothing, there are also substantial long-term flows of federal transfers within the United States that far exceed flows within the euro area. This can help smooth long periods of adjustment or imbalances across areas. The cumulative amount of net federal transfers over several decades can be very large for states that are net receivers of federal transfers (see table).

**Table 1. Cumulative balance of net federal transfers at the state level (1990-2009)**

| States | % of 2009 state GDP |
|---|---|
| New Jersey | 150 |
| Connecticut | 106 |
| New York | 87 |
| West Virginia | -244 |
| Mississippi | -254 |
| New Mexico | -261 |

Source: IMF staff calculations.

- *Central safety nets and common backstops for the banking system.* Centralized bank resolution, central deposit insurance, and central fiscal backstops facilitate orderly resolutions of overly indebted banks and the diversification of risks across states, thereby preventing contamination of state governments' balance sheets by losses of local banks. [14] These central safety nets and backstops also help stem panics among retail depositors arising from the inability of the local state to honor its safety net engagements. More broadly, such institutional arrangements remove the links between the financing costs of local fiscal authorities and of local banks.

22. ***Role of the financial system.*** Country-level consumption could also be smoothed in private credit markets through borrowing and lending and via capital markets through the holdings of diversified portfolios of assets. In the United States, private credit and capital markets play a key role in smoothing income shocks.[15] In contrast, in the euro area, risk sharing through the financial system has been more limited, including during this crisis.[16] In particular, since the start of the euro area crisis, the fragmentation of the euro area banking system has drastically constrained the scope for risk sharing through private credit markets.

[13] See literature review in: Toward a Fiscal Union for the Euro Area—Background Technical Staff Notes (IMF Staff Discussion Note 13/9, 2013).

[14] See Technical Note, "Single Resolution and Safety Nets", in: "A Banking Union for the euro area: background technical notes" (IMF Staff Discussion Note 13/1).

[15] Asdrubali, Sorensen, and Yosha (1996) found for example that about 40 percent of shocks to gross state products are smoothed out by capital markets, 23 percent are smoothed out by credit markets, and 13 percent by the federal government.

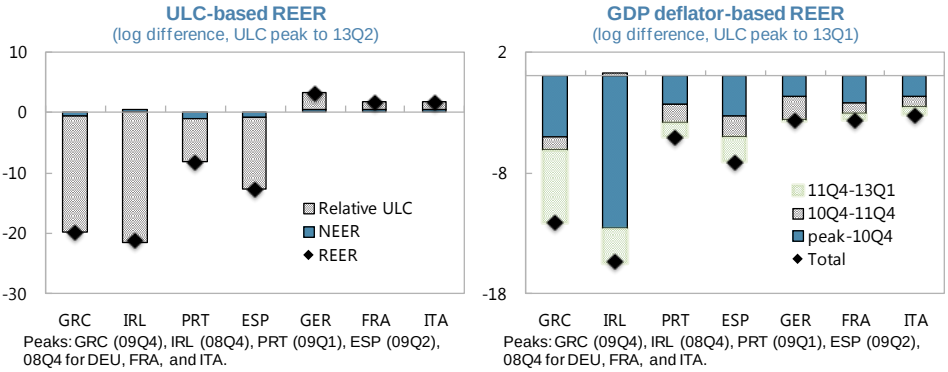
[16] Furceri and Zdzienicha (2013) estimate that, over the period 1979–2010, there was much less risk sharing in the euro area than in other federations (US, Germany) as about 60 percent of income shocks are *not* smoothed out by fiscal risk sharing or by private risk sharing mechanisms. Kalemli-Ozcan, Luttini, and Sorensen (2013) show that overall risk sharing collapsed in 2010 driven by fiscal consolidations.

# ADJUSTMENTS IN THE EURO AREA: STYLIZED FACTS AND CROSS-CUTTING THEMES

## A. Stylized Facts of Price and Non-Price Adjustments

23. ***Indicators.*** External adjustment in deficit economies is underway. Following on the discussion above, this section presents various indicators of external adjustment to assess the price adjustment across two dimensions: domestic versus foreign and tradable versus non-tradable prices. While CPI-based real effective exchange rate (REERs) are useful to document the evolution of final consumption prices relative to trading partners, ULC-based REER (or GDP deflator-based REER) help gauge the evolution of production costs relative to trading partners. The evolution of sectoral ULCs helps understanding adjustment between tradable and non-tradable sectors as they reflect developments in wages, employment, and output across sectors. An analysis of export price and non-price indicators sheds further light upon the competitiveness of exported goods (related to competitors). Sectoral data helps assess whether resources are now being reallocated from non-tradable to tradable sectors.

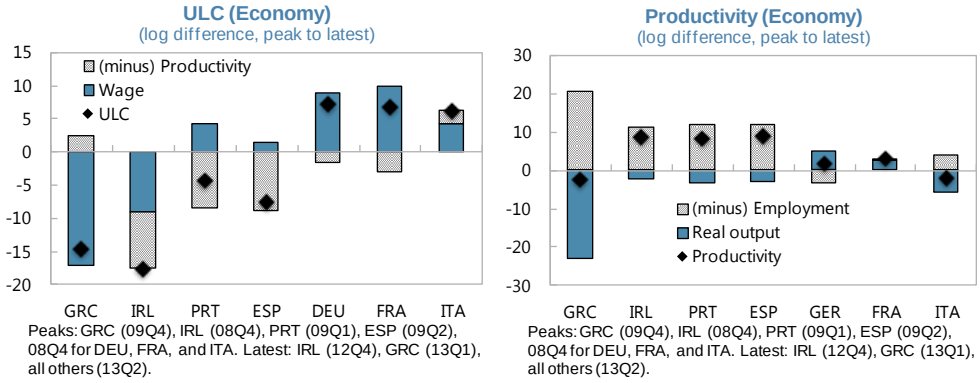
24. ***Real effective exchange rates.*** While the euro-area-wide REER is broadly in line with fundamentals, the euro area's external position mainly reflects adjustments in the deficit countries (IMF 2013f). Economy-wide ULC-based REERs have depreciated by about 10–25 percent since their peaks in Greece, Ireland, Portugal and Spain. GDP deflator-based REERs have also depreciated, though somewhat less than ULC-based REERs, implying that profit margins have increased. Ireland's adjustment started fairly early, while adjustment in Greece began later. The main drivers of REER depreciations have been large declines in ULCs, while nominal exchange rate depreciation has played only a small role. By way of comparison, in Italy the GDP deflator and ULC-based REER have changed to a limited extent only. However, Italy's current account and net external liability positions never went as deep into deficit as those of the deficit economies. Both REER indicators changed by small amounts in France and Germany.




Sources: Eurostat, Haver, and IMF staff calculations.

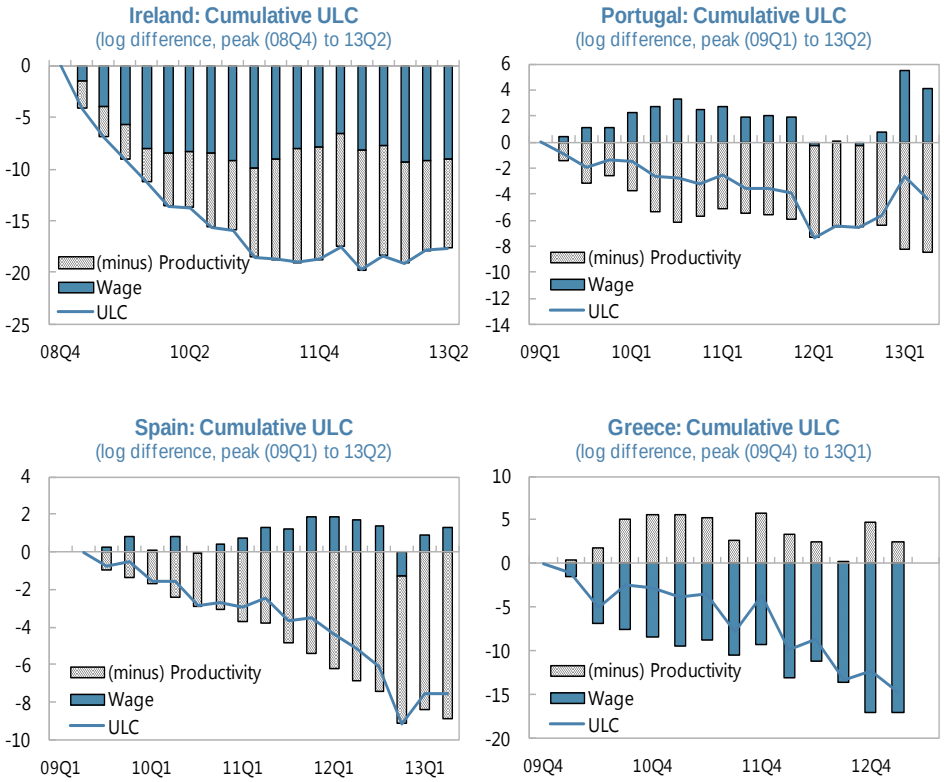
25. ***Unit labor costs.*** ULCs have fallen across all deficit countries. In all but Greece, productivity gains have made significant contributions to lowering ULCs. However, this trend was mainly due to

labor shedding exceeding the fall in real output, reflecting the firing of workers. In Italy, ULCs have risen, while productivity has remained broadly stable; France and Germany fared similarly. Turning to the deficit economies:




Sources: Eurostat, Haver, and IMF staff calculations.

- **Ireland** has seen 15–20 percent reductions in ULCs due to wage cuts and labor shedding. Wages are now recovering, but output remains below peak levels.
- In **Portugal** and **Spain**, wages have not declined and the reductions in ULCs (5–10 percent) have come primarily from labor shedding. Real output is still below pre-crisis levels.
- In **Greece,** reductions in ULCs have come mainly from wage cuts. The slump in output has been so big that productivity has broadly stagnated, despite major job losses.



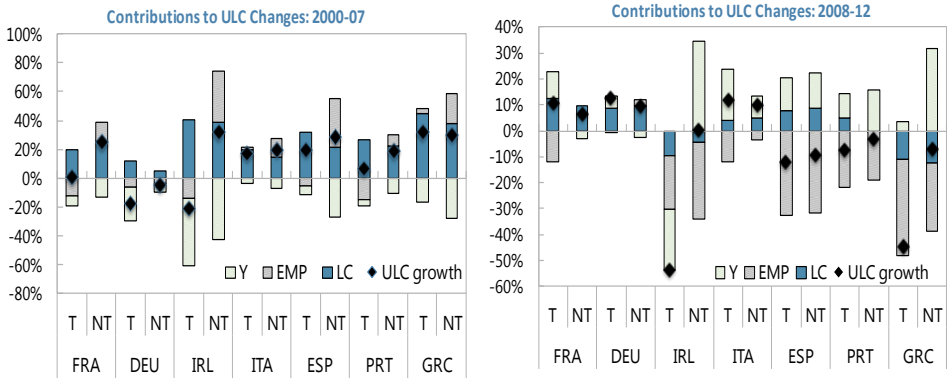

Source: Haver, and IMF staff calculations

26. ***Sectoral evidence of adjustment in production costs.***[17] From a production perspective, the adjustment is quite uneven across countries. Also, there is no evidence that non-tradable prices are falling relative to tradable prices.[18]

- *Precrisis period*. Before the crisis, non-tradable ULCs grew faster than tradable ULCs in Italy, Portugal, and Spain, and perhaps as demand for non-tradable goods was expanding relatively faster. In Germany, tradable ULCs declined faster than non-tradable ULCs.

- *Since the crisis, ULC declined as a result of labor shedding*. Greece, Ireland, Portugal, and Spain experienced larger reductions of ULCs in the tradable than non-tradable sector, which is conducive to the reallocation of production.

- *There are signs of divergence in competitiveness for large economies*. France and Italy's ULCs in tradable sectors have risen faster than in non-tradable sectors since the crisis, suggesting a further deterioration of competitiveness. In Germany, ULCs have increased somewhat more in the tradable sectors than in the non-tradable sectors.



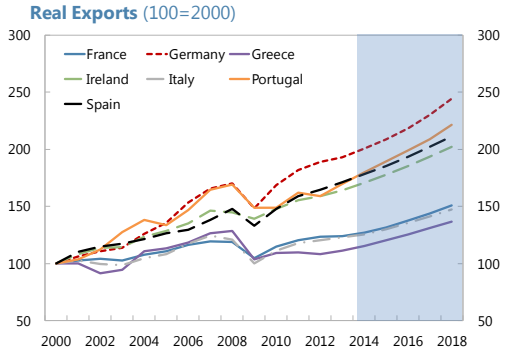

Sources: Eurostat, Haver, and IMF staff calculations.

27. ***From wage adjustments to export competiveness gains.***[19] The evidence suggests that labor cost adjustments have modestly improved the competitiveness of exports of goods and services.

- *Volumes*. Export growth picked up significantly after the crisis, mostly as a result of a rebound in external demand. Ireland and Spain experienced relatively solid export recoveries. Export

[17] See Tressel and Wang (2014) for detailed discussion on sectoral-level analysis.
[18] Following ECB (2012), manufacturing is used as a first-order approximation for tradable sectors and non-tradable sectors, including construction, wholesale and retail, hotel, transportation. In some cases, it would make sense to consider other sectors as tradable. For example, in Greece, service exports are important. Reallocation of some of these services in the tradable sector for Greece would make the decline of the tradable sector ULCs less prominent since the crisis. See for instance, Kang and Shambaugh (2014) who adopt such a definition, and find that tradables output has expanded relative to non-tradables output in Ireland, Portugal, and Spain, but not in Greece.
[19] See Tressel and Wang (2014) for discussion of export performance and determinants.

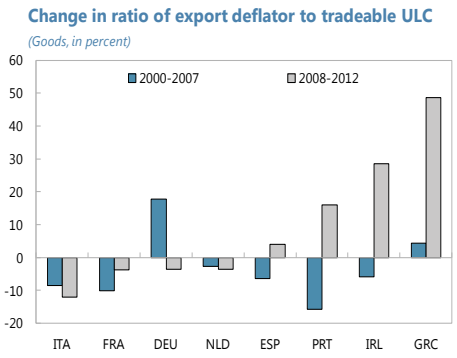
growth has been—and is forecast to remain——modest, particularly in Greece, but also in Italy and Portugal.



Source: April 2014 WEO, IMF.

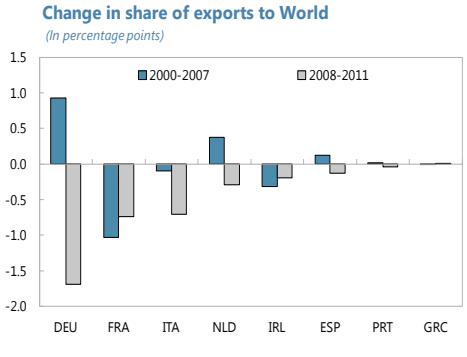
- *Export prices.* Substantial ULC adjustments have not been systematically followed by gains in export price competitiveness. In Greece, Ireland, and Portugal, and (to some extent) Spain, the average profit margins of exporters have risen since the crisis, as illustrated by the gap between tradable costs and export prices (left chart below). This development could herald improved labor demand by exporters. By contrast, average margins in Italy and France have continued to fall since the crisis. In Germany, average margins have declined somewhat in recent years, after rising before the crisis. An indicator of the price competitiveness in export markets, the price of exports relative to the price of goods produced in these markets has improved in Ireland and Spain but declined in Greece and Portugal (right chart below). In Germany, it has improved modestly, while remaining stable in France and Italy.

- *Market shares.* Non-price indicators, such as market shares, suggest that competitiveness has generally not improved since the crisis. Most euro area countries (including surplus countries) have continued to lose world market share. This loss could simply be a reflection of growing trade among emerging markets. However, even within the euro area, market shares of Greece, Portugal, and Spain have barely improved or, for Ireland, modestly declined.

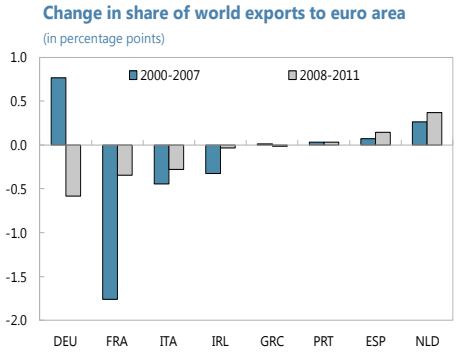


Sources: IMF WEO and DOTs.

Sources: WEO, DOTS

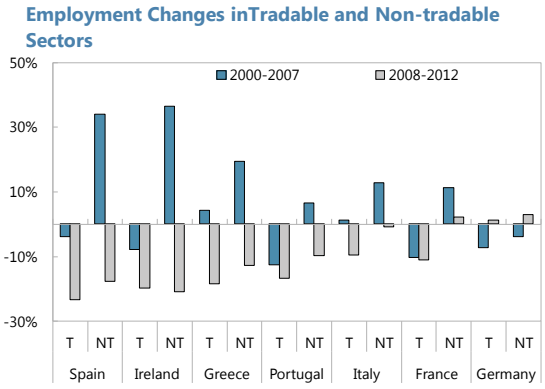


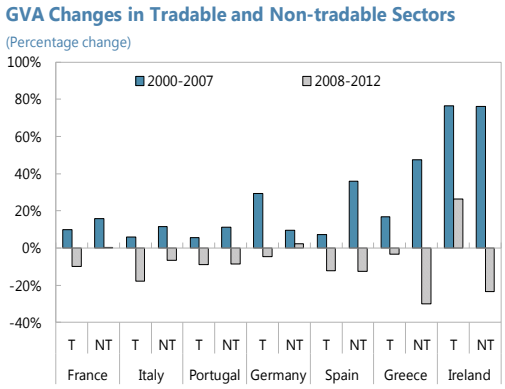
Source: IMF DOTs.



Source: IMF DOTs.

28. ***Resource reallocation from non-tradable to tradable sectors.*** Before the crisis, employment in non-tradable sectors expanded significantly in Greece, Ireland, and Spain and, to a lesser extent, Portugal. Employment in tradable sectors of deficit countries declined or remained broadly flat (Greece). Despite adjustment in relative prices, there is limited evidence of resource reallocation from non-tradable to tradable sectors since the crisis (see charts below).[20]




Sources: Eurostat, Haver, and IMF staff calculations.

29. ***Determinants of export performance since the crisis.*** Since the start of the crisis, euro area countries have experienced significant differences in the demand for their exports (see chart below). Notice also that export demand growth has been more sluggish in deficit countries as a result of either specialization in slower growing markets outside the euro area (in the case of Greece and Italy) or lower share of exports to non-euro area countries (Portugal, Spain). In all countries, demand from other euro area countries has been declining during the period, contributing to slower export growth. Using standard export regressions for individual euro area countries, the decomposition shows that export demand from the rest of the world and changes in nominal effective exchange rates provided the strongest contributions to export performance, while weak demand from within the euro area was a drag on exports (Tressel and Wang, IMF WP 2014).[21]

- *Initial trade specialization played an important role, and demand from the rest of the world was the main pull factor.* For example, Germany's relatively large share of exports outside the euro area and in fast-growing markets contributed to relatively stronger rebound in exports, and made its export performance less dependent on intra-euro area demand than that of the deficit countries.

[20] See Tressel and Wang (2014) and Kang and Shambaugh (2014) for more discussion about cross-country differences in adjustment dynamics. Kang and Shambaugh (2014) discuss adjustment in the Baltic countries as well.

[21] See Chen and others (2012) and Bayoumi and others (2011).

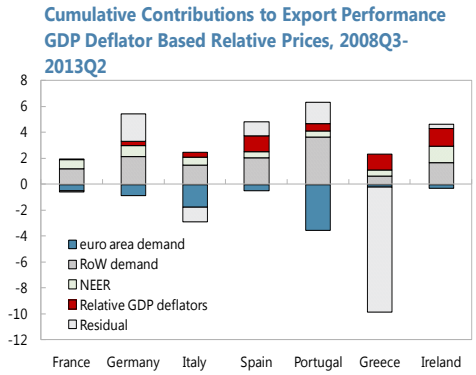
- *Relative price adjustments also mattered, although the magnitude of the effect is difficult to pin down.*[22] When measured by CPI deflators, relative price adjustments were relatively small and had a minor effect on the exports of the deficit countries. Relative price adjustments as measured by GDP deflators were more substantial, and the contribution to export performance of GDP deflator adjustments was large for Greece, Ireland, and Spain. The nominal exchange rate also played a role, contributing to about 1 percentage point to the export growth of France, Germany, and Ireland. In Greece, Italy, Portugal, and Spain, the contributions were smaller.

- *Weak euro area demand was a drag.* The euro area crisis had a direct impact on the export performance of euro area countries, particularly for Italy and Portugal, as demand from euro area trading partners declined during the early phase of the crisis in 2008–2009 but also in 2011–2012.

- *Unexplained factors.* The export performance of Greece was significantly weaker than predicted by external demand and relative price adjustments. This could reflect lower-than-average demand or relative price elasticities (which could be related to structural and non-price impediments), a substantial loss in non-price competitiveness, or vanishing working capital in the tradable sector. In contrast, in Germany, Portugal, or Spain, the unexplained residual is relatively large and positive, suggesting that non-price factors might have helped support export performance.

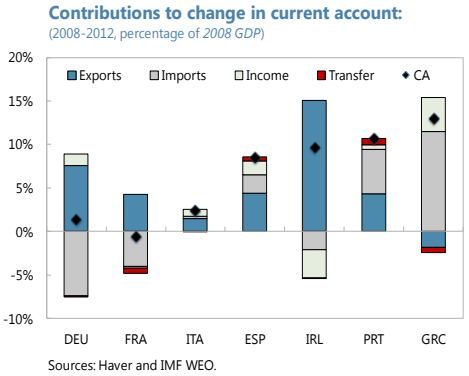
## B. Are Current Account Reversals Sustainable?

30. ***Nature of the adjustment***. All deficit economies saw very large contractions in current account deficits. Do these adjustments reflect cyclical or structural factors? If they reflect structural factors, then internal devaluations and structural changes have gone far enough to allow a return to low unemployment without creating new external imbalances. If not, then current accounts will deteriorate appreciably when the remaining output gaps close and the economy and external funding recover or, alternatively, the tight external budget constraint will not permit a return to low unemployment. The fact that much of the adjustment in relative ULCs has reflected an increase in productivity driven by labor shedding does not bode well for a quick return to low unemployment without falling current account balances. This section investigates this issue from the current account perspective.



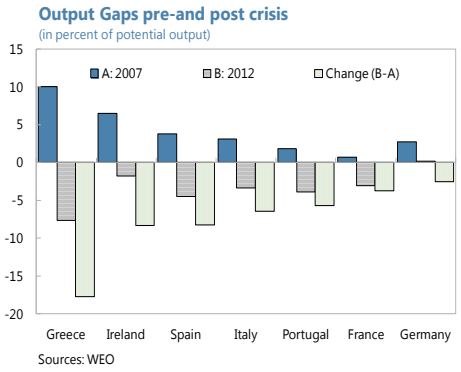

[22] In this analysis the change in the REER is decomposed into the change in relative prices (relative to trading partners) and the change in the Nominal Effective Exchange Rate.

31. ***Current account developments since the crisis.*** Euro area deficit countries have experienced large current account adjustments since the crisis (text figure). These current account reversals reflect a combination of imports compression, in particular in Greece and Portugal, and higher exports in Ireland, Spain, and Portugal. In Greece, the decline in imports was the main contributor to the current account improvement, while exports had a lower contribution than the decline in imports in Spain. From a saving-investment balance, the decline in residential investment contributed significantly to the external balancing, while higher private saving was more or less offset by lower public saving, except in Greece and Ireland, where public savings increased sharply while private saving declined.




32. ***Determinants of current account adjustments.*** Our reduced-form model builds on the existing literature, based on the standard inter-temporal approach to the current account, which identifies medium-term determinants of saving and investment decisions (Chinn and Prasad (2003), Lee and al. (2008), Christiansen and others (2009). We follow an approach very similar to the External Balance Assessment (EBA) framework (IMF 2013).[23] The standard fundamental determinants of savings and investment decisions include: (1) demographics (population growth, old-age dependency ratio, and aging speed); (2) initial wealth (lagged NFA); (3) long-term growth and neoclassical catch-up (five-year ahead real GDP growth and gap to U.S. GDP per capita), and potential output (relative to trading partners); (4) other structural factors (cyclically adjusted fiscal balance, public health spending)[24] and cyclical factors (the output gap, global capital market conditions, commodity terms of trade). The specification also includes a measure of domestic credit to the private sector and a fixed effect common to all stressed countries.

33. ***Output gaps.*** Cyclical reversals have been very significant in deficit countries between the precrisis peaks and 2012. In Greece, Ireland, and Spain, *World Economic Outlook* estimates point to substantial changes in output gaps (see text chart, and Tressel and Wang, 2014).[25] Alternative methods of estimating the output gaps based on Okun's law, which relates output to unemployment, deliver even larger negative output gaps (Kang and Shambaugh,



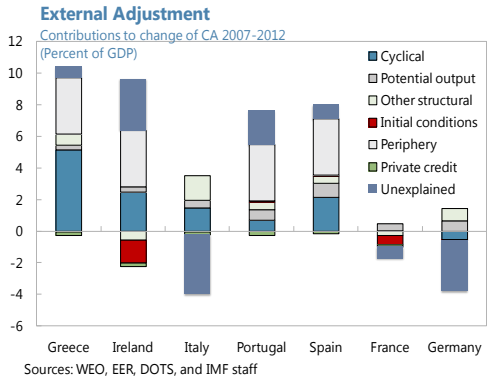

[23] The empirical analysis of current account is subject to significant uncertainties related model specifications and different country characteristics. Nevertheless, it provides an analytical bench mark for cross-country comparisons and multilateral surveillance (IMF, 2013).

[24] Other factors considered structural, but of little relevance for this analysis include capital controls, reserve accumulation, whether the country is a financial center. The regression also includes the oil trade balance for a few countries where it exceeds 10 percent of GDP.

[25] The output gaps are from the 2013 IMF *World Economic Outlook* (WEO).

2014).[26] In sum, output gap indicators point to large remaining internal imbalances, although their size is difficult to determine with great confidence.

34. ***Cyclical and structural determinants of the current account.*** Under baseline projections, both cyclical and structural factors have contributed to the recent improvement in current account balances.[27]




- *Observed cyclical factors* have made a large contribution to the current account reversals of Greece, Ireland, and Spain between 2007 and 2012 (where they account for 50 percent, 32 percent and 27 percent of the actual current account reversals, or respectively 5.3 percent of GDP, 2.5 percent of GDP and 2.2 percent of GDP).[28]

- *The contribution of observed structural factors* (including lower potential output and medium-term expected growth) was generally smaller, but was still significant for Germany, Italy, Portugal, and Spain. Most of the structural factors, however, represent lower potential output over the medium run and thus rebalancing of the bad variety.

- The "*stress factor*", which captures the common component in evolution of external balances in the program countries and Spain, has accounted for a significant part of the current account reversals. This common factor could reflect structural factors, such as a lasting change in the attitude of foreign investors, including financial fragmentation. It could also capture cyclical factors, such as depressed animal spirits and demand. Be that as it may, it suggests that more adjustment is needed to permit stronger growth in the tradable sector and lower unemployment.

- *Unexplained residuals are sizeable*, as adjustment is not necessarily well explained by "average" economic relations estimated from panel data. Again, these could reflect structural or cyclical factors and they have similar implications for policy in the "deficit economies" as the "stress factor".

35. ***Remaining structural adjustment and relative price shifts***. The results thus suggest that large output gaps and falling imports played a major role in reducing current account deficits. Assuming the model is a correct representation of developments, then closing the

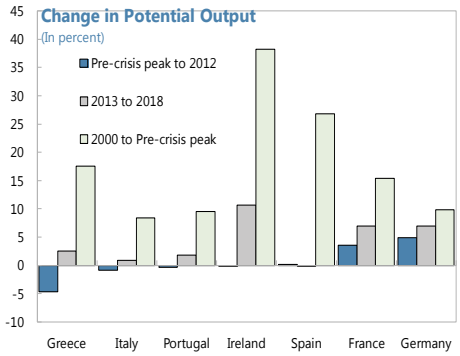
[26] Ball and others (2013) show that Okun's law is strong and stable, including during since the start of the crisis but with variation across countries.
[27] The assessment is based on the output gap and potential output estimates of each WEO vintage.
[28] The calculations are based on the 2013 WEO. Using alternative methods of calculating the output gap (such as from Kang and Shambaugh, 2014) would imply an even larger cyclical component.

output gaps would come with a re-emergence of external imbalances, unless production is progressively reallocated from non-tradable to tradable sectors to allow the economy to grow within its external budget constrain. Or, if the model or output gaps are mis-specified, much of the current account adjustment may be here to stay but domestic demand would stay very subdued and unemployment very high for a long time, unless there is further structural adjustment.

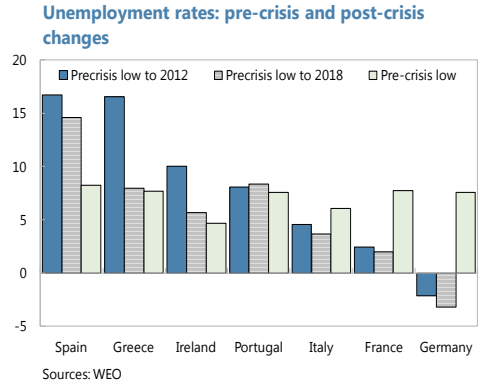
## C. Internal and External Rebalancing: How Far to Go?

36. ***Restoring internal balance.*** Going forward, strong growth is needed to bring these economies to acceptable levels of unemployment, and this growth must come to a much larger extent from the tradable sector than before the crisis. However, current forecasts show that potential output growth is expected to remain low, and as result, the reduction in unemployment is going to be protracted.

- *Potential output.* At the end of 2012, potential output remained below its precrisis level in Greece, Italy, and Portugal, and is marginally above its precrisis level in Spain. WEO projections show that potential output growth is expected to remain weak in all deficit countries, with the exception of Ireland where potential output in 2018 would be 14 percent above its precrisis peak. Germany and France, which do not require such external balance adjustments, are expected to have 2018 potential output levels about 7 percent higher than in 2013.




- *Unemployment rates.* Current unemployment rate forecasts assume that the adjustment is likely to be very protracted in most deficit countries. Before the crisis, unemployment rates reached very similar levels (between 7 and 8 percent) in the deficit countries and in France, Germany, and Italy. From these levels to the end of 2012, unemployment rates increased the most in Spain and Greece. Going forward, while unemployment rates are projected to decline, they are not expected to improve by much in Spain and Portugal over the medium run.

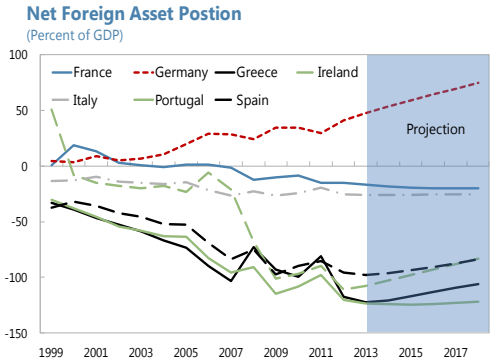



- *Sustaining growth.* While there is substantial uncertainty in the measurement of potential output and output gaps, the stylized facts suggest that growth is going to remain low and therefore the reduction of unemployment to acceptable levels is likely to be protracted. Closure of output gaps will first require a rebound in demand. Subsequently, reforms to

increase potential output, especially in the tradable sector, will be necessary to reduce unemployment rates to more acceptable levels.

37. ***Restoring external balance.*** Going forward, the objective is to achieve net foreign liability (NFL) positions that can be deemed sustainable. But this raises a number of questions such as: What is an appropriate NFL position in a monetary union? What further adjustments will be required to achieve it? Unfortunately, there are no definitive answers.

- *What NFL target in a monetary union?* In a currency union complete with risk sharing mechanisms such as those provided by a Banking Union and a Fiscal Union, NFL positions of specific regions are much less relevant than the net indebtedness of individual agents or sectors—there is, for example, much less of a spillover from a local government or a sovereign to its banks and companies. However, in an "incomplete" monetary union—which does not feature fiscal and banking unions, where financial markets are not fully integrated and with lower labor mobility—risk sharing mechanisms are more limited and the NFL positions of a country are more relevant. Country-specific macro-financial risk, including the NFL position itself, will continue to determine the inflows of foreign capital.[29]



Note: NFA/GDP implied by WEO projections, assuming no valuation effects going forward.

- *Outlook*. How far the NFL adjustment has to go is difficult to tell. By way of illustration, under latest projections of current accounts and nominal GDP, and assuming no valuation effects, the NFL positions of Greece, Ireland, Portugal, and Spain will remain above 80 percent of GDP in 2018, and thus most of the worsening of the NFL position experienced by these countries during 2000–2012 will not be undone by then. Reaching the EU Commission scoreboard threshold (of 35 percent of GDP) will take even longer, and would be a long-term objective in some cases (see Tressel and Wang, 2014). The high level of NFL could, for some time, act as a detterent to capital inflows and thereby weigh on prospects for investment and growth, including by requiring large net income payments to the rest of the world. At the same time, the net foreign asset (NFA) position of Germany is forecast to continue to grow under the current baseline.

# POLICIES TO REBALANCE THE EURO AREA

38. ***The role of policies***. A variety of reforms can lift potential output and foster internal and external rebalancing within the euro area, notably supportive macroeconomic policies, structural reforms, financial sector repair and reform, and strengthening the EMU architecture. Structural labor or product market rigidities may not have caused external imbalances. However,

[29] Catao and Milesi-Ferretti (2013) find that the ratio NFLs to GDP is a significant predictor of crisis in a large sample of countries.

they may well have amplified them and slowed down their correction (see also Blanchard 2007). By the same token, fiscal policy has typically not played a major role in boosting external indebtedness, with the notable exception of Greece. The reduction of large deficits and debt can bring down external funding costs for enterprises and banks, but the consolidation should be paced to avoid any excessive drag on growth (IMF, 2013). Further monetary easing can also play an important role in supporting demand and facilitating internal rebalancing, by boosting demand everywhere, especially in the surplus economies with healthier financial systems, and supporting relative price adjustments, which are easier to obtain with inflation rates close to 2 percent than at the lower levels that are forecast to prevail over the short to medium term. Distorted financial sector incentives have played a major role: these are being corrected by clarifying the role of banks in sharing future losses and by improving bank resolution regimes. Much balance sheet repair still lies ahead and will be essential to restart strong investment in tradable sectors. Lastly, continued steps toward a true banking union will facilitate the ongoing rebalancing and the repair of banks, and will be essential to lower the probability of a similarly devastating crisis in the future.

## A. How Will Structural Reforms Help Deficit Countries?

39. ***Supporting internal devaluation***. Achieving internal devaluations hinges on depreciating the REER through lowering nominal wage growth and/or improving productivity relative to trading partners. The evidence from past policy attempts shows that achieving internal devaluations can be a long and painful process in an environment with wage rigidities.[30] [31] Moreover, internal devaluations can be difficult when trading partners' inflation is low and may exacerbate debt overhang problems (Shambaugh, 2012).

40. ***Internal devaluations can worsen debt overhangs***. High debt levels among deficit firms, households, and public sectors create risks that an internal devaluation accomplished by low or falling inflation in deficit countries could aggravate debt overhang problems (Shambaugh, 2012; Bornhorst and Arranz, 2013). This could undermine the recovery of domestic demand, especially if sovereign-bank-real economy adverse links remain active thereby slowing the closing of output gaps and the internal rebalancing of deficit countries (Tressel, 2012).

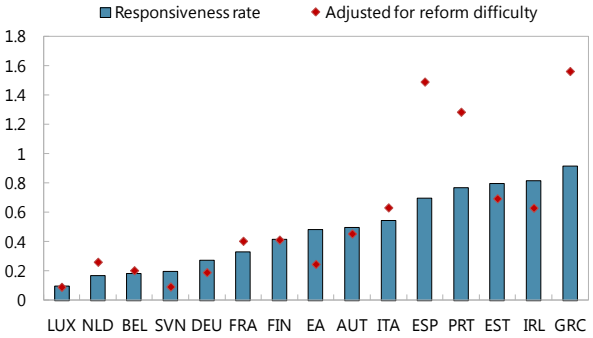
41. ***Structural reforms that raise productivity over time can facilitate the adjustments***. While productivity improvements would have the same effect on inflation as nominal wages cuts, they appear more desirable in the medium term as they boost demand. Since the crisis, deficit countries have made major efforts to improve their labor or product markets (OECD, 2013; IMF, 2013; Barkbu and others, 2012). But, in spite of several years of substantial efforts well above the

[30] The experience of France in the 1980s in achieving an internal devaluation to restore competitiveness was mixed. The policy was successful at lowering inflation differentials, but the adjustment was protracted and the strategy had a limited impact on unemployment and competitiveness (Blanchard and Muet, 1993).

[31] Recent evidence shows that over the past decade, inflation has become less responsive to economic slack (World Economic Outlook, April 2013). This suggests that the large output gaps and unemployment in the stressed countries may elicit a slow response from prices.

OECD or the euro area average, many reforms are still needed in the deficit countries (IMF, 2013; OECD, 2013). In the context of below full employment, such as in the deficit countries, productivity gains would not only improve future prospects, but also raise current income which would be partly saved. The latter effect would help improve the saving-investment balance.

**Responsiveness to OECD Going for Growth Recommendations: 2011-12**
(In index value, 1 = major action, 0 = no action)




Sources: OECD and IMF Staff.

42. ***Adjustment of relative wages***. Reforms focusing on *removing downward wage rigidities* in deficit countries would increase the speed of adjustment and contain its costs in terms of unemployment (as wages will become more responsive to changes in employment). But such policies could likely adversely impact demand and therefore slow down the return to internal balance. Lowering the tax wedge would facilitate internal devaluation.[32] Lowering labor taxes and raising consumption taxes (known as a fiscal devaluation) could help as well.[33]

- *Wage bargaining institutions* may need to be conducive to the need to adjust wages. Blanchard, Jaumotte and Loungani (2013) emphasize the need to allow for enough flexibility and adequate coordination in wage-setting to help adjust to macroeconomic shocks. They also note the importance of trust and dialogue between representative social partners.[34]

- *Reductions in public wages* could in theory contribute to the adjustment while improving the fiscal position, particularly if these reforms have a knock-off effect on the negotiations of private sector wages (Buti and others, 2008). However, the experience of Latvia suggests that the main short-run benefit of this measure is likely to be on the fiscal front, with limited impact on private wages (Blanchard and others, 2013).

43. ***Raising productivity and facilitating resource reallocation by improving the functioning of labor markets***.[35] Reducing labor market duality can improve labor flows in and out of unemployment, and the training of workers. [36] [37] It would help adjustment by facilitating

[32] An approach has been to recommend reducing the secondary earner tax wedge in countries applying family taxation (Blanchard and others, 2013).
[33] Farhi, Gopinath, and Itskhoki (2011) demonstrate how such changes in taxes can act as a devaluation.
[34] In systems with intermediate coordination at the industry or regional level (prevalent in Greece, Portugal, and Spain), unions do have significant bargaining power but do not internalize sufficiently the impact of their wage demands on the overall economy, and thus are not conducive to appropriate adjustments to shocks or to high productivity gains (Calmfors and Driffill,1988; Elmeskov, and others,1998; Scarpetta and Tressel, 2004).
[35] Barkbu and others (2012) find that among the range of structural reforms active labor market policies and tax reforms would have the highest impact on GDP in the short-term.
[36] Saint Paul (1996) provides a comprehensive analysis of the inefficiencies of dual labor markets.
[37] Specifically, linking more systematically employment protection to the length of tenure in a firm may help avoid threshold effects that characterize dual labor market systems (Blanchard, Jaumotte and Loungani, 2013).

the reallocation of resources from non-tradable to tradable sectors. Improving labor market flexibility can contribute to higher productivity by improving labor flows across firms and by better aligning wages to productivity (Martin and Scarpetta, 2012; Scarpetta and Tressel, 2004). Unemployment insurance would help mitigate the adverse short-term impacts of these reforms on employment (Blanchard et. al, 2013) and supportive macroeconomic policies are key to support job creation in response to lower fixed and variable labor costs. [38]

44. ***Reforming product markets***. Deregulating product markets can lift productivity and foster sustainable growth within a tighter external funding constraint.[39] Reducing entry barriers can help the expansion of tradable industries. By lowering costs, reforms of services and network industries can depreciate the real exchange rate and thus improve the demand for labor in tradable industries without requiring nominal wage cuts (Blanchard and Giavazzi, 2003). Competitive pressures from entry can stimulate innovation in existing firms in tradable sectors (Aghion and others 2013). Product market reforms can also lift productivity or cut costs in tradable sectors indirectly. Specifically, they can raise the quality and availability of intermediate inputs, particularly from services and network industries inputs (Arnold et al, 2011). The indirect impact of liberalizing services and network industries on TFP of downstream tradable industries could be large (Conway and others, 2006; Bourles and others, 2010).[40]

# FOSTERING INTEGRATION AND COORDINATION IN THE EURO AREA

45. ***Deepening capital markets.*** Developing and further integrating capital markets can help increase risk sharing and mobilize additional sources of financing for the recovery. In this context, initiatives for SME financing—such as the securitization schemes proposed by the EC and the EIB—could play a key role in providing some credit support to SMEs. Such actions would support SME lending and capital market development over the medium term.

46. ***Completing the Banking Union.***[41] Continued progress on the Banking Union may contribute to the rebalancing process through several channels:

- *External rebalancing*. Progress on all elements of the Banking Union (which should include, in addition to the Single Supervisory Mechanism (SSM), and the Single Resolution Mechanism, a common fiscal backstop) will help reverse the fragmentation of the euro area financial system,

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Because such reforms can have adverse effects on employment in the short run, they may need to be complemented by active labor market and social policies (OECD, 2013).

[38] Higher unemployment and lower demand may be noticeable in the case of labor market reforms (Cacciatore and others, 2012), especially when these are undertaken during recessions (Bouis and others, 2012).

[39] See Scarpetta and Tressel (2002).

[40] Bourles and others (2010) find that the downstream productivity gains from further services sector deregulation would be large in Greece, Italy, and Spain.

[41] See Goyal and others (2013) for an analysis of the desired set-up of the Banking Union. The SSM will remove the possibility of regulatory ring-fencing of liquidity and capital within the euro area.

and support the return of foreign capital and of an external budget constraint free of financial stress in deficit countries. This will also help facilitate more risk sharing through private credit markets.

- *Internal rebalancing.* Progress on the Banking Union will speed the repair of banks and improve the transmission of accommodative monetary policy. It would help support the internal adjustment in these debtor economies by lowering the cost of credit for creditworthy borrowers. This would help firm entry including in tradable sectors.

- *Risk mitigation*. By weakening potential adverse feedback loops between sovereigns and banks, progress on the Banking Union could mitigate risks that stress on the external financing of countries could re-emerge and jeopardize recovery efforts by destabilizing the sovereign's balance sheet. It would lower the financing costs of sovereigns, thus enhancing risk sharing through financial markets. Confidence effects are important, as progress will provide assurance that the EMU architecture will be more resilient in the future.

47. ***Bank balance sheet repair***. The ongoing comprehensive assessment of euro area banks by the ECB should be a significant step toward bank balance sheet repair. It will help resolve the uncertainty about bank balance sheets and ensure that proper financial intermediation is in place to support the recovery and the expansion of tradable sectors.

48. ***Stronger governance framework***. Various initiatives at the European level, such as the Macroeconomic Imbalances Procedure (MIP), will help facilitate the correction of imbalances by reinforcing coordination and governance at the euro area level. Structural reforms targeted at the correction of imbalances could be motivated through the MIP, as well as country-specific programs in the European Semester supported by EU-wide initiatives.

49. ***Enhancing the mobility of services***. Cross-country provision of services could help improve productivity and support the depreciation of non-tradable prices in the deficit countries. Implementation of the Services Directive would contribute to further reducing barriers to entry in protected professions. It would thus provide an additional push to improve productivity and integration of services within the euro area.

50. ***Integrating factor markets further by fostering labor mobility***. Although the Single Market in goods has helped fuel European growth over the past decades, labor mobility has remained limited. Improving the mobility of labor across euro area countries can, on the margin, contribute to rebalancing. For example, greater standardization of labor contracts, such as through improved portability of pension, insurance, and unemployment benefits would facilitate labor mobility across the region. Other initiatives (for example, job and language training) could also support migration from areas of high unemployment to those experiencing skill shortages. But care will have to be taken to ensure that migration does not accelerate structural decline and debt overhang problems. In many ways, fostering the mobility of capital may be the better way to adjust.

51. ***Fiscal Union***.[42] Greater fiscal integration would facilitate the adjustment. But political hurdles to such transfers are considerable in the short-term. In the future, conditional on better governance and stronger incentives for national policies, including more credible and tighter budget constraints, some system of temporary transfers or joint provision of common public goods or services would help achieve some fiscal risk sharing and facilitate adjustment when imbalances arise at the local level. It would ensure that the provision of public goods and automatic stabilizers become less constrained by the external balance, and possibly make it easier to have effective countercyclical fiscal policy in the euro area.

# CONCLUSION

52. ***Progress to date.*** The crisis demonstrated that the external balance of individual euro area countries remained a critical macroeconomic variable and constraint, because the balance sheets of government, banks, and other private sectors remained interlinked through various channels, and because of the tail risks of exit from monetary union. The euro area deficit countries have embarked on difficult and protracted external and internal adjustments by adhering to internal devaluation strategies. These combine relative price adjustments, achieved thus far mainly by compression of internal demand and labor shedding, which have adverse effects on demand, and structural change (including via reforms) to raise productivity and facilitate the reallocation of resources from non-tradable to tradable sectors. Progress with respect to the latter has been limited: exports have rebounded but the manufacturing sectors typically remain smaller than before the crisis. The large current account deficits in Greece, Ireland, Portugal, and Spain have shrunk drastically or turned into surpluses largely because imports and potential growth have slowed down drastically relative to precrisis trends. Their NFLs remain very high (implying higher net income payments), and the progress with external rebalancing has come at the expense of internal balance, notably sharply higher unemployment rates. Relatively weak demand from euro area partner countries, including these surplus economies, is slowing down the adjustment.

53. ***Supportive macroeconomic policies, structural reforms, and policies to complete euro area integration are critical to advance adjustment.*** In the short run, supportive macroeconomic policies would help support domestic demand and facilitate relative price adjustments, thereby advancing adjustment in the deficit economies. In the medium run, further structural reforms in product and labor markets are needed to raise productivity and lift potential output growth. Moreover, continued progress on area-wide policy initiatives—notably on Banking Union and financial market development—can help loosen extremely tight external financing constraints and thereby help the growth of the tradable sector in the deficit economies. In this respect, the return of foreign investors in those sovereign markets is welcome, but it should not weaken efforts to complete the Banking Union. In the future, elements of a Fiscal Union would also help facilitate adjustment across member states.

[42] See Allard and others (2013)

## References

Aghion, Philippe, Ufuk Akcigit, and Peter Howitt, 2013, "What Do We Learn From Schumpeterian Growth Theory?" NBER Working Paper No. 18824 (Cambridge, Massachusetts: National Bureau of Economic Research).

Al-Eyd, Ali J. and Pelin Berkmen, 2013, "Fragmentation and Monetary Policy in the Euro Area," IMF Working Paper No. 13/208 (Washington: International Monetary Fund).

Allard, Céline, Petya Koeva Brooks, John Bluedorn, Fabian Bornhorst, Franziska Ohnsorge, and Katharine Christopherson Puh, 2013, "Toward a Fiscal Union for the Euro Area," IMF Staff Discussion Note 13/9 (Washington: International Monetary Fund).

Arnold, Jens, Giuseppe Nicoletti, and Stefano Scarpetta, 2011, "Regulation, Resource Reallocation and Productivity Growth," *European Investment Bank Papers*, Vol. 16, No 1, pp. 90–115.

Asdrubali, Pierfederico, Bent E. Sorensen, and Oved Yosha, 1996, "Channels of Interstate Risk Sharing: United States 1963–1990," *Quarterly Journal of Economics*, Vol. 111, No. 4, pp. 1081–1110.

Ball, Laurence, Daniel Leigh, and Prakash Loungani, 2013, "Okun's Law: Fit at 50?" IMF Working Paper No. 13/10 (Washington: International Monetary Fund).

Barkbu, Bergljot, Jesmin Rahman, Rodrigo Valdés, and a staff team, 2012, "Fostering Growth in Europe Now," IMF Staff Discussion Note 12/07 (Washington: International Monetary Fund).

Bayoumi, Tamim, Richard T. Harmsen and Jarkko Turunen, 2011, "Euro Area Export Performance and Competitiveness," IMF Working Paper No. 11/140 (Washington: International Monetary Fund).

Bennett, Herman, Julio Escolano, Stefania Fabrizio, Eva Gutiérrez, Iryna Ivaschenko, Bogdan Lissovolik, Marialuz Moreno-Badia, Werner Schule, Stephen Tokarick, Yuan Xiao, and Ziga Zarnic, 2008, "Competitiveness in the Southern Euro Area: France, Greece, Italy, Portugal, and Spain," IMF Working Paper No. 08/112 (Washington: International Monetary Fund).

Blanchard, Olivier, 2007, "Current Account Deficits in Rich Economies," IMF Staff Papers 54 (Washington: International Monetary Fund) 191–219.

Blanchard, Olivier, 2007, "Adjustment Within the Euro: The Difficult Case of Portugal," *Portuguese Economic Journal*, Vol. 6 (April) pp.1–21.

Blanchard, Olivier and Lawrence H. Summers, 1986, "Hysteresis and the European Unemployment Problem," in *NBER Macroeconomic Annual*, ed. by Stanley Fischer (Cambridge, Massachusetts: MIT Press) pp. 15–74.

*Blanchard*, Olivier and Lawrence Katz, 1992, "Regional Evolutions," *Brookings Papers on Economic Activity*, No. 1, pp. 1–75.

Blanchard, Olivier, Pierre Alain Muet, Vittorio Grilli and Patrice Vial, 1993, "Competitiveness through Disinflation: An Assessment of the French Macroeconomic Strategy," *Economic Policy*, Vol. 8, No. 16, pp. 11–56.

Blanchard, Olivier and Justin Wolfers, 1999, "The Role of Shocks and Institutions in the Rise of European Unemployment: The Aggregate Evidence," NBER Working Paper 7282 (Cambridge, Massachusetts: National Bureau of Economic Research).

Blanchard, Olivier and Francesco Giavazzi, 2002, "Current Account Deficits in the Euro Area: The End of the Feldstein-Horioka Puzzle," *Brookings Papers on Economic Activity,* No. 2, pp.148–186.

Blanchard, Olivier and Francesco Giavazzi, 2003, "Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets," *The Quarterly Journal of Economics*, Vol. 118, No. 3 (August), pp. 879–907.

Blanchard, Olivier and Gian Maria Milesi-Ferretti, 2009, "Global Imbalances: In Midstream?" IMF Staff Position Note No. 2009/29 (Washington: International Monetary Fund).

Blanchard, Olivier, Florence Jaumotte, and Prakash Loungani, 2013, "Labor Market Policies and IMF Advice in Advanced Economies During the Great Recession," Staff Discussion Note 13/02 (Washington: International Monetary Fund).

Blanchard, Olivier, Mark Griffiths, and Bertrand Gruss, 2013,"Boom, Bust, Recovery: Forensics of the Latvia Crisis," Economic Studies at Brookings, Fall 2013 Brookings Panel on Economic Activity, September 19–20, 2013.

Bornhorst, Fabian and Marta Ruiz Arranz, 2013, "Indebtedness and Deleveraging in the Euro Area," Euro Area Policies – Article IV Consultation, IMF Country Report No. 13/232 (Washington: International Monetary Fund).

Bouis, Romain, Orsetta Causa, Lilas Demmou, Romain Duval, and Aleksandra Zdzienicka, 2012, "The Short-Term Effects of Structural Reforms, An Empirical Analysis, Economics," OECD

Department Working Paper No. 949 (Paris: Organization for Economic Cooperation and Development).

Renaud Bourlès, Gilbert Cette, Jimmy Lopez, Jacques Mairesse, and Giuseppe Nicoletti, 2010, "Do Product Market Regulations in Upstream Sectors Curb Productivity Growth? Panel Data Evidence for OECD Countries," NBER Working Paper 16520 (Cambridge, Massachusetts: National Bureau of Economic Research).

Buiter, Willem and Anne Sibert, 2005, "How the Eurosystem's Treatment of Collateral in its Open Market Operations Weakens Fiscal Discipline in the Eurozone (and what to do about it)," CEPR Discussion Paper No. 5387 (London: Centre for Economic Policy Research).

Cahuc, Pierre and Fabien Postel-Vinay, 2002, Temporary Jobs, Employment Protection and Labor Market Performance," *Labour Economics*, Vol. 9, No. 1, pp. 63–91.

Chen, Ruo, Gian Maria Milesi-Ferretti, and Thierry Tressel, 2013, "External Imbalances in the Euro Area," *Economic Policy*, Vol. 28, No.73, pp. 101–142.

Cheun, Samuel, Isabel von Köppen-Mertes, and Benedict Weller, 2009, "The Collateral Frameworks of the Eurosystem, the Federal Reserve System and the Bank of England and the Financial Market Turmoil," ECB Occasional Paper Series No. 107 (Frankfurt: European Central Bank).

Committee for the Study of Economic and Monetary Union, 1989, *Report on Economic and Monetary Union in the European Community*, report to the European Council by Committee chaired by Jacques Delors (Brussels: European Commission).

Dao, Mai, Furceri, Davide, and Prakash Loungani, 2014, "Regional Labor Market Adjustments in the United States and Europe," IMF Working Paper No. 14/26 (Washington: International Monetary Fund).

Decressin, Jorg and Antonio Fatas, 1995, "Regional Labor Market Dynamics in Europe," *European Economic Review*, Vol. 39 No. 9, pp. 1627–655.

Di Mauro, Filippo and Katrin Forster, 2008, "Globalisation and the Competitiveness of the Euro Area," ECB Occasional Paper No. 97 (Frankfurt: European Central Bank).

Di Mauro, Filippo, Katrin Forster, and Ana Lima, 2010, "The Global Downturn and Its Impact on Euro Area Exports and Competitiveness," ECB Occasional Paper No. 119 (Frankfurt: European Central Bank).

Elmeskov, Jorge, John Martin, and Stefano Scarpetta, 1998, "Key Lessons for Labour Market Reforms: Evidence from OECD Countries' Experiences," *Swedish Economic Policy Review*, Vol. 5, pp. 205–252.

European Central Bank, 2012, "Competitiveness and External Imbalances in the Euro Area," ECB Occasional Paper No. 139 (Frankfurt: European Central Bank).

European Commission, 1990, "One Market, One Money, an Evaluation of the Potential Benefits and Costs of Forming an Economic and Monetary Union," Directorate-General for Economic and Financial Affairs, *European Economy*, No. 44.

European Commission, Directorate-General for Economic and Financial Affairs, 2008, *EMU@10: Successes and Challenges After 10 Years of Economic and Monetary Union*, European Economy–The EU Economy Review, Issue 2 (Brussels: European Commission).

Farhi, Emmanuel, Gita Gopinath, and Oleg Itskhoki, 2011, "Fiscal Devaluations," NBER Working Paper No. 17662 (Cambridge, Massachusetts: National Bureau of Economic Research).

Furceri, Davide and Aleksandra Zdzienicka, "The Euro Area Crisis: Need for a Supranational Fiscal Risk Sharing Mechanism?" IMF Working Paper No. 13/198 (Washington: International Monetary Fund).

Giavazzi, Francesco and Luigi Spaventa, 2010, "Why the Current Account May Matter in a Monetary Union, Lessons from the Financial Crisis in the Euro Area," CEPR Discussion Paper No. 8008 (London: Centre for Economic Policy Research).

Goyal, Rishi, Koeva Brooks, Petya, Pradhan, Mahmood, Tressel, Thierry, Dell'Ariccia, Giovanni, and Ceyla Pazarbasioglu, and an IMF Staff Team, 2013, "A Banking Union for the Euro Area," IMF Staff Discussion Note SDN 13/1 (Washington: International Monetary Fund).

Honohan, Patrick, 2009, "What Went Wrong in Ireland?" Trinity College Dublin.

International Monetary Fund, 2010, *United States: Publication of Financial Sector Assessment Program Documentation—Technical Note on Crisis Management Arrangements*, IMF Country Report No. 10/120 (Washington: International Monetary Fund).

———, 2011, *Regional Economic Outlook, Strengthening the Recovery, World Economic and Financial Surveys*.

———, 2011b, *Germany Sustainability Report, G-20 Mutual Assessment Process*.

———, 2012, *Euro Area Policies – 2012 Article IV Consultation*.

———, 2012b, *World Economic Outlook – Growth Resuming, Dangers Remain*, (Spring).

———, 2013, *Euro Area Policies – 2013 Article IV Consultation*.

———, 2013b, *2013 Spillover Report – Analytical Underpinnings and Other Background*, IMF Multilateral Issues Report (August 1).

———, 2013c, "The Dog that Didn't Bark: Has Inflation Been Muzzled or Was it Just Sleeping?" in *World Economic Outlook,* Chapter 3, (April).

———, 2013d, *Greece: Ex Post Evaluation of Exceptional Access under the 2010 Stand-By Arrangement*, IMF Country Report No. 13/156.

———, 2013e, *IMF Multi-Country Report, German-Central European Supply Chain – Cluster Report*, IMF Country Report No. 13/263.

———, 2013f, *External Sector Report*, (August).

Jaumotte, Florence and Piyaporn Sodsriwiboon, 2010, "Current Account Imbalances in the Southern Euro Area," IMF Working Paper No. 10/139 (Washington: International Monetary Fund).

Florence Jaumotte, 2011, "The Spanish Labor Market in a Cross-Country Perspective," IMF Working Paper No. 11/11 (Washington: International Monetary Fund).

Jaumotte, Florence and Hanan Morsy, 2012, "Determinants of Inflation in the Euro Area: The Role of Labor and Product Market Institutions," IMF Working Paper No. 12/37 (Washington: International Monetary Fund).

Sebnem Kalemli-Ozcan, Emiliano Luttini, and Bent Sorensen, 2013, "Debt Crises and Risk Sharing: The Role of Markets versus Sovereigns," CEPR Discussion Paper No. DP9541 (London: Centre for Economic Policy Research).

Kang, Joong Shik and Jay Shambaugh, 2013, "The Evolution of Current Account Deficits in the Euro Area Periphery and the Baltics: Many Paths to the Same Endpoint," IMF Working Paper No. 13/169 (Washington: International Monetary Fund).

Kang, Joong Shik and Jay Shambaugh, 2014, "Progress Towards External Adjustment in the Euro Area Periphery and the Baltics," IMF Working Paper, forthcoming.

Laeven, Luc and Thierry Tressel, 2013a, "European Financial Integration before the Crisis," in *From Fragmentation to Financial Integration in Europe* (Washington, DC: International Monetary Fund).

Laeven, Luc and Thierry Tressel, 2013b, "Fragmentation of the Financial System," in *From Fragmentation to Financial Integration in Europe*, (Washington, DC: International Monetary Fund).

Lane, Philip R., 2006, "The Real Effects of European Monetary Union," *Journal of Economic Perspectives*, Vol. 20, No. 4, pp. 47–66.

Merler, Silvia and Jean Pisani-Ferry, 2012, "Sudden Stops in the Euro Area," *Bruegel Policy Contribution*, Issue 6 (March).

Martin, John and Stefano Scarpetta, 2012, "Setting It Right: Employment Protection, Labour Reallocation and Productivity," *De Economist,* Volume 160, pp. 89–116.

Mongelli Francesco Paolo and Charles Wyplosz, 2008, "The Euro at Ten: Unfulfilled Threat and Unexpected Challenges," presented at the Fifth ECB Central Banking Conference The Euro at Ten: Lessons and Challenges, November 13–14, Frankfurt am Main.

Nkusu, Mwanza, 2013, "Boosting Competitiveness to Grow Out of Debt—Can Ireland Find a Way Back to Its Future?" IMF Working Paper No. 13/35 (Washington: International Monetary Fund).

Obstfeld, Maurice and Giovanni Peri, 1999, "Regional Non-Adjustment and Fiscal Policy: Lessons for EMU," NBER Working Paper 6431 (Cambridge, Massachusetts: National Bureau of Economic Research).

Organization for Economic Cooperation and Development, *Economic Policy Reforms, Going for Growth 2013* (Paris: Organization for Economic Cooperation and Development).

Cour-Thimann, Philippine, 2013, "Target Balances and the Crisis in the Euro Area," *CESifo Forum*, Vol. 14 (April).

Scarpetta, Stefano, 1996, "Assessing the Role of Labour Market Policies and Institutional Settings on Unemployment: A Cross-country Study," *OECD Economic Studies*, No. 26, pp. 43–98.

Scarpetta, Stefano and Thierry Tressel, 2002, "Productivity and Convergence in a Panel of OECD Industries, Do Regulations and Institutions Matter?" OECD Economics Department Working Paper 342 (Paris: Organization for Economic Cooperation and Development).

Scarpetta, Stefano and Thierry Tressel, 2004. "Boosting Productivity via Innovation and Adoption of New Technologies: Any Role for Labor Market Institutions?" World Bank Policy Research Working Paper Series 3273, (Washington, DC: World Bank).

Schmitz, Birgit and Jürgen von Hagen, 2011, "Current Account Imbalances and Financial Integration in the Euro Area," *Journal of International Money and Finance*, Vol. 30, No. 8, (December) pp. 1676–95.

Shambaugh, Jay, 2012, "The Euro's Three Crises," *Brookings Papers on Economic Activity*, Vol. 44, No. 1 (Spring) pp.157–231.

Suarez, Javier, 2010, "The Spanish Crisis: Background and Policy Challenges", CEPR Discussion Paper 7909 (London: Centre for Economic Policy Research).

Tressel, Thierry, 2012, "The Eurozone Crisis and the Sovereign-Bank Nexus: The Case for a Eurozone Banking Union," *Selected Issues Paper Euro Area Policies – 2012 IMF Article IV Consultation*. (Washington, DC: International Monetary Fund).

Thierry, Tressel and Shengzu Wang, 2013, "Rebalancing in the Euro Area: Where do We Stand and Where to Go?" *Selected Issues Paper*, *Euro Area Staff Report* (Washington, DC: International Monetary Fund).

Tressel Thierry and Shengzu Wang, 2014, "Rebalancing in the Euro Area and Cyclicality of Current Account Adjustments?" IMF Working Paper, forthcoming.

Veron, Nicolas, 2013, "Banking Nationalism and the European Crisis," (Washington, DC: Peterson Institute for International Economics).

Wyplosz, Charles, 2006, "European Monetary Union: The Dark Sides of a Major Success," *Economic Policy* (April) pp. 207–61.