

GREECE MACRO MONITOR

May 5, 2015

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Grexit: why it will not happen

Economic and political ramifications of a withdrawal from EMU would be way too severe for such a scenario to materialize

Preface

Severe cash constraints faced by the Greek government due to a pretty demanding schedule of interest and amortization payments in the remainder of 2015 have lately engineered a new increase in sovereign bond spreads and rekindled fears of a “Graccident” down the road. Such fears have been exacerbated further in late April as the progress in implementing the February 20th Eurogroup agreement has proven to be rather slow and the cash-strapped State is struggling to meet sizeable debt service obligations. As a result, media reports had been speculating on a number of disastrous scenarios, ranging from the imposition of capital controls or the payment of civil servants and various state suppliers with promissory notes (IOUs) to a sovereign default, either within or outside the Economic and Monetary Union (EMU). This paper refrains from analyzing the legal and technical complications involved in the materialization of any of the aforementioned scenarios. Instead, it leans on purely economic and political economy considerations to argue that calls for exit are ill advised, potentially involving immense risks not only for Greece, but also for the EMU project as a whole. The paper takes a close look at Greece’s high sovereign indebtedness and its persisting competitiveness gap vis-a-vis its main trading partners and explains why a default within or outside the euro area would be a hugely suboptimal (and, in fact, a highly dangerous) strategy to address these problems. Finally, the analysis argues that Greece’s competitiveness gap vis-a-vis main trading partners does not primarily relate to relative labor costs, but rather to non-cost competitiveness problems that continue to hinder investment activity and export performance. Consequently, an *external* devaluation is unlikely to resolve these problems on a lasting basis and aggressive structural reforms in product and services markets as well as in the domestic regulatory and institutional environment remain an urgent necessity.

Introduction

Severe cash constraints faced by the Greek government due to a pretty demanding schedule of interest and amortization payments in the following months have lately engineered a new increase of sovereign bond spreads and rekindled fears of a serious “accident” down the road.¹ Such fears have been exacerbated in recent weeks as the progress in implementing the February 20th Eurogroup agreement² has been rather slow and the cash-strapped State is struggling to meet sizeable debt service obligations. As a result, media reports have been speculating on a number of disastrous scenarios, ranging from the forced imposition of capital controls or the payment of civil servants and various state suppliers with promissory notes (IOUs) to a sovereign default, either within or outside the Economic and Monetary Union (EMU).

Certainly, recent comments from a number of high-level EU officials have not been conducive to soothing exacerbated “Graccident” fears, while some experts and academics have been publishing articles and giving media interviews on the *supposed* “inevitability” (or even the merits) of euro area exit so as for Greece to introduce its own currency and reflate itself back to competitiveness and sustained economic growth.

This note refrains from analyzing the legal and technical complications involved in the materialization of any of the aforementioned disastrous scenarios. It instead leans on purely economic and political economy considerations to argue that calls for exit are ill advised, potentially involving immense risks not only for Greece, but also for the EMU project as a whole.

In more detail, the paper takes an intertemporal view on the international history of monetary union breakups and exits to determine whether there are any useful lessons to be learned. Furthermore, it explains why there is no clear historical precedent to the EMU, which above all constitutes a political project. It then evaluates briefly the adjustment programs implemented in a number of euro area periphery economies and argues that these have not completely eradicated the inner causes of the sovereign debt crisis.

In the current trajectory, the restoration of positive and sustainable output growth is key for Greece and other periphery economies in the euro area to reduce unacceptably high unemployment rates, improve tax collection and increase the quantity (and the quality) of bank assets. Yet, one of the major problems still facing these economies is low competitiveness relative to the trading partners in the European North. Furthermore, most of them carry high sovereign (and/or private) debt burdens that in the absence of aggressive restructuring continue to hinder their efforts to get themselves out of the vicious cycle of low growth and high indebtedness.

The paper takes a closer look at Greece’s high sovereign indebtedness and its persisting competitiveness gap vis-a-vis main trading partners in the euro area and explains why a default within or outside the euro area would be a hugely suboptimal (and, in fact, a highly dangerous) strategy to address these problems.

On the high (sovereign) indebtedness issue, the paper notes that more than 95% of Greek public debt is denominated in euros and that most of it has been contracted in foreign law. This effectively implies that a sovereign default would expose the country to immense legal uncertainty and the risk of costly and lengthy litigation procedures. Furthermore, a redenomination of domestic contracts and claims into the new national currency would be highly destabilizing for the banking system, the domestic corporate sector and depositors, especially the weakest ones. In addition, the paper argues that, despite its still-elevated level, Greece’s public debt is more sustainable now than at the onset of the crisis, given the sharp decline in roll-over risks following the PSI and debt buyback operations as well as the relief package agreed at the Eurogroup of November 2012.

¹ At the time of writing this report, the benchmark 10-year Greek government bond was trading not far from a 2½ - year peak of 13.6 percent hit on April 21, 2015. As a matter of comparison, the 10-year Italian and Spanish counterparts were both trading below the 1.50 percent mark, having reached record lows near 1 percent in early March, following the initiation of the ECB’s Expanded Asset Purchases Programme.

² On February 20, 2015 euro area finance ministers agreed to grant Greece a four month extension of its Master Financial Assistance Facility Agreement so as to allow for the completion of a pending review in the context of the country’s second bailout program and to facilitate a “possible” follow-up arrangement between the Eurogroup, the institutions and Greece.

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Moreover, the analysis argues that Greece's competitiveness problem does not primarily relate to relative production costs (labor and other) vis-a-vis main trading partners. It primarily reflects a non-price competitiveness gap that needs to be addressed with aggressive structural reforms in product and services markets as well as in the domestic regulatory and institutional environment. As a result, an *external* devaluation might not succeed to resolve these problems on a lasting basis, especially as it would undermine domestic institutional quality, destabilize the domestic production base (which continues to have a large import content) and weaken the drive for reforms. In support of the latter considerations, the paper presents a brief assessment of major drachma devaluation episodes in the post WWII area and argues that these have generally failed to boost export competitiveness on a lasting basis.

The rest of this paper is structured as follows: **Section 1** looks at previous monetary union breakups and exits and explains why there is no clear historical precedent to the EMU. **Section 2** explains why the adjustment programs implemented in a number of euro area periphery economies have not completely eradicated the inner causes of the sovereign debt crisis. **Section 3** takes an intertemporal view on past currency devaluation episodes in Greece and explains why they have generally been inadequate to boost competitiveness and improve export performance on a lasting basis. **Sections 4&5** explain why a withdrawal from the single currency area would be catastrophic for the exiting country and highly destabilizing for the euro area; and **Section 6** concludes.

1. Lessons from previous monetary union breakups and exits and why there is no clear historical precedent for the EMU

This section looks at the potential macroeconomic and financial ramifications of a hypothetical (and, in our view, unlikely) scenario under which Greece is forced at some point to abandon the euro and introduce a new national currency. Before analyzing what that would mean for Greece, we briefly list some of the most important costs and benefits of EMU participation cited in the literature. In addition we take a bird's eye view on the international history of monetary union dissolutions and exits to see whether there are any useful lessons to be learnt. We deem this review imperative to understand not only the country-specific implications of exit but also its potential ramifications for the long-term stability of the euro area.

1.1 Costs and benefits from participation in the EMU

January 1st, 1999 marked an important transition not only in the history of Europe but in the history of the global financial system, as the exchange rates of the first eleven members of the European Union were *irrevocably* locked to each other at fixed rates, creating an economic region probably larger than that of any other currency area (Bardo and Jonung, 1999).^{3,4} Some of the most often cited benefits of the EMU include⁵:

- i. direct gains from the elimination of transaction costs, with an earlier European Commission study estimating such gains to amount to between €13 and €20 billion euros per annum (or c. ¼ to ½ of euro area GDP);
- ii. indirect gains stemming from greater price transparency, to the extent that the common currency and greater economic integration makes direct price comparisons easier for consumers;
- iii. economic and welfare gains due to reduced exchange rate uncertainty stemming from short-term currency volatility or medium term exchange rate misalignments⁶;

³ The first eleven EU countries to enter EMU were Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain. The remaining of the current 19 euro area members (and their respective entry years) are: Greece (2001), Slovenia (2007), Cyprus (2008), Malta (2008), Slovakia (2009), Estonia (2011), Latvia (2014) and Lithuania (2015).

⁴ The euro currency in its physical form was introduced on 1.1.2002.

⁵ A comprehensive analysis on the costs and benefits of the European common currency area can be found in e.g. Paul de Grauwe (2012), "Economics of Monetary Union", Oxford University Press, 9th edition.

⁶ Two testable hypotheses related to this point could be structured as follows: i) the elimination of exchange rate risk reduces *systemic* risk, which, in turn, lowers the real interest rate; and ii) the latter increases the growth rate as well as the income level. However, there is no overwhelming evidence of the above hypotheses, as less exchange rate uncertainty may be offset by greater uncertainty elsewhere.

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- iv. increased financial stability, given that in a country featuring monetary and exchange rate policy autonomy a banking (or a fiscal) crisis may transform itself into a full-blown currency crisis⁷;
- v. increased trade among members states (by between 5% and 20% as per a number of earlier studies); and, finally
- vi. enhanced competition and increased financial, institutional and political integration.

Despite these benefits, independent observers have at times pointed to a number of flaws or hazard areas in the construction and the operation of EMU that could create serious risks for the stability and the longevity of the euro area project. Among others, these include⁸:

- i. non-fulfillment of a set of criteria that could arguably increase member states' ability to respond to *asymmetric* external shocks. According to the theory of optimum currency areas (OCA)⁹ these criteria include: wage and price flexibility, labor market mobility across member states as well as fiscal policy centralization and the existence of an effective system of fiscal transfers¹⁰;
- ii. related to the above, different preferences towards inflation and unemployment, differences in labor market institutions and market structures as well as the prevalence of different cyclical conditions that cannot be adequately dealt with in the context of a uniform monetary and exchange rate policy are all factors that have regularly been cited as constraining the ability of individual members states to respond to asymmetric external shocks;
- iii. other hazard areas in the design of EMU that include: a) the absence of a central lender of last resort function, though a number of ECB initiatives (e.g. SMP and OMT and, more recently, the Expanded Asset Purchasing Programme) suggest that this is now less of a problem than in the past; b) the lack of a central authority supervising the EMU financial system (not a shortcoming any more thanks to the establishment of the EU Banking Union and the Single Supervisory Mechanism); and c) weak democratic control (accountability) of the ECB.

1.2 Lessons from previous currency breakups and exits

Rose (2006) presents an event study on past currency exits and breakups and examines the gross features of countries, territories or other entities that exited currency unions since the Second World War. By "currency unions", Rose effectively means that a country's money was interchangeable with that of another member country at a 1:1 parity for an extended period of time, so that there was no necessity to convert prices when trading between a pair of countries. Hard exchange rate fixes (or even formal currency boards), such as those of Argentina (before the fall of the Convertibility Program in early 2002), Hong Kong and Estonia are excluded from the said study as they do not qualify as currency unions. Rose utilizes data spanning the period 1946 through 2005 and identifies 130 countries of interest. Out of these, 69 countries left currency unions during the aforementioned period of time, while 61 have continuously been members of currency unions. The study draws several important conclusions. Among others, countries exiting currency unions tend to be larger, and more democratic. In addition, they tend to experience somewhat higher inflation. Most strikingly though, the study documents remarkably low macroeconomic volatility around the time of monetary union dissolutions or currency exits, and only a small linkage between monetary and political independence. The author concludes that aggregate macroeconomic features of the economy do a poor job in predicting currency union exits.

⁷ The counterargument here is that in the euro area, the absence of lender of last resort (LLR) function of the ECB suggests that a banking crisis may well trigger a liquidity or solvency crisis, as has been clearly demonstrated at the peak of the euro area sovereign debt crisis in 2011-2012. In addition to that, the lack of independent monetary and exchange rate policies deprives a member state from important stabilization/reflationary tools in the aftermath of a severe recession caused by e.g. a banking crisis.

⁸ For a more thorough analysis on the structural weaknesses and the shortcoming of the EMU see e.g. Eichengreen (1990), Obstfeld (1998) and Bordo and Jonung (1999).

⁹ Mundell (1961).

¹⁰ It should be noted though that a number of authors have raised serious doubts about the predictive power of the theory of optimum currency arrears (see e.g. Goodhart, 1995).

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In a separate paper, Nitsch (2004) presents a panel study based on annual data covering 245 country pairs using a common currency. The data covers the period 1948 to 1997 and identifies 128 currency union exits. Nitsch reaches a broadly similar conclusion with Rose (2006), in that macroeconomic factors have only little power to predict currency union dissolutions. In yet another study, Garber and Spencer (1994) present a detailed account of the breakup of the Austro-Hungarian currency union in 1919. One of the main conclusions of their paper is that a currency union dissolution or separation can be instrumented relatively quickly, as it involves little more than marking banknotes circulating within the breakaway state with a stamp.

In summary, the main conclusion of the aforementioned studies is that breakups or exits from monetary unions are rather common, can be achieved quickly and are usually associated with low macroeconomic volatility. Taking these into consideration, proponents of an EMU breakup or exit by one or more member states argue that this should not necessarily be viewed as an economic and financial "Armageddon", but merely the crystallization of severe and unsustainable losses incurred anyway by periphery euro area economies featuring unsustainable macro imbalances, hugely misaligned real exchange rates and over bloated external debt positions. Some even go so far as to suggest that an exit from the euro area should be looked at as a classic emerging market crisis, where countries defaulted on private and/or public debts, abandoned pegs or managed exchange rates, and devalued.¹¹

1.3 How devaluations and defaults typically work through the economy

Currency devaluations¹² (occurring in tandem or not with sovereign defaults) typically follow long periods of sizeable real exchange rate misalignments (i.e., real appreciations). Devaluations can have real economic effects due to (price and wage) rigidities and money illusion. Although domestic inflation typically increases following a sizeable devaluation (which makes prices for imported goods more expensive), nominal rigidities prevent short-term inflation from adjusting to such an extent so as to fully offset competitiveness gains stemming from a weaker currency. This, in turn, leads to higher export growth, increased demand for domestically produced goods (as imported goods become relatively more expensive) and thus, higher short-term profitability and employment gains. Ceteris paribus, higher domestic inflation can also erode the real value of (local currency-denominated) debt, thus rendering its service easier for borrowers. In relation to the above, a recent study by Weisbrot et al. (2011) examines GDP movements before and after a number of past devaluation episodes.¹³ The following table which is borrowed from their study demonstrates that, for most of these countries domestic GDP exceeded respective pre-crisis levels in just three years after devaluation.

1.4 Is there a clear historical precedent to EMU?

There is a long historical record of monetary unions within which a single currency serves as a unit of account, medium of exchange and store of value. Bordo and Jonung (1997, 1999) argue that the history of monetary unions is best understood by distinguishing between *national* monetary unions and *multinational* monetary unions, a taxonomy that makes perfect sense to us for reasons we explain below. As clarified by the authors, in a national monetary union political and monetary sovereignty goes hand in hand, with the borders of the nation-state usually coinciding with these of the monetary area. Major such examples that are still present today include the United States and the British monetary union comprising England, Scotland, Wales and Northern Ireland. Broadly speaking, a major distinguishing characteristic of a national monetary union is the existence of a single monetary authority (usually, a central bank). In contrast to national monetary unions, a multinational monetary union usually comprises of a number of independent nation-states that permanently fix their currencies' exchange rates as a way of enchanting monetary cooperation. In that case, one member country's money is perfectly exchangeable for that of another's at a fixed price, with an extreme example including the case of all member states sharing the same currency. As a rule, a multinational monetary union features no common monetary authority. Examples of multinational monetary unions include: the Latin Monetary Union¹⁴ that was created in 1866 and remained intact until the outbreak of World War I; the

¹¹ "A Primer on the Euro Breakup: Default, Exit and Devaluation as the optimal Solution", Variant Perception, February 2012.

¹² The term currency devaluation (or revaluation) should be distinguished from the term depreciation (or appreciation), which can also be used to describe large movements of fully-flexible exchange rates.

¹³ Weisbrot, Ray, Montecino and Kozameh, "The Argentine Success Story and Implications", SEPR, 2011

¹⁴ See e.g. Griffiths (1991) and Redish (1993).

Scandinavian Monetary Union¹⁵ that was formed in 1873; and the Austro-Hungarian Monetary union that was formed in 1892 and was dissolved in 1919.¹⁶ The aforementioned taxonomy leads Bordo and Jonung to conclude that the EMU project is unique in the history of monetary unions since there is no clear and unambiguous precedent of a group of politically independent countries deciding voluntarily to surrender their national currencies to form a monetary union based on a common unit of account under the leadership of a common monetary authority (the ECB). In the history of monetary unions, monetary unification customarily followed political unification, not the other way round. This important distinguishing characteristic leads the authors to conclude that the EMU should be viewed as a national rather than a multinational monetary union and this, in turn, should be taken into account when trying to predict its future evolution. The above considerations also point to a number of parallels that can be drawn from the historical evolution of national monetary unions such as the U.S. or the U.K..

1.5 EMU is, above all, a political project

Jacques Delor once said "Obsession about budgetary constraints means that the people forget too often about the political objectives of European construction. The argument in favor of the single currency should be based on the desire to live together in peace."¹⁷ This statement clearly reflects the fact that the creation of the Economic and Monetary Union has been the latest major step in a long process towards European political and economic integration that traces its origins from the European Coal and Steel Community (ECSC) and the European Economic Community (EEC), both formed in the early 50s. It is not by accident then that *all* EU members (except a few that have negotiated special opt-out clauses)¹⁸ are *obliged* to adopt the euro once they meet the criteria to do so. The above suggest that the EMU is primarily a political project, on which immense political capital and resources have already been invested. As noted in Bordo and Jonung (1999), countries that have joined the EMU are on a fiat, not a specie, standard. In principle, national monetary unions of the 18th and the 19th century followed after political unification and were based on a jointly accepted monetary mechanism of a metallic standard with gold convertibility. On the other hand, the EMU is based on a commitment mechanism that has been voluntarily accepted by a group of politically independent EU countries, having at its core price stability as its primary objective, as laid out in the statutes of the European Central Bank. All these in turn suggest that the future stability of the EMU depends on member states' ability (and willingness) to continue abiding by the same policy rules and preferences, with a view to eventually attain the ultimate objective of political unity within Europe. In addition, the political economy of other (past and contemporary) national monetary unions suggests that the viability and longevity of the EMU will crucially depend on the determination and flexibility shown by EU politicians and policy-makers to respond to future challenges arising from the structural shortcomings of the single currency area.^{19,20}

¹⁵ See e.g. Jonung (1984) and Bergman, Gerlach and Jonung (1993).

¹⁶ See e.g. Garber and Spencer (1994)

¹⁷ Cited in Prior-Wandesforde (2005) and in Eichengreen (2007).

¹⁸ Before the start of the monetary union in 1999, Denmark, Sweden and the UK decided that they did not want to participate. Denmark and the UK obtained opt-out clauses in the Maastricht Treaty, while Sweden chose to stay out unilaterally. In all three countries, the key reason for this decision was - and still is - a negative view among the electorate. The Danish and Swedish governments have been in favour of membership and have put the issue before the people in a referendum (in Denmark twice). In the UK, the government has been in favour in principle, but with caveats (see e.g. Holden, 1999).

¹⁹ A brief look at the historical evolution of the U.S. monetary union helps to strengthen this point. Although the U.S. monetary union was established with the signing of the Constitution in 1789, the United States had not formal central bank until the establishment of the Federal Reserve System in 1914. Detailed historical accounts and analysis on the U.S. monetary unification can be found in McCallum (1992), Perkins (1995) and others.

²⁰ The idea that political considerations and developments will be the primary determinant of the future of the EMU has been put forth by numerous researchers, including, among others, Cohen (1998), Goodhart (1998), Obstfeld (1998) and Bordo and Jonung (1999).

2. Why the adjustment programs implemented in a number of euro area periphery economies have not completely eradicated the inner causes of the sovereign debt crisis

2.1 Inner causes of the euro area debt crisis and long-term policy challenges

The initial years following the adoption of the single currency saw most countries in the so-called euro area periphery running large current account deficits, with core member states in the richer north featuring significant external surpluses. Despite these large divergences across member states, the outbreak of the global financial crisis found the euro area running a broadly balanced external position vis-à-vis the rest of the world. In retrospect, one can credibly argue that, to a large extent, these intra euro area imbalances were not only unjustified on the basis of underlying macroeconomic fundamentals, but were also largely overlooked by euro area policy makers.

2.2 Have the adjustment programs implemented in the euro area periphery completely eradicated the structural problems that fuelled the sovereign debt crisis?

The fiscal austerity programs implemented in the euro area periphery economies that were particularly hit by the sovereign debt crisis have already engineered a sizeable adjustment in their external imbalances (Figure 1.1 – Appendix I). However, the country-specific drivers of this process were not uniform across member states. In Greece and Italy the improvement was mainly driven by the sharp decline in imports (due to weak domestic demand), while Ireland and, to a lesser extent, Portugal have also enjoyed a strong improvement in their exports performance (Figure 1.2 – Appendix I). Arguably, the austerity/internal devaluation programs implemented in recent years have been conducive to the observed correction of the sizeable external imbalances accumulated in the pre-crisis period (Figures 1.3 – Appendix I). Nonetheless, the large wage deflation experienced by some of these economies (e.g. Greece) has not yet translated into sizeable export gains.²¹ As we explain in more detail below, this may be attributed to the existence of domestic structural rigidities hindering these countries' *non-cost* competitiveness. Furthermore, economic growth in the euro area periphery (and the single currency area as a whole) remains anemic, unemployment rates remain elevated and investment activity has not yet recouped its pre-crisis levels (Figures 1.4 & 1.5 – Appendix I). In addition to all these, EU periphery economies have accumulated too much debt (public and/or private) in a currency they cannot print or devalue. Indeed, the net external debt position of EU periphery economies is way too high by international standards and indeed higher than almost all countries that in the past defaulted and devalued²² (Figures 1.6 to 1.8 – Appendix I). In view of these considerations, some analysts claim that the only way for the weaker euro area periphery economies to get rid of their unsustainable debt burden is to default on it or exit, devalue and inflate it away. And, even if these economies managed to escape the "inevitable" for now, they would again find themselves in a pretty difficult position in the future, having to deal with structural weaknesses intrinsic in the design of the EMU that cannot be adequately dealt with a "one size fits all" monetary policy.

The restoration of positive and sustainable output growth is key for Greece and other periphery economies in the euro area to reduce unacceptably high unemployment rates, address high indebtedness (by e.g. increasing the denominator of the debt to GDP ratio), improve tax collection and increase the quantity (and the quality) of bank assets. However, one of the major problems still facing these economies is low competitiveness relative to trading partners in the European north. Arguably, this problem has been one of the inner causes of the euro area sovereign debt crisis, as the accumulation of large external liabilities in some euro area periphery economies in the initial years following the introduction of the single currency increased their susceptibility to sudden stops of external financing. This North-South *competitiveness divide* in the years leading to the global financial crisis is visualized in Figures 2.1 and 2.2, which show the evolution of unit labor costs across Eurozone countries over the last decade or so. Total economy unit labor costs growth in the periphery has generally been much faster relative to that in the euro area core in the initial years following the introduction of the single currency. Furthermore, it is really astonishing that for most of that period, Germany's unit labor costs increased by less than 10% relative to their pre-euro area entry levels, whereas, those in periphery economies like Greece, Italy, Ireland and Spain grew by 30% to 50%. Of course, the implementation of aggressive internal devaluation programs in some periphery countries following the outbreak of the euro area debt crisis led to a sharp decline in labor costs, with Greece exhibiting the most severe wage deflation relative to the rest of the pack in the last 3-4 years.

²¹ See e.g. "The puzzle of missing Greek exports", EC, Economic papers 518 / June 2014.

²² See Reinhart and Rogoff, 2009

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Figure 2.1 - Nominal unit labour costs: total economy (Compensation per employee to real GDP per person employed) 1999=100

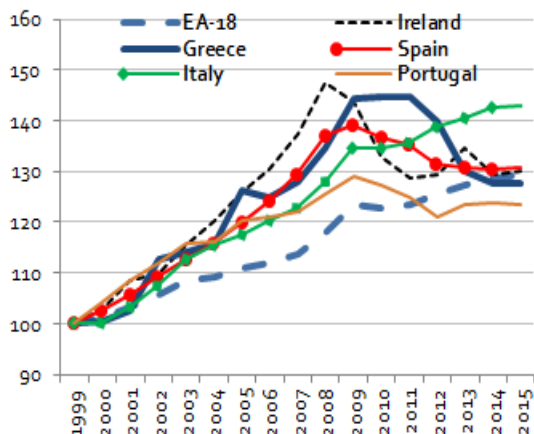
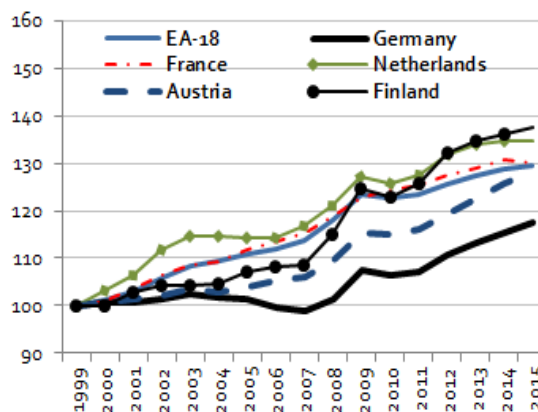


Figure 2.2 - Nominal unit labour costs: total economy (Compensation per employee to real GDP per person employed) 1999=100

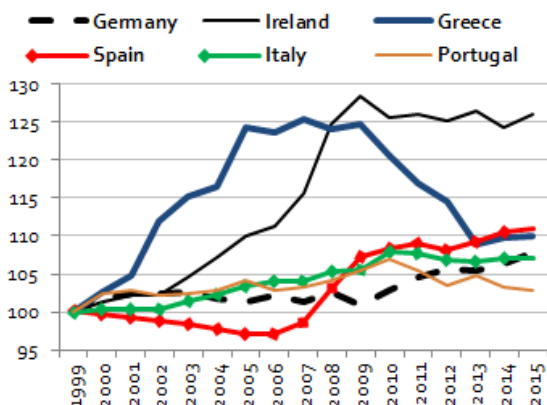


Source: AMECO, Eurobank Research

Another important point relevant to the analysis above is that although Germany exhibited much lower growth in nominal unit labour costs relative to euro area periphery for most of the past decade, real compensation to labor has actually grown faster in Germany than in some periphery economies (Spain, Italy and Portugal) due to persistently lower inflation (Figure 2.3).

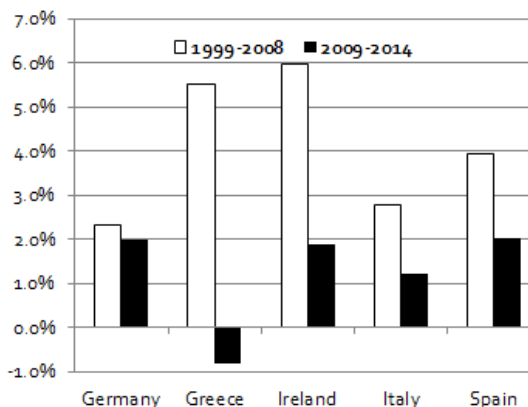
In addition, it is not that labor productivity in Germany has been extremely high, but more that German workers received less as a share of output (Figure 2.4).²³

Figure 2.3 – Real compensation per employee, deflator GDP; total economy (1999=100)



Source: AMECO, Eurobank Research

Figure 2.4 – Labour productivity (GDP per hour worked) average annual growth %



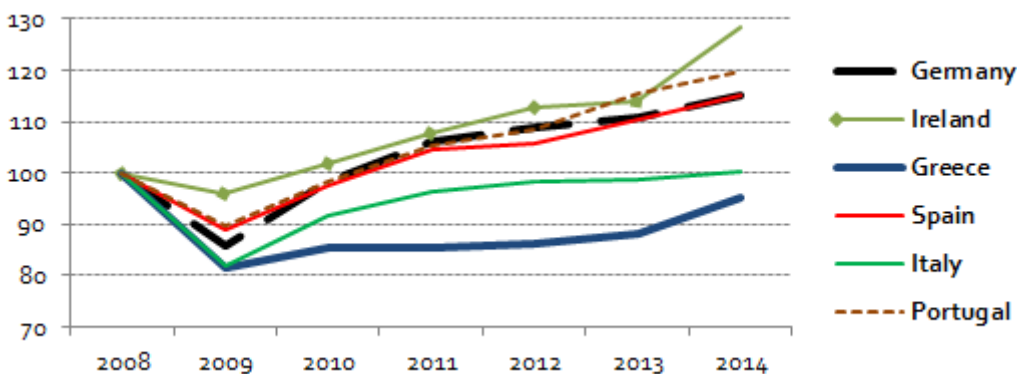
Source: OECD, Eurobank Research

Faced with significant competitiveness losses accumulated in the initial years following euro adoption, periphery euro area economies (and, in particular these mostly affected by the sovereign debt crisis) were left with no other option but to agree on sizeable bailout packages and implement aggressive internal devaluation programs aiming to safeguard domestic financial stability and restore fiscal sustainability and economic competitiveness. In the case of Greece, the internal devaluation program implemented in the context of the two consecutive bailout packages has already stabilized the domestic banking system and eliminated the sizeable (pre-crisis) deficits in the country's fiscal and

²³ Cavallo et al. (2014)

external accounts, albeit with severe costs in terms of output losses and labor shedding. In addition, as noted already, the improvement in the country's current account position has mainly been the result of a sharp decline in imports over the period 2008-2013, while exports performance has so far lagged behind that of other program countries despite the much more aggressive adjustment in relative wage costs (Figure 2.5).

Figure 2.5 – Exports of goods and services; national accounts data (2010 prices; 2008=100)



Source: AMECO, Eurobank Research

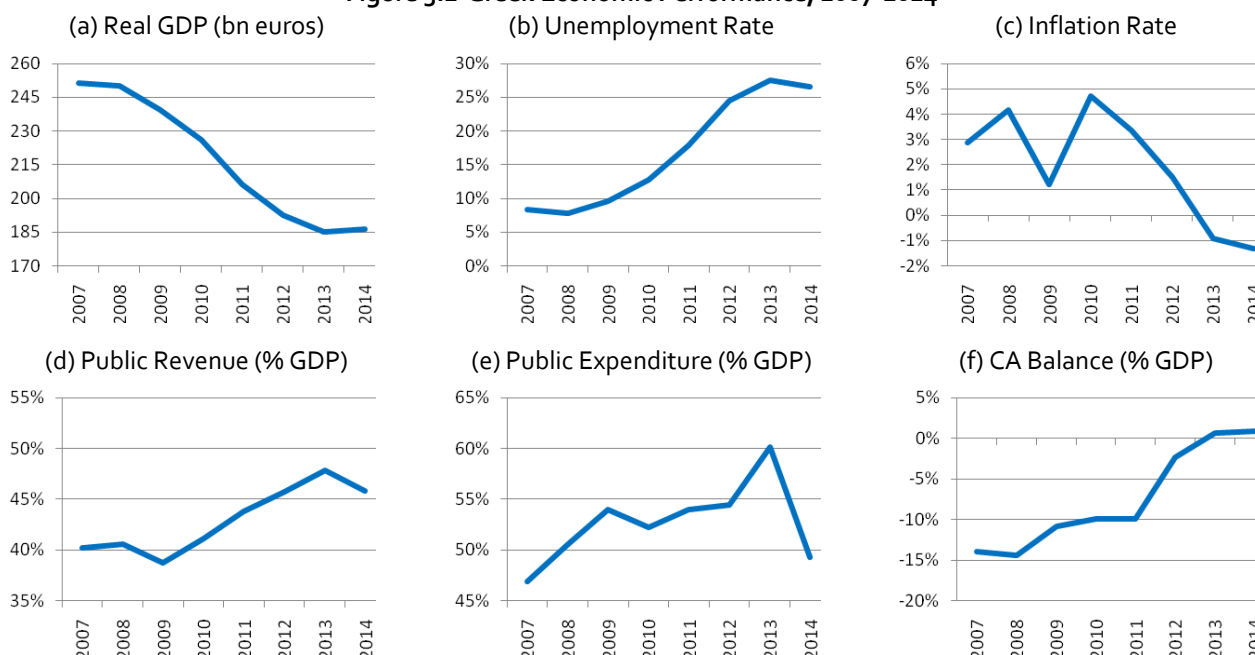
3. Lessons from a long history of drachma devaluations

External devaluation + weak policy credibility = unsustainable competitiveness gains

3.1 Greece: economic adjustment in the context of two consecutive bailout programs

During the period 2007-2013 the Greek economy experienced a deep recession, with cumulative output losses amounting to around 26%, the unemployment rate hitting multi-decade highs near 27.5% and average annual inflation declining from c. 3% in 2007 to -0.9% in 2013 (see Figure 3.1). Many analysts and government officials attributed the inner causes of this severe recession to endogenous factors, including structural weaknesses in the domestic economy in the form of low competitiveness and productivity, persisting imbalances in government and external accounts as well as an oversized and highly inefficient public sector. These factors produced an unsustainable growth path and increased vulnerability to negative external shocks.

Figure 3.1-Greek Economic Performance, 2007-2014



Source: (a) Eurostat, (b) Eurobank Research.

Note: CA refers to current account.

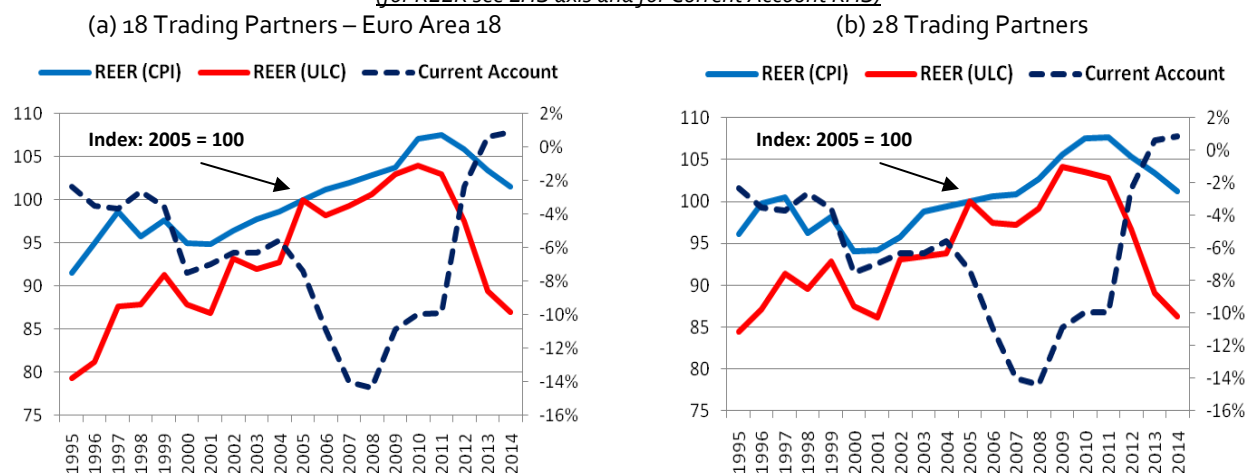
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Although there has been a general agreement among professional economists, policymakers and government officials on the necessity to restore Greece's fiscal sustainability and competitiveness, a controversy continues to exist as to the optimal path that should be followed to reach these objectives. On the fiscal policy front, considerable debate has surrounded the size, the front-loaded nature and the mix (i.e., expenditure cuts vs. tax hikes) of the measures applied thus far as well as the efficacy and the feasibility of the program targets for the general government primary balance. On the monetary policy front, the controversy has been even more structural in nature, with a number of analysts and academics arguing that the only way for Greece and other euro area periphery countries to boost their competitiveness and avoid the vicious cycle of low growth and high indebtedness is to reclaim full control of monetary and exchange rate policy, default on external debt and devalue. On the other hand, the prevailing view among policy-makers, government officials and professional economists has been that an exit from the euro area would be catastrophic for the exiting country and (potentially) destabilizing for the EMU project as a whole. As such, the appropriate strategy for crisis-hit economies in the euro area periphery would arguably be to embark on aggressive *internal* devaluation programs.

3.2 The experience with Greece's *internal* devaluation strategy since 2010

As demonstrated in Figure 3.1, the first 3 years (2010-2013) of implementing Greece's internal devaluation program were characterized by a sizeable domestic recession. Over that period, average annual output losses amounted to c. 4.8ppts and the unemployment rate increased by around 15ppts on a cumulative basis. In fact, the first signs of stabilization become evident only in 2014, when real GDP grew by 0.8%, the jobless rate eased by c. 1ppt and small positive balances were recorded in the general government primary position and the current account. In terms of *cost* competitiveness (see Figure 3.2), the internal devaluation strategy produced a decrease in Greece's real effective exchange rate (REER), both in terms of relative consumer price index (CPI) and unit labour costs (ULC). Over the period 2011-2014, the CPI-REER declined by c. 5.6%, maintaining though a *still notable* overvaluation relative to levels prevailing when the country entered the euro area in 2001. On the other hand, the progress so far in adjusting wage competitiveness has been much more significant, with the ULC-REER relative to 18 euro area trading partners having already fully erased the overvaluation experienced in the post euro entry period.²⁴

Figure 3.2-Real Effective Exchange Rate (CPI and ULC, indices) and Current Account (% GDP)
(for REER see LHS axis and for Current Account RHS)



Source: (a) Bank of Greece, (b) Eurostat, (c) OECD: Economic Outlook No.96 and No.88, (d) Eurobank Research.

Note: (a) real effective exchange rates (REER) measure the change in competitiveness of a country by taking into account the change in costs (e.g. ULC) or prices (e.g. CPI) relative to other countries. A rise in the index means a loss of competitiveness, (b) LHS refers to left hand side axis and RHS to right hand side axis.

Based on the aforementioned measures it is therefore fair to say that the internal devaluation strategy implemented in the context of the two consecutive stabilization programs has already restored Greece's wage competitiveness vis a vis its main trading partners. However, the adjustment based on relative inflation rates has so far been slower than that in relative wages, being arguably constrained by lingering rigidities in the domestic goods and services markets.

²⁴ All the numbers in this paragraph correspond to Figure 2(a), i.e., Greece vs. euro area 18 trading partners.

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What can also be said by looking at recent economic data is that the competitiveness gains generated by Greece's internal devaluation program have been accompanied by higher than initially expected output and employment losses. To a large extent, this has arguably been an unintended outcome, reflecting the fact that when markets are not very flexible the adjustment towards a new equilibrium is usually more time consuming and comes with high costs both for households (unemployment, low consumption) and the domestic corporate sector (low profits).²⁵ This argument is more clearly understood by looking at Figures 3.2(a) & 3.2(b), which reveal a 2 to 3 year lag between the start of the recession (2008 was the first year with negative real GDP growth) and the initial fall in the REER (CPI or ULC). In view of the aforementioned, proponents of the "Grexit" scenario argued back in 2011-2012 (and some of them continue to argue today) that the strategy of internal devaluation would prove to be a particularly long and painful process for the Greek economy, without succeeding to restore economic competitiveness on a lasting basis. And, even if successful, such as strategy would likely fail to preempt the risk of future crises, especially in view of continuing participation in a monetary union that is still far from becoming an *optimal* currency area.²⁶ In view of these objections, the following section takes a look at past currency devaluation episodes in Greece and explains why most of them failed to restore competitiveness on a lasting basis. Our argument is based on the notions of policy credibility, commitment mechanisms and expectations.

3.3 Policy credibility, expectations and what can be learnt by a long history of drachma devaluations

3.3.1 Exchange rate policy: general trends

A quick look at Greece's postwar economic history from the perspective of switches in the exchange rate regimes identifies three major turning points that divide the respective period into four sub-periods. These are: 1953-1974, 1975-1994, 1995-2000 and 2001-onwards. The first sub-period was characterized by a broadly stable drachma exchange rate vs the U.S. dollar, credibility in government policy, low inflation and strong output growth. On the contrary, the second was marked by a sliding drachma policy (crawling peg), non-credible government policies, low growth and persistent high inflation (e.g., see Alogoskoufis (1995) and, Bosworth and Kollintzas (2001)). During the third sub-period and until March 1998, the government followed the so-called "hard drachma policy", which effectively allowed the nominal exchange rate of the drachma vs. the ECU to slide at a pace lower than the inflation differential between Greece and the average of the European Union. On March 16, 1998 the domestic currency joined the exchange rate mechanism (ERM) of the European Monetary System (EMS) and on 1 January 1999, the drachma entered to ERM-II. In terms of economic performance, inflationary pressures slowed down, the economy started to grow with rates well above 2% and in January 2001 the Greek economy joined the EMU.

3.3.2 Exchange rate policy and aggregate economic performance

Arguably, the period 1953-1974 was the "golden era" of the Greek drachma (e.g., see Lazaretou, 2003). After a major devaluation (by 50%) against the US dollar in April 1953, the domestic currency joined the gold-dollar Bretton Woods monetary system and for the next two decades the Greek Currency Committee managed to maintain exchange rate stability.²⁷ Under that regime, the credibility of domestic economic policies was reinforced, uncertainty in terms of exchange rate fluctuations was reduced and, as a result, the Greek economy enjoyed strong output growth.²⁸ Following the collapse of the "Bretton Woods" monetary system in August 1971 and the first oil shock in October 1973, Greece experienced a 20 year-long period of major fluctuations in drachma exchange rates against major currencies (see Figure 3(b)). From 1975 until the early 90s, Greece's exchange rate policy had the characteristics of a crawling peg.

In terms of economic performance, the period 1975-1994 (see Figure 3.3) was characterized by weak GDP growth and relatively high inflation (i.e., stagflation). After the second oil shock in 1979 and until 1994, the average annual growth

²⁵ For a wonderful exposition of this phenomenon using the Mundell-Fleming AS/AD open economy macroeconomic model see Blanchard et al. (2010).

²⁶ The notion of an optimal currency area is attributed to Robert Mundell (1961) from Columbia University. Professor Mundell won the Nobel Prize in Economics Science in 1999.

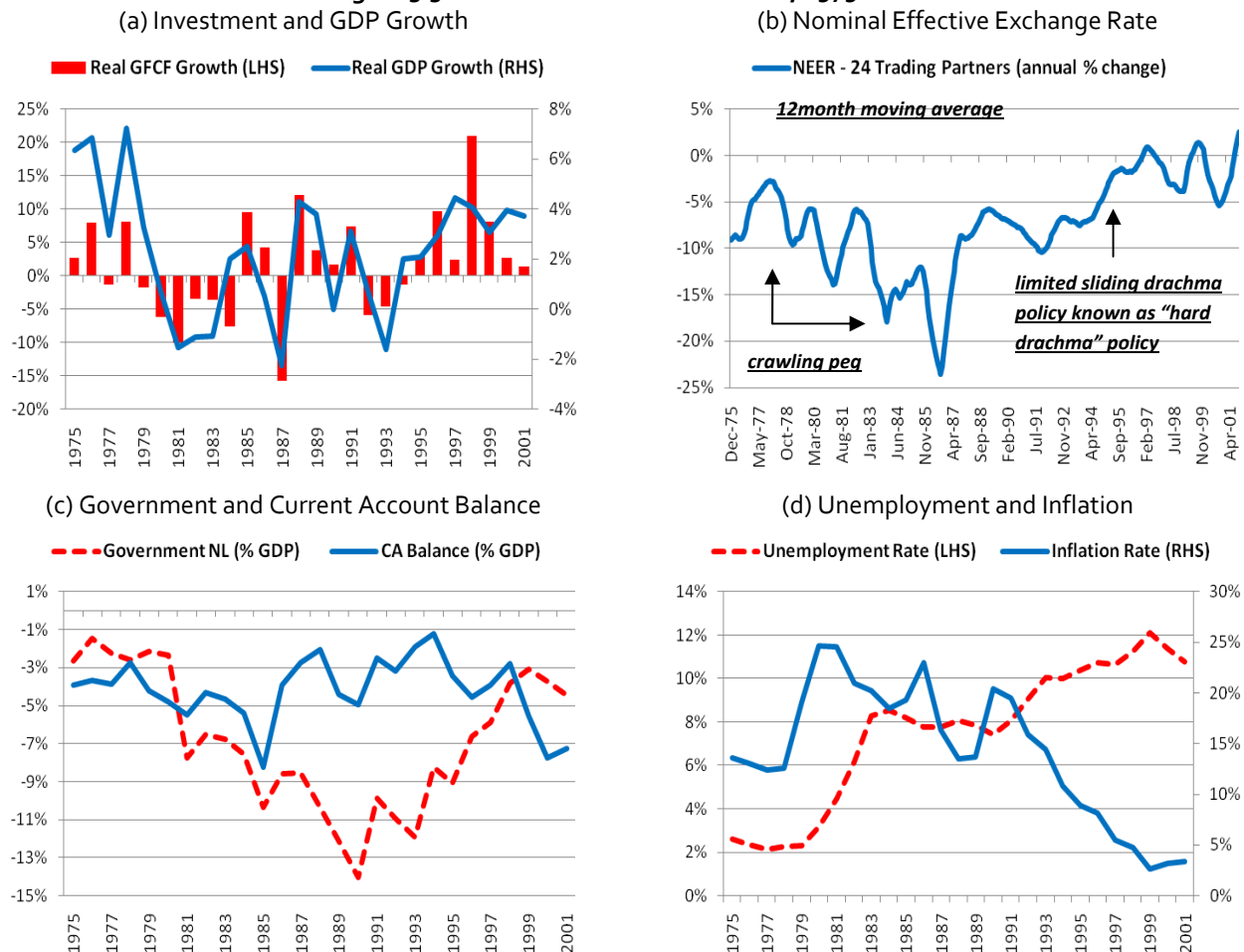
²⁷ The Currency Committee was a collective body (with chairman the minister of coordination and members the ministers of finance, industry, commerce, agriculture, and the governor of the Bank of Greece) that was fully responsible for monetary policy and the allocation of credit. For more details see Alexander and Demopoulos (1989).

²⁸ As Alogoskoufis (1995) points out: "The regime before 1974 was characterized by commitment and coordination mechanisms that led to high investment and growth but low inflation...The drachma's participation in Bretton Woods also provided a stable and predictable monetary standard and a measure of fiscal discipline".

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rate of real GDP was only 0.8% and the respective rate for real gross fixed capital formation was -1.3%. Furthermore, this period was marked by persistent twin deficits²⁹ and, as a result, the country suffered a significant accumulation of external liabilities. Moreover, due to fiscal expansion followed by accommodative monetary policy, the average annual inflation rate reached a level of 17.9%. Finally, the unemployment rate increased from 2.3% in 1979 to 10.4% in 1995.

Figure 3.3-Greek Economic Performance, 1975-2001



Source: (a) AMECO, (b) Eurostat, (c) OECD: Economic Outlook No.88, (d) Eurobank Research.

Note: (a) GFCF refers to gross fixed capital formation, NEER to nominal effective exchange rate, NL to net lending, CA to current account, LHS to left hand side axis and RHS to right hand side axis.

3.3.3 The three drachma devaluations: 1983, 1985 and 1998

In the context of active exchange rate policy, Greece devalued the drachma twice (against the US dollar) during the 1980s and one time (against the ECU) during the 1990s. The first devaluation took place on 9 January 1983, the second on 10 October 1985 and the third on 16 March 1998.³⁰ The magnitude of the January 1983 devaluation was 15.3%, 14.8% and 14.9% against 12, 15 and 24 trading partners, respectively. On the other hand, the devaluation in October 1985 was relatively smaller in magnitude, *i.e.*, 11.2%, 10.9% and 10.0% against the aforementioned groups of trading partners. Finally, the devaluation implemented in March 1998 was equal to 6.1% and 5.8% against 15 and 24 trading partners, respectively.

Judging from the perspective of aggregate economic performance following the two devaluations during the 1980s we broadly argue that they *did not* manage to produce lasting benefits for the real economy (Figures 3.3 and 3.4). In 1983 there was a recession of -1.0%, the inflation rate remained at the high levels (near 20%), the unemployment rate

²⁹ Between 1979 and 1994, Greece's current account and general government balance recorded average annual deficits of 4.0% and 8.6% of GDP, respectively.

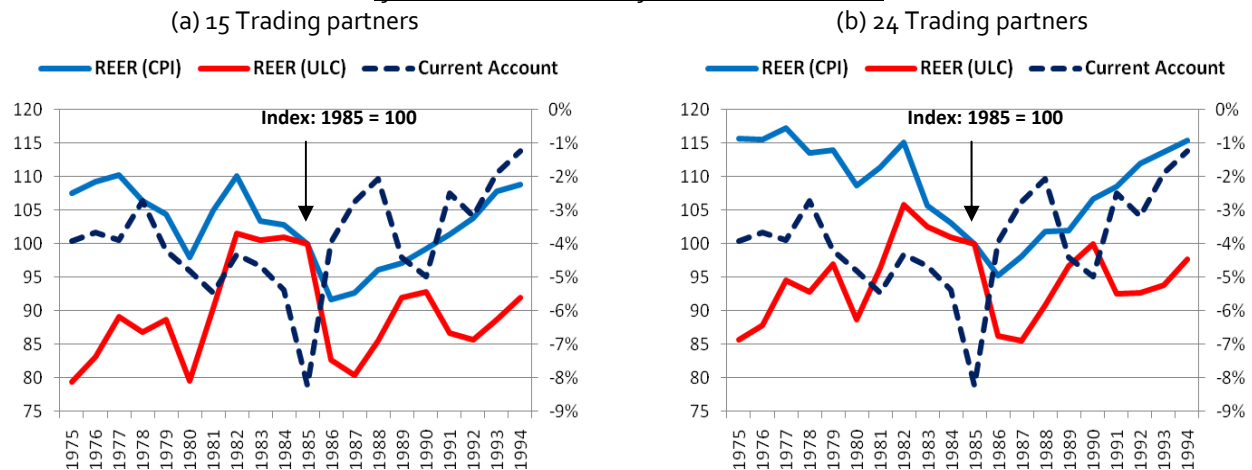
³⁰ The third devaluation was accompanied by entry to the ERM.

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increased by 2ppts (to 8.3% from 6.2% in the prior year) and the general government and current account balances deteriorated slightly (to -4.7% from -4.3% and to -6.7% from -6.5%, respectively). In 1984 and 1985, although the economy returned to positive real GDP growth rates (2.0% and 2.5%), the twin deficits continued to deteriorate, and there were no signs of improvement in the inflation rate and in the unemployment rate. More specifically, in 1985 (year of national elections) the current account balance stood at -8.2% of GDP, the general government shortfall at -10.2% of GDP, the unemployment rate at 8.2% and the inflation rate increased by c. 1ppt relative to the prior year, reaching 19.3%.

Figure 3.4-Real Effective Exchange Rate (CPI and ULC, indices) and Current Account (% GDP)

(for REER see LHS axis and for Current Account RHS)



Source: (a) Bank of Greece, (b) Eurostat, (c) OECD: Economic Outlook No.96 and No.88, (d) Eurobank Research.

Note: (a) real effective exchange rates (REER) measure the change in competitiveness of a country by taking into account the change in costs (e.g. ULC) or prices (e.g. CPI) relative to other countries. A rise in the index means a loss of competitiveness, (b) LHS refers to left hand side axis and RHS to right hand side axis.

As demonstrated in Figure 3.4, the year 1985 was marked by a balance of payments crisis, which led the Greek government to devalue the drachma. However, this time around the devaluation was accompanied by a stabilization program that lasted for two years (until 1987).³¹ In 1986, real GDP increased by 0.5%, the unemployment rate decreased slightly (to 7.8% from 8.2%) and inflation rose by nearly 4ppts, reaching 23%. Furthermore, the general government balance and the current account balance both improved, with the former decreasing by 1.8 ppts and the latter by more than 50% (from -8.2% to -3.9%). In 1987, the Greek economy was again in a recession. Real GDP contracted by -2.3% and there was a big drop in the inflation rate from 23.0% to 16.4% (that was the first time since 1978 that the average annual inflation rate eased below 19%).³² Separately, the unemployment rate and the government balance remained almost unchanged from a year earlier, while the current account balance improved further, declining to -2.7% of GDP, from -3.9% a year earlier.

By the mid-1990s, the Greek economy was on the track towards EMU accession. That choice, parallel with the implementation of the official government "convergence" program, created a "commitment mechanism" which reinforced government's policy credibility. The fruits of that policy were strong real GDP growth accompanied by a steady decrease of inflation rate (for the first time after almost 22 years the inflation rate dropped below 10%). Not accidentally, in 1998, real gross fixed capital formation increased by 21%.³³ Furthermore, in 1999, real GDP growth stood at 3.07%, the inflation rate at 2.6% (its lowest value since the early 1970s) and the general government balance was -3.1% (its lowest value since the early 1980s). Finally, it is worth mentioning the brewing of two structural weaknesses during that period i.e., the high unemployment rate (c. 12% in 1999), and the deterioration in the current account balance, from -2.8% in 1998 to -7.8% in 2000.

³¹ For details see Alogoskoufis (1992).

³² The decreasing path for the inflation rate lasted until 1989 (13.7%). In the early 1990s it started again to soar.

³³ That high increase in real gross fixed capital formation can also be attributed to the fact that on September 1997 the city of Athens undertook the responsibility to organize the 2004 Olympic Games.

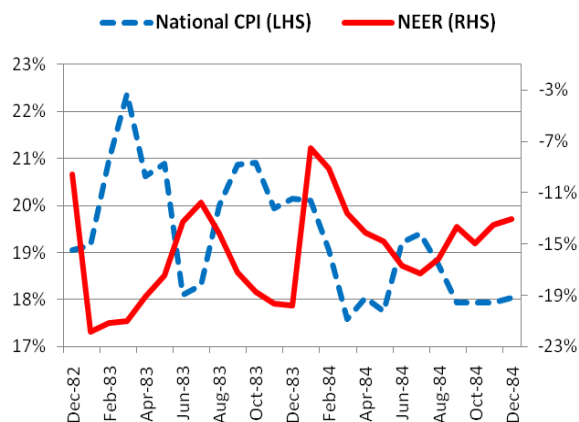
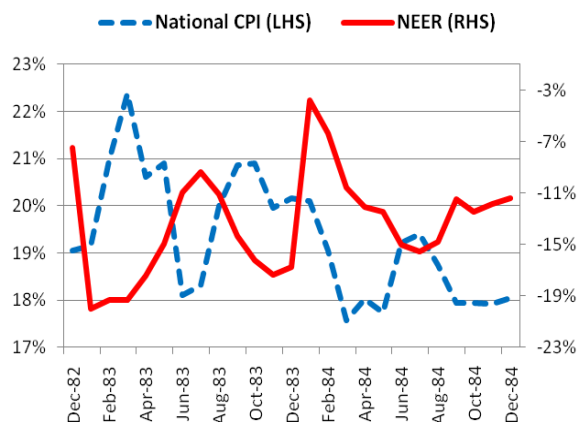
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Figure 3.5-National Consumer Price Index and Nominal Effective Exchange Rate (% annual change)

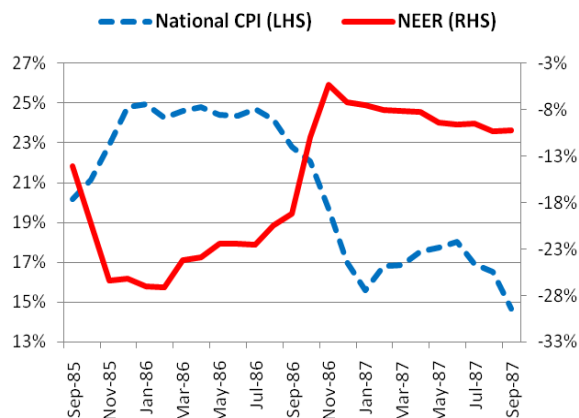
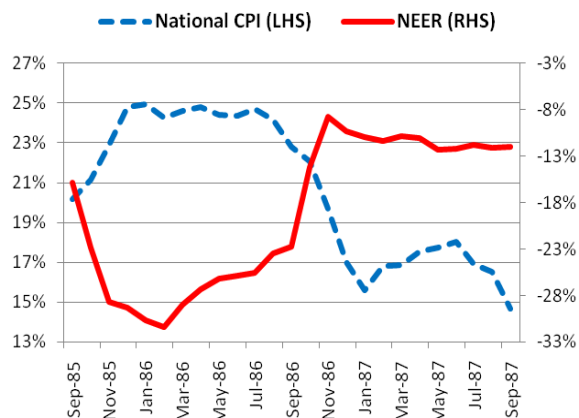
(a) 15 Trading partners

(b) 24 Trading partners

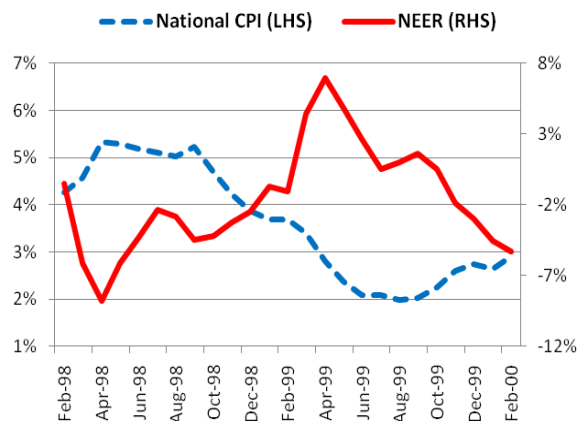
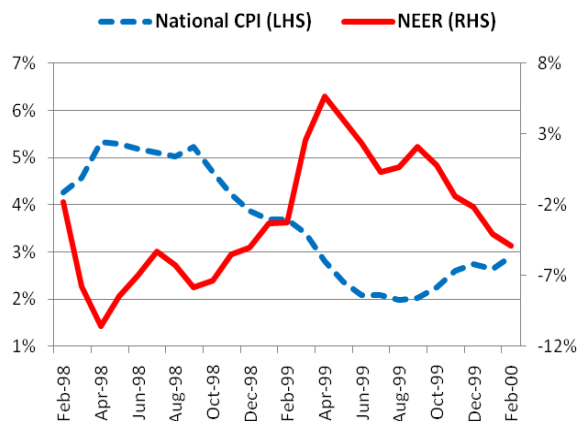
Devaluation of drachma against US dollar: January 1983 (approximately 15%)



Devaluation of drachma against US dollar: October 1985 (approximately 15%)



Devaluation of drachma against ECU: March 1998 (approximately 12%)



Source: (a) Bank of Greece, (b) Eurostat, (c) Eurobank Research.

Note: (a) nominal effective exchange rates (NEER) measure the change in the value of a currency against a trade-weighted basket of currencies. A rise in the index means a strengthening of the currency, (b) LHS refers to left hand side axis and RHS to right hand side axis.

3.3.4 Concluding remark

The major lesson to be learnt from the aforementioned historical incidents of currency devaluations in Greece is as follows: a successful devaluation in terms of lasting net benefits for the real economy is closely associated with the existence of commitment mechanisms that reinforce the credibility of government policy. For example, during the

1950s and 1960s, the institutional underpinnings of the Greek economy produced a very stable economic environment (e.g. stability in the exchange rate after the devaluation of 1953) that promoted investment, capital accumulation and growth. On the contrary, the exchange rate regime after 1975 did not manage to establish an efficient institutional mechanism so as to prevent stagflation. Finally, from the mid-1990s until 2001, the choice to enter the EMU has proven to be a strong anchor that greatly benefitted domestic policy credibility.

4. Why EMU exit would be catastrophic for Greece and destabilizing for the euro area

This section abstains from analyzing the legal and technical complications involved in a unilateral withdrawal from the euro area.³⁴ Instead, it concentrates on purely economic considerations to debate the merits and drawbacks of a number of regular arguments in favor of euro area exit by Greece and/or other vulnerable euro area periphery economies. Specifically, it discusses the problem of low competitiveness and high indebtedness in the euro periphery and explains why a withdrawal from the single currency area would be catastrophic for the exiting country and highly destabilizing for the EMU project as a whole. For expositional purposes, the case of Greece is considered in the analysis below.

4.1 The problem of high indebtedness in the euro area periphery

Argument in favor of exit

- *Too much public debt to sustain without defaulting on it or devaluing, exiting the euro area and inflating it away.*

Counterarguments

- *The mere fact that more than 95% of Greek public debt is denominated in euros (and most of it has been contracted in foreign law) means that a sovereign default would expose the country to immense legal uncertainty and the risk of costly and lengthy litigation procedures.*
- *The redenomination of domestic contracts and claims into the new national currency would be highly destabilizing for the banking system, the domestic corporate sector and depositors (especially small depositors).*
- *Despite its still elevated level, an argument can be made that Greek public debt is more sustainable now than at the onset of the crisis, given the sharp decline in roll-over risks following the PSI and debt buyback operations as well as the relief package agreed at the Eurogroup of November 2012.*

An argument in favor of Greece defaulting on its public debt (either within or outside the euro area) could be structured as follows: *the country's public debt is way too high by international standards and, indeed, higher than in almost all countries that in the past defaulted and/or devalued. Servicing this huge pile of debt deprives the economy of the necessary resources to grow, a situation which further exacerbates solvency concerns, as GDP growth is the single most important determinant of debt dynamics. This in turn means that, in the absence of a further aggressive restructuring to reduce the debt ratio towards more sustainable levels, the only way for Greece to get itself out of the vicious cycle of low growth and high indebtedness is to default on its debt or default, devalue and inflate it away.*

Typically, countries facing an unsustainable sovereign debt burden are left with one of the following options:

- inflate it away (*i.e.*, erode the real value of debt by accommodating higher inflation), provided of course that, in the meantime, the sovereign borrower in question continues to meet its debt service obligations.
- default on it and impose losses on foreign bond holders and creditors; and
- in the case of a hard exchange rate fix or monetary union membership, devalue and redenominate foreign-currency debt into the new devalued domestic currency.

In the case of Greece and the rest of periphery countries option *i*) above is effectively out of the table, as most of these economies are currently facing disinflation (or outright deflation) and, in addition, the ECB chapter dictates price stability as the primary objective of euro area monetary policy. As regards option *ii*) *i.e.*, sovereign default within the euro area, the hypothetical scenario discussed below demonstrates why such a development would also be highly

³⁴ While there is currently no legal procedure in EU Treaties for a euro area exit by a member state, the Treaty of Lisbon (Article 50) provides a mechanism for voluntary and unilateral withdrawal from the European Union.

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problematic. For the sake of argument, let us hypothesize that Greece is unable to meet a certain payment to the IMF within the 1-month grace period that applies to these loans.^{35,36} This would also constitute an event of default for EFSF loans³⁷, a development that would risk a partial (or full) cancellation of the EFSF facility or even a call for the immediate payment of all EFSF loan received thus far. Regarding option *iii*), an exit from the euro area and the ensuing devaluation of the new national currency would create a significant asset/liability mismatch not only in government accounts, but also in many corporate balance sheets featuring receipts in local currency and liabilities (e.g. debt payments) in foreign currency.

Once a new currency is introduced, the country in question would then be faced with the difficult decision of whether to keep existing debts and other claims held by foreigners in euros (or any other currency) or redenominate them in the newly introduced currency. While the legal implications of such a decision would potentially be immense, the government in question would probably be tempted to apply the legal principle of *lex monetae*³⁸ and redenominate its local euro debt contracts into the new currency which constitutes the new legal tender.³⁹ Typically, countries may use the said principle without necessarily facing insurmountable problems, provided that the debt contracts were contracted in its territory or under its law. However, in the case of Greece's exit from the euro area, most of the country's public debt would be both denominated in a "foreign" currency and contracted under foreign law. Indeed, as per the most recent official statistics, around 95% of Greek Central Government public debt is in euros, while more than 80% of the overall debt stock has been contracted under foreign law (Figure 3.1). The above suggest that a default on these debts would expose the country to immense legal uncertainty and the risk of costly and lengthy litigation procedures.

In addition to all these, the redenomination of domestic bank assets (e.g. loans) and liabilities (e.g. deposits) into the new national currency would be highly disruptive for the Greek banking system as well as for individual and corporate depositors. Furthermore, domestic firms having contracted loans in foreign currency (and under foreign law) and having most of their assets (or generating most of their revenue) in the new domestic currency would inevitably face severe balance sheet (asset/liability) mismatches. This would, in turn, lead to a new wave of private-sector litigations and defaults. To strengthen our argument against the appeal of devaluation and default, we note that despite its high current elevated level (~175%-of-GDP), Greek public debt is more sustainable now than it was before the PSI and debt buyback (DBB) operations implemented 3 years ago as well as the debt relief package agreed at the November 2012 Eurogroup. That is, considering that the term *sustainability* relates to the degree of *serviceability* of public debt on a multi-year basis and provided that some additional relief will be offered to Greece by official creditors down the road. In relation to the above, note for instance that the average of Greek public debt is now c. 16.5 years vs. 6.3 years in late 2011, whereas the effective interest rate on the overall debt stock is not around 2.5% i.e., among the lowest in the euro area.⁴⁰

³⁵ See "What if Greece misses an IMF payment?", Bank of America Merrill Lynch Research, 02 April 2015; and <http://www.imf.org/external/np/pp/eng/2012/082012.pdf>

³⁶ The prospectus of the bond held by the ECB indicates a 30-day grace period on interest payments, before a default is declared.

³⁷ As per the Master Financial Assistance Facility Agreement between the EFSF and the Hellenic Republic (http://www.efsf.europa.eu/attachments/efsf_greece_fafa.pdf)

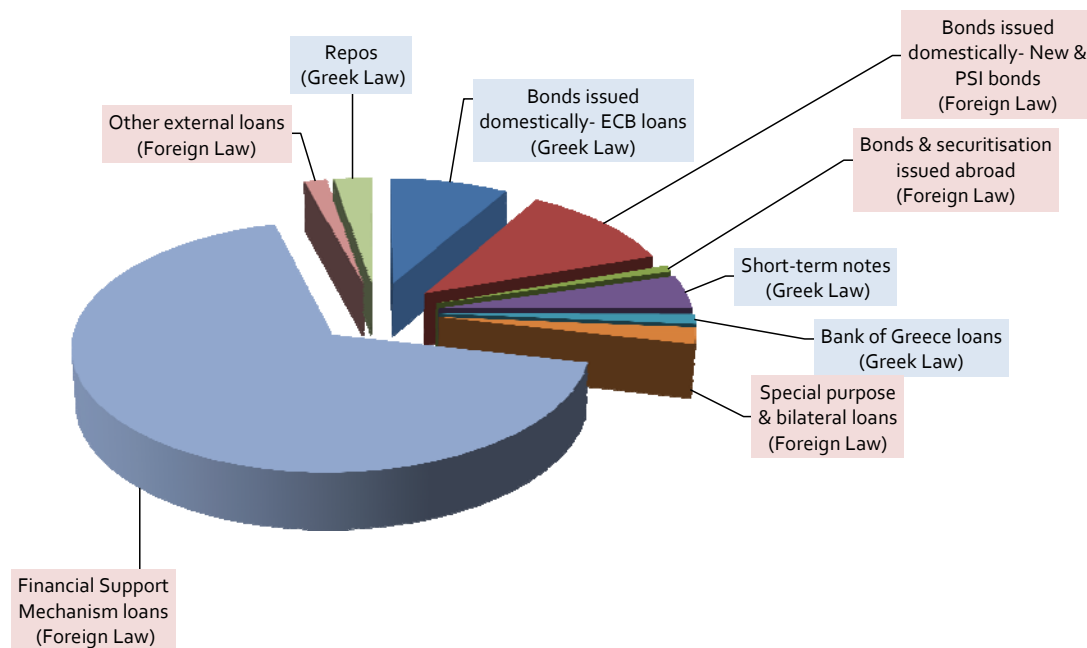
³⁸ The said principle effectively holds that a sovereign State determines its own currency.

³⁹ It is not certain whether the redenomination of public debt into local currency would legally constitute a default. In any case though, it would likely be considered a technical default by rating agencies and international bodies such as ISDA (see e.g. "A Primer on the Euro Breakup: Default, Exit and Devaluation as the Optimal Solution"; www.variantperception.com; February 2012).

⁴⁰ For a comprehensive analysis on the latter issues see "Why a relaxation of the primary fiscal target may prove to be a self-financing policy mix"; Greece Macro Monitor, Eurobank Research, February 26, 2015.

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Figure 4.1 – Greece: Slightly over 80% of outstanding Central Government debt has been contracted under foreign law (% of total as of 31.12.2014)



Source: PDMA, Eurobank Research

4.2 The problem of competitiveness

Argument in favor of exit

- Greece (an/or other euro periphery economies) should abandon the euro, introduce a new national currency and allow it to depreciate significantly against the currencies of trading partners so as to restore competitiveness

Counterarguments

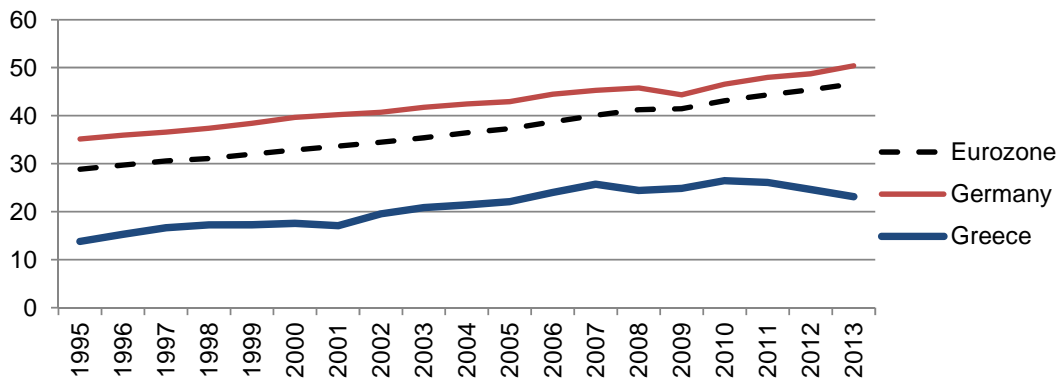
- Greece's competitiveness problem does not primarily relate to relative production costs (labor and other) vis-a-vis main trading partners. It primarily reflects a non-price competitiveness gap that needs to be addressed through aggressive structural reforms in the domestic product and services markets as well as in the domestic regulatory and institutional framework.
- An external devaluation would not likely succeed to resolve these problems on a lasting basis, especially as it would likely undermine domestic institutional quality, destabilize the domestic production base (which continues to have a large import content) and weaken the drive for reforms.

As noted in Section 2.1 of this document, lower competitiveness of the euro area periphery economies relative to their northern European trading partners has been one of the inner causes of the sovereign debt crisis and it remains a major challenge in the way towards real convergence and greater economic integration in the EU. In view of these considerations, one may wonder whether it would be advisable for one or more periphery economies to abandon the euro, introduce a new national currency and allow it to depreciate significantly against the currencies of trading partners so as to restore its competitiveness.

In the case of Greece, we argue that the problem of competitiveness is not any more an issue of relative production costs and, certainly, not a problem of relative wages (see Figures 3.1 and 3.2). True, energy prices for industrial use remain higher relative to the euro area average (partly due to higher taxation) and Greece's real effective exchange rate based on relative inflation vis-a-vis euro area trading partners has not yet fully adjusted to pre-euro adoption levels. Yet, Greece's inadequate export performance (despite the huge wage adjustment) mainly relates to lingering rigidities in domestic product and labor markets as well as other (regulatory-, institutional- and market structure-related) problems hindering non price competitiveness and preventing a more extrovert orientation of the Greek economy.

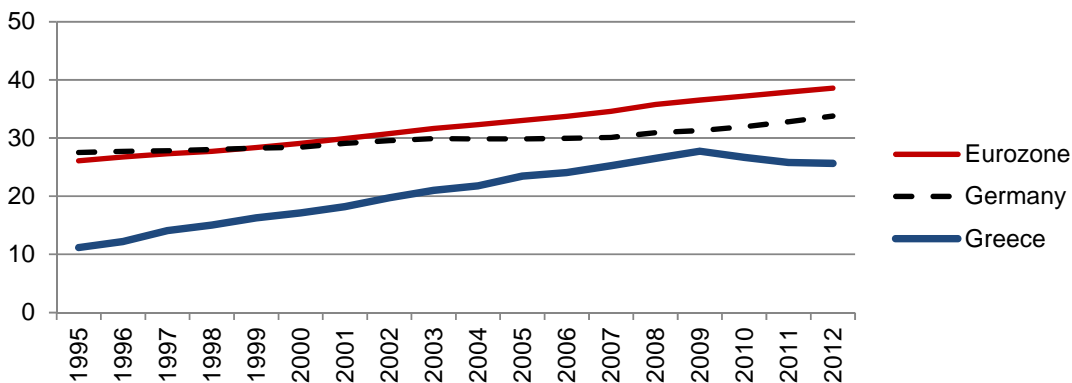
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Figure 4.2- Nominal compensation per employee in manufacturing (EUR thousand)



Source: AMECO, Eurobank Research

Figure 4.3- Nominal compensation per employee in services (EUR thousand)



Source: AMECO, Eurobank Research

Some of these issues are analyzed in the following section (and more detailed analysis can be found in "*Greece needs neither wage deflation nor more fiscal austerity; what is needed is an emphasis on structural reforms to boost (non-price) competitiveness*"⁴¹; Eurobank Research 12 March, 2015), but the gist of the argument we want to make is as follows: Greece's competitiveness problem does not primarily relate to relative production costs (labor and other) vis-a-vis main trading partners, It primarily reflects a non-price competitiveness gap that needs to be addressed through aggressive structural reforms in the domestic product and service markets as well as in public administration and the domestic regulatory and institutional framework. Certainly, an external *devaluation* would not likely succeed to resolve these problems on a lasting basis, especially as it would undermine domestic institutional quality, destabilize the domestic production base (which continues to have a large import content) and weaken the drive for reforms (see also Section 3).

4.2.1 Lingering structural problems hindering Greece's competitiveness and export performance...

- Greece remains a small and closed economy with limited gains in world market shares, even following the huge wage adjustment in the past several years that has reduced Greece's ULCs-based Real Effective Interest Rate (REER) to levels prevailing before the EUR adoption.
- With the exception of maritime shipping and mineral fuels, lubricants & related material all other main categories of goods and services exports have seen their share (as % of total Greek exports) shrinking over the last two decades.

⁴¹ <http://www.eurobank.gr/Uploads/Reports/OFOCUSMarch1220152.pdf>

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- The technological content of Greek manufacturing exports remains low relative to that of the main EU trading partners.
- Greece features a *competitive advantage* in more traditional manufacturing sectors which, to a large extent, are of low technological content and low added value.
- Greece lags behind its main EU trading partners in merchandise trade specialization
- Greece continues to lag behind its main trading partners in business R&D expenditure and foreign direct investment.
- The average size of Greek manufacturing companies remains significantly lower relative to EU trading partners. This hinders the generation of economies of scale and prevents a better integration into global supply chains.

4.2.2 ...though some progress in several important areas has been attained in recent years

- Significant progress has been made in recent years as regards the diversification of Greek exports in terms of structure and geographical destination.
- The technological content of Greek exports has increased significantly over the past decade and a higher share of domestically-produced manufacturing goods is now exported to high growth foreign economies.
- Greece's manufacturing exports have rebounded in the last couple of years.
- Significant progress has been attained in recent years in a number of international indicators for Greece's competitiveness, governance as well as the functioning of the domestic business and regulatory environment. However, additional improvements are needed to bridge the gap with the rest of the Eurozone

5. Domino effects and financial contagion in the European Sovereign Debt Crisis

Since the onset of the Greek crisis in late 2009, the potential of spillovers effects to the rest of the Eurozone has been one of the main arguments against the so-called "GRexit" scenario. The issue was whether GRexit might cause a domino-effect (Aslund (2012)) that would also destabilize other crisis-hit economies in the euro area periphery or, instead, whether it would lead to a more stable single currency area by forcing the "black sheep" out of the club.

5.1 Domino effects and financial contagion in the euro area since the onset of the crisis

Financial contagion among the Eurozone periphery sovereign bond spreads has been used as a proxy for what such a domino behavior would entail for the periphery economies⁴². But, before we proceed with our analysis let's first establish the two different (but closely related) concepts of *domino effect* and *financial contagion*.

Starting with the first (domino effect), an exit from the euro by a troubled periphery country would lead to a chain reaction via the banking systems or, more generally, the financial sectors of countries facing similar structural problems (successive bank runs is an often cited example of such a reaction). In turn, this would eventually force these countries out of the euro area. Canofary et al (2014) provide a game theoretic approach to the domino effect and define the equilibria under which successive exits from a monetary union take place after an initial shock. For the euro area, the two key takeaways are as follows: *a)* the crisis mainly spreads out via the financial / banking system; and *b)* its underlying causes can be traced back to the structural inefficiencies of the Eurozone periphery countries. Note that *neither* of these problems can be solved with quick fixes.

⁴² In early papers on the Greek sovereign debt crisis (for example Argyrou & Tsoukalas (2010)) the term contagion is used in order to describe what we define as the domino effect.

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Figure 5.1: 10-YR Bonds Spreads over German Bunds
(01/01/2009-30/04/2015)



The notion of financial contagion on the other hand is more straightforward. We will abstain from any relevant controversies cited in the respective literature⁴³ to define contagion as a situation whereby instability in a specific market or institution is transmitted to one or several other markets or institutions (Constancio (2012)). For example, Moody's main argument for the downgrade of Portugal on July 5, 2011 was that the continuation of the instability in Greece might cause a second wave of official financing for Portugal (McDermott (2011)). So far, a series of research papers have examined empirically the issue of *sovereign to sovereign*⁴⁴ financial contagion. Caporin et al (2013) provide an excellent review of the recent empirical literature on contagion.⁴⁵ Their empirical results show that contagion was subdued in the first years (up to 2011) of the euro area sovereign bond crisis. However, from 2009 onwards their empirical results show that there is a distinction between core and periphery euro area countries, with country-specific influences remaining limited within each group. On the other hand Argyrou and Ktonikias (2012) argue that financial contagion (spillover effects from Greece to the Eurozone periphery countries) was evident in the first years of the Greek sovereign debt crisis. Stamatiou and Vortelinos (2015) provide a recent review of the empirical literature on the issue and find significant evidence of contagion in the Eurozone bond and stock markets in reaction to the news related with the development of the Greek sovereign debt crisis.

Euro area authorities and the IMF acknowledged from the onset of the crisis the risks emanating from financial contagion and the domino effect and undertook significant (though not always timely) action in order to counterbalance them. For instance, almost three months after Mario Draghi's "whatever it takes to save the euro" statement, the ECB officially announced in September 2012 its OMT program, a move that considerably calmed market fears. Furthermore, the creation of the EFSF (and the ESM that succeeded it) in 2011-2012, allowed the adequate financing of the various stabilization programs implemented in the euro area periphery. Today, a banking union is in place and the implementation of aggressive stabilization programs in a number of crisis-hit periphery economies has already produced tangible results. In addition, the ECB's recently enacted QE program has engineered a further sharp decline in periphery sovereign bond spreads.

⁴³ For more analysis on financial contagion see Kumar and Persaud (2002), Dungey et al (2005), Pesaran and Pick (2007).

⁴⁴ Two types of contagion are mainly discussed in the context of the Greek and Eurozone sovereign debt crisis, the first is sovereign to sovereign contagion while the second is the sovereign to bank financial contagion. However these are not the only types of financial contagion examined in the literature.

⁴⁵ Papavassiliou (2014) provides a review of the recent financial contagion literature too.

5.2 How ringed fenced is the EMU today against the risk of exit by one or more member states?

Greece, having temporarily benefited from these positive developments, again finds itself today in a stalemate. This is mainly due to the slow progress of negotiations with official creditors in late 2014 in the context of the 5th program review as well as the slow progress so far in implementing the agreement reached at the Eurogroup of February 20, 2015. And, while powerful policy initiatives at the euro area level have undoubtedly reduced the risk related to both the domino effect and financial contagion, they have not been adequate to prevented a renewed decoupling (widening) of Greek sovereign debt spreads since late 2014 (Figure 1). In view of these developments, a critical question arising at the current trajectory is whether the Eurozone is now more prepared than in the past to handle the broader implications of a hypothetical GRexit outcome. As we will explain below, our answer to this crucial question is negative, as this would still entail significant risks for the Eurozone. Such risks could again manifest themselves down the road as a result of lingering structural weaknesses in the periphery countries (and, more generally, due to the fact the euro area remains far from being characterized as an optimal currency area), though an acceleration of the ECB's QE program might contain financial contagion in the near-term. In relation to the above, note that a recent EC report on structural reforms (European Commission (2014)) characterizes the progress made so far by periphery economies like Greece, Portugal, Spain and Italy as significant but uneven, noting that important structural inefficiencies remain in the euro area. On their part, Caporin et al (2013) observe a distinction between the European north and the European periphery in terms of the behavior towards the specific risk of each country of these groups.

In our view, the return of domino risks is unavoidable once a new crisis takes place. As working assumption let us hypothesize here that GRexit occurs and in three or four years from now an unexpected external shock his the euro area periphery causing immense fiscal and other challenges in countries like Portugal or Spain. Assuming also that structural rigidities in these economies remain significant, the reaction of financial markets (conditional on the knowledge that euro adoption is actually not irrevocable as assumed initially) would be to speculate on a new potential exit(s) from the single currency area. Obviously such a process could eventually risk a break-up of the Eurozone. But, even if there were limited initial spillover risks from Grexit, financial markets might still demand an additional risk premium in their pricing of euro area periphery debt, so as to compensate for the risk of a future exit(s). In normal times, such a premium would increase the financing costs for periphery economies and in times of stress would make things even worse in terms of financial contagion. How could such a break-up be avoided? Well, by avoiding GRexit in the first place and by implementing structural reforms to improve the capacity of more vulnerable countries to respond to asymmetric external shocks.

Consequently, even though a GRexit would be catastrophic for Greece, its consequences for the remaining members and the EMU project would also be negative, significant and permanent. As long as there are structural inefficiencies among the Eurozone members the criteria for an optimal currency area will remain unfulfilled. This will constitute a lingering risk for the future of the Eurozone. If we use the World Bank's Doing Business 2015 Index as a proxy for competitiveness we will observe that the average Eurozone ranking is 17 and the individual ranking of Cyprus, Greece, Italy, Spain and France are 61, 62, 52, 32 and 31 respectively. In other words there are significant deviations in competitiveness that need to be addressed in the period ahead via the implementation of structural reforms. This is crucial as only through structural reforms in the product and labor markets along with increased economic integration among member states will lead to more symmetric responses to economic shocks (De Grauwe and Mongelli (2005), Pelkmans et al. (2008)) that hit the euro area.

6. Concluding remarks

This paper leans on economic and political economy considerations to argue than calls from exit are ill advised, potentially involving immense risks not only for Greece, but also for the EMU project as a whole. On the high (sovereign) indebtedness issue, the paper notes more than 95% of Greek public debt is denominated in euros and that most of it has been contracted in foreign law. This effectively implies that a sovereign default would expose the country to immense legal uncertainty and the risk of costly and lengthy litigation procedures. Furthermore, a redenomination of domestic contracts and claims into the new national currency would be highly destabilizing for the banking system, the domestic corporate sector and depositors, especially the weakest ones. The analysis furthermore argues that Greece's competitiveness problem does not primarily relate to relative production costs vis-a-vis main trading partners.

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It primarily reflects a non-price competitiveness gap that needs to be addressed with aggressive structural reforms in product and services markets as well as in the domestic regulatory and institutional environment. As a result, an *external* devaluation might not succeed to resolve these problems on a lasting basis, especially as it would undermine domestic institutional quality, destabilize the domestic production base and weaken the drive for reforms. At the present trajectory, it is imperative for Greece to swiftly implement the agreement reached at the Eurogroup of February 20, 2015, so as to secure adequate funding to meet interest and amortization payments in the following months. Even more importantly, a follow-up arrangement should be agreed with official creditors and the institutions before the present program expires at the end of June. This should aim to promote structural reforms aiming to improve the domestic business environment and the country's export performance on a lasting basis.

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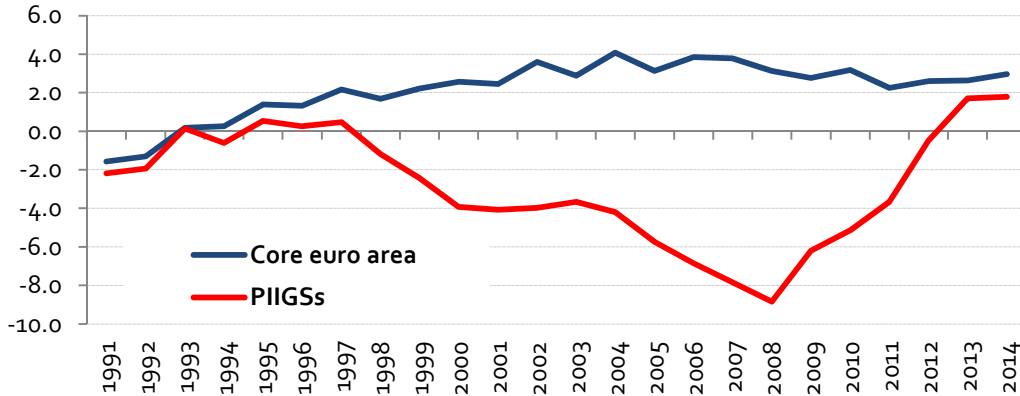
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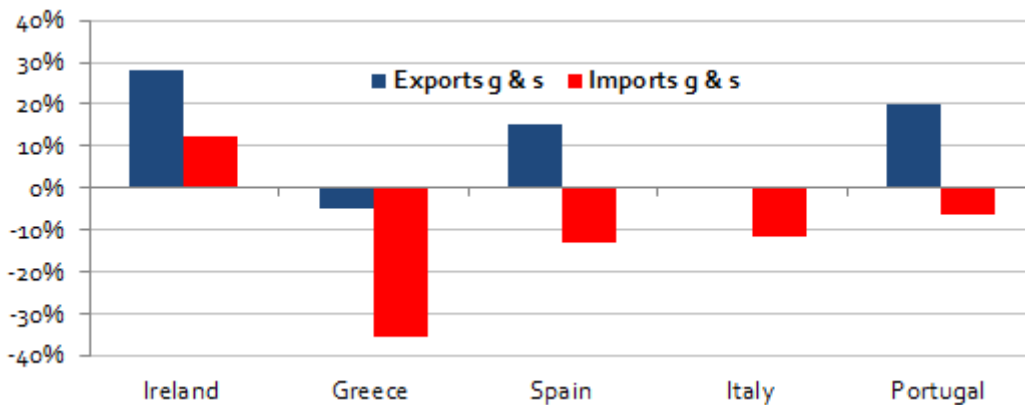
Appendix I

Figure 1.1
Evolution of external balances: PIIGSs vs. Core (simple arithmetic averages as % of GDP)



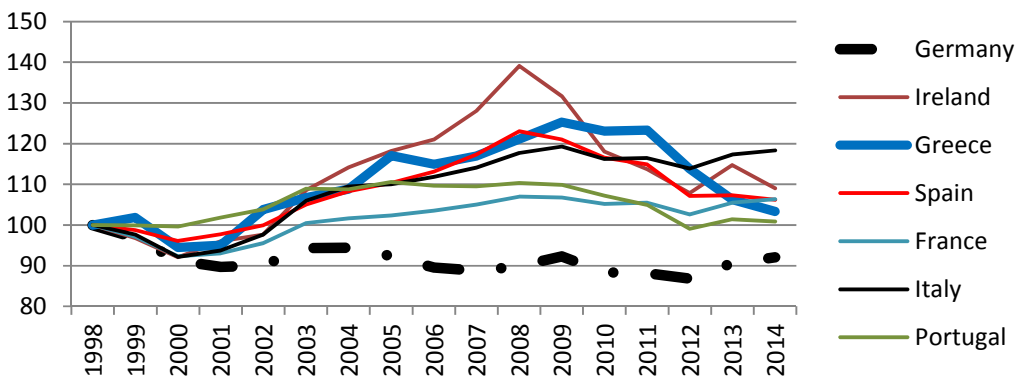
Source: AMECO, Eurobank Research
(PIIGS: Portugal, Italy, Ireland & Greece and Spain / Core: Germany, France, Austria, Netherlands & Finland)

Figure 1.2
Exports of goods and services in PIIGS economies (% change 2014 vs. 2008; constant 2010 prices)



Source: AMECO, Eurobank Research
(PIIGS: Portugal, Italy, Ireland & Greece and Spain)

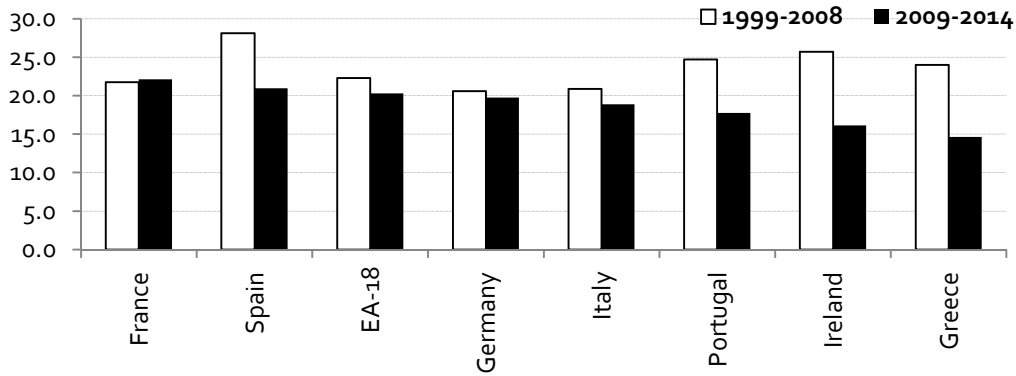
Figure 1.3
ULC-based REERs (performance relative to the rest of 24 industrial countries; 1998=100)



Source: EC, Eurobank Research

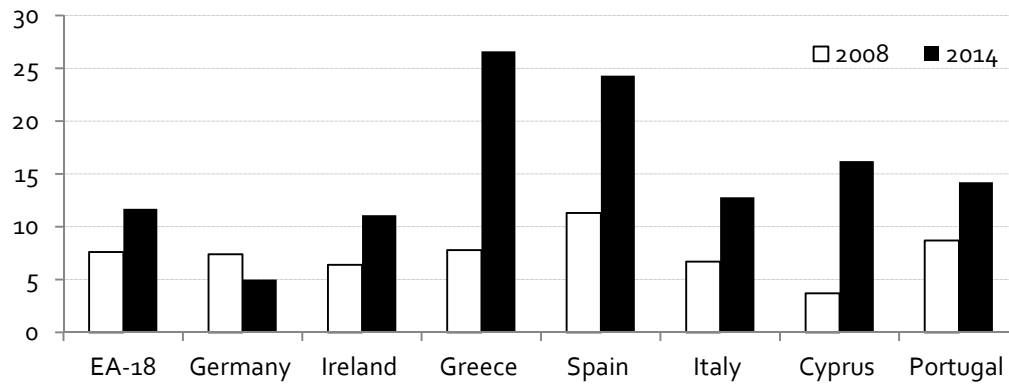
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Figure 1.4
Gross investment expenditure as % of GDP (period averages)



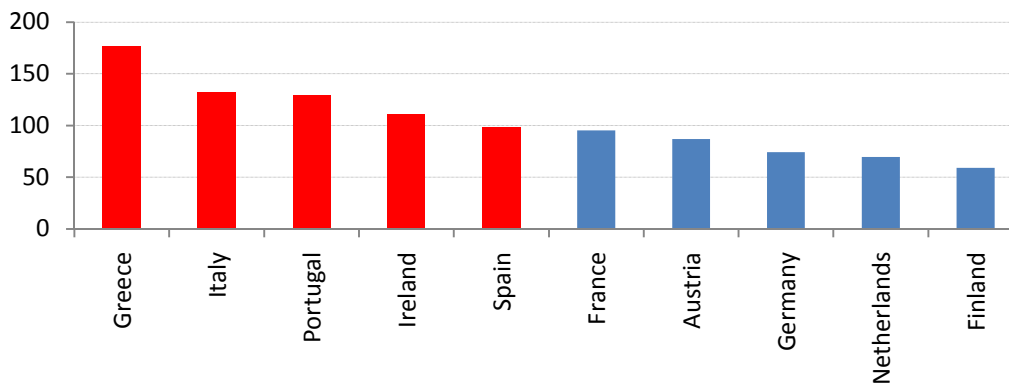
Source: AMECO, Eurobank Research

Figure 1.5
Unemployment rate (%)



Source: AMECO, Eurobank Research

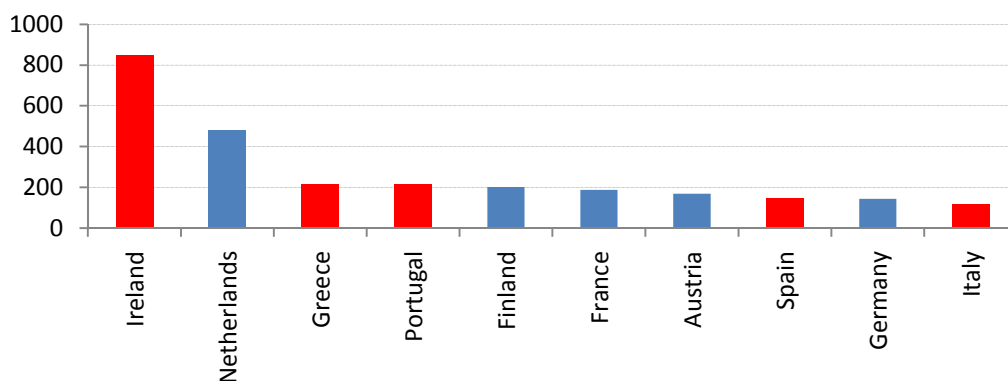
Figure 1.6
General government gross debt as % GDP (red bars: PIIGS; blue bars: Core)



Source: AMECO, Eurobank Research

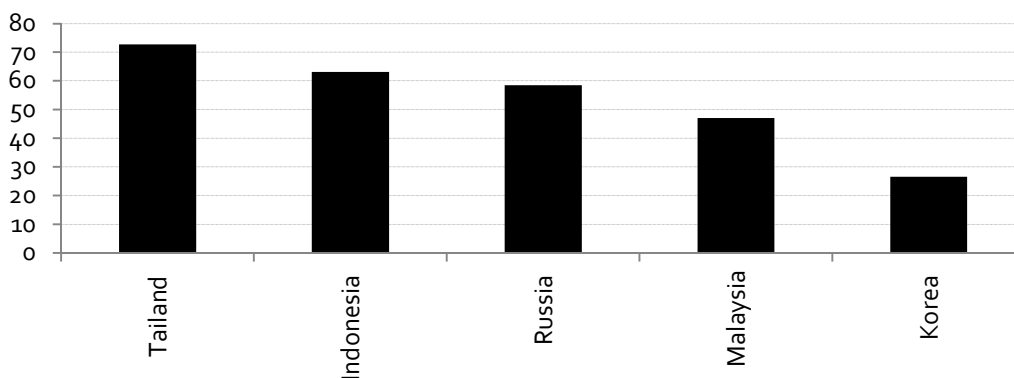
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Figure 1.7
Gross external debt as % of GDP (red bars: PIIGS; blue bars: Core)



Source: WB, IMF, Eurobank Research

Figure 1.8
Gross external debt (% GDP) - Asian crisis in 1997



Source: Ricardo Cabral (2010)

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