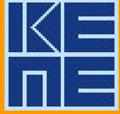


Distinguished Lecture Series

Centre of Planning and Economic Research

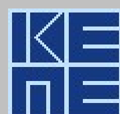
The Future of the Euro

Volbert Alexander

Goethe University, Frankfurt, Germany

November 25, 2010

Volbert Alexander is Senior Professor at the Faculty of Economics and Business Administration at the Goethe University in Frankfurt, Germany.



Copyright © 2011
Centre of Planning and Economic Research
11 Amerikis str., Athens 106 72, Greece
www.kepe.gr

Introduction

The presented paper does not use an intensive amount of numbers and figures for the following reasons. First, statistical information is available everywhere and in KEPE, in particular. Second, due to the recent massive turbulences in financial markets, exchange rate movements etc., the reliability of exact numbers is very limited and even in a macroeconomic context figures are changing from month to month as a consequence of major revisions. Third, a concentration on systematic, careful considerations about trends and developments is regarded as far more appropriate for the above topic.

A discussion about the future of the Euro as a common European currency has many aspects. Many studies are concerned with the problem of forecasting the future value of the Euro vis-à-vis other currencies like the dollar, the British pound or the yen, which is not intended here. A second aspect centers around the question "Will the Euro survive as a common European currency in the long run?". This problem is discussed here on the basis of a political and of an economic perspective. The issue also includes the problem of the regional expansion of the future Euro area, addressing the question "How many and which countries will use the Euro as their legal tender money?". In our study, we will analyze this aspect by taking into account the current member as well as the new candidate countries from Central and Eastern Europe.

This paper is organized as follows: In chapter 1, the basic hypothesis is presented and discussed, chapter 2 shows some important related aspects from an historical perspective spanning from the beginning of the Euro-project until the financial crisis of 2008/9. The "New Situation" after the financial crisis is presented in chapter 3 with special focus on the role of German economic development in contrast to other European countries. Chapter 4 describes sources of tension between Germany and France because they are considered crucial for the future role of the Euro. The actual Greek, and to some extent Irish, situation is analyzed in chapter 5 with special attention

---

This paper is an extended version of a presentation delivered at KEPE (Athens) in November 2010. The author expresses his gratitude for the valuable comments during the discussion.

given to possible solutions, as well as the different implications of stock and flow effects. Chapter 6 discusses some consequences for East European Countries intending to become members of the Euro area and chapter 7 summarizes some major conclusions.

1. The Basic Hypothesis

The presented analysis is predicated on the following basic hypothesis: The Euro as a common European currency will exist in the future as long as Germany and France have a common currency. It is assumed that a common German-French currency implies that Belgium, Luxembourg, Netherlands and Austria will participate, too. In addition, there is no reason to believe that Finland and Slovenia will stay out.

According to this hypothesis, a common currency in Germany and France is a necessary and sufficient condition for the survival of the Euro as a major currency in Europe. It does not assert that this “minimal solution” is the most probable one. On the contrary, a common currency in the countries mentioned above, that is in countries with a comparatively high degree of stability, will remain attractive for the rest of Europe. In a global context, a “minimal solution”- Euro can be regarded as a strong, stable currency because of the high stability in all its member countries.

The basic hypothesis is not able to predict which and how many other European countries will be the future members of the Euro area. In order to answer this question, the following aspects have to be considered:

(1) The recent experience in Greece, Ireland and Portugal shows that member countries with substantial differences in stability create tensions leading to resulting reactions in the global capital markets, like increasing country specific interest rates, capital outflows from the weak countries and a pressure on the Euro.

(2) The option of reintroducing the national currencies is considered a preferable solution for weak countries in order to regain competitiveness in the world markets and to facilitate the management of public debt (Sinn (2010)).

(3) The lack of stability does not come from high inflation rates in unstable countries, which is not surprising given the common monetary policy in all member states. The main reasons in Europe are unsound fiscal policies and differences in real growth and productivity.

(4) In the stable countries, the “bail out” question gains increasing importance. Adherents of a step back to nationalized solutions including national currencies are not willing to “finance” the weak candidates by covering their public deficits and by helping to refinance public debt. More and more voices can be heard demanding the exclusion of weak countries from the Euro area or the withdrawl of the stable ones in order to avoid huge international transfer payments.

The governments of the Euro member countries tried to overcome the tensions mentioned above through the well-known rescue packages which are described in Table 1. Weak countries are bailed out up to a sum of € 920 bill., the largest fraction is covered by the IMF (€ 280 bill.), followed by Germany (€ 214.9 bill.) and France (€ 163.3 bill.). All countries are treating this rescue package, which is in contradiction to the Maastricht and the subsequent Treaties, as a transitory instrument to prevent weak countries from bankruptcy. The question of how many countries will comprise a future Euro area crucially depends on the possibility to find a permanent solution for the bail out problem. If permanently working instruments to help countries confronted with severe difficulties cannot be achieved by a political compromise, weak countries sooner or later will be excluded from the Euro area or strong countries will withdrawl.

The last implication of our basic hypothesis is straightforward: If France and Germany decide to introduce their own currencies, the Euro will not be used as a European currency. This does not imply that one or more national currencies will not be connected with the reintroduced Deutschmark (DM) or French Franc (FF). Many currency arrangements are possible - like currency boards, fixed parities or even a unilateral “dollarization” against the DM or FF are probable future solutions for exchange rate systems of unstable countries (Alexander (2001), Alexander/von Furstenberg (2000), Alexander/Loef (2003)).

Table 1

The rescue packages and the liability limits (billion euro)

	All countries	Germany	France
European Financial Stability Facility (EFSF)	440	147.4	110.7
European Financial Stability Mechanism (EFSM, European Commission)	60	12.0	9.7
IMF euro rescue plan	250	14.9	12.3
EU rescue plan for Greece	80	22.3	16.8
IMF rescue plan for Greece	30	1.8	1.5
ECB purchases of government bonds (up to 30 July 2010)	60	16.4	12.3
Sum	920	214.9	163.3

Notes: Line 1: ECB capital shares (euro countries except Greece), increased by 20%. Line 2: 2008 shares in EU Budget. Line 3: Current IMF capital shares (5.98% for Germany and 4.94% for France). Line 4: ECB capital shares (euro countries without Greece). Line 5: as line 3. Line 6: ECB capital shares (euro countries).

Sources: *EFSF Framework Agreement*, 7 June 2010, online at www.bundesfinanzministerium.de, 5 July 2010; EU, *The European Stabilization Mechanism*, Council Regulation (EU) No 407/2010 of 11 May 2010 establishing a European financial stabilisation mechanism, online at www.eur-lex.europa.eu, 7 July 2010; European Commission, *EU Budget*, 2008 Financial Report (Luxembourg 2009), p. 67; ECB, 1 January 2009 – *Adjustments to the ECB´s Capital Subscription Key and the Contribution Paid by Slovakia*, Press release 1 January 2009; IMF, *Updated IMF Quota Data* – June 2010, online at www.imf.org, 5 July 2010. Calculations by the Ifo Institute.

2. The Historical Experience

When the Euro-project was launched nearly everybody expected a superior performance for strong, traditionally stable countries like Germany and France (Giavazzi/Spaventa (1990), de Grauwe (1997), Vaubel (1992)). In countries like Greece, Ireland or Portugal far more basic reforms to establish stability and to fulfill high European-wide standards were necessary. In addition, the German export industry could not be hit by frequent appreciations of the Deutschmark inside the Eurozone, leading to an increase in the competitiveness of German companies. For trade unions, a common currency creates the incentive to fight for equal wages in all member countries because it becomes obvious that, for example, a Greek worker earns only 40% of the wages of his German counterpart even though he is doing the same job. Obviously, this leads to a cost push in the weak, "poor" countries reducing their competitiveness inside Europe and worldwide (Siebert (1997)). Concerning monetary stability, it was expected that, compared to German standards, higher inflation rates may occur in Europe because of the shift of monetary policy competences to the ECB and the removal of the Bundesbank as the dominant monetary policy institution with its German- specific stability orientation (de Grauwe (1997)).

The real development was in sharp contrast to all expectations briefly described above: Even before (during the so - called "qualification period") and since the introduction of the Euro, all former unstable countries performed far better than Germany and France, which is clearly demonstrated by Figure 1. During the period 1995 – 2009 Ireland, Greece, Spain and even Portugal enjoyed a higher real growth than France, Germany and Italy.

The driving force behind this higher GDP-growth in the former unstable countries was an increase in domestic net investment. As Alexander/Loef (2003) have shown, the Euro- project led to a substantial reduction in the uncertainty in the cost of investment in the former unstable countries. From theory we know (Pindyck (1991), Ingersoll/Ross (1988)) that uncertainty about future costs of investments often has a far stronger effect than the cost level. The dramatic differences in net investment rates between 1995 – 2008 are shown in Figure 2: While Ireland (15.6%), Spain (14.9%) and Greece (11.2%) enjoy two digit rates, France (8.1%), Italy (6.5%) and Germany (5.3%) could only realize a far lower growth.

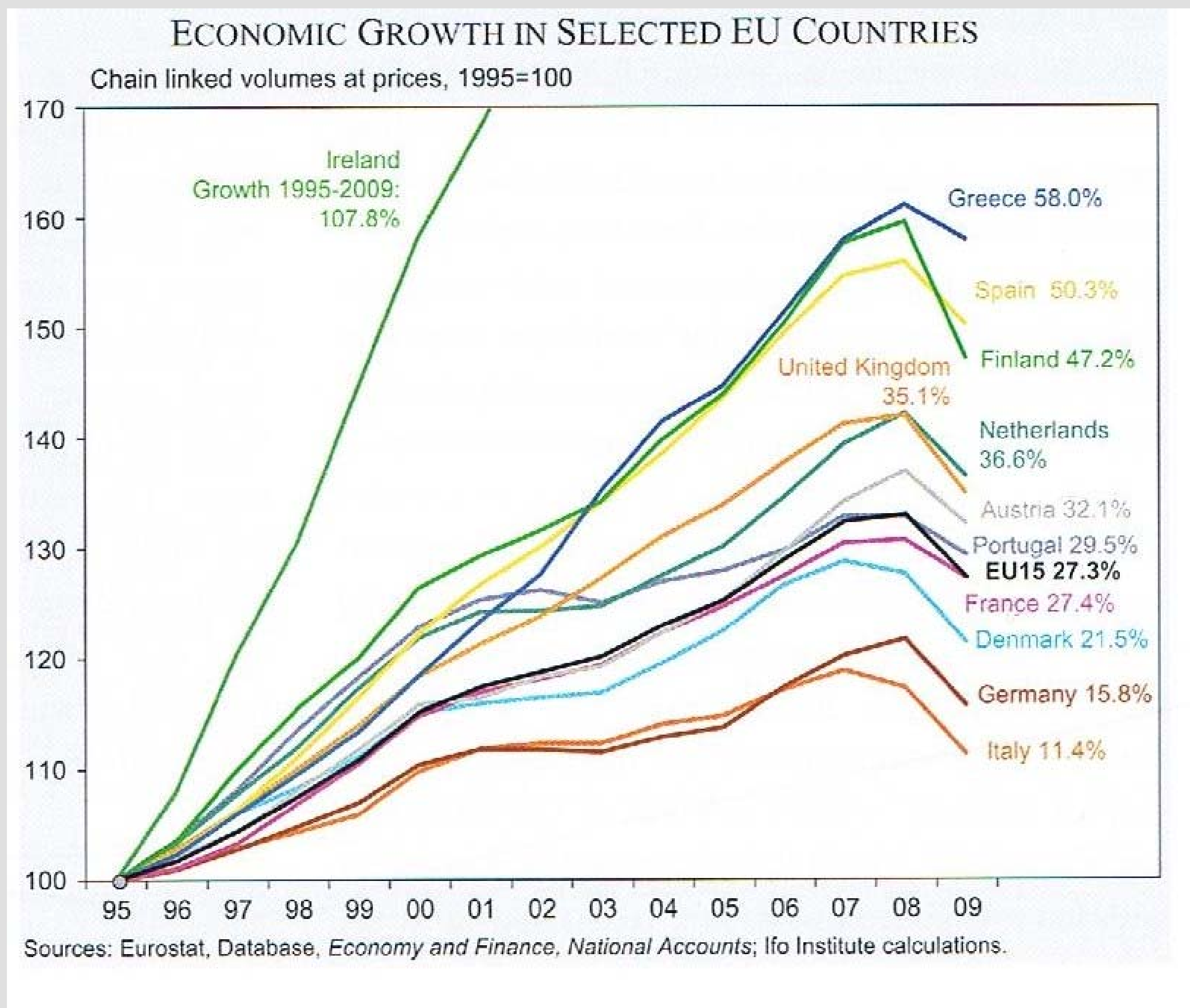
Concerning monetary policy, the empirical developments clearly show that the fear about a higher monetary instability was not correct due to an excellent stabilization policy of the ECB. The observed European-wide inflation rates turned out to be very low, even lower than in Germany before.

To sum up we can say: The Eurozone became

- stable in monetary respects,
- viable without internal economic and severe political tensions and
- attractive for many candidate countries in Eastern and Southern Europe

resulting in a situation of high growth in weak, peripheral, formerly unstable countries and of low growth in the big, powerful countries, in general, and in Germany, in particular.

Figure 1



3. The “New Situation”

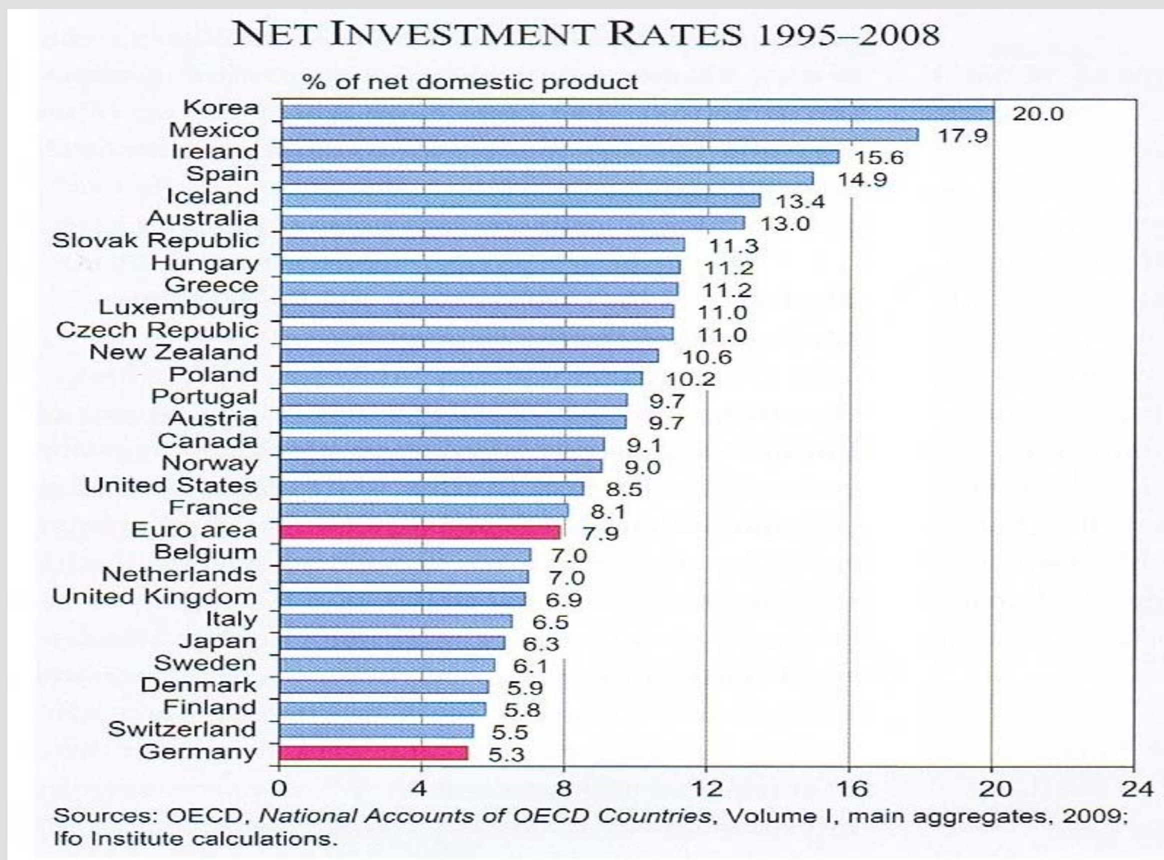
After the financial crisis in 2008/9, the general economic situation in Europe has changed in a dramatic way: In terms of economic growth Germany now is in the lead. For 2010, the estimated GDP-growth in the German economy is about 3.4%, which is the highest value for the European countries, while other countries still suffer from the real negative consequences of the worldwide financial crisis. German dominance in Europe is further demonstrated by the facts of the rescue plan where Germany has to bear the highest burden of all member countries (see Table 1) and by its very successful export industry, together with China, delivering the highest export surplus in the world.

The important question arises: Will Europe remain stable without political and economic tensions with a dominant, powerful and economically successful Germany? Or even more precisely: Will the rest of Europe, in general, and will France, in particular, tolerate a dominant role of Germany which is in the lead in terms of economic growth, exports and employment?

The aspect of German dominance in a Europe with one common currency was of crucial importance for the whole Euro-project. For the Scandinavian countries like Norway and Sweden, exactly this fear was the central argument for not joining the Eurozone from the beginning. Inside the present, less important, smaller member countries their superior economic performance compared to Germany could to some extent compensate existing reservations against German dominance because the relevant economic figures clearly showed that they were the winners of European economic integration and that Germany was not in the lead, despite its enormous economic power.

This situation has changed dramatically as a consequence of the 2008/9 financial crisis. A possible outcome of the new situation could be that existing fears of a German dominance will become stronger, leading to substantial political and, subsequently, economic tensions between the member countries. According to our initial basic hypothesis, the survival of the Euro as a common European currency crucially depends on France and Germany. We have to analyze important aspects leading to tensions between these two central countries.

Figure 2



4. Tensions between Germany and France

The first severe problem between the two countries comes from the existing export-import situation: In contrast to France, Germany realizes high and, in the last years, increasing export surpluses within Europe and worldwide. Apparently, German industry has increased its international competitiveness through technical and organizational reforms as well as by moderate wage increases. Export surpluses are always accompanied by high savings rates and are equivalent to an export of unemployment. Therefore, French authorities frequently try to push Germany to policy actions, like tax cuts etc., in order to stimulate German consumption and thus reducing the surplus. As a consequence, German products are increasingly bought by German, rather than French, consumers giving the French industry a better chance in their domestic markets with a positive effect on employment in France. The German government, however, is very reluctant to reduce taxes because budgets in Germany have run into

massive deficits as a consequence of the financial crisis and because the consolidation of the German public budgets has high priority. In addition, consumer behavior can only be influenced very indirectly so that tax reductions may lead to higher public deficits without a remarkable effect on consumption. Many official statements in the last years show that the imbalance briefly described above is a permanent source of tensions between the two countries. Its importance is increasing in a situation of a comparatively stronger performance in the German output and labor markets.

The second important source of tensions between Germany and France is related to the situation inside the ECB: each country tries to influence personal decisions concerning the top management of the ECB and has its own vision about an adequate European monetary policy. From the actual discussion, we know that purchasing bonds of weak countries like Greece, Portugal or Ireland is a very controversial issue between French and German officials. The same is true for the structure of a permanent rescue package concerning its volume as well as its institutional setting. While France is in favor of more monetary policy actions to help member countries and for a higher volume of the permanent rescue arrangement, Germany has reservations because of the stability problems involved and because of a decreasing independence of the ECB. These issues have recently forced the German president of the Bundesbank, Axel Weber, to resign.

Stability issues in the conduct of public deficits are a third field of tensions between Germany and France. All EU-member countries could not avoid a dramatic increase in public deficits as a consequence of the financial crisis. For the German government, the consolidation of government budgets is of the highest priority for the near future. As a consequence, Germany tries to push all EU-member states to clarily their fiscal positions in order to avoid situations like in Greece or Ireland today. This view is not shared by other European countries, including France, because of their weaker economic performance.

A last field of conflicting interests between Germany and France could be observed during the May 2010 negotiations necessary to help Greece and to support the Euro by constructing the rescue parachute described in the above Table 1. It became obvious that France strongly pressured on Germany to support the project because French banks were massively engaged in the countries under dispute (see Figure 3). The outstanding amount of loans to Spain, Greece, Portugal and Ireland was between € 70

and 80 bill. in France and nearly € 50 bill. in Germany. The French government had a strong interest in rescuing the weak countries because their bankruptcy, or even a dramatic fall in the value of their bonds, would have created significant turmoil in the French banking system.

5. The Greek (Irish) Problem

Countries like Greece and Ireland are basically confronted with the following situation:

(1) They are suffering from a high public deficit (G – T = expenditure – taxes) and a high public debt (D). For Greece (G – T)/GDP is about 15%, D/GDP is more than 130%. In Ireland (G – T)/GDP is about 12% without public obligations against the banking system and more than 30% including these obligations. D/GDP is lower than in Greece but rapidly growing.

(2) The countries have a high debt vis-à-vis foreign creditors. The actual value for Greece is about € 325 bill..

(3) They are loosing credibility in the international financial markets. Interest rates for their government bonds are sharply increasing, together with the spreads, compared to German bonds. A severe very short run consequence becomes obvious: The countries are not able to refinance expiring debt components because nobody is willing to lend money to nearly bankrupt countries. Without international help therefore, the countries, had to declare bankruptcy.

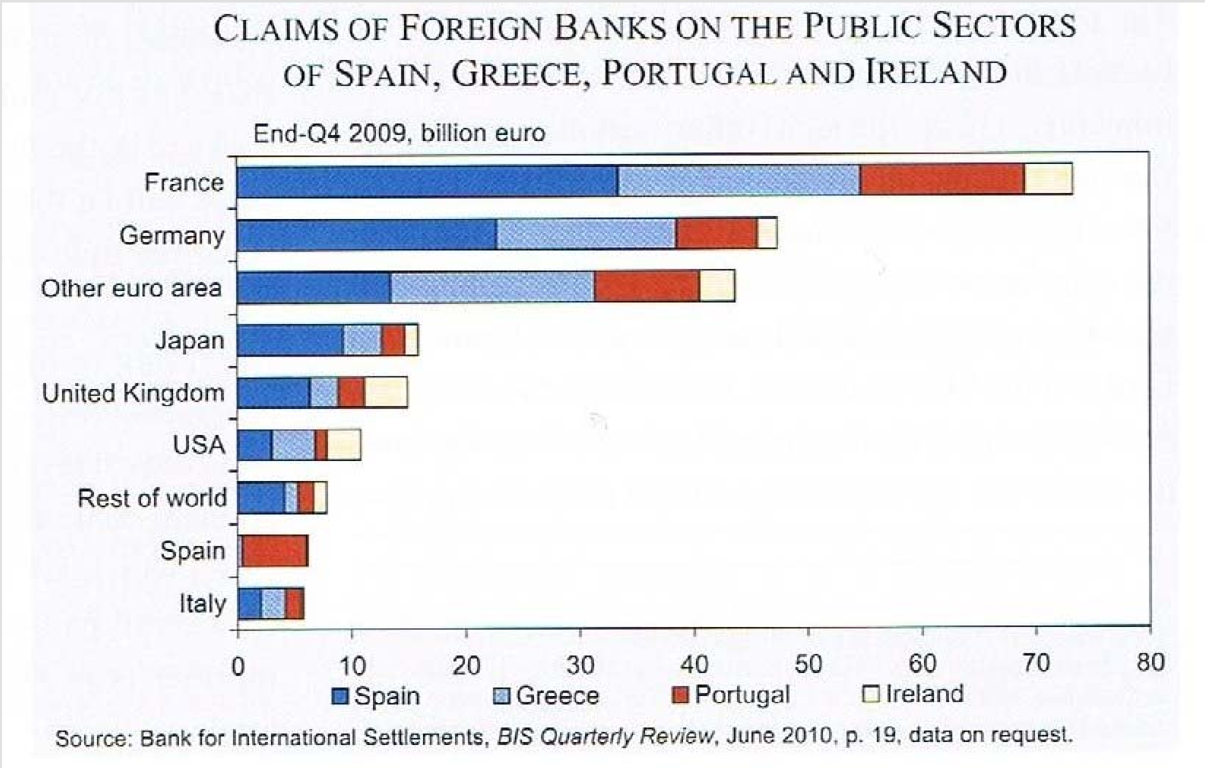
(4) Productivity gaps exist mainly in Greece which makes it difficult to reduce foreign debt by export surpluses.

The problems (1) to (4) show that the countries are confronted with flow- (public deficits, refinancing public debt in international markets) and stock-problems (foreign debt), requiring different policy measures. The following possibilities for countries confronted with the problems described above have been recently discussed:

(-) internal reforms: These reforms the basis of any improvement on a national and international level. Reducing the budget deficit by increasing taxes and/or cutting government expenditure has the highest priority. In countries like Greece these reforms

massively affect national structures like health care and other social security systems, pension schemes, expenditure for defense, unemployment compensations and the efficiency of raising taxes. Such measures lead to severe protests and tensions in the entire population and frequently to social and political turmoil.

Figure 3



Source: Bank for International Settlements, *BIS Quarterly Review*, June 2010, p. 19, data on request.

(-) introduction of national currencies: Withdrawing from the Eurozone and introducing an own currency represents another option for countries like Greece or Ireland. As we know, this option solves the problem of a government's bankruptcy because the country now has the right to print money and finance budget deficits by money creation. An unavoidable consequence is inflation.

(-) cut in foreign debt: The total or partial debt relief is one of the last options for the countries. It is only possible when foreign creditors agree and it has severe negative consequences for the credibility of the country in the future. A relatively elegant method discussed recently is the purchase of own debt at current market prices. If, for example, a Greek bond denominated € 100 is traded for € 70 in the international capital markets, a repurchase would decrease the Greek outstanding debt by 30%.

(-) international guarantees: In order to avoid turbulences in the Euro exchange rate, other member countries of the Eurozone can provide guarantees for the debt service of

Greek or Irish bonds which is well known from the rescue plan arranged in May 2010 and which must not be discussed here. This international help enables the countries in trouble to refinance their public debt in international capital markets at low interest rates compared to the rates relevant for all other member countries.

(-) international controls: International help normally is only available when the country accepts international controls. In the Greek or Irish case this implies that officials from Brussels are allowed to watch the behavior of Greek authorities concerning the implementation of declared internal reforms and the use of international guarantees.

All these instruments to overcome the difficulties in countries like Greece and Ireland have specific and very different effects on the problems specified above. Table 2 gives a brief and rough overview that has to be discussed in detail.

Table 2: Effects of Different Policy Measures

	reducing budget deficit	reducing public debt	reducing foreign debt	increasing credibility	reducing productivity gap
internal reforms	++	+	0	++	++
introducing own currencies	++	-	-	-	++
cut in foreign debt	0	++	++	0	0
international guarantees	+	0	0	++	0
international control	++	0	0	++	0

20

Table 2 illustrates that for countries like Greece and Ireland internal reforms are the most important instrument to overcome the existing difficulties. They have a strong positive impact (++) on the reduction of the budget deficit by cutting government expenditure and increasing taxes. Sustainable fiscal position is also important for the country's credibility in international financial markets. In addition, internal reforms are necessary in order to improve the country's productivity and thus its competitiveness vis-à-vis foreign countries which is necessary due to the high

foreign debt. Many problems remain: In order to reduce the budget deficit, tax increases and expenditure cuts are necessary while, on the other side, an increase in productivity is only possible by strengthening productive sectors and by improving education etc. implying higher public expenditure. Internal reforms, therefore, cannot be focused exclusively on a reduction of the budget deficit but must take into account shifts from unproductive to productive sectors, from pure social security payments to education, for example. We all know from many experiences in different countries that implementing such basic reforms is a very difficult task for any government and can lead to substantial social and political turmoil.

Internal reforms also can have some positive influence (+) on the development of public debt: Increasing credibility in international financial markets keeps interest rates low, enables the country to refinance expiring debt tranches and makes it easier to pay back parts of the foreign debt when, as a consequence of appropriate measures, GDP will stop shrinking or will go up again. It is clear that the existing amount of foreign debt is not influenced by internal reforms (0).

A completely different picture is observable when we look to the effects of (re)introducing a national currency. Strong positive impacts can be found for the reduction of current deficits (short run aspect) and for reducing existing productivity gaps (long run aspect). Having introduced a national currency as legal tender, the government is able to increase the national money, financing the public expenditure by money creation and reducing the real value of public debt by inflation. Thus the government does not have a real funding problem. Concerning international competitiveness, countries like Greece or Ireland can improve their situations by the devaluation of their currencies leading to lower prices for their products in the world markets.

The arguments described above are the main reasons for many proposals in favor of this instrument which can be found among international economists (Sinn (2010)). Table 2, however, shows very clearly that introducing a national currency is accompanied by significant negative effects (-) on the country's economy as far as the stock problems are concerned. The following questions arise: How should existing financial assets and liabilities denominated in Euro be treated? Should they be converted into the Drachma or the Pound? How should accounts of foreigners in the national banking systems of Greece and Ireland be treated? For

account owners it is reasonable to withdraw the money and to shift it to foreign banks which will lead to an outflow of capital and dramatic effects for the banking system. The recent experience in Greece gave clear proof for this danger, even though no introduction of the Drachma was on the Greek policy agenda explicitly.

Concerning the problems identified in Table 2, it becomes clear that the existing debt to income ratio D/GDP will dramatically increase when the national currency is devaluated because D is denominated in Euro and GDP in national currencies. The same is true for foreign debt: It increases with the rate of the depreciation. Significant negative effects also will occur for the country's credibility in international markets because the reintroduced national currency will not be treated as a strong, stable currency and the increasing foreign debt will lower the country's reputation further.

An analysis of the effects of international debt relief for countries like Greece and Ireland reveals that here the stock problems are positively influenced: D/GDP is reduced significantly and the amount of international debt, as well. There cannot be any influence on current deficits and the productivity gap. Effects on the country's credibility in the international capital markets are difficult to evaluate: A reduction of debt burdens, per se, increases credibility because the country improves its ability to serve new loans. On the other side, a debt relief with all its international negotiations with creditors etc. will make clear to everybody that loans of the country in question bear the risk of default and investors will become reluctant to buy the bonds of a debtor who needed a debt relief.

International guarantees are able to enhance the country's credibility in international capital markets as long as transactors believe that the guarantees will really be granted. A precondition for this confidence is that the volume of guarantees is high enough to match all possible future capital needs (see Table 1). The volume is not fixed because it is, first, based on expectations that may be wrong and because, second, more countries may come into trouble and may need financial help. While the amount of outstanding debt and productivity gaps are not touched, international guarantees may have a small positive effect on the current deficit: They keep interest rates low and thus reduce public expenditure for the existing debt and the bond financed actual deficit.

The main purpose of international controls is a reduction of the current deficit (G-T)/GDP. When representatives of international executive bodies, like the EU in Brussels, have the right to examine all kinds of public expenditure and receipts, the public deficit is expected to decrease. This also implies a higher credibility in international financial markets because it is clear to everybody that the country follows the necessary stability track. For internal authorities, international control will be of great help to withstand unsound and expensive demands for more public expenditure as well as to fight inefficiencies and irregularities in raising taxes.

If we sum up the main findings of our brief analysis, the following points should be stressed:

(-) Internal reforms are the basis for all measures to overcome the difficulties countries like Greece and Portugal are confronted with.

(-) To step out of the Eurozone and to introduce national currencies is not very promising and only possible in combination with other instruments like a debt relief by international creditors. If the external debt is not reduced with the rate of the devaluation of the reintroduced home currency, the situation for the countries in trouble may become worse because they will not be able to service their foreign debt.

(-) It becomes questionable whether the countries will be able to manage the problems exclusively by one or two instruments. In the present situation with internal reforms, international guarantees and controls, the discussion centres around the problem: In the near future, do countries like Greece and Ireland need a relief of their international debt and will they, in the long run, need to introduce their own currency?

6. Central and East European Countries

A few remarks are necessary concerning the present and future situation of the so-called accession countries in Central and Eastern Europe. It is clear that the recent turbulences within the Eurozone have significant implications for Central and Eastern European countries on their way to becoming full members of the European Monetary Union (EMU). First, present EMU-members will be far more careful in admitting countries with unsound fiscal situations. Qualitative requirements for all candidate states will be observed in more detail and controls will be enhanced. This may lead to delayed accessions to the EMU.

Second, all candidate countries are made aware that membership in the EMU requires sound and strict stabilization efforts for all participants, in general, and for the fiscal policies, in particular. Member countries cannot only enjoy the blessings of a stable currency like low inflation rates, interest rates and cheap imports. They cannot participate in existing European-wide transfer systems without internal stability efforts. Unsound fiscal policy strategies, mainly financed by foreign loans taking advantage of the low Euro- interest rates, will not be sustainable in the long run and in situations of economic crises and may lead to problems for the entire Eurozone.

Third, despite all the experiences described above, membership in the EMU will remain an attractive option for many countries in Central and Eastern Europe. The Euro will be regarded as a stable currency in the world when it becomes obvious to the markets that the EMU is able to fight successfully its first major crisis and when institutional arrangements are improved to avoid turbulences in the future. In this respect, a permanent rescue system is of crucial importance. The main difficulty in the design of such a system, which European experts are working on, is to provide guarantees for countries in trouble without creating a substantial moral hazard behavior. In addition, the system has to take into account a balanced match of interests between debtors and creditors in order to avoid nationalistic tendencies.

7. Conclusions

In summarizing the main aspects of this paper, the following conclusions can be drawn:

(1) The Euro will survive as a common European currency as long as Germany and France have a common currency.

(2) The danger for a substantial conflict between Germany and France increases with the strong economic performance of the German economy relative to France and other European countries.

(3) Withdrawing from the Euro and introducing national currencies is not promising for countries like Greece because it will not solve basic economic problems. It is only possible in line with substantial debt relief.

(4) Internal reforms will play a dominant role in the short and long run to overcome the present problems, international actions only can help only during a limited transition period.

References

Alexander, V. (2001), “The Problem of Optimal Exchange Rate Systems for Central European Countries”, in: *Capital Markets and Finance in an Enlarged Europe* No. 1, Frankfurt (Oder).

Alexander, V. and H.E. Loef (2003), “Central European Countries’ Accessions to EMU – Costs and Benefits for EMU- Insiders and Outsiders”, *Kredit und Kapital 36,* 445 – 464.

Alexander, V. and G. von Furstenberg (2000), “Monetary Unions – A superior alternative to full dollarization in the long run”, *The North American Journal of Economics and Finance 11*, 205 – 225.

De Grauwe, P. (1997), *The Economics of Monetary Integration*, Oxford.

Giavazzi, F. and L. Spaventa (1990), “The New EMS”, in: De Grauwe, P. and L. Papademos (Eds.): *The European Monetary System in the 1990s,* London.

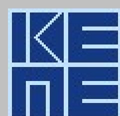
Ingersoll, J.E. and S.A. Ross Jr. (1998), “Waiting to Invest: Investment and Uncertainty” *Journal of Business 65,* 1 – 29.

Pindyck, R.S. (1991), “Irreversibility, Uncertainty and Investment”, *Journal of Economic Literature 29*, 1110 – 1148.

Siebert, H. (1997), *Structural Change and Labor Market Flexibility: Experience in Selected OECD Countries*, Tuebingen.

Sinn, H.-W. (2010), *Rescue Europe*, CES ifo Forum 11.

Vaubel, R. (1992), “Die politische Ökonomie der wirtschaftspolitischen Zentralisierung in der europäischen Gemeinschaft„, *Uahrbuch für Neue Politische Ökonomie 11*, 30 – 65.



Copyright © 2011

Centre of Planning and Economic Research
11 Amerikis str., Athens 106 72, Greece
www.kepe.gr