

Optimal Currency Area revisited

by

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"It is necessary that even those born well after the 1950s and 1960s realize that the European Union has not come about by chance, but that it is based on the fundamental necessities of life amongst the peoples of Europe." 1

Pierre Werner

Ladies and Gentlemen,

It is my pleasure and privilege to talk here at the European Institute. I thank in particular Professor Marcellino for this opportunity to share my thoughts on Optimal Currency Areas (OCA) in general and the challenges of European Monetary Union (EMU) in particular.

Some countries in the euro area face a combination of high levels of indebtedness, budget deficits and weak or absent growth. Amid market attacks and the risk of contagion an increasing number of economists have already announced the unavoidable break-up of the euro area. These predictions often share an anti-Euro sentiment and seem to be in accordance with the naysayers who were taking potshots at the Euro even before its inception in 1999. But they are wrong – as I intend to prove in the rest of my talk.

Comparison of two currency areas of similar size

Since the introduction of the Euro in 1999 the currency area has been regularly compared to the US. Although, there are many arguments why such comparisons are difficult, they can indeed yield useful insights. I will therefore start by looking at the facts, comparing basic features, price stability, output growth, employment, heterogeneity within the respective currency areas, public finance, private savings and trade in the US and the euro area.

Basic features

The US is a fully fledged political federation with 52 states. Over 312 million people live in the US. The US economy is the world's largest national economy, with an estimated GDP of 12 trillion Euros in 2010 at purchasing-power parity, i.e. roughly 20 percent of global Gross Domestic Product (GDP).

The euro area, by comparison, is a community of seventeen sovereign member states which have introduced the euro as their common currency and sole legal tender. They are embedded

¹ Pierre Werner, 11 December 1997, on the eve of the Luxembourg European Council ["Il est nécessaire que même ceux qui sont nés bien après les années 50 et 60 se rendent compte que l'Union européenne n'est pas un coup du hasard, qu'elle se fonde sur des nécessités fondamentales de la vie entre les peuples de l'Europe."]



in the 27 nation European Union (EU).

332 million live in the countries of EMU. In 2010, the euro area generated a GDP of 9.2 trillion Euros. The economy of the euro area accounts for roughly 15 percent of world GDP.

Price stability

The primary mandate of the ECB as the central bank of the euro area is to safeguard the purchasing power of the citizens. Price stability in the understanding of the ECB is an inflation rate below but close to 2 percent in the medium term.

Since its inception almost 13 years ago, the euro area has experienced an unprecedented level of price stability: 2.0 percent average annual inflation.

In the US, during the same period of time, the annual inflation averaged at around 2.5 percent.

Output growth

The euro area has logged real per-capita income growth of around 1 percent a year since 1999, just below the US's 1.1 percent. International comparisons often look only at headline growth figures; overlooking demographic developments.

Looking closer at the contributing elements in both currency areas some interesting aspects are revealed. The standard growth accounting distinguishes mainly between employment and labour productivity. Labour productivity itself can be further decomposed into changes in labour composition, Information and Communication technologies (ICT) and non-ICT usage per hour and (residual) Total Factor Productivity (TFP) growth. TFP accounts for effects in total output not caused by inputs. If all inputs are accounted for, TFP measures an economy's long-term technological progress. The distinction between ICT and non-ICT reflects that the ICT sector is presumably one of the major drivers in growth across the world.

Comparing the contributions of labour productivity to growth between 1995 and 2007, a significant difference becomes apparent: 1.7 for the euro area vs. 2.9 for the US. By adding the contribution of hours worked (0.5 vs. 0.6) one gets the growth rate of output (2.2 vs. 3.5).

The main explanations for this difference are ICT capital services per hour (0.4 in the euro area vs. 1.0 in the US) and economy-wide TFP (0.5 vs. 1.1).

Analyzing the sectoral decomposition of TFP growth, it can be stated that TFP in the production of goods is slightly larger in the euro area than in the US. Rather, the higher overall TFP growth in the US is driven by stronger TFP growth in services, in particular in distributive trade (0.2 vs.



0.5).

For good order, one should not forget that productivity and technical progress in general and in Services in particular are subject to measurement difficulties. TFP figures – being a residual – can only represent a rough metric. Thus, the TFP contribution can be plagued by measurement errors, erroneous assumptions about market structure, or the nature and existence of the aggregative production function. The residual will also be a catch-all of neglected factor utilization, factor quality improvements over time, statistical complications associated in calculating factor rewards (appropriate tax and depreciation allowance for capital income etc).2

In a nut shell: the main difference between the measured growth differences in the euro area and the US are attributed to the difficulties to assess differences in the technological progress of ICT services.

Employment

Having identified the limited explanatory power of growth statistics to compare mature economies with rather similar per capita growth rates, one might preferably rather look at the development in labor markets to gain some information about the economic dynamism. Between 1999 and 2011, the euro area has created 14 million jobs. During the same period of time, 8 million jobs have been created in the US.

Heterogeneity within the currency area

Contrary to common belief, the heterogeneity within the euro area is not significantly bigger than between US states. Although it is very common to distinguish between the countries of the euro area and focus on the diversity among individual member states, this exercise is rarely done for the US. In fact, however, the dispersion of many key economic indicators is very similar. Let me provide some detail on the heterogeneity within the respective currency areas.

Before the crisis, the dispersion of inflation in euro area countries had remained broadly stable since the late 1990s. The level was similar to the 14 US Metropolitan Statistical Areas. During the crisis a temporary increase in inflation dispersion in the euro area was observed. This development has been reversed over the past 12 months, however.

In the same vein, the dispersion of GDP growth is quite similar on either side of the Atlantic. Before the crisis the dispersion of growth rates was around 2 percent, in both the euro area and the US. Dispersion increased somewhat during the crisis in both currency areas but remained

² See Trichet, Jean-Claude (2011), Speech at the Jackson Hole Economic Symposium Panel: Setting priorities for long-term growth Jackson Hole, U.S.A., 27 August.



broadly in line with pre-crisis patterns.

Moreover, in both currency areas there are comparable patterns in the dispersion and developments of competitiveness. In the US as well as in the euro area, regions can be found with persistently above or below average unit labour cost growth — a good measure of competitiveness. In the euro area, Greece, Portugal and Ireland, in particular, had progressively lost competitiveness. They are now trying to catch-up by implementing adjustment strategies. Germany, by contrast, had lost competitiveness in the reunification process but has managed to regain competitiveness over the same period of time.

Looking at the most and least competitive states in the US states over the same period of time, we see that some states have suffered from large or persistent increases in unit labour costs. Some still exceed the national average by 20 percent. Other US states have been improving their competitiveness compared to the national average over the past decade.

Public finance, household savings and trade

On a consolidated base public finances in the Euro are in a much better shape than in the US. The euro area as a whole will run a budget deficit of about 4.5 percent of gross domestic product this year. The International Monetary Fund (IMF) expects a US budget shortfall of about 10 percent of GDP this year.

The UK government expects for this fiscal year to meet its deficit target of 7.9 percent of GDP, down from 9.3 percent of GDP in the previous one ending in April 2011. The budget forecasts however are based on the assumption that the economy will grow 1.7 percent in 2011 – in spite of economists' recent forecasts of around 1.0 percent.

According to the IMF the aggregate debt-to-GDP for the euro area stands at 87 percent. Figures for the UK are similar. For the US the debt-to-GDP ratio in 2011 is expected to be 100 percent. In Japan debt-to-GDP exceeds 200 percent.

As far as private households' financial positions are concerned the euro area is in the best position of all major currency areas. In 2010 gross savings as a fraction of households' disposable income stood at roughly 14 percent in the euro area, 8.6 percent in the US, and 5.4 percent in the UK.

Trade within the euro area and the EU is flourishing as well as the exchange of goods and services with the rest of the world. The euro area is the most open major economy in the world. In 2011, exports of goods and services from the euro area stood at 22.7 percent of GDP compared to 12.6 percent of GDP in the US.

The current account in the euro area is broadly in balance (-0.4 percent of GDP in 2010). For this year the IMF forecasts a current account deficit of 3 percent for the US.



Optimum Currency Areas: Basic considerations

The above mentioned figures are publicly available. They are well known to scholars and market participants. Why then, one may ask, are markets still so suspicious against the euro area? Why is there a talk of a sovereign debt crisis in the euro area rather than in the US or the UK? And why has the epicenter of financial markets turmoil moved from the US to the euro area.

Before I try to answer these questions in greater detail, let us recall some of the basic considerations of optimal currency areas.

When countries or states participate in a currency union they abolish their nominal exchange rate. By doing so they sacrifice a hitherto important means of adjustment vis-à-vis the other countries or states participating in the currency area. 50 years ago Nobel Prize laureate Robert Mundell argued that adjustment to economic shocks has to occur via other channels. Mundell and other protagonists of the Optimum Currency Area theory highlighted three major channels for adjustment in a monetary union in the absence of internal nominal exchange rate flexibility:

- First, price flexibility can help countries or states to overcome economic shocks by adjusting wages and reducing relative prices in order to rebuild competitiveness.
- Second, cross-border factor mobility in particular on labour markets can foster adjustments to shocks as employees from anemic economies move to the healthier ones until the former regain competitiveness and growth.
- Third, funds may flow from the more prosperous countries or states to the weaker ones via fiscal transfers. ³

While the first two adjustments channels clearly help to approach a new equilibrium in the aftermath of an asymmetric shock, the third one could only temporarily dampen the burden of adjustment and play a stabilizing role. In the long run, however, fiscal transfers would set the wrong incentives insofar as internal pressure for adjustment would be weakened and free rider behavior encouraged. By consequence, in a currency area it is essential that the participating members have sound public finances beforehand to reduce the vulnerability against asymmetric shocks and the need for temporary financial aid.

From theory to practice: a currency without a state

Let me move from the conceptual considerations of the theory of Optimum Currency Area back to reality. The key challenge for a currency area is how to organize the incentive structure and the adjustment channels of a currency union which lacks the flexibility of nominal exchange rates.

Mundell, Robert (1961), "A Theory of Optimum Currency Areas", American Economic Review, 51, pp. 657-665.



Comparing the two major currency areas – the euro area and the US – the major difference is clear: The US, being a fully fledged sovereign state has a central government. The organizations of relevant policies and decisions are to a large extent federal and, therefore, uniform at the central level of the federation.

The euro area by contrast is an alliance of sovereign countries with most of the relevant political decisions – including public finance – being taken by national governments.

There is a risk embedded in the constellation of the euro area: moral hazard can arise when fiscal profligacy of one single member state is averaged out by the virtuous behavior of the majority of the other countries. Such an incentive structure would be flawed because it could lead to unsustainable fiscal policies of individual member states which in turn would generate negative spill over effects to the monetary union as a whole.

The run-up to the single currency

The intellectual architects of the single currency were aware that the management of a single currency in a union of sovereign states would be challenging. Instead of a single government effective rules were required to safeguard the credibility of the currency.

Although the vision of a single European currency is an ancient idea going back as far as to the Roman Empire, the idea of a common European currency in recent history gained momentum in the late 1960s. Luxembourg's Prime Minister Pierre Werner, also Minister of Finance, was asked to steer a Committee mandated to design the path to an increased economic and monetary integration of the six then members of the European Economic Community. That report, finished on the 8 October 1970, was sent to the Ministers of Finance in the first instance, laid down the achievement of Economic and Monetary Union by 1980.

The Werner report proposed the inception of an independent institution for fiscal monitoring and coordination. This idea clearly reflected that a single monetary policy would need support from sound public finances. More concretely, the Werner report called for closer economic policy coordination with an agreed framework for national budgetary policies.

At the institutional level, it suggested a "centre of decision for economic policy". This coordination body for economic policies should have been established alongside the European system of central banks, i.e. the monetary authority. Both institutions were to be independent from the national governments, being politically accountable only to a European Parliament. This independent economic authority should have influenced the national budgets with a focus on the level and the direction of the balances as well as the financing of deficits and the use of surpluses, respectively.

In the next major attempt to design a single European currency, the Delors report in 1989, the insight that sound fiscal policies would be necessary to safeguard the credibility of the common money was still vivid. That blueprint named after the President of the European Commission at that time, Jacques Delors, stated that "an Economic and Monetary Union could only operate on



the basis of mutually consistent and sound behaviour by governments and other economic agents in all member countries. (...) Uncoordinated and divergent national budgetary policies would undermine monetary stability and generate imbalances in the real and financial sectors of the community."

Almost exactly 20 years ago, the Maastricht Treaty was drafted by the European Council on 9/10 December 1991 in the Dutch city of Maastricht. It founded the European Union and led to the creation of the single European currency and to provide a framework of lose policy coordination.

At the very core of that framework the no-bail-out clause and the Stability and Growth Pact (SGP) were installed. The first should have excluded free rider incentives and the second should have aligned national fiscal policies to prevent negative spill over effects to the currency union as a whole.

The SGP was a compromise of quantifying fiscal soundness without interfering with the budgetary and fiscal policies of sovereign states. It aimed to maintain fiscal discipline within EMU. Member states adopting the euro had to meet the Maastricht convergence criteria, and the SGP should make sure that they continue to observe them. The compromise was also characterized by the strong belief that governments would be reactive to market discipline.

However there was a lack of political will to commit to sustained stability-oriented fiscal policy. The weak commitment was evident when the Stability and Growth Pact was watered down under the pressure of France and Germany in 2003. Moreover, the rule book failed to consider the possibility of a financial crisis in the euro area leaving an institutional vacuum for crisis resolution.

Painful lessons from the Great Financial Crisis

The global financial crisis with its consecutive phases has disclosed the weaknesses of that institutional set up and the overestimated belief in market discipline. Originally, the financial crisis erupted in August 2007with the epicenter at the US subprime mortgages markets. It deteriorated dramatically in September 2008 when the US investment bank Lehman Brothers collapsed. And it triggered the sovereign debt crisis in the euro area in spring 2010.

The pre-crisis situation of public finances differed in the various countries of the euro zone, sometimes significantly. Regardless of whether private debt has been socialized or the problem was from the beginning in public finances itself, the outcome was a drastic increase in the public debt burden. The financial aid packages for stressed banks and fiscal and social stimulus programs to combat the recession disclosed painfully the limits of the financial capacity in some countries.

With hindsight we have to acknowledge that in some countries fiscal profligacy, weaknesses in the banking sector and deteriorating competitiveness have been observed. The institutional setup could neither prevent nor resolve a severe crisis of the magnitude that we are currently experiencing. Where the instruments and procedures were available, they were not implemented, ignored, or watered down.



Flaws in the Maastricht Treaty

With today's knowledge and experience let me highlight just two major weaknesses in the Maastricht Treaty: It was based on a flawed economic paradigm and it did not foresee geopolitical developments before and after the introduction of the single currency.

1. Overestimation of free markets

The spirit of the Stability and Growth Pact was also characterized by a strong belief in the power of free markets to discipline governments. This belief reflected the prevailing paradigm in economics at that time. But the global financial crisis has undoubtedly marked a turning point also in that context.

The financial crisis has put the legitimacy of absolutely free financial markets into question. At the same time, the concept of market economies is challenged in many places, and the voices calling for the state are getting louder. The pendulum strikes back.

There is a clear risk that the well founded desire for improved regulation leads to a too tight corset that ultimately might strangulate market dynamics. It would be misleading to assume that partial market or regulatory failure in the past means that the government would always provide superior solutions by governments.

Excessive faith in the state as well as a sprawling public sector lead in the long run into servitude, as argued by the Austrian economist Friedrich August von Hayek and proved by the communist movements of the previous century. Only in the market economy, freedom and wealth come together. However, also those err who rely alone on the self-regulation of markets.

The challenge is to find the right balance between market and state, to define reasonable rules set by the state to generate the greatest possible freedom for sustained prosperity to the benefit of the society.

In less general terms it is worth recalling how financial markets have been assessing the creditworthiness of sovereigns within the euro area. Countries with weaker positions which introduced the Euro could refinance themselves roughly at the same cost as the most solvent states. Spreads, if existing, were very narrow, even between Greece and Germany. Financial markets were irrationally optimistic.

Today, markets seem to be irrationally pessimistic. Even wealthy states with sound economic fundamentals are in trouble to refinance themselves at reasonable conditions. Recently, for instance, Italian sovereign funding costs were driven above 5 percent. The UK by contrast funds itself at 1.6 per cent – although Italy and the UK are two countries of roughly the same size, wealth and income. While the Italian public debt with some 119 percent of GDP is larger than that of the UK (80 percent of GDP), the Italian private sector has much stronger balance sheets than the UK private sector. This means that the Italian government has stronger private wealth



for potential future taxation than the UK. Moreover, the consolidation plans of the Italian government are far more ambitious that the British ones.

Some argue that growth prospects for the UK are more promising as its central bank could depreciate its own currency by a very lax monetary policy. By doing so, future growth and tax revenues would be boosted. The problem is, however, that the UK economy heavily relies on a huge non-exporting service sector (while in Italy manufacturing plays a bigger role), which does not profit from a weaker currency. Indeed, exports in the UK have failed to recover in spite of the great sterling depreciation. By contrast, since the end of 2007, the British GDP has contracted cumulatively by 3.4 per cent. Moreover, depreciation comes at huge costs: The weaker sterling has made the UK's people poorer in real terms through higher inflation. In 2007, the average UK citizen was 30 percent richer than the average Italian; now they are just 5 percent richer.

2. Geopolitical changes

The Maastricht Treaty was signed on 7 February 1992 by the members of the European Community by the six original members of the community – Belgium, France, Italy, Luxembourg, the Netherlands, and West Germany – and those six countries who had joined the EC later, namely Denmark, Ireland, the UK, Greece, Portugal and Spain.

Amid the various enlargement steps of the EU and the euro area several problems have emerged, some of which are interrelated.

First, economically, the situation of those countries that joined the EU later differed sometimes greatly from the original core. That holds particularly true for those countries that entered the EU after the breakdown of the Berlin Wall and the communist bloc. Laggard countries while catching up in their productivities in traded goods' sectors tend to suffer from higher inflation rates because within the service sector productivity growth rates are restricted but wages still catch up (Balassa–Samuelson hypothesis)⁵. This, of course, poses a potential threat to a currency union with the aim of a stable price level.

Second, an institutional problem is the indirect result of these developments. The intellectual architects of the euro area assumed the member states of the currency area were basically the same who constituted the European Union. Only one institution on the union level - the Commission - would then have been necessary to represent the EU and to be in charge of the currency area's rule book. Today, the EU comprises 27 countries, the euro area only 17. However, with the exception of the field of monetary policy the euro area still lacks a true institution on its own with competencies on the community level.

⁴ See Nielsen, Erik (2011), Italy's debt a better bet than 'triple A' UK, Financial Times, Oct 10th 2011.

⁵ Samuelson, P. A. (1994), Facets of Balassa-Samuelson Thirty Years Later, Review of International Economics 2 (3): 201–226.



A lot has been achieved – responses within the existing Treaty

The sovereign debt crisis has revealed that the euro area suffered from serious weaknesses in the fields of financial, fiscal and economic governance on the preventive side and had lacked a crisis resolution mechanism.

But the current crisis has also been recognized as an opportunity to repair the institutional shortcomings of the "currency without a state". Europe has always made its greatest steps forward in times of crisis mirroring the words of Jean Monnet: "People may accept change when they are faced with necessity, and only recognize necessity when a crisis is upon them."

And indeed, Europe has already undertaken major steps to tackle the identified weaknesses within the existing Treaty.

- In the absence of a nominal exchange rate the alignment of national fiscal policies and the
 prevention of imbalances via rules is a necessary condition to support the credibility of the
 single currency. The recent agreement reached by the European Parliament and the Council
 on the "Six Pack" is a step in the right direction. The Stability and Growth Pact has been
 strengthened; imbalances and competitiveness will be monitored at an earlier stage.
- 2. Since the beginning of this year, the European Systemic Risk Board and the European Supervisory Authorities are operationally. These truly European bodies are responsible for providing the incentives to avoid excessive risk taking in the financial industry and to promote a level playing field in support of beneficial financial integration within the euro area.
- 3. A crisis mechanism has been set up and is still being improved. Countries with stressed liquidity positions which are subject to market attacks receive financial aid from the Luxembourg based European Financial Stability Facility (EFSF). This support should allow them to return to a sustainable level of debt and regain competiveness as soon as possible.
- 4. In order to eliminate any doubts on the sufficient fire power of the EFSF, governments of the euro area Member States plan to provide appropriate leveraging of the fund. The EFSF will operationally be allowed to intervene in the primary and secondary markets as soon as possible to tackle fundamentally unfounded distortions in the sovereign bonds markets. These distortions hamper the smooth functioning of the single monetary policy stance.

Within the given framework, the implementation gap must be closed to resolve the confidence crisis that the euro area currently faces. Most of the above mentioned proposals have been decided already. As soon as possible the new governance rules must be applied completely and rigorously.

Moreover, as stated earlier, factor mobility in particular on labour markets is an important adjustment mechanism. Labour mobility within the euro area works rather smoothly at the lower and higher skill ends. But the high share of closed public service in Europe, non-portability of pension rights, rigid labour laws and cultural differences make labour mobility a slow process. Additionally a further improvement of the Single Market – including markets for products and services – is important for fast and market-based adjustment in case of shocks.



... but challenges remain beyond today's Treaty

Challenges remain, however. They refer to the institutional framework of the euro area to safeguard the own life of a currency union within a common market to further proceed in the direction of an Optimum Currency Area.

In the medium to long run, we will need an institution that is solely responsible for the euro zone.

Remembering core elements of the Werner Plan, a single monetary policy needs support from sound public finances and closer economic policy coordination with an agreed framework for national budgetary policies. This could be realized by either be a European Commissioner with special authority or a finance minister (not necessarily with a huge budget), as it has been suggested by outgoing ECB President Jean-Claude Trichet, or another, ideally independent body that makes sure that national policies do not generate negative spill over effects which jeopardize the currency union as a whole. But in any case, the institutional vacuum that currently exists must be filled.

I am confident that Europe can also overcome these challenges. There can be no doubt, however, that current and future steps for further European integration will be accompanied by a credible and stable Euro that deserves the faith of financial markets, international investors and – last but not least – the more than 320 million citizens of the euro area.

Ladies and gentlemen, thank you for your attention.