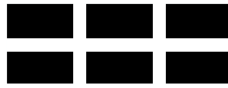


THE WILLIAM DAVIDSON INSTITUTE
AT THE UNIVERSITY OF MICHIGAN

The Monetary Union: The Decade Ahead. The Case of Non-Member States

By: Daniel Daianu and Laurian Lungu

William Davidson Institute Working Paper Number 947
January 2009

The Monetary Union: The Decade Ahead. The Case of Non-Member States

DANIEL DAIANU AND LAURIAN LUNGU*

Abstracts
What are the prospects for New Member States to join the euro-zone in the not too distant future? They seem to be in a catch-22 situation Because of the current financial crisis some Maastricht criteria would be more difficult to fulfil in the short and medium term, which would make it hard for them to join the eurozone. But there is also an argument, which highlight benefits of a faster accession due to dynamic effects for the countries involved and for the eurozone as a whole.

Keywords: finance, EU, Europe, eurozone, enlargement

JEL Codes : E52, F36

* Daniel Daianu (daiandan@b.astral.ro) is professor of economics at the National School of Political and Administrative Studies in Bucharest and a Member of the European Parliament; Laurian Lungu teaches at the Cardiff Business School.

I. Introduction

Since its emergence in 1999, the Euro zone area[1] (as a proxy for the EU) has established itself as a major global economic power. From the financial and monetary point of view it has been a remarkable success. The credibility of the European Central Bank (ECB) has been established rather quickly, owing, inter alia, to the positive long-track record of some of the member countries central banks, such as the Bundesbank. In addition, the eurozone has proved to operate as a shelter during the current world financial crisis. But some of its weaknesses have also been better revealed during this crisis.

It goes without saying that the main indicator of this success is the low inflation rates in the single currency area during the past decade. The euro's share in total identified official holdings of foreign currency exchange increased from 18% to over 26% between 1999 and 2007[2] and the medium to long term trends tend to suggest that it will grow further.

However, on other fronts, in particular the real economy, the adoption of the euro has failed do deliver expected results. Economic growth and employment have been considerably inferior to the US economy. And this, in spite of the fact that the 1999-2007 period has been, largely, one of macroeconomic stability, with low inflation and interest rates. Also, the euro has not worked that well in bringing prices of the same products and services together across the euro zone.

These weaknesses are best exposed nowadays, at a time of an unprecedented global financial crisis. The intensification of financial turmoil together with the impairment of the functioning of credit markets would restrain economic activity in the near future. Both households, with good credit histories, and businesses, confront themselves with diminished access to credit. The more prolonged the current financial crisis becomes, the deeper it would affect the real economy, impacting on output and unemployment. From the euro zone economy's point of view two issues stand out. First, does the MU have the adequate mechanisms in place to deal with crisis like this? Second, how fast would the MU economy recover, following these shocks? Are its markets (i.e. goods and services, money and labour) resilient enough to have a quick recovery? Complex decision mechanisms required getting an MU-wide consensus, the absence of some sort of a Central Fiscal Authority, which would have made possible a more effective coordination with monetary policy, and rigid labour markets would likely impair both the timing response to the crisis as well as the recovery process.

Most of the issues related to the functioning of the eurozone are found in the optimal currency area theory. Some of the euro zone economic challenges have been highlighted since its inception; others have emerged with the subsequent expansion of the euro zone. More recently Slovenia joined the single currency in 2007, Malta and Cyprus in January 2008, and Slovakia entered the EMU in January 2009. However, for the remaining NMSs there is an increasing uncertainty regarding the timeline of joining the euro zone. Most of the NMSs are a long way from fulfilling the Maastricht criteria, and the current global macroeconomic environment of increasing inflation and reduction in GDP growth creates additional uncertainty.

Expanding the euro zone further presents additional challenges. Currently, the eurozone has a population of 320 million and the remaining 8 NMSs would add another 100 million. This would exacerbate some of the existing problems, such as health care and aging costs, for instance, and raise issues on the required levels of public debts and fiscal deficits.

From an economic point of view, the challenges the NMSs face are threefold. The first set pertain to internal macroeconomic conditions: achieving sustainable inflation, reduced exchange rate volatility, prudent fiscal policy. The second set addresses the current global macroeconomic conditions, and the effects of the financial crisis. Third, a set of conditions relate to the institutional underpinnings of innovation and competitiveness –education being a paramount ingredient herein. Obviously, the three sets of challenges are interlinked and this is what makes it more difficult for the NMSs to fulfil the Maastricht criteria. It has been argued that the Maastricht

---

[1] For the purpose of this paper, the Eurozone countries are: Austria (AT), Belgium (BE), Cyprus (CY), Finland (FI), France (FR), Germany (DE), Greece (EL), Ireland (IE), Italy (IT), Luxembourg (LU), Malta (MT), the Netherlands (NL), Portugal (PT), Slovenia (SL), Slovakia (SK) and Spain (ES). Although Slovakia will join the Eurozone in January 2009, it has been included in the euro countries group. The Non Member States, NMSs, are defined as Bulgaria (BG), Czech Republic (CZ), Estonia (EE), Hungary (HU), Latvia (LV), Lithuania (LT), Poland (PL) and Romania (RO).

[2] Although much of this has occurred largely due to the fall in the US dollar.

criteria were devised for a different group of countries facing different problems in the 1990s and that some of these should be relaxed for the new countries joining the EMU.

The prevailing view, both in the academia and in official circles has advocated strict compliance with the Maastricht Treaty's convergence criteria, ruling out any relaxation of those. The concerns are more related to the long-term stability of the euro area, in this respect the macroeconomic stability of the new entrants is paramount. Moreover, it may not be in the interest of some NMSs to join EMU in the near future. Their economies need the flexibility of exchange rate to address their structural problems. With their monetary policy run by the ECB, the economic convergence with the rest of the euro zone countries would be harder to achieve. But there is another argument, too, which would highlight the benefits of a faster track of accession, which would look at dynamic costs and benefits for the countries involved and for the eurozone as a whole.

II. The first Decade of Monetary Union

The effect of EMU on financial markets in the euro zone has been quite impressive. One important factor has been the elimination of exchange rate uncertainty and transaction costs, which in turn has led to increased efficiency of financial markets in the euro zone. However, as the current financial crisis has highlighted, credit markets within the euro zone continue to remain relatively fragmented because of regulatory and tax differences. Cross border competition among banks has also been quite limited.

The divergence of real economic growth across the euro zone countries continues to be a major drawback. Moreover, low growth performance of the euro zone, as a whole, was another minus. Countries which opted to stay out of the EMU improved, on average, their growth performance compared to euro zone countries.

There is some evidence of cyclical convergence within the euro area, but, overall, convergence still remains largely incomplete. This, in spite of the fact that, over the last two decades, the business cycles across the globe, especially among the wealthier nations, tended to become more synchronized.

Price dispersion continues to be high. Prices should, in theory, be equalised within the EMU but this is not the case. Low levels of intra-European migration, and the absence of a system for cross-national fiscal transfer, place the burden of adjustment squarely on wage flexibility. The inadequate level of economic integration leaves the national economies within the euro area exposed to asymmetrical shocks, since they do not benefit of on independent monetary policy.

During the first decade of the euro, inflation in the MU has been, on average, lower when compared to previous years. Clearly, the ECB mandate to price stability was paramount but a global low inflation environment also played a large role in easing the ECB' work to keep inflation below its agreed target.

III. Old and New Challenges for the Monetary Union

The challenges for the functioning of the MU are rooted in the economics of currency areas. The theoretical foundations for these are derived from the optimum currency area (OCA) theory[3] which shows that the adoption of a single currency pays off when the monetary area is highly integrated economically and has the capacity to adjust quickly to asymmetrical shocks.

Traditionally there are five core OCA properties namely: wage and price flexibility, trade integration, cyclical convergence, factor mobility, and fiscal federalism, which are used to assess a success of an OCA area. On these accounts, the euro area still seems to have some way to go in order to achieve high efficiency.

Wage and price flexibility — Wage setting continues to be done, predominantly, at the national level, and quite often at the sectorial level. This mechanism reinforces the relative inflexibility of the individual countries labour markets. Within the euro-area real wages have tended to be downwardly rigid with a relatively high level of indexation. Moreover, although nominal interest rates have largely converged, there is a wide discrepancy among real interest rates of the euro

[3] See for instance, Mundell (1961) or McKinnon (1963).

zone members[4]. In many euro zone countries there is a high and persistent rise in the price of services – often largely influenced by changes in local administered prices.

Trade integration — The common currency appears to have boosted trade flows between member states. The effect, however, is rather small[5] and, although it could well increase in the future, the economic benefits of trade integration are likely to be hard to disentangle from other endogenous effects generated from the currency area.

Cyclical convergence — This is a process that started long ago, with the Internal Market programme. Although business cycles syncronisation appear to have increased within the eurozone countries, much of it has to do with the recent fall in the amplitude of global business fluctuations, which benefited from low interest rates, high economic growth and low inflation. However, structural differences still remain at the euro-zone country member level. Spain and Ireland are recent examples where rapid economic growth rates, driven by their construction sectors, could slowdown markedly.

Factor mobility — The mobility of the two main production factors, capital and labour, is crucial for the economic success of the euro zone. While the European capital markets are substantially more open and integrated than they were a decade ago, to some extent this is part of a global trend. Within the euro zone, FDI has gathered pace, however there are still barriers in place, such as incomplete liberalisation of the rules for mergers and acquisitions, which hamper a more complete integration of those. On the other hand, European labour mobility remains fairly limited, despite persistent differences in regional unemployment. Only around 2% of the total EU workforce appears to have increased working mobility.

Fiscal federalism — Given the existence of an independent EU monetary authority, the ECB, the argument for an EU Fiscal Authority appears to be compelling. This would create more room for manoeuvre for the fiscal mechanisms of purchasing power transfers in the face of idiosyncratic shocks. It would also place less presure on the ECB when dealing with regional divergences. The EU budget is little more than 1% of the EU GDP, providing limited scope for stabilising cross-state transfers. Moreover, a large part of that budget is allocated towards spending on Common Agricultural Policy and Structural Funds, which are weakly related to cyclical fluctuations in the individual member states.

Given these shortcomings in the functioning of the EMU, it is not surprising that many EU officials have voiced their concerns of how best to address those issues. At the Euro’s 10-year anniversary, in June 2008, the president of the ECB, Jean-Claude Trichet, acknowledged that over the next decade the euro zone will be confronted with three major challenges.

> "This anniversary is no time for complacency. But for continuous efforts, because the challenges lying ahead for Monetary Union will be numerous and demanding. As one of the major central banks in the industrialised world, we, like the others, have three challenges to cope with in our monetary policy-making: rapid technological progress, globalisation in all its dimensions, including the transformation of global finance, and population ageing"[6].

Some of the old challenges, such as the full and complete implementation of the Stability and Growth Pact – which is seen as a paramount component of EMU in the absence of a European federal budget - the pursuit of structural reforms aimed at raising Europe’s long-term growth potential, and reduced fluctuations in national competitiveness indicators within the euro area members still remain.

There are two views on the OCA. The first one advocates the so-called ‘specialisation hypothesis’ This argument, based on trade theory, argues that single currency areas lead to greater geographical specialisation through higher economies of scale and lower transaction costs to trade. The resulting increased regional specialisation in turn, generates an increasing vulnerability to asymmetric shocks. The second view[7] has been build around the ‘endogenous currency area’ argument and asserts that that monetary integration reduces trading costs beyond those related to nominal exchange rate volatility. Moreover, a currency area could, by itself, induce the required changes to allow member countries to integrate enough to make the currency area viable. If so, the

---

4 For instance, in 2006 Spain had the lowest real interest rate in the euro-zone, around 0.4% while Germany the highest, around 2.4%.

5 Between 5-10%, according to Baldwin (2006).

6 Jean-Claude Trichet – ‘Address at the ceremony to mark the 10th anniversary of the European Central Bank and the European System of Central Banks’, Frankfurt am Main, 2 June 2008.

7 See, for instance, Corsetti and Pesenti or Frankel and Rose.

currency union could produce political commitments which contribute to its optimality. There is some empirical support for each of the two theories and the next ten years would test which one of these views is more valid.

A. *Old Challenges*

A.1. The Speed of Real Convergence

Probably this has been the most disappointing effect of the euro zone so far. Member countries in the euro zone have been growing at different rates. Moreover, real GDP growth among euro zone countries has been, on average, inferior to that recorded in the NMSs (which is not surprising in view of their catching up potential). As it can be seen in Fig 1, there have been wide disparities among average GDP growth rates in the euro zone.

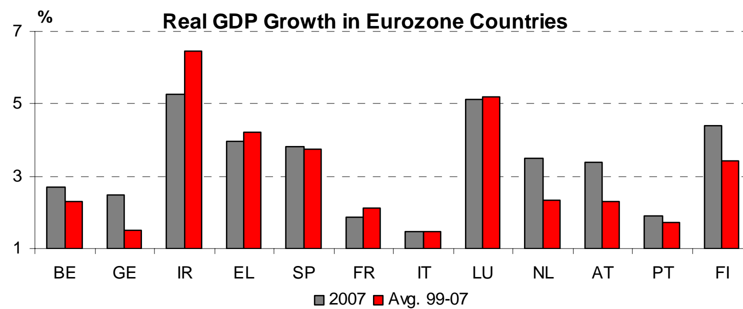


Fig. 1 (Source: Authors calculations based on AMECO data).

Between 1999 and 2007, average GDP growth in France, Italy and Germany, the countries which together account for three quarters of the euro zone GDP, was the weakest among euro zone countries. Ireland has been by far the fastest growing economy, averaging 6.5% over the same period.

In contrast, as expected, economic growth in NMSs has been fastest (see Fig 2). Except Hungary, during the 1999-2007 period all NMSs recorded growth in excess of 6%.

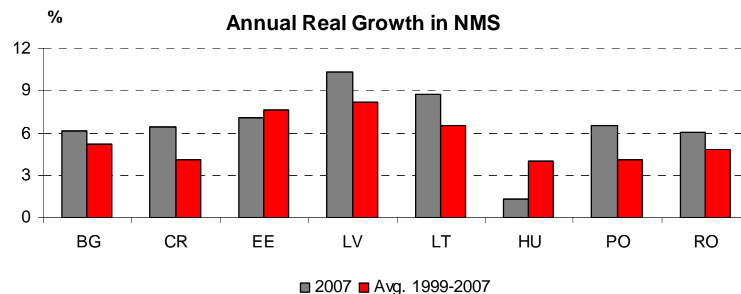


Fig. 2 (Source: Authors calculations based on AMECO data).

As growth differential between euro zone countries and NMSs would continue to persist in the medium term one important issue is the individual timing of the NMSs adoption of the euro.

A.2. One Size Fits all Monetary Policy

In normal circumstances a country uses both monetary and fiscal policy to react to economic shocks. Within the EMU however, its members loose control of the monetary policy, making the task of stabilizing their economies in the face of shocks more difficult. The interest rate is set by the ECB so as to reflect the economic conditions throughout the euro area. As the latter differ across member countries any changes in the interest rates could have very different effects on economic and financial conditions in various parts of the EMU. And, unless there is a reasonable convergence of the monetary policy transmission mechanism across the euro zone members, this could give rise to serious strains and inefficiencies.

The experience of Ireland and Spain within the euro zone has been illustrative in this respect. Since adopting the euro the countries have been growing much faster than the euro zone average, and would have needed higher nominal interest rate to stem off rising domestic inflation. On the other hand, the current global supply shock which raises inflation throughout the euro zone, would require higher interest rates. However, the consequences of this monetary action would differ from country to country in terms of timing and its impact on real variables, as there are differences in the monetary transmission across EMU countries. Since convergence within EMU has not been achieved yet, inevitably, the effects of the output-inflation trade-off in individual countries would be magnified. Thus, as even in good times (i.e. periods of macroeconomic stability) the cost of maintaining price stability will be unevenly spread across the monetary union, in bad times these costs will necessarily be higher.

The Case of Ireland

Prior to joining the MU, Ireland's average growth over the previous 10 years was over 6 percent, the highest growth rate in Europe. A reason for that strong performance was Ireland's attractive business investment, namely an English-speaking work force and relatively low labor costs and real estate prices.

After joining the MU, the Irish economy continued to boom, but, because the largest euro-zone economies needed lower interest rates, monetary policy, set by the ECB, tried to accommodate the latter. This, in spite of the fact that the Irish economy would have benefited from higher interest rates. As a consequence, higher demand in Ireland pushed up domestic prices and wages, eroding Irish competitiveness.

Between 1999 and 2007 Ireland grew at an annual average rate of 6.5%, still the highest among the MU countries. But inflation was also the highest at an average of 3.4%. And this in spite of the fact that this period was characterised by low global inflation and low interest rates. High economic growth rates have been possible due to an exceptionally elastic labour supply, largely because of migration effects, in stark contrast to rigid labour markets in most of the euro-zone countries.

The Case of Italy

Since entering into the euro-zone, in 1999, Italian economic annual average growth was a dismal 1.5%. Primarily, this poor economic performance is due to the rapid rise in domestic wages which, in turn, pushed up unit labour costs (ULC). For instance, between 2000 and 2006, Italian ULC rose by 20% compared to those of France and by 10% when compared to those of Germany.

The loss in competitiveness is due to both inefficiencies at the micro level and a deficient fiscal policy (see Sibert 2007). Italy has the most regulated market products in the euro-zone, with high prevalence of price controls, administrative burdens and barriers to ownership. Moreover Italy has one of the most rigid labour markets in the euro-area; hiring and firing workers are both especially difficult and costly processes. Between 2003 and 2006 Italy's budget deficit has been consistently above 3% of GDP. As a percentage of GDP, government debt is, at 104% in 2007, the highest among euro-zone countries. With future pressures on public debt, such as the cost of population ageing, mounting, it is likely that, at some point, Italian debt would be priced at a premium over other euro-zone countries. This would dampen further the country's economic prospects.

Other euro-zone countries, such as Portugal, Spain or Greece find themselves in a similar position. This divergence in competitiveness among euro-zone countries is largely caused by differences in both national micro-level and fiscal policies.

The Case of Portugal

Starting with the second half of the 1990's, the commitment by Portugal to join the euro, resulted in a sharp drop in local interest rates. On the other hand, expectations of faster economic growth led to a decrease in private saving and an increase in investment. The outcome was high output growth, a fall in unemployment, higher wages, and a rapidly increasing current account defficits.

Today Portugal finds itself in a trap of high unemployment and low economic growth. Investment failed to pay off and productivity growth has been advancing at a dismal pace. High wages have been a major reason for that. Labour markets are rigid, average duration of unemployment is very long and the main cause for that is the high degree of employment protection. The continuing increase in labour unit costs reduced Portugal's competitiveness affecting primarily its non-tradable sector profitability. Unit labour costs also increased in relative terms, which maintained a sizable current account deficit.

Part of the solutions to Portugal's problems lies in issues related to real and nominal wage rigidities (see Blanchard, 2006). Both mechanisms would necessarily impose an adjustment cost on unemployment. Fiscal policy could also play a part, but its role is rather limited in Portugal's case.

A.3. Fiscal Policy and Strained Welfare Systems

The euro area is the only region in the world which has a centralised monetary policy but favours a rather independent approach to fiscal policy. The foundation for the latter is laid out in the Stability and Growth Pact (SGP) which is politically and legally binding and acts as a coordinating instrument across the EU In order to maintain fiscal discipline within the EU, the deficit to GDP and debt to GDP ratios should not exceed 3% and 60% respectively over the economic cycle. As noted in a multitude of papers, from a longer term perspective, these constraints puts into question the sustainability of public finances.

The largest threat is, undoubtedly, the *ageing of population*. Between 2010-2050, the EC projects a 16% fall in the EU working age population (48 million people) with the number of elderly people rising sharply by 58 million, or 77%. Thus, the old-age dependency ratio is set to double to slightly over 50% by 2050. The population ageing would require a substantial increase in public spending, mostly on pensions, health care and long-term care.

EU's projections of age-related expenditures in its 'no-policy change' scenario[8] envisage an average debt-to-GDP ratio for the EU in 2050 of over 180%. Individual country debt-to-GDP ratios could be much higher with Greece at 450% and Portugal at 520%.

Long-term sustainability finances are important for the EU as a whole because the negative effects caused by the un-sustainability in public finances from any individual EU country could spill over to other member states. Moreover, risk premiums for EU countries with a more precarious state of public finances could rise relative to other EU members, making harder for the former to refinance their debt[9].

Adopting a long term view for the EU's fiscal policy, in which these issues will have to be addressed, is mandatory. Multi-annual budgetary frameworks are useful because they limit the scope for opportunistic government interventions in fiscal policy but adopting a longer-term vision for the EU public finances would require changes in the way fiscal policy is conducted.

Ideally, from the point of view of coordinating monetary and fiscal policy, a monetary union should have a central fiscal authority. As responsibilities of the two institutions are different, it would be important to have a single fiscal authority counterpart to the MU's monetary authority. In practice however, this is likely to be difficult to achieve. Resistance of national governments, which would like to have some discretion over their fiscal policy and control their national budgets, would, most probably, continue to be very high.

Although the SGP provides a general framework for the euro zone governments to conduct fiscal policy, in situations with extreme economic conditions, such as the one the world faces nowadays, there is scope for overriding the restrictions imposed by SGP. Economic policies are implemented more effectively when there is coordination between monetary and fiscal policies. As Ben Bernanke has declared recently[10], "the intensification of the financial crisis in recent weeks made clear that a more powerful and comprehensive approach involving the fiscal authorities was needed to solve these problems". Fiscal authorities of the euro zone member

[8] See Commission (2006).

[9] So far, risk premiums for Belgium, Greece or Portugal, countries which have had the highest debt-to-GDP ratios within the EU have not risen. It may be because the markets thought that this trend could be reversed, which actually has started to happen.

[10] Speech by Ben S Bernanke, Chairman of the Board of Governors of the US Federal Reserve System, at the National Association for Business Economics 50th Annual Meeting, Washington DC, 7 October 2008.

countries have started to be involved but their coordination efforts and asymmetrical responses would likely cause delays with respect to the timing of implementing their decisions. And, in times of crisis, the speed of reaction is crucial.

The reform of the SGP in 2005 has allowed medium-term budgetary objectives to be differentiated across countries, according to individual member countries economic conditions. However, when a global shock, such as the current credit crunch, hits so severely, from a fiscal point of view this would impose an additional cost to government's current and future financial commitments. This could leave the finances of some governments in a precarious state, which could weaken the euro zone's credibility, and thus have an impact on the euro exchange rate.

A.4. Diminished Adjustment Capacity in the Global Economy

The globalisation of financial markets together with the continuous acceleration of financial deepening in world markets have led to increased interconnection of the world's financial markets. The ongoing financial crisis revealed, once again, how difficult is to contain the propagation of shocks, especially financial shocks. In today's world, large money flows take advantage of investment opportunities across world's economies, facilitating an efficient allocation of resources. On the other hand, however, the sudden outflow of foreign funds could leave domestic financial markets depressed, which, in turn, could have a negative impact on the real side of the economy, with output contracting, sometimes threatening the very existence of the entire sectors, and unemployment going up. Subsequently, the recovery of the economy could take a long time.

In today's global economy, individual economies have a less limited adjustment capacity, compared to, two-three decades ago, let's say. They are much more flexible, indeed, but their desired economic objectives could be often difficult to meet. This is because the control over economic conditions is to a large extent, at least in the short term, outside the individual country's institutions´ powers. Take for instance, monetary policy. The response from most of the Asian central banks over the last years has been to purchase massively US T-bills in order to take advantage of the low interest rates in the US and keep their domestic exchange rates against the US dollar at favorable terms, required for maintaining their export growth to the US economy. The efficacy of a unilateral action from the part of the US Federal Reserve is much more reduced compared to an alternative of a coordinated response from a large number of representative central banks[11].

A.5. The International Role of the Euro

In its anniversary report, EMU@10, the EC acknowledged the fact that "the euro area must […] build an international strategy commensurate with the international status of its currency". While, undoubtedly, buiding an international strategy that focuses on changes at the institutional level in international organisations, for instance, would help, the economic dimension itself, plays a major role in strengthening the euro's international exposure.

A currency has three major roles, namely as a unit of account, medium of exchange and store of value. The international role of the euro focuses on enhancing the last two of these as the unit of account role is, implicitly, already fulfilled by giving the euro a meaningful interpretation of prices.

Clearly, the euro will further develop as a medium of exchange as the euro-zone gets engaged more actively and openly in the international trade of goods, services and capital. But displacement of the US dollar, which is currently the leading global exchange currency, is likely to take time to materialise.

As a store of value a common indicator is taken to be the euro share in central banks total foreign exchange reserves. As the central banks diversify away their US dollar foreign exchange reserve holdings, the euro share is bound to increase. However, for this process to continue more preconditions have to be met. More generally, according to Dehesa, the best way to measure the role of the euro internationally is "through its relative presence in three international different markets: the international liability management market, the international asset management market and the foreign exchange market"[12].

---

[11] On Wednesday 8 October 2008, major central banks across the world engaged in the biggest coordintated emergency interest rate cut in the history. The interest rates were cut without reference to their respective governments. Coordinated governments action plans were made at G7 and G20 meetings a few days later.

[12] Dehesa (2008).

Credibility of the issuer plays an important role. And this comes with time, as the ECB will establish a longer track record. Stability of the euro will be another characteristic which will enhance euro's international role[13].

As an international currency, the euro will need to be supported by financial instruments denominated in euro which can be easily traded in a liquid financial system. Here, however, the US bonds and T-bills market still offers investors a wider diversity. Moreover, the largest part of energy trade is still denominated in US dollars. A number of countries which are global suppliers of oil and gas for instance, have their domestic currencies pegged to the US dollar.

B. New Challenges and Re-emerging Threats

Apart from the challenges presented above, nowadays there are renewed pressures, some derived from the changing structure of the global economy and some from accelerating processes such as climate change or energy supply concerns.

B.1 Inflationary Pressures

After two decades of low inflation, prices have started to rise again across the board. There are two main reasons for this. The first one is the financial crisis. Central banks' standard response to the current credit crisis has been to increase money supply. The effects of these actions would last for years to come as sterilisation procedures are unlikely to be implemented soon – if at all. The fall in economic growth in developed countries would exacerbate this effect as more money will end up chasing fewer goods. The second cause of higher inflation is the rapid recent rise in commodity, energy and food prices. Part of this rise is due to the weaknesses of the US dollar but a large part is due to the mismatch between global supply and demand. Asian countries, especially China and India, have been growing extremely fast over the last decade, and as a consequence pushed up global demand for energy and raw materials. Delayed adjustment responses, in the case of agricultural produce or energy, for instance, imply that there could be years before a gradual adjustment towards a new equilibrium would be accomplished.

If inflation expectations feeds into wages then a inflationary spiral could develop. Subsequently, the fall in inflation would be more prolonged and painful. So far, wage inflation appears to be subdued although it is too early to draw a conclusion on these developments. Usually the transmission mechanism of monetary policy takes between one and two years to propagate into the economy, therefore, full effects of the central banks monetary injections in the economy would be started to be felt by the end of 2008 the earliest.

More recently, inflation has been starting to rise faster in developing economies as well, especially the Asian countries. While many of these countries have been trying to preserve a beneficial exchange rate – against the US Dollar – in order to take advantage of favorable terms of trade, the central banks would have to respond to the latest inflationary threat by rising interest rates. Such movements would entail further adjustments in inflation differentials which are likely to take years until a new equilibrium is achieved.

It would be interesting to see whether the impact of the spreading economic recession on energy and commodity prices would annihilate much of the inflation expectations which were so much an obsession to central banks until not long ago.

B.2 Labour Productivity

In the absence of an individual exchange rate for any euro zone member country, one possible measure of competitiveness within the monetary are is given by domestic unit labour costs. Fig x.x below shows the percentage deviation, relative to EU-27, of the real unit labour costs of individual member countries in 2007.

According to the data, Poland and Romania appear to have been the most competitive countries in EU[14]. Slovakia, the soon-to-be euro zone member follows suit. Unsurprisingly, Spain which has had this advantage for the last decade still benefits on a lower unit labour cost than the EU average. Among the core group of EU countries, Germany and Austria have been doing

---

[13] Although, as a ratio to GDP, the euro appears to have surpassed the US dollar as currency holdings circulating outside the euro area. In 2006, the ratio of UD dollar banknotes in circulation to euro banknotes in circulation reached 0.9.

[14] It is true that, in Romania for instance, wages have been growing fast over the last years. But the increase in wages has been a phenomenon observed throughout NMSs, so in relative terms the increase has been much less. Moreover, the aggregate wage level in Romania is among the lowest in NMSs.

remarkably well. In part this is due to structural measures, in particularly taken by Germany, to rebalance their economies. The agreement on wage policy German government had with trade unions has paid off.

On the other side of the spectrum, among the NMSs, countries which have their domestic currency pegged to the euro, i.e. the Baltic countries and Bulgaria, fare the worst. Their currency board monetary regime prevents them to adjust and a strong euro puts an upside pressure on their domestic labour costs.

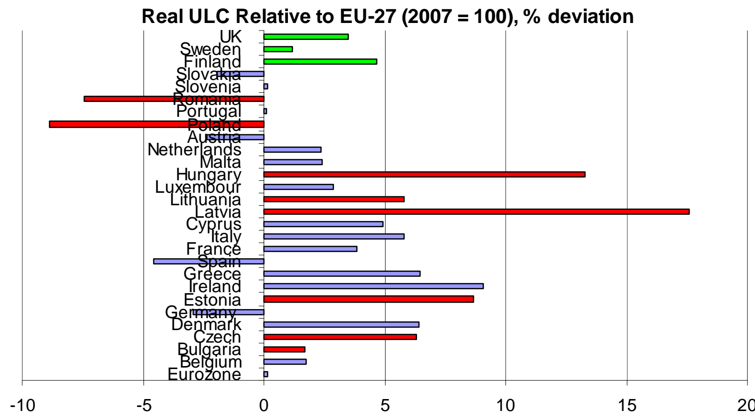


Fig. 3 (Source: Authors calculations based on AMECO data. Red lines are NMSs, blue lines are euro zone members).

Overall, the euro zone appears to be slightly less competitive than average EU-27 but this happens mainly due to the large positive contributions of Poland and Romania.

B.3 Energy and Climate Change

The European energy policy plays an increasingly important role in the overall EU's policy framework. The energy package drafted by the EC envisages the fulfillment of a number of targets by the year 2020. Taking the year 1990 as a benchmark, the aim, at the EU-level, is to reduce by 20 percent the EU's greenhouse gas emissions, use a 20 percent share of renewable energies in the energy mix, and improve energy efficiency by 20 percent. These policies highlight the need to secure supply, fight climate change and build a competitive energy sector within the EU as a whole.

However, the initial costs associated with these changes are going to be large and they will affect various EU members to different degrees, and implicitly the euro zone members as well. This happens because of the existent different energy supply and economic structures countries within the EU. The relative price of energy shock would impact quite severely on the economies which have low valued added and consume energy disproportionately. (most NMSs range among them); this curse will show up in adverse dynamics of ULCs.

The EU energy dependency ratio, expressed as net energy imports divided by gross energy consumption, is set to rise from the current 53% to some 65% by 2030. These changes alone are bound to bring about changes in the energy supply mechanisms and could transform profoundly the economic structure of individual countries.

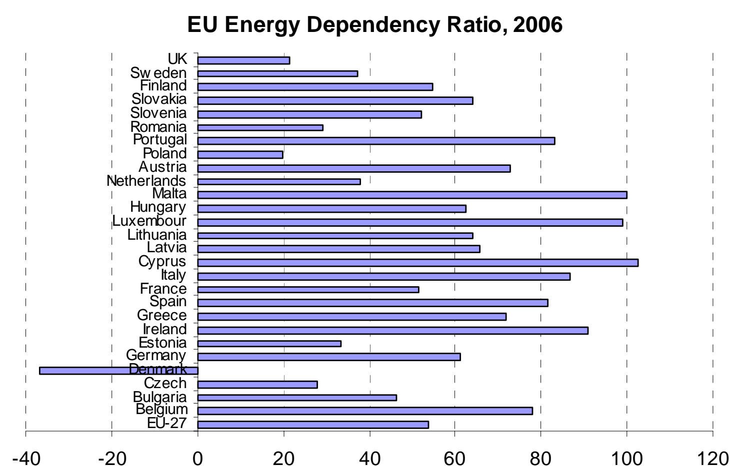


Fig. 4 (Source: Eurostat).

For instance, industries which rely too much on oil and gas will become uncompetitive as the price of these goes up and the price of alternative energy supplies comes down[15]. Moreover, the costs associated with these changes are both monetary and non-monetary. This makes it more difficult to come up with scenarios that quantify their impact on the individual EU countries.

B.4 The Financial Integration

Although countries in the euro area appear to have continued the process of integration in European financial markets, there are still segments of these markets which are not sufficiently integrated. Financial integration is an important issue in the context of a monetary area. Both economic theory and empirical findings tend to suggest that integration and development of financial markets contribute to economic growth and allow capital to be allocated more efficiently –provided financial innovation is of the right nature[16].

A study by the ECB (2004) performed over five key euro area markets namely, money, government bond, corporate bond, banking/credit and equity markets, shows that these have achieved different levels of integration. Money market appears to be the most integrated of the five but even so, differences persist between various sectors of the money market itself.

As euro zone financial institutions have extended their activities across national borders, the financial systems of different countries have increasingly become intertwined. This, in turn, increases the risks of international contagion. As the current financial crisis has shown, the emergence of a crisis in a specific country and a specific sector can rapidly propagate to other countries and financial sectors. In this context, the establishment of an adequate regulation and supervision system becomes important for the functioning of financial markets.

The European Parliament has been very active in the setting up of the Lamfalussy framework in order to improve financial market supervision and regulation. However, there are notorious difficulties in coordinating more national authorities. Such a euro zone authority, if there was to be created, would face great challenges. The large number of the institutions to be coordinated[17] in an event of a cross border crisis would raise issues of timing, efficiency and information streamlining.

As the ongoing financial crisis has shown, the financial stability has become a major issue in itself. The financial sector has an important role to macroeconomic stability for a number of widely acknowledged reasons. First, a financial crisis can cause major economic disruptions and sizable fiscal costs. Second, the resilience of the banking sector is paramount for pursuing a

---

[15] Also, in transport, energy use has grown rapidly over the last decade. A key characteristic that distinguishes energy use in transport is the almost total dependence on oil as a fuel. The social and economic effects of the measures aimed at maximising energy efficiency and renewable energy substitution in this sector are difficult to quantify yet.

[16] This is easily to illustrate by examining the episodes of financial crises of recent decades. As the report on securitization produced by the Committee of Wise Men, which was headed by Alexander Lamfalussy, underlines there is a trade off between financial innovation (especially if it is not well regulated) and financial stability (2001).

[17] The number of national authorities involved would have to be multiplied by the number of countries.

flexible interest rate policy as well as a predictable and effective monetary transmission. Third, an efficient financial intermediation is essential for enhancing growth. Fourth, risk management is very important, as it limits unhedged borrowing and discourages flows driven by moral hazard.

The current financial crisis has exposed a number of flaws, two of which stand out. The first relates to the control of monetary aggregates when credit expansion is very intense and financial innovation loosens the relationship between the monetary base, M0, and broad money, M2. Over the last three decades, the relationship between M0, over which a central bank has control, and M2, over which a central bank does not have control, has weakened considerably. This has made the task of implementing monetary policy by a central bank slightly more difficult. In hindsight, the increase in M2 in a low global inflation environment has been made possible with increased leverage by the financial institutions – helped by the development of complex financial product and the creation of a parallel architecture to the banking system – as it used to exist two decades ago. This leads to the second flaw exposed by the ongoing financial crisis, namely, that related to the regulation and supervision of the so-called shadow banking system.

Undoubtedly, the need to act is compulsory. The seriousness and global implications of the crisis underscore the need for creating institutions for global governance. In practice, however, this could be difficult to achieve. Even if such institutions were to be created, their effectiveness would still need to be tested in times of crisis. Each crisis is slightly different and the means to address it could be different. Local disequilibria could trigger global disequilibria – as the US-originated subprime crisis has shown. With this it comes higher volatility. For instance, in 2008 alone, stock markets in Eastern Europe have fallen by 60-70% from their peak levels in a matter of several months[18]. In turn, this leads to volatility of the exchange rates and uncertainty about investment decisions.

This crisis has outlined the need for preventing a regulatory arbitrage in the global economy. Arguably, an institution which would perform such a task would be faced with a rather complicate supervision process. Coordination with national supervisory institutions would be essential and this could increase the likelihood of a delayed response in the event of a sudden crisis. Nevertheless, some form of co-coordinated action plan among MU member countries, should be in place *apriori*, with contingency plans drawn up

B.5 Regulation and Supervision in the MU

The ongoing international financial crisis should compel everybody to reexamine financial regulatory frameworks. Some are tempted to see the crisis as a recurrent accident, albeit more severe, along an economic cycle and following worldwide very cheap credit for several years in a row. But a careful reading would go at structural roots of the crisis. Globalisation of financial markets and very intense financial innovation, with precarious and, sometimes, missing regulations, and a plethora of conflicts of interest, have created the milieu for the current crisis. There is a growing debate among top policy makers on how to address the causes of this crisis.

One type of arguments refers to cooperation among supervisory agencies. Thus, the former Italian minister Tommaso Padoa-Schioppa makes a cogent argument when he advocates the setting up of a single European rulebook and an integrated supervision of EU-wide groups. In our view, these proposals deserve a more sympathetic hearing from ECOFIN minister members and EU governments. As a matter of fact, the logic of the single market and increasing cross-border operations ask for increased cooperation among supervisory authorities in the EU. But, arguably, it is not sufficient to focus on strengthening the supervision of banking institutions. For, apart from an irresponsible relaxation of lending criteria in the US sub-prime mortgage and other markets, the origin of the current financial crisis is to be sought in implications brought about by massive cross-border capital flows and the increasing use of financial instruments/derivatives (the securitization of various obligations) which are not transparent and traded effectively.

Financial markets have become, in certain areas, increasingly opaque and, identifying those who bear the risk together with evaluating it represent formidable tasks. The size of the so-called "shadow banking sector", which is lightly regulated, has been constantly increasing over the last 10-15 years. This evolution brings to memory the Gurley-Shaw report of decades ago, which highlighted the imprecision in distinguishing between credit and money; and, consequently, major hurdles for effective monetary policy. Banks themselves have been caught in this game by their origination and distribution operations, flawed risk management practices.

---

[18] As of 11 October 2008, all global stockmarlets recorded dramatic falls since their peaks, only a year ago. Dow Jones for instance, fell by 39% while S&P 500 fell by 42% compared to their peak levels.

Not a few leading banks have engaged in highly questionable packaging and selling of debt tied to high risk mortgages. And several Wall Street major banks have come under the scrutiny of prosecutors lately. A Glass-Steagall type recreation of Chinese walls for the sake of restoring trust and transparency would, quite likely, be impossible nowadays, albeit not unimaginable. But there is an obvious need to regulate financial markets more widely and better. The deepening of the financial turmoil refutes glaringly those who said that the financial industry is capable of self-regulation. It is quite unfortunate that more thorough lessons from the LTCM episode, the dotcom bubble, the Enron and Parmalat affairs, etc. have not been learned by national regulators more thoroughly. There is, arguably, a need to revise the regulatory frameworks for the operation of investment vehicles. There is also a need to regulate the very use of financial instruments (of CDOs and CDSs, for instance), so that the transparency of markets be restored and investors be adequately informed. As banks are required to hold minimum reserves a similar rule could apply to other financial institutions. Likewise, the magnitude of the leveraging should be subjected to constraints and efforts to mitigate the effects of procyclicality should be taken into account And a final note: better regulation does not mean a reversal of financial openness; the opposite is true. Financial openness, in order to be sustainable (and not produce irreparable damage), demands proper (enforceable) regulations and effective oversight.

B.6 Global Governance

The issue of global governance is a pretty wide one, however, from this chapter's point of view three of them would be addressed namely, the regulatory arbitrage in the global economy, local disequilibria and the need for institutions for global governance. In fact, they are all interlinked, one reinforcing the other.

In an article in FT[19], the head of Switzerland's central bank argued for greater harmonization among emergency help provided by world's central banks in order to prevent large global banks to go outside their home country in order to shop around for the best deal. A closer integration of financial markets facilitates this sort of behavior.

Another issue which the ECB has been confronted with lately has been an abuse by banks on its financial market liquidity operations[20]. The banks appear to have taken advantage of the ECB's broad-based collateral system and used riskier collateral than envisaged to secure financing form the ECB. This sort of aspects complicates further the supervision aspect and, what is more important, sometimes it fails to sort out the issue for which the mechanism/instrument has been devised in the first place.

In a world of increasing integration of financial services, local disequilibria could propagate rapidly across two dimensions, namely geographical borders and other products. For instance, although the current financial crisis has originated in the US subprime market, subsequently it spread to almost all developed economies and it has done so across a broad range of other products such as car loans, insurance and so on. Apart from the extensive flaws in the US subprime mortgage securitization there have been wider information and incentive problems originating in the banking system. Moreover, the emergence of the totally unregulated 'shadow banking system' and its high levels of leverage compounded the initial problem.

In the view of recent events, the need for global institutions of global governance seems to be well founded. Devising the architecture and the functioning mechanisms of such institutions would probably take time because of the complexities involved in such a process. Response times in period of crisis is paramount this would be a trade-off with the level of complexity, as both national and EU institutions would have to be coordinated

IV. Challenges for the New Member States (NMSs)

The eight NMSs aiming to join the euro are bound to face more challenges in their process of entering the monetary union compared to their predecessors. This is because fulfilling the required conditions for nominal convergence is bound to take longer today, as uncertainty in global markets deepens and adverse shocks do not abate. Moreover, the EC and the ECB have grown more lukewarm towards the expansion of the EMU and insist that convergence conditions should be met. We shall see whether the very serious impact of the financial crisis on NMSs would alter this stance.

---

[19] 'Banks urged to co-ordinate more in emergencies' – Financial Times, 19 August, 2008.

[20] See 'ECB to tackle possible abuses of liquidity aids' – Financial Times, August 25, 2008.

A number of countries which entered into the EU in 2004, such as Poland or Hungary for instance, have been revising their euro adoption date. Others, like Lithuania, were refused the application to join since they did not fulfil the criteria convincingly. Table 4.1 below displays the intention date – either explicit or inferred – of euro adoption by the NMSs.

Table 1: Planned Year of the Euro Addoption of the NMSs

Country	EU Entry Year	ERM II Entry Year	Planned Year of Euro Adoption
Bulgaria	2007	n/a	n/a
Czech Republic	2004	2008*	2011*
Estonia	2004	2004	2010**
Hungary	2004	2011*	2014*
Latvia	2004	2005	2008**
Lithuania	2004	2004	2010*
Poland	2004	2009*	2012*
Romania	2007	2012	2014

* Forecasts - official date not set yet. ** Under revision

About two thirds of NMSs trade is with the euro area. Also, the degree of integration of the NMSs equity markets has increased more recently, in countries such as Czech Republic, Hungary, or Poland, local bond prices exhibit fairly high co-movement vis-à-vis Germany. However, although in many areas NMSs integration with the EMU has gone a long way, the incomplete structural adjustment of their domestic economies would require more time for convergence.

A. Preconditions for joining the MU

The entry preconditions in the euro zone are embedded in the Maastricht Treaty. They require countries to achieve a high degree of sustainable nominal convergence before they can participate in EMU. The fulfilment of the Maastricht criteria is assessed by the EU Council on the basis of the reports prepared by the EC and the ECB at least once every two years or at the request of a member state wishing to adopt the euro.

The Maastricht criteria require the following:

Price stability – The average annual rate of inflation must not exceed by more than 1.5 percentage points the average rates of inflation of the three best performing EU countries. Inflation performance should also prove to be ‘sustainable’.

Long-term interest rates – The average nominal long-term interest rates over the latest twelve months should not exceed by more than 2 percentage points the average of the three best performing EU member countries in price stability terms.

Exchange rate stability – Countries are required to keep their exchange rates within the “normal” fluctuation margins of the European Monetary System (ERM-II) without severe disruptions for at least two years.

Fiscal sustainability – The fiscal deficits should not exceed 3 percent of GDP, and gross government debt should not exceed 60 percent of GDP. However, the assessment of fiscal sustainability under the excessive deficit procedure outlined in the Maastricht Treaty is designed to evaluate whether the budget deficit ratio “has declined substantially and continuously and reached a level that comes close to the reference value” or that “the excess over the reference value is only exceptional and temporary and the ratio remains close to the reference value.” Similarly, the government debt ratio is allowed to be “sufficiently diminishing and approaching the reference value at a satisfactory pace.”

Eventually, countries which joined the EU would have to enter into the EMU. Among the EU countries only the UK and Denmark have negotiated EMU opt-out clauses. They also have the discretion to choose the dates for going into the ERM-II mechanism. But, The Maastricht Treaty leaves the timing of EMU entry open and, in practice there are no legal limits on how long the NMSs can remain outside the EMU.

B. What Hardens the Maastricht Criteria[21]

To a large extent, challenges in meeting the Maastricht criteria by the NMSs stem from the necessary convergence processes in both prices and incomes to euro-area levels. Furthermore, the ensuing capital inflows and financial deepening could bring about significant developments in inflation and exchange rates. Given the fact that initial conditions are different in each NMSs country, the convergence process is likely to take different paths. In the NMSs, income levels are inferior to those in euro zone so the speed at which these would converge is an important consideration.

Usually income convergence should occur simultaneously with the convergence in price levels. In practice there are two mechanisms through which this could happen. Either the country involved in the catching up process needs to experience higher inflation relative to the euro zone or its nominal exchange rate must appreciate relative to the euro. Both mechanisms involve the appreciation of the real effective exchange rate[22]. With NMSs expecting to grow at a higher rate, inflation would be growing faster relative to the euro zone[23], so that there is a large risk that inflation would go up after joining the EMU – unless sufficient convergence has been achieved.

Price growth could be different in the tradable and non tradable sectors – the Balassa-Samuelson Effect – since in some NMSs productivity in the tradable goods sector tends to grow faster than in the tradable goods sector The Balassa-Samuelson effect would be manifesting itself by putting pressure on prices or the exchange rate[24].

C. Inflation challenge

As mentioned above, even in a stable global macroeconomic environment, inflation in the NMSs would be higher than that of the euro zone. However, current economic conditions create additional challenges for meeting the inflation criterion because the NMSs would have no choice but to import inflation. It is true that other euro-zone countries would also import inflation but for NMSs, which must meet the Maastricht criteria, this is an additional hurdle to be ovecome.

The global financial crisis, triggered by the US subprime market events in the summer of 2007, is bound to have effects in the medium term. One of the central banks responses[25] to the crisis has been to inject liquidity in the money markets. This liquidity would not go away easily and with economic growth in developed countries expected to falter, there would be an inevitable rise in inflation. Current economic policies in the US tend to support measures for increasing demand, a recipe for another inflation bout, though one can argue that monetary easing is not unwarranted during periods of bad equilibria and while inflation pressures seems to have largely subsided[26].

Moreover, the weakness of the US economy triggered a fall in the US dollar during the first half of 2008, which in turn amplified the increase in global commodity, energy, and food prices – most of which are expressed in US dollars. The outcome has been an increase in inflation throughout the world and a rise in inflationary expectations. This process has been reversed after the full eruption of the financial crisis and the entry into a recession of most of the euro area – which has weakened the euro against the USD considerably.

Given that these developments are outside control of the NMSs, they have no choice but to import inflation – at least in the medium term. This creates additional uncertainty in the timing and sustainability of the inflation criterion.

Unsurprisingly, the inflation in NMSs has been higher than that of the euro zone. In 2007, however, in 6 out of the 8 NMSs inflation was higher than the average inflation recorded in the

---

21 A skeptical view on these criteria as applied to the NMSs holds, among others, Charles Wyplosz (2007).

22 This results from the definition of real exchange rate (or competitiveness) which equals the nominal exchange rate times the ratio of the two price levels.

23 This is known as the Balassa-Samuelson effect and arises due to higher differences in productivity growth sectors vis-à-vis their corresponding wages. Productivity growth has tended to grow faster in the traded goods sector than in the nontraded goods sector, such as services. Rapid productivity growth in the traded goods sector pushes up wages in all sectors so that the prices of nontraded goods relative to those of traded goods will rise. Because productivity growth is faster in the catching-up accession countries relative to the EU countries, this implies, ceteris paribus, that inflation rises more rapidly in the catching up economies.

24 Empirical evidence on the Balassa-Samuelson effect estimated it between 0.2% and 2% per annum.

25 The Federal Reserve, Bank of England and the ECB have injected large amounts of liquidity in the money markets and created facilities which are still in place in order to offer access to more funds to the distressed banks.

26 As a matter of fact the FED is acting in a quite Keynesian fashion in order to forestall a deepening of the recession.

1999-2007 period (see Fig. 5). This rises the question on the sustainability of low inflation in the NMSs.

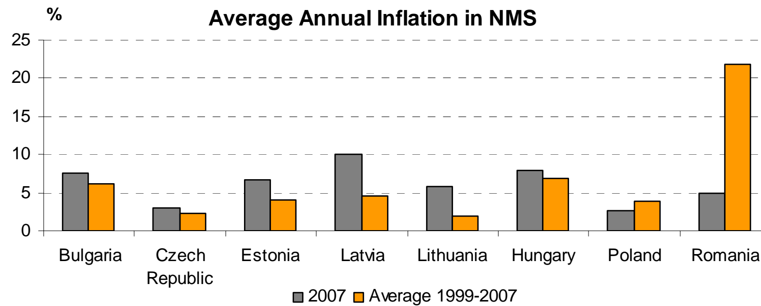


Fig. 5 (Source: Authors calculations based on AMECO data).

In contrast, inflation in the euro zone countries tended to be more subdued. New euro zone members, such as Slovenia and soon-to-be member Slovakia, experienced by far the highest average inflation among euro zone economies. Fastest growing countries, such as Spain or Ireland also had higher inflation rates.

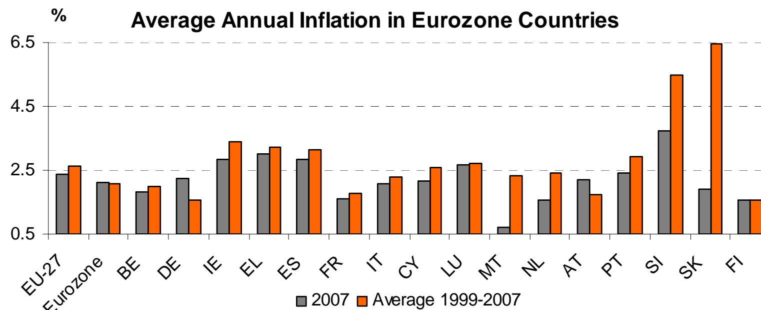


Fig. 6 (Source: Authors calculations based on AMECO data).

D. Growth and external deficits

A low real rate of interest and expectations of faster convergence by the NMSs justify higher private spending, in the form of either consumption or investment. This would require running current account deficits As domestic savings rates are too low to finance the current level of investment and consumption, external borrowing is the only way to speed up the convergence process. However, with large capital inflows potential vulnerabilities emerge. All NMSs experience rapid credit expansions, and in some countries there were concerns about overheating. Higher incomes create the opportunity to borrow more and banks have been scrambling to offer loans in their pursuit of market share. Domestic borrowers have been contracting loans in foreign currency – mostly euros – increasing the currency risk on their balance sheets. Obviously, currency mismatch makes the private sector vulnerable to the exchange rate depreciation, and raises the systemic risk through credit risk.

Within the EU, the largest current account deficits are run, with the exception of Greece, by NMSs (see Fig. 7). Again, the NMSs which have a currency board have the largest current account deficits domestic adjustment cannot occur in the face of strengthening of the euro.

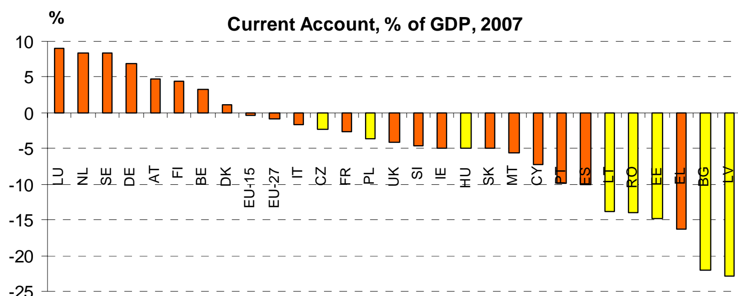


Fig. 7 (Source: Authors calculations based on AMECO data. Yellow lines correspond to NMSs).

Large current account deficits imply an external disequilibrium and, therefore, would necessitate an adjustment in the exchange rate. As long as transitory changes take place, the settlement of the exchange rate on a stable path – as required by the ERM-II – would be harder.

E. Exchange Rate Arrangements, Currency Boards or Floating Rates

The exchange rate arrangement plays a crucial role in a country's progress towards its EU accession. Participation into the ERM-II requires a relative stability of domestic currencies vis-à-vis the euro for a period of two years. Out of the 8 NMSs, half, the Baltic countries and Bulgaria, have a currency board arrangement. At first, this might be perceived as an advantage since it could smooth out their participation into the ERM-II. Moreover, currency boards also help bringing down inflationary expectations at a time when these are high. The major problem, however, with a currency board arrangement is that countries loose control over their monetary policy. And, during a time of rapid structural change, this could affect competitiveness and hamper the speed of their adjustment.

At the time of writing, the NMSs with currency board agreements were having the highest inflation within the EU, being the only four countries which had double digit inflation (see Figure 8 below).

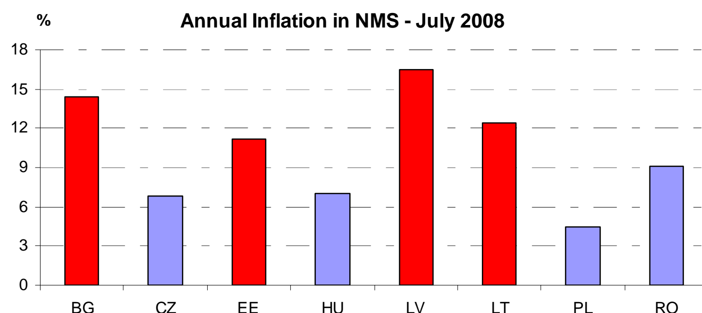


Fig. 8 (NMSs with currency board arrangements in red).

Part of the reason for this high inflation rates in NMSs with currency board agreement was due to higher wages. Due to the out-migration, the ensuing labour shortage has pushed up wages, which in turn, raised companies costs and thus inflation. A fixed exchange rate has worsen the problem by preventing an appreciation of the domestic exchange rate, which would have taken some pressure off inflation.

In contrast, NMSs countries with flexible exchange rates fared much better – in spite of similar prevailing labour shortage conditions. Romania's July 2008 inflation edged a little over 9% but inflation in the Czech Republic, Hungary and Poland were between 4-7%, a little higher that euro zone inflation. The return of many Polish workers from abroad over the last months may have played its part in keeping inflation low in Poland.

Currency board arrangements may be a temporary solution when inflation is high and there is a need for rapidly establishing credibility for the disinflation process. But, maintaining them for long period of times, when the economy undergoes a structural adjustment could prove to be costly. And these costs could be more painfully in the future, if the country enters into the MU at an exchange rate parity which is not adequate with the macroeconomic fundamentals. From this point of view, the floating exchange rates of the NMSs seem to be a far better alternative on their road to euro adoption.

The advantages of different regime options are debatable in both academic and official circles. However, several considerations are worth taking into account by the NMSs authorities when deciding which monetary regime is more suitable for their economies. First, it is important to ensure that the monetary regime will be consistent with the country's inflation objectives. This objective is part of the Maastricht criteria and achieving a low and sustainable level of inflation is possible only when structural economic adjustment has reached its final stages. The two mechanisms available to achieve the required real currency appreciation are to allow either the domestic currency to appreciate in nominal terms or domestic prices to rise. Second, the financial deepening of the economies would raise additional issues regarding the transmission mechanism of the monetary policy. Transition economies have experienced shifts in money demand and, from this point of view, pursuing an IT regime might be perceived as being more challenging. However, this has to be put in balance with the benefits of the central bank having full control over monetary policy. Having a currency pegged to the euro – as Bulgaria and the Baltic states – seriously impair their central bank's response to current events, for instance. In the presence of potentially strong and variable capital inflows, which most of the NMSs economies experience currently, the monetary authority has limited room for manoeuvre. Moreover, large swings in real exchange rate affect output and expectations.

And, as today´s ongoing financial crisis reveals, it may be that, for the small countries which have currency boards, their best choice would be to adopt the euro as early as possible. The alternative would be a prolonged recession since adjustment in the nominal exchange rate is not possible.

Allowing monetary policy to operate more flexibly seems to present a greater advantage in current circumstances. Moreover, an IT regime gives the central bank some discretion if unexpected economic circumstances materialise. And, it also allows a better coordination with fiscal authorities in designing and pursuing the appropriate economic policies. This said, however, a free floating of the exchange rate (which is implied by a hard IT regime) poses its own strong perils – especially under the extreme volatility conditions which have been brought about by the current financial crisis.

F. Strains to budgetary policy

Within the EMU, the creation of the SGP may have made structural adjustment more difficult. While in a boom, meeting the SGP rules is easier, achieving fiscal balance through tax increases and budget cuts when the economy is weak could prove difficult. The onset of poor economic conditions in 2000 proved this point. The economic downturn reduced government revenues while accelerating unemployment increased government expenditures. These two trends combined to drive budget deficits above the 3 per cent ceiling in several EMU countries. And this could well happen again if the current financial crisis persists.

The NMSs would have to deal with these fiscal strains as well. And, on top of this, they will have to address issues such as co-financing EU projects on environment and infrastructure or large education, health care and pension costs. In the NMSs, public debt – which gives a perspective over the sustainability of fiscal policy in the long run – expressed as a percentage of GDP, is relatively low. Exceptions are Poland and Hungary with the latter already going over the Maastricht criteria limit.

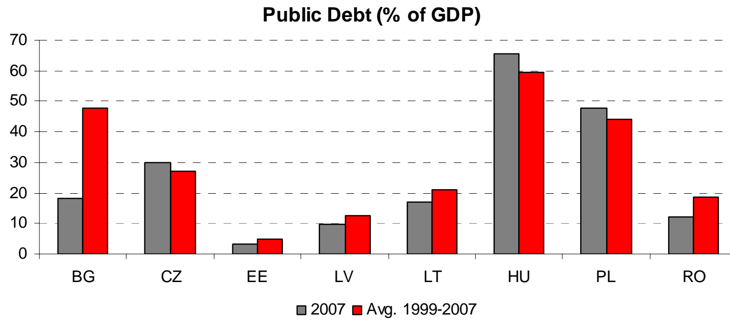


Fig. 9 (Source: Authors calculations based on AMECO data).

In contrast, public debt in the euro area is much higher, on average (see Fig 10). Italy, Belgium, and Greece have the highest ratios, around 100% of GDP.

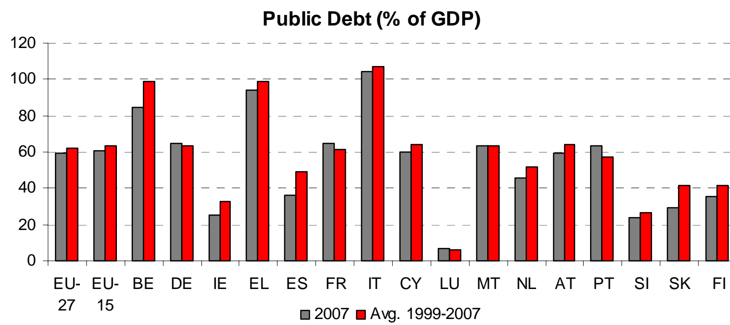
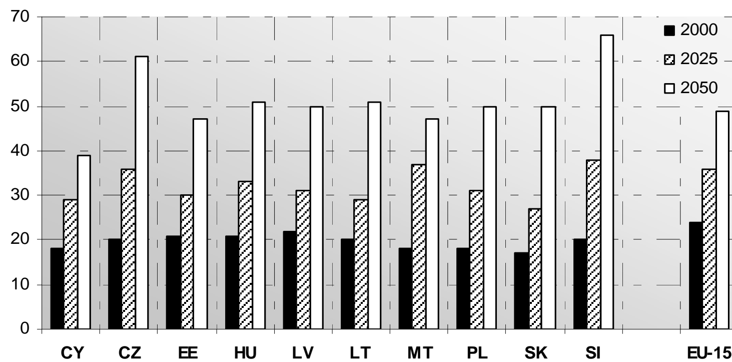


Fig. 10 (Source: Authors calculations based on AMECO data).

Fiscal policy, in particular, would need to be carefully devised in the NMSs within a long term framework. Although, in general the level of public debt in NMSs is relatively low, it could quickly grow if left unchecked. The old-age dependency ratio is set to rise drastically over the next 4 decades (see Fig 11). Aging would put pressure on both government revenues – by lowering them – and expenditures – which would grow.

Fig. 11: Old-age dependency ratios (% of aged over 65 as % of the working-age population - aged 15-64)



G. *Divergence of economic developments*

Currently, a large number of countries within the euro zone exhibit divergent economic developments. These divergences are bound to become more prominent with the expansion of the euro-zone. Some of these divergences are structural but many of them have a political origin. As long as convergence with the euro-zone area is not fully achieved, a set of policies in the NMSs countries such as spending, taxation or social policies would be more efficient implemented at the national level.

H. *The Asian economies challenge*

Higher competitivity from the Asian economies, notably China and India, would continue to provide a challenge for the NMSs economies. Traditionally, companies in euro-zone tended to move further eastwards in Europe, taking advantage of lower labour costs. But, with labour costs growing many of them have been investing in Asia, preponderantly in China. Most of the Asian countries are in a financial position in which they could easily increase consumption. In China, for instance, the share of domestic consumption in GDP is remarkably low. This is partly due to the Chinese high propensity to save, as the lack of a Chinese social security system forces the households to save for their own age. A low level of household wealth and higher demographics could also provide more room for increased consumption. Moreover, these phenomena are applicable to more countries across Asia.

The Asian economies potential to grow further in the years to come would continue to attract global investment. However, their competitiveness is prone to abrupt changes due to shifts in their exchange rates against both the euro and the US dollar. So far, most of the Asian economies have pursued an exchange rate policy based on maintaining a favourable parity against, especially, the US dollar. This has allowed them to increase their export volumes to the US and – to a large extent, Europe. But the recent emergence of domestic higher inflation in Asian countries would put an increasing pressure on their exchange rate policies which is likely to change their attitude towards imports of goods and services.

I. *Does the Financial Crisis Strain the MU?*

More than one year after it started, the global financial crisis appears to place an increasing strain on the workings of the European financial system[27]. The functioning of the existing EU arrangements for maintaining financial stability could well be hampered if the crisis continues to deepen. There are three main questions which are worthwhile answering in the current global context. The first is whether the existing Eurosystem operational framework is indeed suitable to deal with the effects – current and expected – of the financial crisis within the euro area. The second relates to the level of support – if any – the ECB should provide to the non-Eurozone member states. And finally, what are the major threats to the Euro-financial system which the ongoing crisis has been exposing so far.

The answer to the first question is rather unclear. So far, the European financial system appears to have survived a crisis of public confidence, in spite of a number of bankruptcies and large losses incurred by various European banks. But, as the bottom of the crisis appears to be some way ahead, the adequacy of ECB's instruments remains still to be tested. The ECB has at its disposal three categories of instruments namely, open market operations, minimum reserve requirements and standing facilities. The two commonly used open market operations employed by the ECB during the current crisis have been its refinancing operations – through which liquidity is temporarily lent to counterparties against eligible collateral – and fixed term deposits – used to absorb temporary liquidity from the financial system. The increased instability of money demand[28] within the euro-area's financial system has made the ECB to adjust more actively than usual the timing and maturity of its open market operations but there has been no change in the

[27] The European financial system can be seen in a strict and a broader sense. The latter would include the EU member states that do not belong to the eurozone.

[28] In fact, the instability of euro-zone money demand has been well documented since the inception of the MU. But, in times of stress, the volatility of money demand grows even higher, making the conduct of monetary policy more difficult.

other two instruments[29]. However, if the liquidity problems in the euro-zone financial system continue to worsen, the ECB may find itself in a difficult position vis-à-vis its capacity to supply the necessary liquidity to the markets. In turn, this would have a negative impact on interest rates – distorting the monetary transmission mechanism signal – impairing access to credit by both households and corporate sector. This has already started to happen in the US and some European countries. It is a serious issue since the euro-zone banks' share of loans and deposits in total financial assets and liabilities is rather large.

Dealing with such threats to financial stability would necessarily involve a coordination effort among various financial institutions. The IMF has already announced it would aid financially a number of European countries such as Hungary, Island or Ukraine, to shore up public's confidence in their financial systems. Even so, the scope for the IMF's intervention seems rather limited. In total, it currently has some $260 billion which could tap into and lend but this amount looks dismal in relation to the sums already provided by other central banks to the markets so far.

Coordination would also need to be established within the euro-zone countries. The credibility of the euro, as an international currency, would depend of the EU's ability to find a common response to a collapse that transcends its members' borders. For instance, debates about raising guarantees for private savings across the EU showed how large the disagreement still is among member countries. Many European governments have taken unilateral action.

Apart from coordination initiatives, other measures aimed at managing cross border crisis would have to be swiftly implemented. Among these are proposals on reducing barriers to cross border asset transferability by subsidiaries of a banking group – on which the EC was expected to report in March 2009 – clarifying the circumstances in which a bank would be allowed to receive public financial support and a potential re-evaluation of conditions regarding the existing EU directive on the reorganization and winding-up of credit institutions to include subsidiaries.

J. The Financial crisis and Euro adoption

The Asian crisis of a decade ago made some to talk about a "two corner solution"[30] for exchange rate arrangements in order to forestall financial misery. The current financial crisis has underlined the role of reserve currencies as "shelters" during periods of major distress; it is like we are going toward a "single corner solution" paradigm in exchange rate policy. This role of the single currency has reignited the controversy over euro-adoption for non-eurozone EU member states, new and, interestingly, older ones. For older member states joining the eurozone seems to be more of a political decision, though economic arguments can be highlighted as well. For NMSs euro adoption is more complicated for it involves complying with the Maastricht criteria, however disputed these are in their case.

Regarding older EU member states, which do not belong to the eurozone. analysts (Buiter and Sibert (2008) identify several aspects which make their economies look vulnerable to stress in international financial markets. Namely, countries which are small, possess a large, internationally exposed banking sector, have their own currency and have a limited fiscal spare capacity relative to the possible size of the banking sector solvency gap are in particular vulnerable. In the EU these are Denmark, Sweden and the UK, although the latter is larger compared to the other two and has a legacy of a reserve currency. It can be submitted that both Denmark and Sweden will speed up procedures to adopt the euro. For the UK things seem to be murkier in this regard.

[29] See 'The Eurosystem's Open Market Operations During the Recent Period of Financial Market Volatility', May 2008, Monthly Bulletin, ECB.

[30] Either a free float, or a currency board.

Recent developments in financial markets in Europe have made the ECB to step in and guarantee support for some NMSs[31]. This is an unprecedented move. The ECB used, for some time, to provide technical assistance to central banks in countries neighbouring the euro-zone. Such dialogue reinforces cooperation between the EU and its neighbuors, including countries which are supposed to adopt the euro. However, the ECB never acted as a potential lender of last resort for a non euro-zone country so far. The ECB's decision indicates how much the European financial landscape has changed since the creation of the MU. This is now characterized by a growing number and increasing strength of banking groups with significant cross-border activities. And, although in theory each subsidiary of a banking group is a legal entity subject to the legislation of the EU's member state in which it is established, in practice, a deteriorating position in one location could well lead to significant contagion effects. This crisis has brought about a quite paradoxical situation: it is not subsidiaries in NMSs which cause the trouble in the main, but overall practices (such as over-leverage and involvement in the origination and distribution of securities) of banking groups headquartered in countries which belong to the eurozone! Ironically, the ECB is forced to step in because, not least, of poor practices in its principal geographic area of concern. From this point of view, the ECB's financial support which was extended to, for example, the National Bank of Hungary may be seen as a pre-emptive move attempting to maintain the existing financial stability in a wider euro-zone area. But this highlights also the vulnerability of financial systems in NMSs, not necessarily of their own doing.

In late 2008, a number of countries in Eastern Europe, such as Poland, Hungary or Romania experienced increased speculation on their currencies. In times of financial distress, small open economies with shallow financial markets and dual monetary systems[32] (with a large volume of euro-denominated credits) are particularly at risk in the face of such events. While the benefits of a weaker currency could be potentially reaped in the short term through higher exports, the medium term effects on the real economy – caused by higher interest rates and lower economic growth – are likely to be more lasting and more damaging. Moreover, a fast depreciating currency could cause a sudden crisis of confidence and trigger an old-fashioned run on the banking system. The search for higher yield by global investors who attempt to improve their earnings position could well destabilise – often unjustifiably – entire financial systems.

The wave of speculative attacks on NMSs currencies and the increasing threats to their financial stability prompts some governments to seek earlier entry into the euro zone. The Polish government has already indicated that it plans such a course of action. Other governments think similarly. Arguably, this will be heavy debated in the period to come in several NMSs. But a major stumbling block for speedier euro accession are the Maastricht criteria – which look more difficult to fulfill in view of the ensuing global economic context.

The EC could, in theory, adopt a more permissive approach towards NMS countries willing to adopt the Euro by relaxing/adapting the Maastricht criteria requirements. But not a few influential people in Frankfurt, Berlin, Paris, etc might say that, allowing economies with a rather more "fragile" position to join the eurozone, would weaken the Euro. On the other hand the ECB has both an operational

[31] In the case of Hungary ECB assistance was combined with support from the IMF and the WB in a package of over 20 billion USD.

[32] Euro denominated credits make up a significant share of the total, which indicates the perils of a sharp and sustained depreciation of the domestic currency

and moral duty to assist central banks in NMSs in case of need. And if this is the case contingent liabilities (involved by swap lines and other arrangements) may be quite significant; they may even be on the rise if NMS are increasingly at pain in coping with the effects of being outside the eurozone. Therefore, it may be that a cost-benefit analysis favours a faster track of euro zone accession for some NMSs when things are examined for the single currency area as a whole.

It is true that fears of an expanded free riding syndrome when it comes to fiscal rectitude are not groundless. Just keep in mind the experiences of Italy, Portugal, Greece after accession in the euroarea. But, arguably, some NMSs are more liable to be fiscally sounder, inside the Euroarea, then older member states like those mentioned above. And if this is the case the menace of a weakening euro, because of a precipitate eastern enlargement of its area, loses much of its punch.

NMSs are, seemingly, in a catch-22 situation in view of the current financial crisis: if they stay outside the eurozone area they tend to become more vulnerable (speculative attacks against their currencies is a proof of this); if they get inside too quickly they risk not being able to cope with having renounced the flexibility of exchange rate and monetary policy tools. Nonetheless, a decision has to be made in view of the costs and benefits involved. In addition, there are important differences among the NMSs –just think about those countries that have currency boards vs. the floaters and the different magnitude of current account deficits.

V. Concluding Remarks

At the time of writing, the world economy is facing a severe financial crisis which has already started to be felt by the real economy. Financial deleveraging continues to wreak havoc on global financial markets and this leads to increased volatility and uncertainty. At the moment it is rather unclear how long the global recession would be and whether the fall in output would be associated with a period of high inflation – i.e. stagflation. What is seems likely, however, is the fact that economic recovery would take a few years to materialise. The structure of the global financial system is being reshaped with a much lesser role for investment banks, private equity funds, hedge funds, and the like. On the other hand, the increased control of government over financial institutions, through forced bailouts, would change the way the financial sector as a whole will behave.

The intensification of financial turmoil and the impairment of the functioning of credit markets would restrain economic activity in the near future. From the Euro zone economy's point of view two issues stand out. First, the MU needs better mechanisms in place to deal with crises of this magnitude. Second, its goods and services, money and labour markets do not seem to be resilient enough to allow for a speedier economic recovery.

What are then the prospects for NMS to join the euro-zone in the not too distant future? In short, things are open. Some Maastricht criteria would be more difficult to achieve by several NMSs in the short and medium term as fiscal policy would be needed to support economic recovery. A possible course of action by the ECB would be to support financially the NMSs which are in need, in effect treating them as 'de facto' eurozone members. But there is another argument, too, which would highlight the benefits of a faster track of accession, which would look at dynamic costs and benefits for the countries involved and for the eurozone as a whole.

If the logic of a "single corner solution" would get more in shape in the years to come that would be illustrated by three monetary blocs in the world: a US dollar-based one, a euro-based one, and an Asian currency-based one.

References

Blanchard, Olivier (2006) - Adjustment within the euro. The difficult case of Portugal. Available at: http://econ-www.mit.edu/files/740.

Buiter Willem, H., and Anne, Sibert (2008), "The Icelandic Banking Crisis and What to Do about It: The Lender of Last Resort Theory of Optimal Currency Areas", CEPR Policy Insight No. 26.

ECB (2004) Measuring Financial Integration in the Euro Area, occasional paper series no 14, April 2004.

Égert, B., Halpern, L. and McDonald, R. (2006), "Equilibrium Exchange Rates in Transition Economies: Taking Stock of the Issues", *Journal of Economic Surveys*, 20(2), pp 257-324.

"EMU@10 – Successes and challenges after 10 years of Economic and Monetary Union", *European Commission*, 2008.

European Commission (2006) "Public Finances in EMU", European Economy No.3.

IMF Country Report No. 07/259 Euro Area Policies: Selected Issues, July 2007.

McKinnon, R.I. (1963) "Optimum Currency Areas", American Economic Review 53, 4, 717-725.

Mundell, R.A. (1961) "A Theory of Optimum Currency Areas", *American Economic Review* 51, 4, 657-665.

Sibert, Anne (2007) - Diverging Competitiveness in the Euro area. Briefing paper for the Committee on Economic and Monetary Affairs (ECON) of the European Parliament for the quarterly dialogue with the President of the European Central Bank.

Wyplosz, Charles (2007), The Maastricht Criteria", briefing notes to the Econ Committee of the European Parliament, Third Quarter 2007.

DAVIDSON INSTITUTE WORKING PAPER SERIES - Most Recent Papers

The entire Working Paper Series may be downloaded free of charge at: www.wdi.umich.edu

CURRENT AS OF 2/3/09

Publication	Authors	Date
No. 947: The Monetary Union: The Decade Ahead. The Case of Non-Member States	Daniel Daianu and Laurian Lungu	Jan 2009
No. 946: Currency Substitution: A Case Of Kazakhstan (2000:1-2007:12)	Mesut Yilmaz, Yessengali Oskenbayev & Kanat Abdulla	Jan 2009
No. 945: Determinants Of Pollution Abatement And Control Expenditure: Evidence From Romania	Guglielmo Caporale, Christophe Rault, Robert Sova & Anamaria Sova	Jan 2009
No. 944: Bootstrap panel Granger-causality between government spending and revenue in the EU	Antonio Afonso and Christophe Rault	Jan 2009
No. 943: Regional Determinants of FDI Distribution in Poland	Agnieszka Chidlow and Stephen Young	Nov 2008
No. 942: Structural Reform and Firm Exports	Alvaro Cuervo-Cazurra & Luis Alfonso Dau	Sept 2008
No. 941: Exploring The Relationship Between Military Spending & Human Rights Performance In South Asia	Krishna Chaitanya, Vadlamannati and K K Shakya Lahiru Pathmalal	Oct 2008
No. 940: Structural Reform And Firm Profitability In Developing Countries	Alvaro Cuervo-Cazurra & Luis Alfonso Dau	July 2008
No. 939: Does Timing Of Elections Instigate Riots? A Subnational Study Of 16 Indian States, 1958 – 2004	Krishna Chaitanya Vadlamannati	Oct 2008
No. 938: Price Setting And Market Structure: An Empirical Analysis Of Micro Data	Fabrizio Coricelli & Roman Horvath	Sept 2008
No. 937: Inflation Differentials in EU New Member States: An Empirical Evidence	Roman Horvath & Kamila Koprnicka	Oct 2008
No. 936: Market Reforms and Growth in Post-socialist Economies: Evidence from Panel Cointegration and Equilibrium Correction Model	Igor Pelipas and Alexander Chubrik	Sept 2008
No. 935: Derivatives trading and the volume-volatility link in the Indian Stock Market	S. Bhaumiky, M. Karanasosy and A. Kartsaklas	April 2008
No. 934: Yuan Real Exchange Rate Undervaluation, 1997-2006. How Much, How Often? Not Much, Not Often	Jeff Chen, Wende Deng & David Kemme	Aug 2008
No. 933: How Important Are Foreign Shocks in Small Open Economy? The Case of Slovakia	Roman Horváth and Marek Rusnák	Sept 2008
No. 932: Estimating Poverty for Indigenous Groups in Chile by Matching Census and Survey Data	Claudio A. Agostini, Philip H. Brown, and Andrei Roman	Aug 2008
No. 931: Is There Electoral Cycles In Globalization Process? Evidence From 78 Democratic Countries, 1975 – 2006	Krishna Chaitanya Vadlamannati	Sept 2008
No. 930: Lobbying, Corruption & Other Banes	Nauro Campos & Francesco Giovannoni	Sept 2008
No. 929: Do Elections Slow Down Economic Globalization Process In India? It's Politics Stupid!	Krishna C Vadlamannati	Aug 2008
No. 928: Impact Of Institutional Quality On Human Rights Abuses In Transition Economies	Krishna C Vadlamannati & Artur Tamazian	July 2008
No. 927: Do Choice & Speed Of Reforms Matter For Human Rights During Transition?	Krishna Chaitanya Vadlamannati	July 2008
No. 926: Socioeconomic, Institutional & Political Determinants Of Human Rights Abuses: A Subnational Study Of India, 1993 – 2002	Krishna Chaitanya Vadlamannati	July 2008
No. 925: Does the Entry Mode of Foreign Banks Matter for Bank Efficiency? Evidence from the Czech Republic, Hungary, and Poland	Ngoc-Anh Vo Thi & Dev Vencappa	July 2008
No. 924: Impact Of Economic Reforms On Poverty – Indian Experience	Krishna Chaitanya Vadlamannati	July 2008