



Economic Governance in the Eurozone and the EU: Drawing lessons from the crisis

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Session 2: How is Europe coping with the current phase of the crisis? “North-South Asymmetry in the eurozone”

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1. Introduction

The paper examines the developments in a number of key macroeconomic indicators in the Eurozone countries both before and after the Economic and Monetary Union (EMU) in order to assess how economic fluctuations, the level of per capita income and the external balances across member-states have been affected by the adoption of the Single Currency in 1999. The examination stops before the global crisis of 2008, so that the asymmetries cannot be considered as a byproduct of the recent deterioration of macroeconomic performance for several Eurozone countries. In fact, the paper aims to show that the seeds of the current malaise in the Eurozone were fully present well before the crisis, although very little attention was paid to them.

Public debates in the early nineties were questioning the relative merits of ‘nominal’ versus ‘real’ convergence, it was widely viewed that participation in EMU would nevertheless reduce asymmetries and speed-up both types of convergence in many ways. Dyson (2000), for

¹ With the support of the Lifelong Learning Programme, Jean Monnet Actions of the European Union

example, argues that EMU was expected to be a powerful top-down instrument to catalyze convergence not only of markets, but also of policy-making institutions and welfare-state provision. Three facets of possible asymmetries are examined here:

First, the business cycle moderation. One of the most critical assumptions for the successful implementation of EMU was that economic fluctuations would converge, becoming less pronounced and more synchronized since a single monetary policy could be efficiently conducted only in the absence of conflicting views on the direction of correcting the cycle; see among many others Bean (1992), Cohen and Wyplosz (1989), Weber (1990). In the case of asymmetric responses to shocks, EMU would be under strain as it should have to respond to different patterns of the business cycle across each member-state and this sooner or later could lead to its disintegration; see Bayoumi and Eichengreen (1992).

A different line of approach was stemming from the so-called '*endogeneity argument*', according to which currency unions are likely to decrease the co-movements of output -see for example Tenreyro and Barro (2003). Using trade data of twenty industrialized countries over thirty years, Frankel and Rose (1996) establish that economies with closer trade links tend to have more tightly correlated business cycles.

The conclusion of the endogeneity argument is that *ex-ante* differences in the business cycles should not hinder the implementation of the Single Currency. Christodoulakis *et al*, (1996) found that most of the pre-EMU dispersion was due to idiosyncratic aspects of national policies that naturally would tend to diminish afterwards. In a similar vein, a study commissioned by the European Parliament (1998) argued that "... *many of the asymmetries might be removed by the coordination within EMU of economic policies, the alignment of legislation (e.g. in the area of financial services or labour law) and by the fact of monetary union itself*", (summary/conclusions, no. 3), .

Second, convergence is examined with regards to the gradual rise in real incomes and welfare as defined by (Kok, 2004). In a characteristic speech on the first anniversary of EMU, the then President of the European Central Bank (ECB) remarked that the single currency would

promote regional growth and prosperity by helping the SMEs and enhancing trade opportunities (Duisenberg, 2001).

For several countries it was precisely this prospect of accelerating real convergence that helped Governments to win the support of public opinion for carrying out the fiscal and market reforms that were deemed necessary to qualify for EMU participation. Pledges to that end were never in short supply. Responding to the high expectations of the early period, the '*Lisbon Strategy for Growth*' was launched in 2000 with a comprehensive set of targets to gauge the effectiveness of policy reforms in the member-states as a means to accelerate 'real convergence'. Quite naturally, top among them was the target of bridging the incomes gap between the most and the least affluent areas in the EU. Hence, the question of whether the Single Currency has actually promoted or hindered convergence in regional and national incomes was legitimately regarded as one of primary importance both for policy evaluation in EMU and a political prerequisite to increase support among the European citizens for further integration.

Third, it is the issue of external asymmetries. A crucial pre-EMU consideration was the existence of prolonged and substantial trade and Current Account imbalances between the European economies. Deficit countries were frequently confronted with the dilemma of either having to devalue their currencies to improve the external deficits at the expense of domestic inflation and deteriorated terms of trade, or seeing their labour force migrating to the more developed regions of Europe. The Economic and Monetary Union project was in many ways inspired by the argument that a common monetary policy would mean the end of tit-for-tat devaluations to reduce imbalances. The gains from adopting the Single Currency were ranging from the elimination of exchange rate volatility and transaction costs to the facilitation of factor mobility within EU that was supposed to foster growth and enhance competitiveness across countries. By doing so, major Current Account imbalances could be avoided and the pressure for *beggar-my-neighbour* policies would become extinct.

Although never formally considered as an explicit target in the Stability and Growth Pact, external imbalances were not expected to diverge sharply in the Euro Area, at least not to the extent it is being witnessed over the last few years. Perhaps for this reason, they did not attract extensive policy attention after the EMU was established. The self-assuring assumption among the European policy-making bodies was that CA deficits were no more than a transient

phenomenon as countries enjoy a post-EMU consumption brought about by the fall of interest rates.

For example, Blanchard and Giavvazzi (2002) disregarded any explosive possibility in the medium-run and, discussing “... *whether the current attitude of benign neglect vis-à-vis the CA in the Eurozone is appropriate, or whether countries such as Portugal or Greece should worry and take measures to reduce their deficits ...*, (they) conclude, to a first order, that they *should not*”, (Introduction, p. 3, my emphasis).

Only when CA deficits reached alarming levels over the last few years, a public debate on the potential threats to the economies of Southern Europe and their viability within the Eurozone started taking place. Blanchard (2006) changed his benign-neglect suggestions and stressed that as “...*CAD steadily increased... within the Euro, Portugal (and) Spain (have a) reason to worry, (... as) deficits are too large, ...(and) implications can be bad*”,(Introduction, p. 5). In a similar vein, Gros (2006) warned that if “... *current trend could continue ... Italy’s participation in EMU would be in doubt ... as the country would need a massive devaluation*”, (p. 17).

The divergence between external accounts coincides with a different patterns of FDI across countries of the Eurozone. Although all Eurozone countries have attracted increased FDI flows after EMU, there seem to be noticeable differences in size and composition. In the southern countries, the housing sector seems to have attracted more investment relative to that in the production sector, while the reverse appears to be the case in the northern countries.

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The rest of the paper is organized as follows: Section 2 examines the convergence of business cycles of the various economies and finds that a great moderation of economic fluctuations has taken place across member-states after the EMU was established. Then the catching-up process between the least and most developed Eurozone countries is assessed and reveals that post-EMU developments in incomes are weakly diverging.

In *Section 3*, the Eurozone economies are classified into two groups according to whether they are in surplus or deficit in their trade balances and the Current Accounts after the creation of EMU. This results into one group consisting of the northern economies with strong external surpluses, while the other includes the southern economies of the Eurozone which show unprecedented deficits in the Current Account. *Section 4* examines how the different patterns of post-EMU foreign direct investment flows into the two groups has impacted upon the composition of output.

In *Section 5*, the paper addresses the limitations of the EU policy framework and suggests that more extensive coordination and policy focusing is required at the EU level in order to reverse the current process of divergence.

2. An appraisal of convergence

2.1. Business cycles: Business cycles of per capita GDP are depicted in Fig.1 and show a substantial reduction from a range of [-8%, +8%] of trend GDP in early 1990s to around +-2% in the latest years. Results imply that the implementation of EMU not only was not hindered from prior business cycles asymmetries, but it coincided with further dampening and more synchronization among countries. It is less clear, however, whether this moderation was a direct impact of EMU or coincidental with the more globalised international environment prevailing after 2000; for a discussion see Schelkle (2007).

Giannone and Reichlin (2006) evaluate a wide range of business cycles indices confirming that gaps between member-states are smaller after EMU and cycles mostly synchronized. However, they notice that a similar moderation is observed in other non-EMU economies of the OECD.

Other studies seem to be more conclusive on the EMU-induced dampening and synchronization of business cycles, due to the increase of intra-trade activity and a closer coordination of fiscal policies. Altavilla (2004) presents evidence showing that, since the establishment of the Maastricht Treaty, EMU members' business cycles have become more assimilated between themselves than with the United States. In a similar vein, Schiavo (2007)

attributes most of the dampening to the ‘endogeneity’ effect of EMU, i.e. the fact that member-states tend to move more closely together once they belong to the same monetary union.

2.2. Incomes convergence: Four measures of income are taken in turn namely GDP, regional GDP, GDP in Purchasing Power Standards (PPS), and Gross National Income (GNI), all expressed in per capita terms and constant prices for the 11 European countries, excluding Luxemburg². Methodology and data are described in a more detailed paper by Christodoulakis (2009). Computing dispersions, we obtain the results graphically depicted in Fig.2, 3 and 4. The following remarks can be made:

- (i) Dispersion in per capita GDP in PPS terms (Fig. 2) reached the lowest level since 1996 in 2003, but then started increasing again, and in 2007 it surpassed the level it had back in 1997.
- (ii) The most noticeable reduction in the dispersion among member-states before EMU regards regional incomes (Fig. 3), which fell by more than four percentage points over the period 1995-97. This can be attributed to the continuation of the growth-fostering interventions in the least-developed areas financed by the Structural Funds the positive impact of which on regional convergence is extensively researched; see e.g. Cappelen *et al* (2003) and Christodoulakis and Kalyvitis (2002). The convergence process is not found to continue any more after 1999, confirming earlier studies on the post-EMU weakening of regional convergence; see, for example, Martin (2001) and Gardiner *et al* (2004).
- (iii) Cross-country dispersion indices for per capita GDP and GNI (Fig. 4) evolve upwards after 1992, in contrast with their downward pattern up to that year. The variability index rises to around 31% of the Eurozone average, effectively returning to the level it had in the mid-1980s.

All these findings suggest that the process of incomes convergence between Eurozone members has been at best halted or substantially reversed, depending on the index under

² As commonly done in similar measurements, Luxembourg is not included in the sample – otherwise its pervasive hikes of income due to capital movements would exert a disproportionate influence on the Euro-area average.

consideration. Moreover, GNI seems to have a smoother pattern of dispersion than that of GDP for most of the period after EMU, in contrast to virtually the same course before EMU.

A reason behind the slower deviation of GNI relative to GDP can be the so-called strategy of '*risk-sharing*'. According to this, factor endowment and economic activity is across countries as a way to reduce the impact of idiosyncratic shocks that impinge on a particular economy of the Union. Thus, while GDP varies when affected by shocks, risk-sharing reduces the transmission of output fluctuations onto the national income and consumption. Kalemli-Ozcan *et al* (2004) estimate that the degree of risk-sharing in the European Union has increased substantially since the mid 1990s due to increased cross-ownership of assets across countries as transaction costs were decreased and several institutional impediments were lifted. In contrast, cross-country GDP developments seem to be sharply diverging³.

2.3. Catching-up: The anniversary report on EMU, (European Economy, 2008, Ch. 8, p. 106) stated that convergence has indeed weakened for some countries, such as Spain and Italy, but claims that catching-up nevertheless applies for EU members as a whole. Even so, convergence is proven only when the fast-growing emerging economies of Eastern Europe are included in the test. This can hardly be taken as an indication of convergence that is attributable to the adoption of the Single Currency, since most of these countries are not yet participating in the Eurozone, while Slovenia, Cyprus and Malta account for only a small share of total population. It seems more meaningful that the test applies solely for the Eurozone countries. Using the first year of EMU as the base period, simple correlations show that catching-up dynamics were simply vanished. (Figure 5)

The weakening in the catching-up dynamics may be explained by a variety of factors, including asymmetric developments in productivity and inadequate growth in the less developed economies. These can be attributed, at least partly, to the post-EMU reform fatigue as several governments found it politically expedient to continue a process that was frequently seen by public opinion as only a transitory obligation. Adding to the point. Duval and Emelskov (2006) argue that the up-front costs of structural reforms may be larger under a common currency and a more restricted use of fiscal policy. The slowdown of market reforms was combined with a

³ This measure concerns the level of each country's GDP and should not be confused with the reduction of the GDP fluctuations discussed in [Section 2.1](#) which is a measure of the deviation from the trend.

depressed world demand and resulted in low growth and recession in several EMU countries, thus limiting the convergence process. For a case study on reform fatigue in Greece, see Christodoulakis (2010).

3. External Asymmetries

One of the most worrying, albeit least foreseen, developments in the Eurozone was the unprecedented widening of deviations in both trade balances and Current Accounts of the member-states. Table 1 shows the average balances for a period of nine years before and nine years after EMU. Data of 2008 not included to insulate the crisis effects in the last quarter of that year. Two groups of the Eurozone counties are considered according to whether their period average of trade balances have been improved or deteriorated after EMU. The group characterised as “North” includes six countries (not Luxemburg) and shows an average improvement of 3.23 percentage units of GDP in the Trade Balance, as opposed to an average deterioration of 3.78 units of GDP in the group of the five countries symmetrically termed as the Eurozone “South”. Current Accounts and trade balances for the two groups are depicted in Fig. 6.

With the exemption of Ireland⁴, Current Accounts of the northern group are in surplus after EMU and most of them (except Ireland and Belgium) improve further by an average of 1.52 percentage GDP units, while in the south they all deteriorate by 3.39 units. Three of the Southern Eurozone countries experienced CA deficits ranging between 5% and 9% of GDP in average during the EMU years, almost three times the range they had in the early nineties. On the other hand, the Northern countries of the Eurozone were reaching CA surpluses as high as 9% of GDP, despite the hard Euro policy followed by the ECB.

⁴ After 2003, Ireland experiences CA deficits, due to rising Factor Payments abroad. However, the country continues to enjoy high surpluses in the Trade Balance and this justifies that it is included in the northern group.

Countries	Trade balance			Current Account		
	1990-98	1999-07	CHANGE	1990-98	1999-07	CHANGE
AT	0.16	3.93	3.78	-1.38	0.36	1.73
BE	3.48	3.79	0.31	4.32	3.84	-0.48
FI	4.57	7.41	2.84	0.47	7.06	6.59
GE	0.44	3.81	3.37	-0.54	2.24	2.78
NL	4.90	6.58	1.68	4.13	5.37	1.23
IE	12.15	13.93	1.78	1.78	-1.61	-3.39
NORTH	3.35	6.58	3.23	1.35	2.88	1.52
IT	2.44	0.60	-1.84	0.57	-1.01	-1.58
FR	0.84	0.30	-0.54	0.80	0.56	-0.24
PT	-7.55	-8.63	-1.08	-2.19	-8.76	-6.57
SP	-1.04	-3.79	-2.74	-1.64	-5.41	-3.77
EL	-6.95	-11.89	-4.94	-2.39	-6.71	-4.32
SOUTH	-0.91	-4.68	-3.78	-0.88	-4.27	-3.39

Table 2. Trade balances (TB) and Current Accounts (CA) in the Eurozone as % of GDP.

Unweighted period averages. *Source:* IMF World Economic Outlook 2008, and Eurostat.

This represents a wholly new type of asymmetry in the Eurozone. Despite the fact that most of Southern European economies were historically prone to deficits, none of them saw in the past its CA to deteriorate so fast and extensively. For example, until 1999 Spain's CA deficits as percent of GDP were only slightly worse than Germany's, but in 2007 the gap surpassed 15 percentage units as Spain was having a deficit of 9.8% while Germany had achieved a surplus of 5.4% of GDP.

To assess the implications that a large external deficit may have on the economy, Shelburne (2008) calculates the ratio of CA deficit to total capital formation and uses it as an indicator of risk associated with the easiness of the country's financing from abroad. For Greece, Portugal and Spain, CA deficits have risen to levels of 35-45% of total capital formation making the financing of investment to depend crucially on the availability of international credit. The situation reached critical conditions after the global crisis of 2008 as the tightening of external deficit financing in combination with domestic budget imbalances led to unprecedented rises of sovereign borrowing costs in southern Eurozone countries⁵ never seen before in the EMU era.

According to the 'twin deficit' proposition, Current Account imbalances are demand-driven effects caused by large fiscal deficits; for example see Gruber and Kamin (2008) who attribute the CA imbalances to the oversized Government deficits. In other cases, CA deficits are explained by the intensive investment to enhance supply-side capacity especially in periods of transition, as for example in the emerging markets of Eastern Europe. Aristovnik (2006) noted that as potential domestic output exceeded the level of production, most transition countries were justified in running relatively high Current Account deficits. However, pre-crisis evidence for the Eurozone countries did not support such views on the deterioration of the Current Account deficits. In a study for Italy, Spain, Portugal and Greece, Arghyrou and Chortareas (2008) suggested that '*other factors beyond income growth may explain the CA positions of these countries*', (p. 755).

Perhaps a more promising framework to explain the vastly diverging developments in the external balances, is to examine whether the imbalances are 'supply-driven' and what factors might have led to different patterns of productivity and trade in the Eurozone countries. One crucial indicator is FDI that seems to be disproportionately directed in the aftermath of EMU. Figure 7 demonstrates that both Eurozone groups were having a more or less similar net flow of FDI before EMU. But this changed dramatically when EMU was put in place. After 1999 northern countries have been able to accumulate further foreign capital on a net basis. In contrast, FDI inflows in the southern countries have been surpassed by outward investment and this has led to lower capital stock on a net basis. Fillipaos and Papanastassiou (2008) provide

⁵ The highest spikes in spreads between the rates of ten-year bonds and the German bund were seen for Greece which is characterised by both CA and budgetary deficits. However, spreads went also up for Ireland Spain and Portugal due to the high external deficit in spite of a low debt-to-income ratio..

extensive evidence of the fact that northern countries have shown a greater adaptability to the new conditions created by EMU in attracting FDI flows from the US.

Another issue is the composition of FDI flows as those to the southern Eurozone countries were mainly directed to the real-estate sector; Figures 8 and 9. Countries with a relative capital intensity in exporting industries have attracted more foreign investment in the traded sector and, as a result, saw their external balances flourish. On the other hand, countries with relative capital intensity in the production of non-tradable goods and, more particularly, in the housing sector attracted FDI mainly in the real-estate market and experienced housing-bubbles, excessive consumption and external deficits.

4. Facing the asymmetries: in search of new policy priorities

When EMU was implemented in 1999, there were high expectations that the smooth functioning of the single currency would catalyze major improvements across the social and economic spectrum, thus making additional policy targeting to look superfluous.

Contrary to the comforting implications of the '*endogeneity*' argument in a Monetary Union, the first ten years of EMU did not prove enough to uniformly raise productivity across countries and speed-up real convergence. In a monetary union as envisaged by Mundell (1961), factor mobility should have worked to equalize the marginal rates of returns between countries. But in EMU-reality, mobility has thus far worked mainly for capital relocation and this seems to have aggravated the asymmetries in productivity in the tradable sectors and resulted to vast deviations in the external balances.

It is true that one year after the formal start of EMU, an ambitious policy supplement was launched to encourage the European economies to raise competitiveness and achieve real-economy improvements. The Lisbon Strategy included several social and economic objectives claimed to be the fast way for driving the Union to meet the challenges in the new era of globalization. Incomes convergence was explicitly on the top of the agenda, but no binding objectives or time-frame was attached to it. Although there was no direct reference to CA targets, the Strategy was also advocating the rise in productivity that would eventually cure the imbalances. But despite its endorsement by several public institutions, the Lisbon agenda did not prove sufficient in speeding-up growth and convergence in the EU in general and the Eurozone

in particular. A number of reasons why the Lisbon Strategy did not deliver on its targets might be the following:

(a) Unfocused: It included too many targets that frequently diluted the policy focusing. In its five-year assessment report, the High Level Group headed by Kok (2004) admits that “... *the progress of the Lisbon strategy has suffered from incoherence and inconsistency, both between participants and between policies*”, (p 39). It went on to suggest that “*a better reflection of the priorities of the European Union in its budget would further enhance coherence at the European level*”.

(b) Non-specific: It set the same framework and objectives for all EU countries, irrespective of the fact that some of them were already in the Monetary Union, while others could still make use of a more independent monetary policy to face idiosyncratic shocks threatening their productivity.

(c) Opportunistic: The lack of prioritization in its objectives led to substantial revisions of its ‘*main message*’ to serve better the needs of the moment. When it was launched in 2000, it was viewed as the vehicle to make Europe ‘the most competitive knowledge society’ in the world by year 2010. A few years later, a mid-term look at the Lisbon strategy revealed that the outcomes were particularly disappointing with regard to employment. Responding to the bleak findings, the Strategy was re-launched as an agenda for ‘*Growth and Jobs*’ with the main focus on increasing labour market participation (EC, 2005).

Barely two years later, the EU Presidency attempted yet another refocusing, this time on ‘*the four priorities*’ of (i) energy sufficiency, (ii) small and medium-size enterprises, (iii) employment ‘*flexicurity*’ and (iv) education standards (Barroso, 2007). Although each new set of priorities was not contradicting its predecessors, it was nevertheless causing confusion that diminished the overall credibility of the Strategy as a results-oriented process.

(d) Non-binding: Unlike the Stability and Growth Pact whose enforcement in each particular country was extensively assessed and debated in the EU policy groups, the Lisbon Strategy was examined once a year and received little public attention in each country. Rather than following specific and universal rules, its implementation was encouraged by example and autonomous national initiatives, thus lacking a direct market response to its progress or the lack

of it. Thus, it should be no surprise that crucial market developments were very different in the two groups of the Eurozone, as Figure 10 suggests for the quality of the regulatory framework.

Given these features of the Lisbon Strategy, it is clear that the weakening of the incomes convergence process and the vast disparities shown in the Current Account balances can be addressed only if economic policy is refocused on such specific issues and further policy coordination, time frames and oversight are introduced in the Eurozone concerning the containment of external imbalances. The emergency situation caused by the international credit crunch in the autumn of 2008 can only make this policy shift more urgent and, hopefully, more far-reaching.

5. Conclusions

The paper examined a number of output and income indicators in order to assess the degree of convergence across the economies of the Eurozone after the introduction of the Euro in 1999. Business cycles were found to be a lot less intensive and more synchronous than before EMU, thus suggesting that a higher degree of moderation and homogeneity in economic fluctuations has prevailed after the Single Currency was established. This has enabled the conduct of the single monetary policy as participating countries experience more or less common economic peaks and recessions and, therefore, seek a similar pattern of interest rate changes over the cycle.

The second finding concerned the dispersion in per capita output, which is found to systematically increase after EMU. By employing various measures of GDP, such as per capita in constant prices, regional or in Purchasing Power Standard, it is found that after a period of convergence in the late 1980s and early 1990s, dispersion in GDP per capita has risen sharply. This, in consequence, has brought the catching-up process between the less and more developed countries of the Eurozone to a halt, reversing the pre-EMU dynamics of convergence. Given that the '*real convergence*' was envisaged as the natural continuation of the '*nominal convergence*' phase that preceded the accession to EMU, its reversal may be seen by public opinion and policy makers as a limitation of the single currency and turn into an obstacle for further integration and reforms.

But the most crucial asymmetry in the Eurozone has been the emergence of huge disparities in the Current Accounts and the Trade Balances, with the northern members of the group reaping large surpluses while the southern ones suffering huge external deficits. Despite the fact that at a Eurozone level most of these asymmetries are mutually dissipated and lead to an aggregate balance, deficit countries are burdened in terms of productivity and job losses. In periods of global financial strain, external deficits may also increase the cost of borrowing as became evident during the 2008 crisis.

The existing policy framework in the Eurozone is not adequate to address such disparities and new priorities should be adopted including improvements in productivity and the restoration of external balances. To this effect, the so-called 'Lisbon Strategy for Growth' should be prioritized on achieving more convergence and competitiveness for the Eurozone members.

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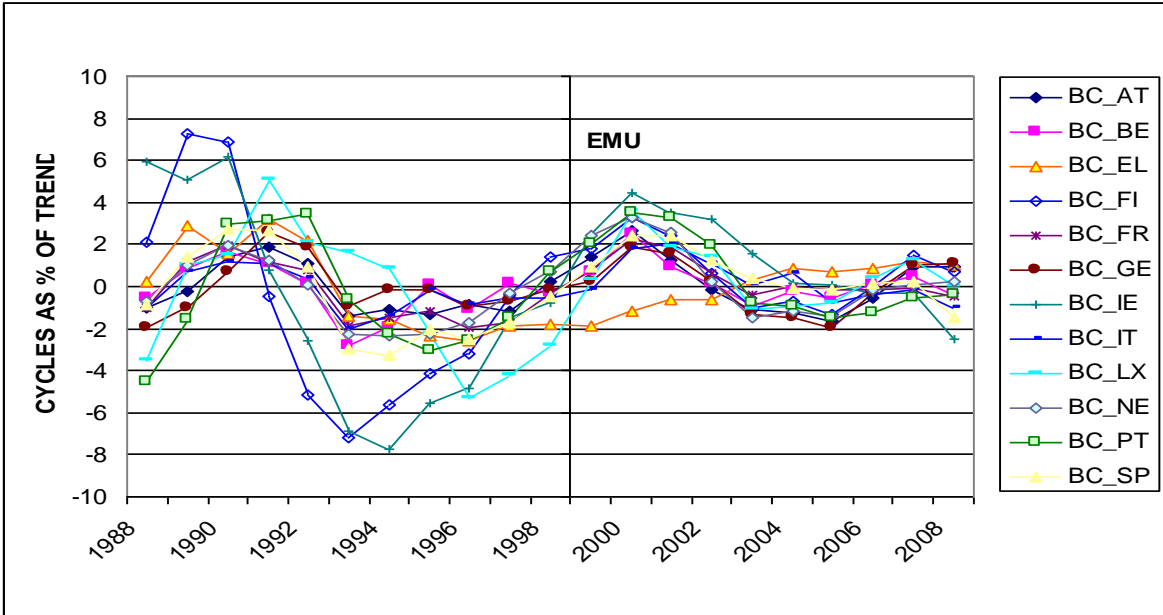


Figure 1. Per capita GDP fluctuations in the twelve Eurozone countries
 Cycles are expressed as % of the trend of each country's GDP per capita in constant terms.
 Trends obtained by Hodrick-Prescot filter (lambda=100). Source: IMF, WEO Data 2008.

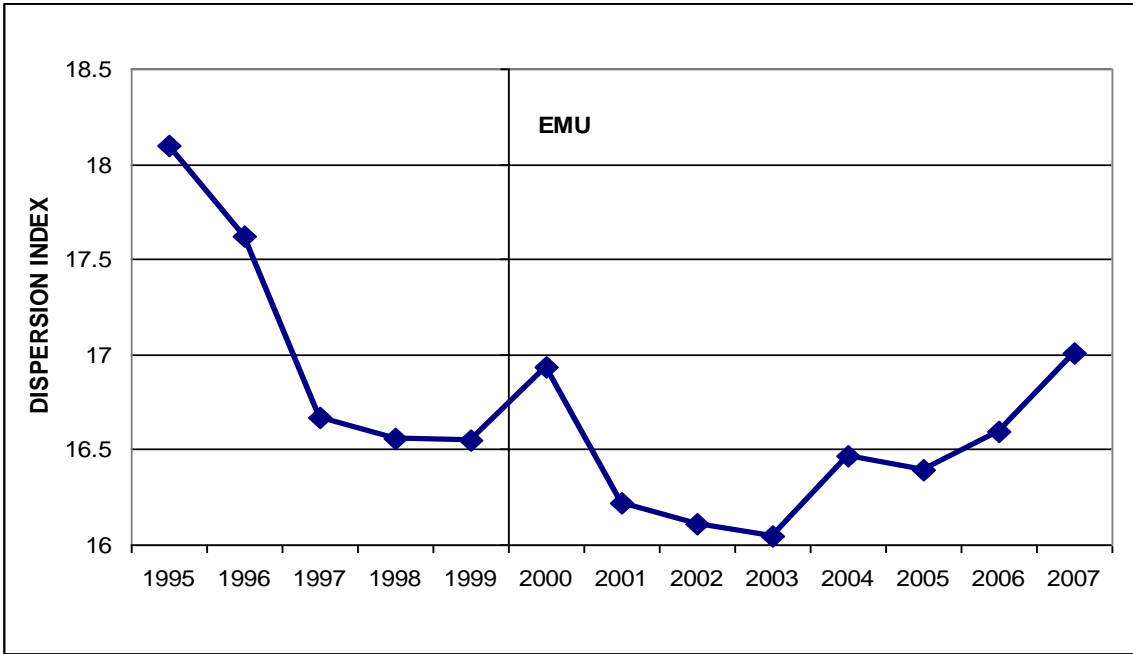


Figure 2. Dispersion of per capita GDP expressed in PPS terms
 for eleven Eurozone countries (EZ11), excl. Luxemburg. Data source: Eurostat

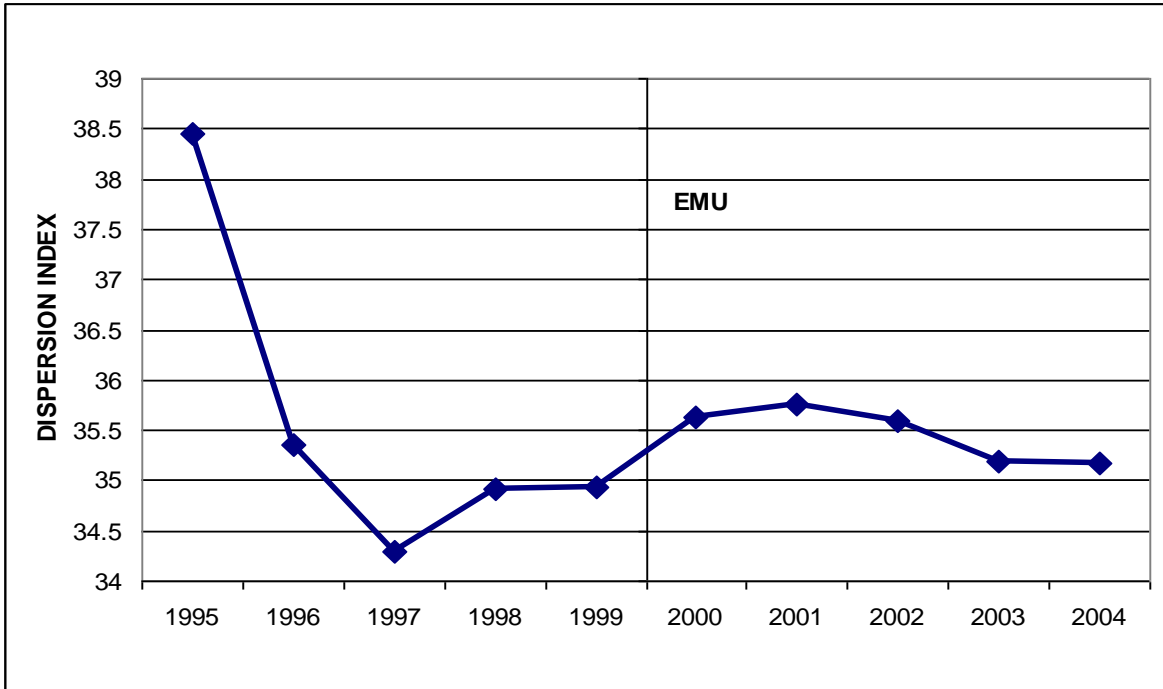


Figure 3. Dispersion of per capita regional income in EZ11

Standard deviation as % of the regional income mean. Data source: Eurostat

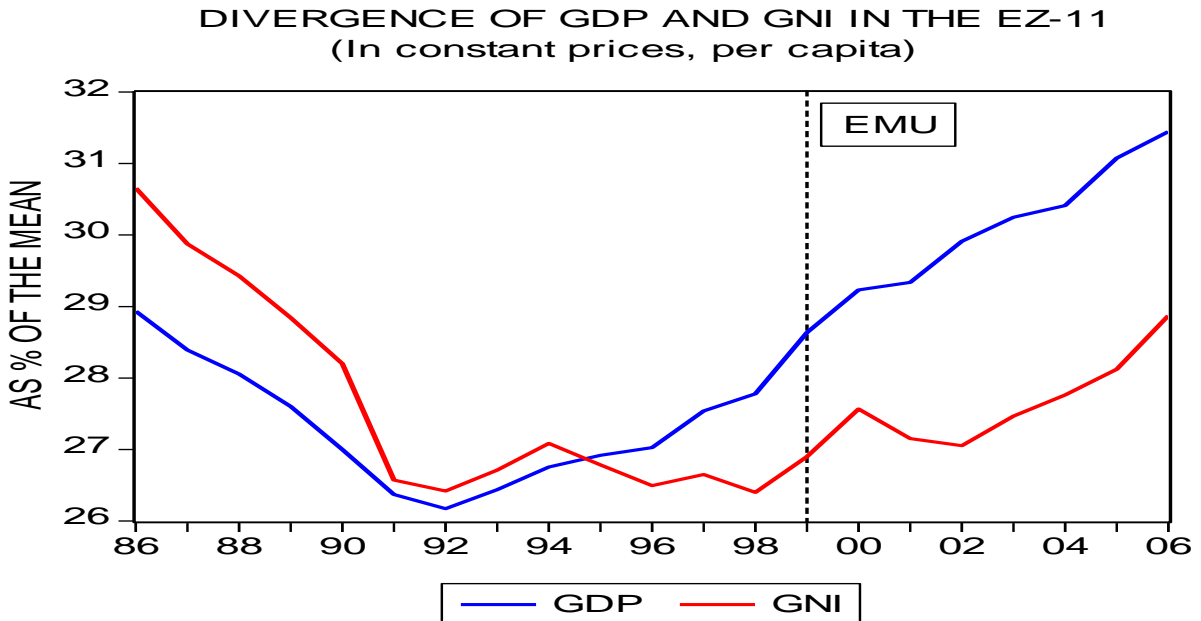


Figure 4. Dispersion of per capita GDP and GNI in constant prices in EZ11

Standard deviation as % of the mean. Source: IMF, WEO Data 2008 and OECD.

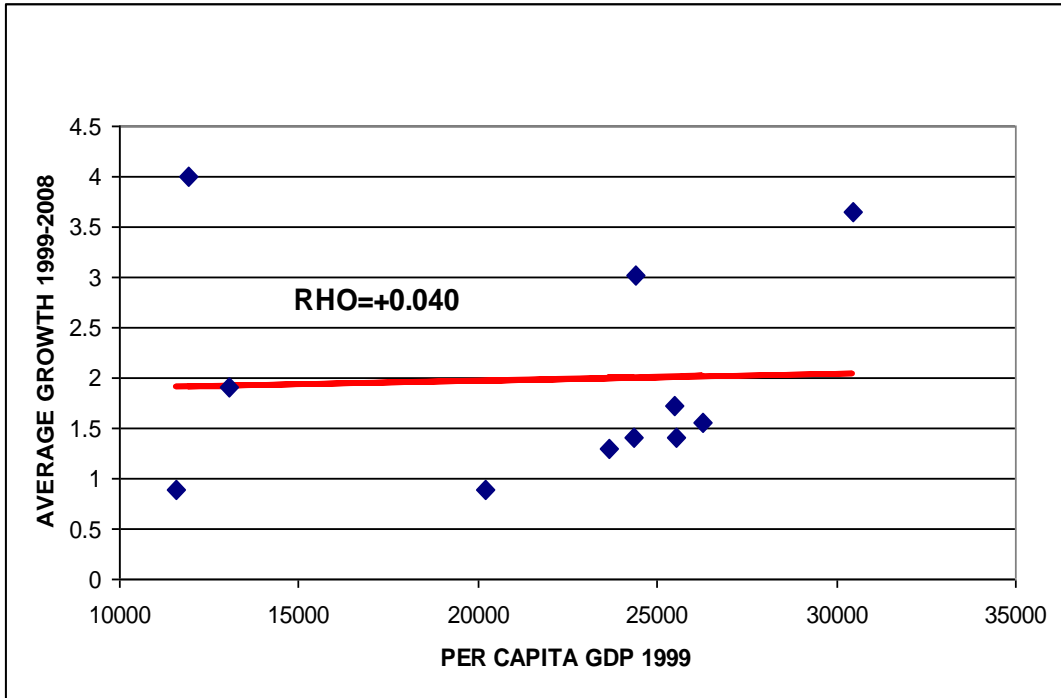


Figure 5: Post-EMU correlation of growth rates with initial GDP per capita in EZ11

Source: IMF, WEO Data 2008.

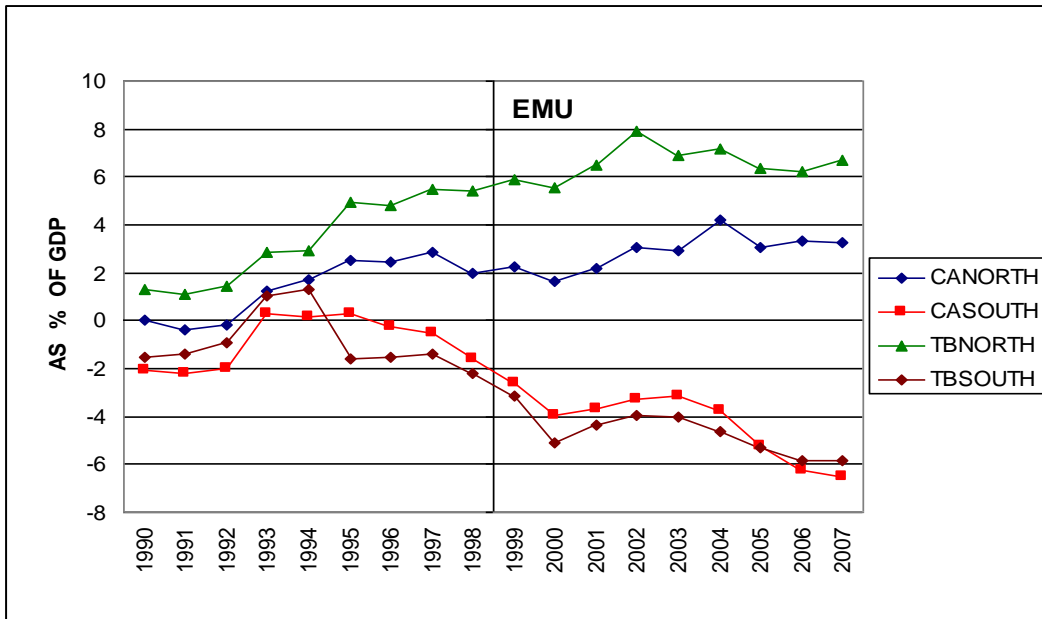


Figure 6: Current Accounts (CA) and Trade Balances (TB) as % of GDP

Simple averages of the two groups in EZ11. Source: IMF WEO and Eurostat

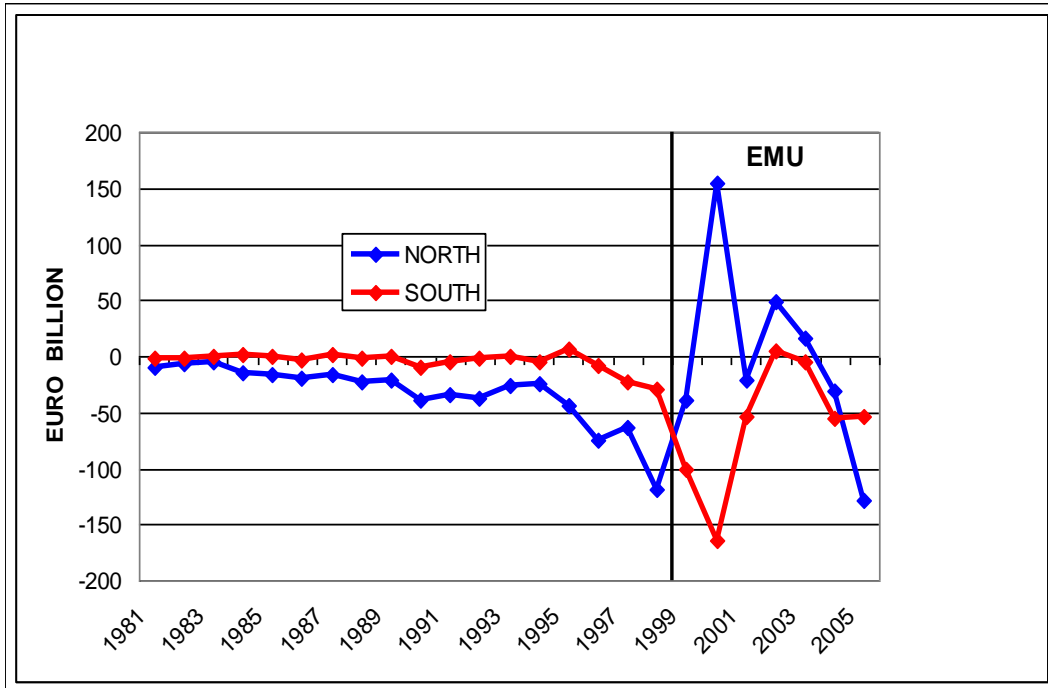


Figure 7. FDI net flows (inward – outward investment) in the two groups of Eurozone

Source: OECD, Beyond 20/20 ESDS, Flows from/to Total world

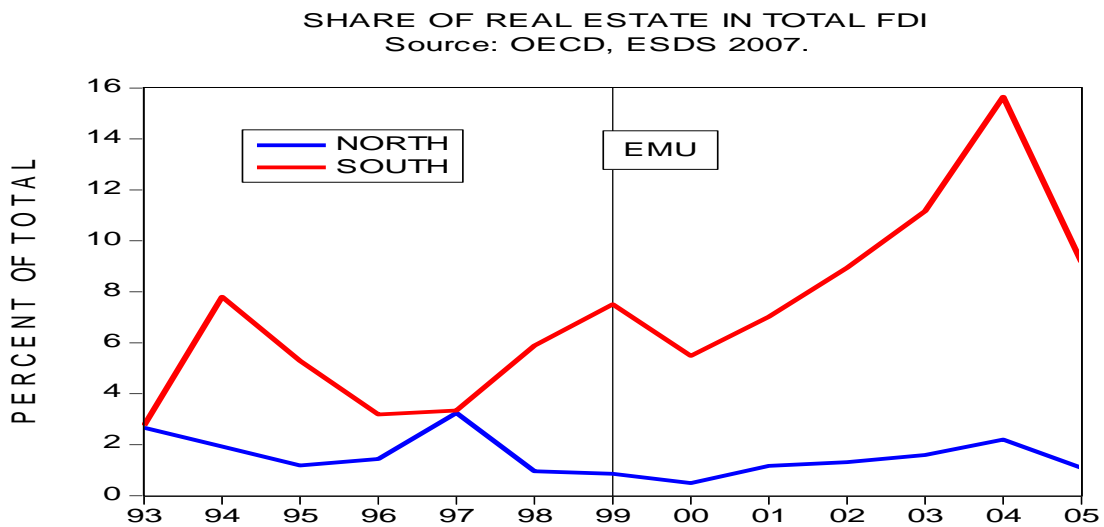


Figure 8. Share of real-estate FDI flows in total

Source: OECD, Beyond 20/20 ESDS, Flows from/to Total world

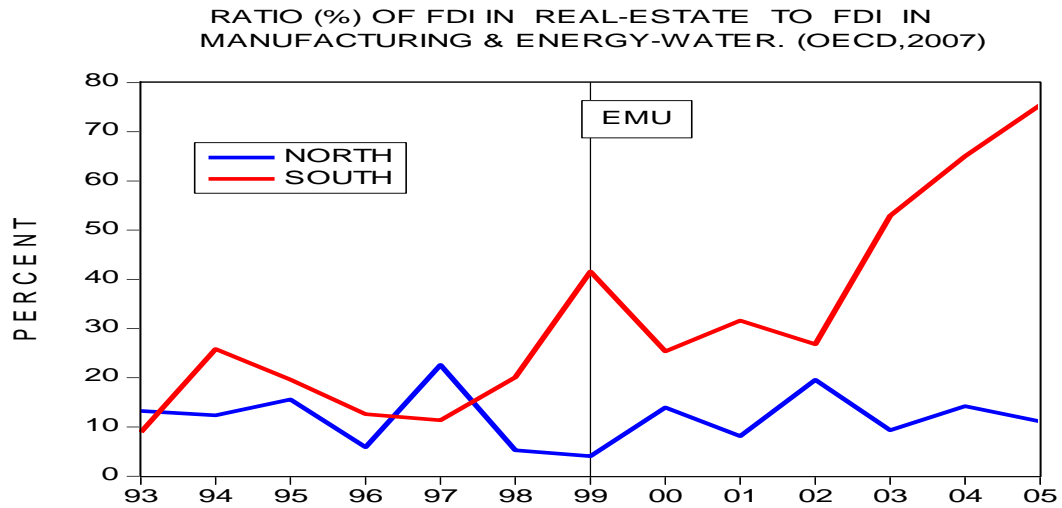


Figure 9. Ratio of real-estate FDI flows to FDI in manufacturing and energy

Source: OECD, Beyond 20/20 ESDS, Flows from/to Total world

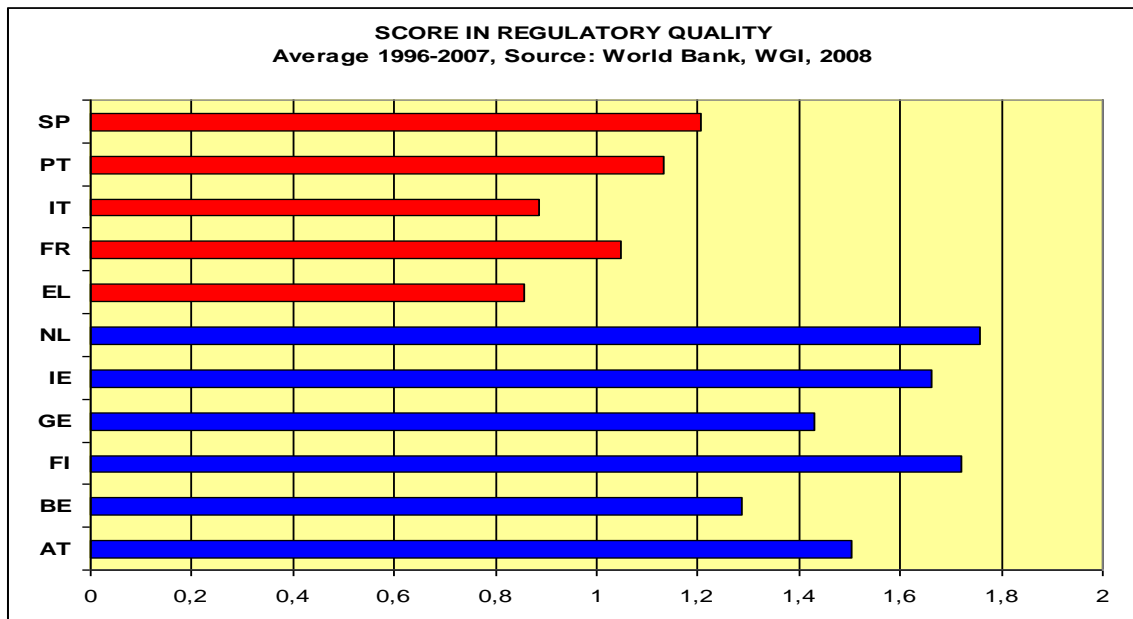


Figure 10. Score of the quality of the regulatory environment in the Eurozone countries

Source: WGI World Bank, 2008