



Document de travail

The Irish Tiger and the German Frog: A Tale of Size and Growth in the Euro Area

**N° 2007-31
Octobre 2007**

Collection OFCE/ANR n°3

Éloi Laurent (OFCE)

Jacques Le Cacheux (OFCE)

Observatoire Français des Conjonctures Économiques

69, Quai d'Orsay 75340 Paris Cedex 07
Tel : 01 44 18 54 00 Fax : 01 45 56 06 15
E-mail: ofce@ofce.sciences-po.fr Web: <http://www.ofce.sciences-po.fr>

The Irish Tiger and the German Frog: A Tale of Size and Growth in the Euro Area

ÉLOI LAURENT¹

JACQUES LE CACHEUX

Collection OFCE/ANR N ° 3

« Taille des pays et stratégie de croissance »-« Country Size and Growth strategy »

Abstract

In this paper, we try to relate country size to economic performance in the Euro area, focusing on the second smallest Euro area country, Ireland, and the region's largest economy, Germany, from 1995 to 2005. In the institutional context of the EMU, we show that Ireland smallness was a major factor in its spectacular success, while the growth strategy of Germany was not in line with its size and thus produced poor overall results. We argue that while Ireland needs to rethink its growth strategy with the arrival of the Eastern small states in the EU and the Euro area, Germany's economic extraversion – choosing external competitiveness over domestic expansion and resorting to social and tax competition – could be re-oriented towards intensive domestic growth with benefits, not only for the country, but also for the Euro area as a whole.

¹ Éloi Laurent thanks the Department of economics of Columbia University, where elements of this paper have been assembled, for its hospitality. The usual disclaimer applies.

“Today, Europe consists solely of small countries. The only relevant distinction that remains is that some countries understand this, while others still refuse to acknowledge it.”

Paul-Henri Spaak.

1. Macroeconomic performance and country size in the Euro area: the importance of being small

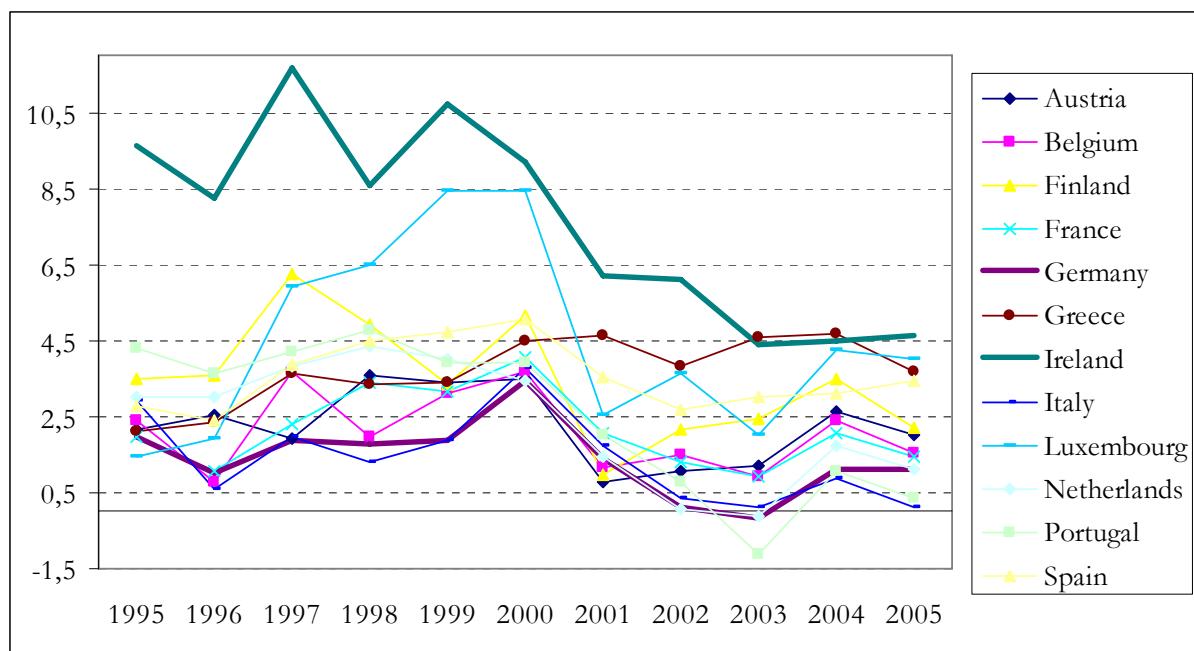
The overall growth performance of the euro area since the inception of monetary union in what has become a booming world has been disappointing, to put it mildly. If efficiency measures the ratio of results compared to efforts, then the efficiency of EMU is quite low: nowhere in the developed and emergent world for the last fifteen years have efforts been deployed harder to build strong economic institutions and nowhere has economic performance, measured by real growth rate of GDP, been so feeble².

Yet, this weak performance can not be fully captured without understanding that member states diverge a great deal in their macroeconomic scoreboard. The reasons for this divergence are very complex, even if it has often been reduced in the literature to the issue of flexibility and rigidity of social models in general and labour markets in particular (see Sapir, 2006 for a recent attempt). In the paper, we prolong another type of explanation, which theoretical foundations can be found in Laurent & Le Cacheux (2006). To put it simply, we argue that country size plays a major role in macroeconomic performance, especially in the case of a monetary union.

In the present paper, we focus our attention on Germany and Ireland, respectively the biggest and the second smallest euro area economy. Their belonging to the euro area is crucial for our argument given the constraints that the EMU put on the use of macroeconomic policies and the incentives its institutions shape for national growth strategies.

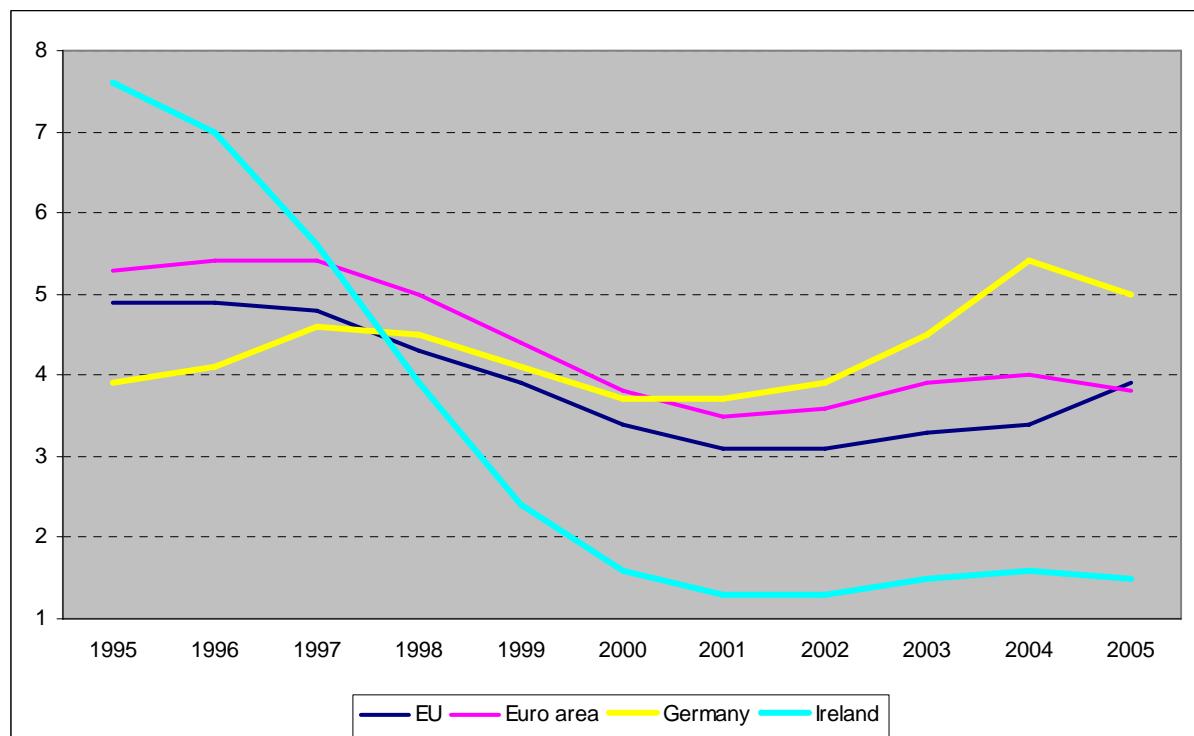
A basic national breakdown of growth and unemployment performance between 1995 and 2005 (we will have something to say in the conclusion about the year 2006) make Ireland and Germany stand out, for the best and the worst (Chart 1, Chart 2 and Chart 3).

Chart 1: real GDP growth in the euro area, 1995-2005



Source: OECD.

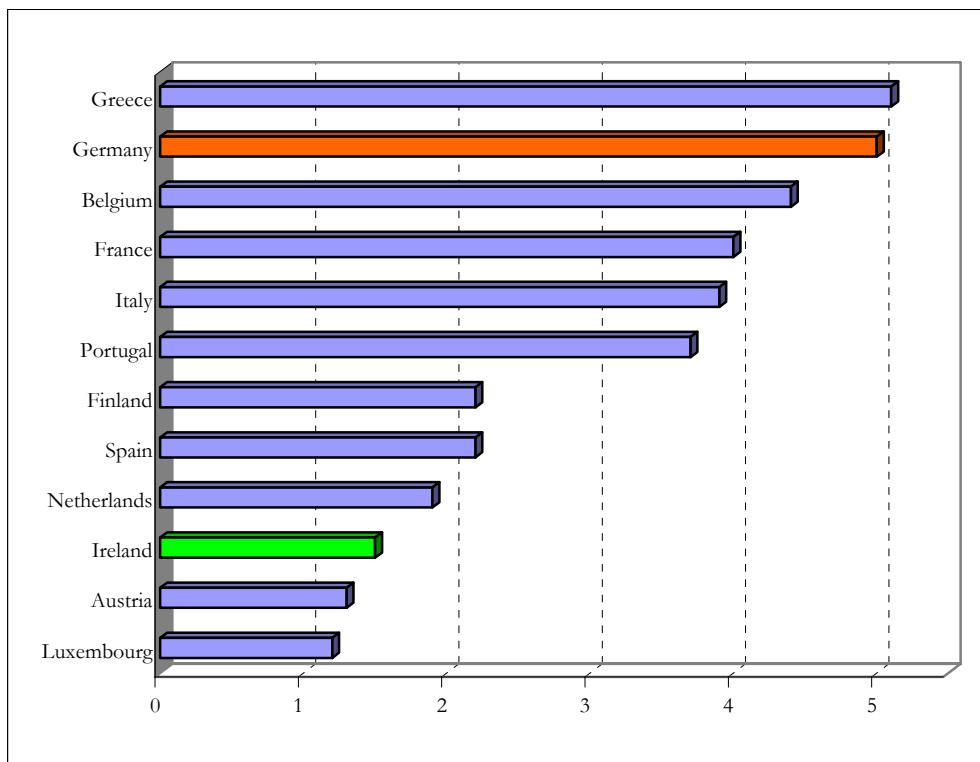
Chart 2: long term unemployment, 1995-2005 in %



Source: Eurostat.

² For a detailed assessment and some nuances, see Creel, Laurent and Le Cacheux (2007).

Chart 3: long term unemployment in the euro area, 2005



Source: Eurostat.

2. Why should size matter for countries' economic performance?

Is size really an important determinant of economic performance in the Euro area and how? The relation between country size and economic policy has been an essential feature of economic policy theory until the end of the 1970s (see Robinson, 1960) before it gradually gave way to a de-territorialized approach to national models often exclusively characterized by their social compact. To quote Robinson in the Introduction of the 1960 volume, the economics of the size of nations (that can be traced at least to J.S. Mill) is “a subject that well deserves more attention”. The flaws of an approach to economic policy that would posit the “death of size” in a similar way than the “death of distance” has been postulated should be obvious. Yet, on the basis of the last two decades’ literature on economic policy, it seemed as though increasingly integrated Nation-States have been implementing various combinations of macroeconomic and structural policies regardless of their size. This minimization of the role played by country size in growth strategies is likely to be related to the growing importance of globalization and regional integration but also to the focus (at times exclusive) put on supply-side economics.

Whatever the cause, the issue of country size is hopefully again the object of theoretical and empirical attention. The fertile cross-over between the new economic geography and the new trade theory, combining concepts such as integration, competition and agglomeration, enables to rediscover the crucial notions of borders, proximity and country size. A new literature following McCallum (1995) thus seeks to shed light on the relation between the existence of borders (i.e. geographic proximity between two jurisdictions) and the intensity of trade. The “death of distance” posited by some authors (see for instance Cairncross, 1997) appears more symbolic than empirical in the light of this line of economic analysis and empirical investigation. More specifically, a recent literature intends on exhuming the fundamental role of country size in the definition of growth strategies but also on highlighting how this role is evolving in the context of contemporary globalization.

2.1. Country size in the recent literature

The most recent works (see Alesina and Spolaore, 2003; Alesina, Spolaore and Warcziarg, 2005) attempt to determine endogenously national preferences using size as a causal factor. Country size itself is seen as resulting from a trade-off between citizens’ preferences heterogeneity costs and economies of scale in the provision of public goods. This latter literature thus constitutes a good starting point for new research and investigation on the relation between country size and economic performance, government size but also institutional and political dynamics and international relations strategic interactions.

However promising, the new country size literature suffers from two important limitations that partly determine the interest of this project. First, it concentrates almost exclusively on the case of small open economies. In doing so, it finds itself in coherence with the seminal contemporary literature on country size (see Kuznets, 1960, Demas, 1975 and Katzenstein, 1985), but neglects thereof to study the issue of size symmetrically. We believe that country size plays a role for small and large countries (by definition less open) alike, although in different ways. Because of this asymmetric bias, this literature does not depart entirely from the “country model” one that tends to compare social compacts without reference to the “size of nations”.

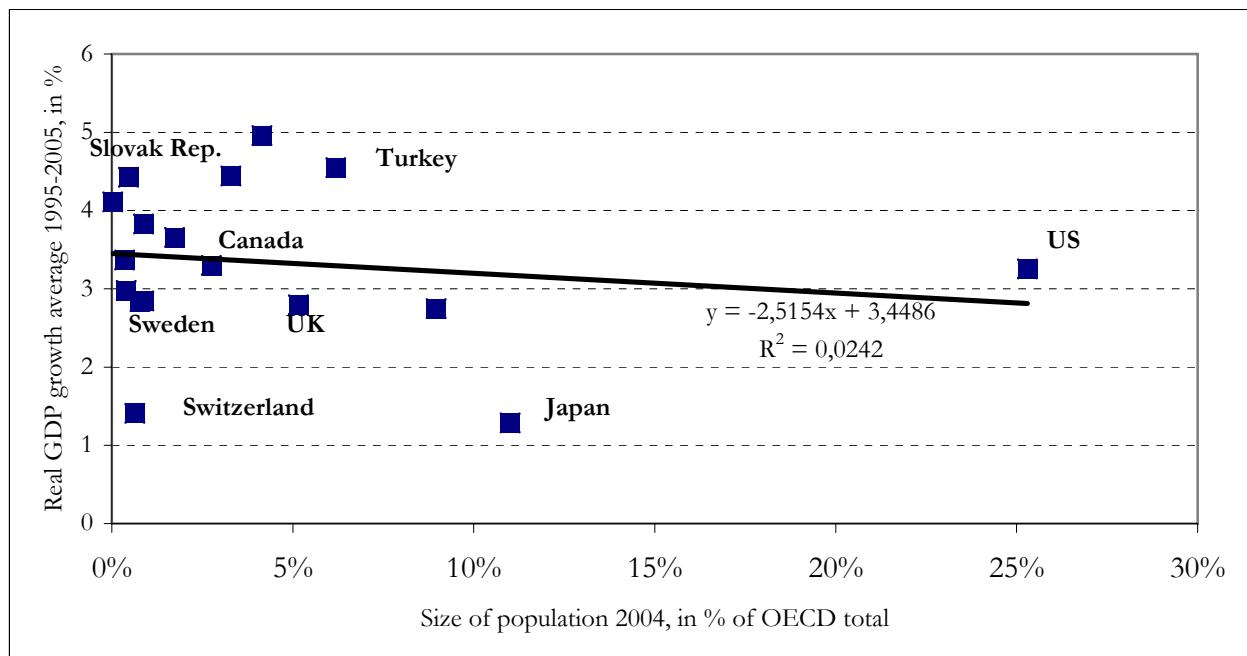
What is more, this literature does not deal with the role played by country size within inter-governmental entities and regional integration dynamics. It offers an interesting absolute approach to size and formulates problems and solutions related to the “optimal size” of political

and economic federations or unions. But it does not offer much insight on the comparative effect of size. An analysis of economic and political interactions between countries of different size and of the way country size shapes constraints and preferences in terms of macroeconomic policies and structural reforms thus appears necessary, especially given the dual current context of globalization and regional integration. In this theoretical context, we are even more inclined to (re)investigate the relation between country size and growth strategy. The EU, and more specifically the Euro area, are natural case studies of an inquiry into the effect of country size on growth strategy. The choice of regional and national economic policies as well as the efficiency of federal rules or even the justification of their very existence depends crucially on both national and regional size.

Tensions are indeed mounting in the contemporary period between large and small countries of a more than ever numerous and heterogeneous EU and Euro area (see Laurent and Le Cacheux, 2006). The implementation of monetary and fiscal rules and more generally the very nature of economic integration modalities are at stake. What is more, small European countries seem much more economically successful than large ones and show a much better capacity to grow and reform their economic and institutional structures. This is why we are inclined to shed more light on a possible “size nexus” in the Euro area.

The conditionality of the link between size and economic growth noted by many authors is indeed crucial to understand. Alesina and Spolaore (2005), for instance, show that country size matters for economic prosperity to the extent that the country is not integrated with the rest of the world. The more a country is globalized, the less its size will be an advantage. The fact that small countries have prospered more than large ones in the Euro area can thus be related to the fact that benefits of country size decrease as economic integration increases. To put it differently, the benefits of trade openness and economic integration are larger for smaller countries: GDP per capita and real GDP growth are positively associated with size, but when openness is introduced in the equation, both indicators become negatively correlated with size, giving small open economies a comparative advantage in a globalized world. Whatever the validity of this line of reasoning in the long-term, there seems not be a link between country size and economic growth for OECD countries between 1995 and 2005. This is shown in Chart 4: outside the Euro area, large and small countries equally display good and bad performance. The case of Sweden and the UK is especially interesting exhibit for instance a very similar performance while they are obviously very different in terms of size.

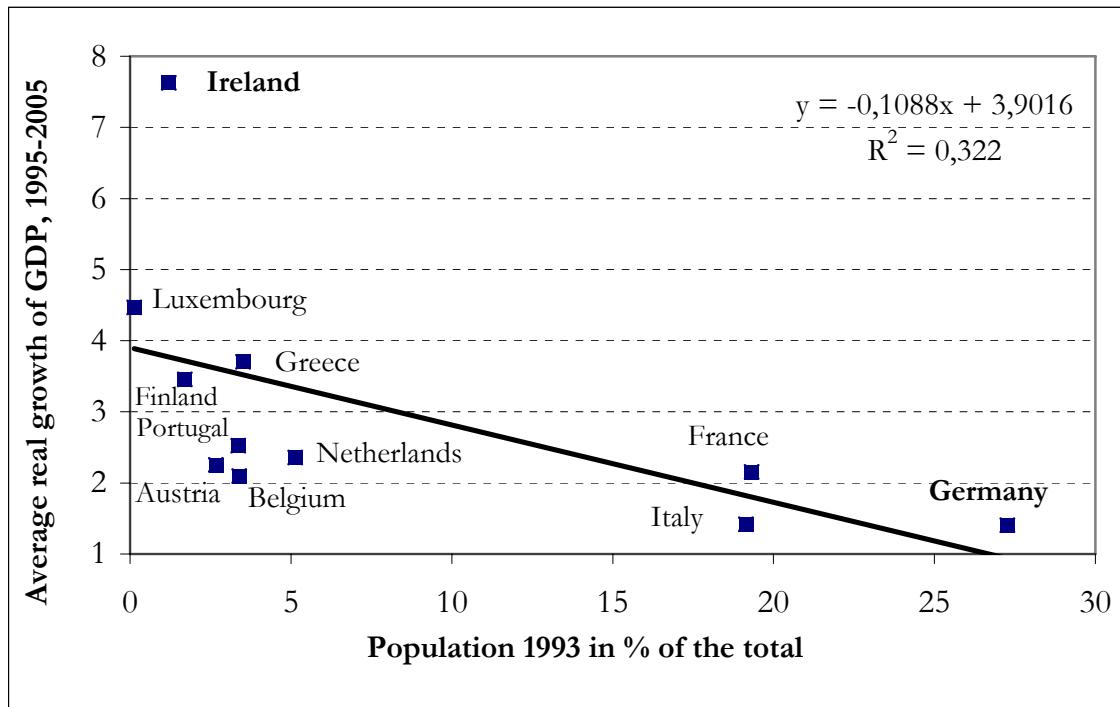
**Chart 4: real GDP growth among OECD large and small countries,
excluding Euro area members, 1995-2005**



Source: OECD.

The fact that the European economic constitution (the common market and policy rules of EU member states) gives small countries the advantage of trade while not allowing large countries belonging to the Euro area to compensate their handicap by an active use of macroeconomic policies may therefore explain part of the divergence in their performance in the recent period (shown in Chart 5).

**Chart 5: real GDP growth among large and small members
of the Euro area, 1995-2005**



Source : OECD.

2.2. A strategic approach to country size

What is specific about belonging in the Euro area? Obviously, institutions and rules of the game differ from what applies in the rest of the world. In order to give substance to our reasoning in terms of political economy of growth policies, let us be more explicit about assumptions and analytical framework. Two analytical issues would seem to deserve some elaboration, before we move on to examining the cases of Ireland and Germany, as emblematic of two polar cases amongst Euro area members: one is the notion of a country's strategy; the other is the assumptions to be made with regard to preferences in strategic contexts.

When analyzing the national economic policy choices facing a small country in the global economy, the natural assumption to make is, indeed, that of the small open economy, which is

the most commonly made in such contexts. This assumption has the great advantage of eliminating all strategic considerations from the analysis: the small, open economy is the exact equivalent, on the international scene, of the private agent in a perfect competition environment; it is a price-taker on all relevant markets. The notion of atomicity, common to the perfect competition and to the small, open economy analytical frameworks, implies that the small economy's authorities can safely ignore any induced consequences of its own actions on the rest of the world. Or, to put it in other words, the small country's situation in this case is not strategic. This is so both because of atomicity, and because the small country's authorities are assumed to exert full control over their own economic policy instruments: there are, therefore, no sources of interdependencies.

Things are different for large countries in the global context: they can no longer be assumed to be price takers. Hence they are usually treated as having some market power, but still supposing they decide on their policy moves in a passive environment, with no feedback or reaction from other players.

However, these simple assumptions regarding each country's environment and situation when having to decide on economic policy options are not appropriate in the Euro area context. For one thing, the small, open economy assumption is no longer warranted, and one has to recognize the strategic characteristics of member states' decisions when it comes to growth policies, and more generally economic and social policies. The reason is fundamentally that countries, small and large, are no longer playing against a passive environment, but are in strategic conditions: there are interdependencies, arising from the existence of shared policy instruments, that are managed in common according to specific rules of the game, as well as from the presence of spillover effects of all kinds in the context of a single market operating with a single currency. Hence, national policy-makers are not facing the same constraints and the same payoffs as in the global context, and, when making policy decisions, they usually have to take other countries' decision makers' expected reactions into account, a dimension that profoundly alters the nature of the games they will want to play.

But how to specify these games, and the countries' strategic choices? In line with the classic literature on international policy making, economic policy coordination, and world public goods³

³ Early illustrations of such analytical endeavors are, in particular, Hamada (1976) and in a more formal analytical setting, Oudiz and Sachs (1985).

– i.e., all contexts in which they exist interdependencies, hence strategic interactions--, we assume that a country's government, namely those who have the power to decide and mobilize economic policy instruments that are under the country's control, and to partake in collective decision-making processes over regional, common policy instruments, may be treated as a rational actor, in the traditional way of standard economic analysis. In addition, it is supposed that domestic considerations dominate in their preferences, which implicitly assumes that “borders matter” (McCallum, 1995), so that it is possible and meaningful to distinguish between “inside” and “outside” the domestic economy, and that national governments care mostly about their residents' welfare. The latter assumption may be regarded as excessively idealistic; but it may be justified as a simple reflection of the national dimensions of democratic processes: voters elect national decision-makers, who are, in the current institutional context of the EU and the Euro area, the players in domestic as well as European economic policy games. From this perspective, what matters are the rules of the game, the instruments in the various players' hands, and the constraints they are facing.

Hence, we will not assume that national governments' preferences are different in the Euro area context from what they were before its creation, that they are different in large and in small countries, or indeed different from governments' preferences in other, non-Euro, European countries, in other regions of the world, or other regional groupings: they may, or may not be. But we argue that they chose different strategies because they face different constraints and different policy options; in other words, given their preferences, the cost-benefit analysis of their policy choices is different, so that their rational choices will be different too.

2.3. Constraints and policy options of countries: small and large, the games they play

Let us apply all this to macroeconomic policies for stabilization and growth of the domestic economy⁴. Neither within nor outside monetary unions, can small open economies easily resort to traditional, demand management instruments. But whereas those not belonging in a monetary union can control their monetary policy and can manipulate their external, nominal exchange rate in case of necessity, small countries in a monetary union cannot do so, and, just as large ones, have to live with the common interest rates and the common external exchange rate.

⁴ For a modern rehabilitation of stabilization policies, and for an analysis of the interrelations between these two types of policies, see Aghion and Marinescu (2007).

One way of looking at the problem is to argue that a small country does not need macroeconomic stabilization instruments the way a large one does.⁵ For a small open economy, traditional fiscal policy of the Keynesian kind will usually be of little efficiency, whereas all policies that improve the competitiveness of the national economy by lowering production costs of firms located in the domestic economy are relatively more powerful: this may explain why fiscal consolidations in small countries have been found to have “non-Keynesian” effects in the EU; it also suggests that tax competition, “structural reforms” and wage moderation policies will all have very powerful, positive effects for a small open economy, both because domestic demand represent a fraction of demand to domestic firms and because the elasticity of the supply of external capital – in particular foreign direct investments – is higher, the smaller and the more open the economy is. In addition, policies that lower production costs in a small economy do not harm domestic demand very much, and they have little incidence on domestic inflation, so that they do not raise real interest rates, as nominal rates in a monetary union tend to be uniform across countries and to be relatively less influenced by the policies of a single, small country.

For large countries on the contrary, free riding is impossible and the various policies reviewed above tend to be more costly, or even counterproductive for the economic system. Keynesian-style demand-management policies, especially fiscal policies, are more efficient for large relatively closed economies than for small open economies. On the other hand, all policies tending to lower production costs are less effective, and they all tend to lead to a lower domestic inflation, which then results in a higher real interest rate, so that they tend to be costly in terms of economic activity and growth. This is where the rules constraining the use of stabilization policies in the Euro area are paramount: they are much more painful for large countries than for small nations. This is how country size plays into economic performance in the Euro area..

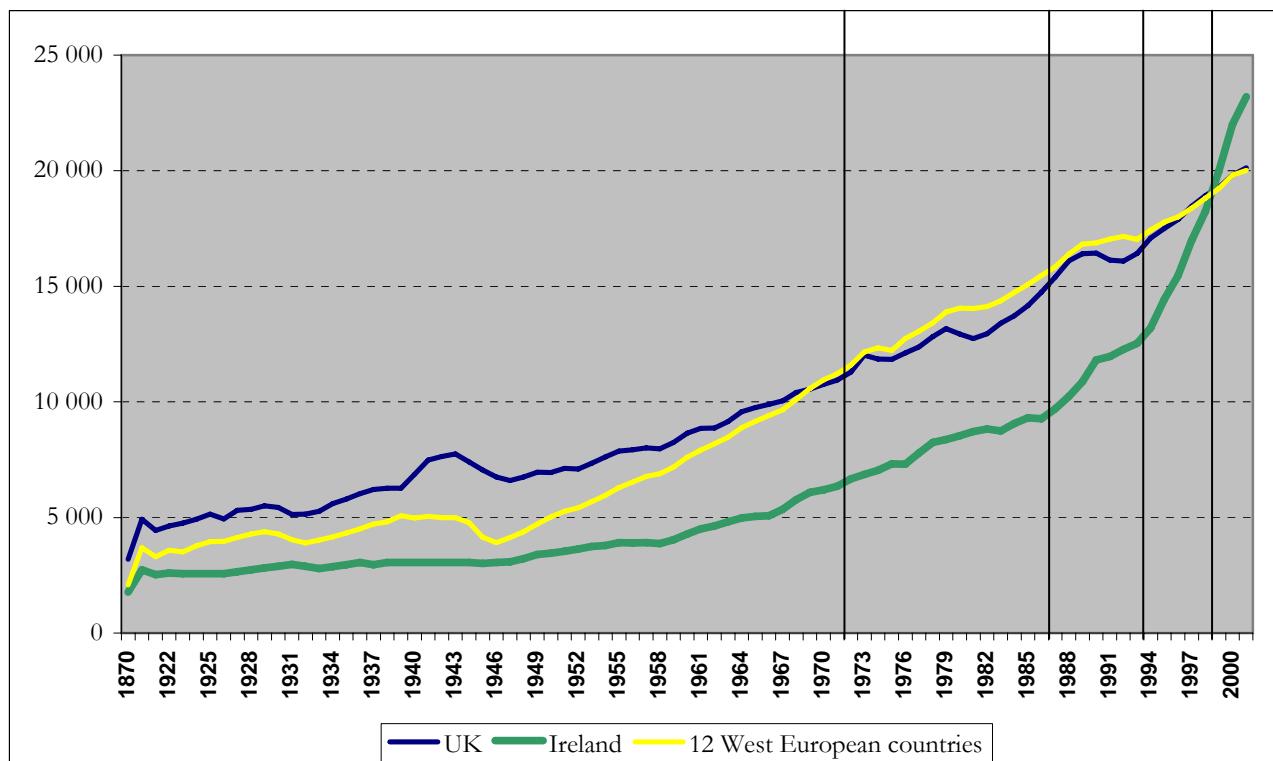
⁵ See Le Cacheux (2005).

In Laurent and Le Cacheux (2006), we have gathered evidence of the existence of a “Millian growth”, i.e. a growth systematically biased in favor of small states of the Euro area given the European economic constitution. In quantitative terms, the systematic divergence between small states and large states that amount to 2.3 percentage points in real growth, 0.73 percentage point in inflation and 3.12 percentage points in public finance balance. We also find that the gap between small and large countries in terms of unemployment and long-term unemployment is respectively of 3.9 and 2.2 percentage points. The “size nexus,” both for growth and unemployment, seems stronger than any “social nexus” (highlighting the role of labour market and social policies), in the Euro area. We should now look more closely at Ireland and Germany to find confirmation of our approach.

3. The “Irish Tiger”: a wonder of globalization?

Many factors are mobilized to account for the Irish miracle, but oddly enough, European integration is barely part of it⁶. Yet, a careful study of the economic history of Ireland shows that the beginning of the economic “miracle” coincides with Ireland’s integration in the EU (1973), strengthens with the Single Act (1986) and accelerates with the launch of the EMU (1992). What is more, while the features of the Irish “liberal” model of welfare state is put forward in the explanation of the stellar Irish growth performance, it is often forgotten that the UK, which shares much of the same features, has not benefited as much from the European integration (Chart 6). A “small country effect” must have played a role in the European Irish success. The “Irish tiger”, which has become economically bigger than it was, is not a happy by-product of global economy but a result of the European economic constitution and the type of growth regime it favours and encourages.

**Chart 6: GDP per capita in Ireland, UK and Western Europe, 1870-2001,
in 1990 International Geary-Khamis dollars**



Source: Maddison (2003).

⁶ For recent examples of such underestimation, see “The Luck of the Irish: A Survey of Ireland”, *The Economist*, London, 14 October 2004, OECD Economic Surveys: Ireland, 2006 (see Box 1.1, “What caused the Irish miracle”, p.24) and IMF Country Report: Ireland, 2005.

The result of the Irish catch-up in 2005 is nothing short than spectacular: three decades after having entered the EEC as its poorest member state, Ireland is now the second richest member state of the EU (Table 1).

Table 1: GDP per capita index, 2005 for EU countries

Luxembourg	223	Greece	82
Ireland	139	Cyprus	82
Denmark	122	Slovenia	78
Austria	122	Portugal	73
Netherlands	120	Malta	72
UK	119	Czech Rep.	72
Belgium	119	Hungary	61
Sweden	116	Slovakia	52
Finland	115	Estonia	50
France	111	Lithuania	48
Germany	109	Poland	47
Euro-zone	107	Latvia	43
Italy	105	Croatia	46
EU25	100	Romania	32
Spain	98	Bulgaria	30

Source: Eurostat.

Precisely because Ireland is such a small economy, one has yet to question the relevance of GDP as an accurate indicator of its real wealth. Actually, it may be expected that, for very open economies, GDP is not an accurate measure of residents' standards of living, because a significant fraction of domestic production may be transferred abroad through factor income outflows, or because of the practice of "profit shifting" that tends to artificially increase GDP for countries having favourable corporate tax regimes. GNP or GNI might thus be better to capture the true level and rate of economic growth⁷ (see OECD, 2006, for alternative measures that "place Ireland around or slightly above the euro area average").

This empirical issue leads naturally to the question of the nature of the Irish growth strategy. There is indeed a difference between two concepts put forward by Delmas (1965): "structural openness" and "functional openness". A small country is structurally open economically because it has limited resources. But it can develop a functional openness, i.e. a growth strategy that aims to take advantage of its size. In the case of Ireland, the logic of functional openness has been pushed very far. One can estimate the difference between structural openness and functional openness by comparing Ireland openness evolution in the most recent period to other OECD countries. The Irish trade to GDP ratio has increased by almost 40 points in just one decade, from 55% in 1991 to 92,1% in 2001 (before decreasing to 74,9% in 2005, see conclusion). Ireland is in 2005 the fifth most opened economy of the OECD, far ahead of many small open economies (Table 2). Structural openness is therefore not enough to explain Ireland economic extraversion.

⁷ The Irish Ministry of Finance calculates that in 2005 the GNP at constant market price was 131,071 (compared to a GDP at constant market price of 155,723) and that the GNP at current market price was 136,055 (compared to a GDP at current market price of 161,163). Yet, if the gap in term of growth of both indicators was 3,2 points high in 2002, it is only of 0,1 point in 2005.

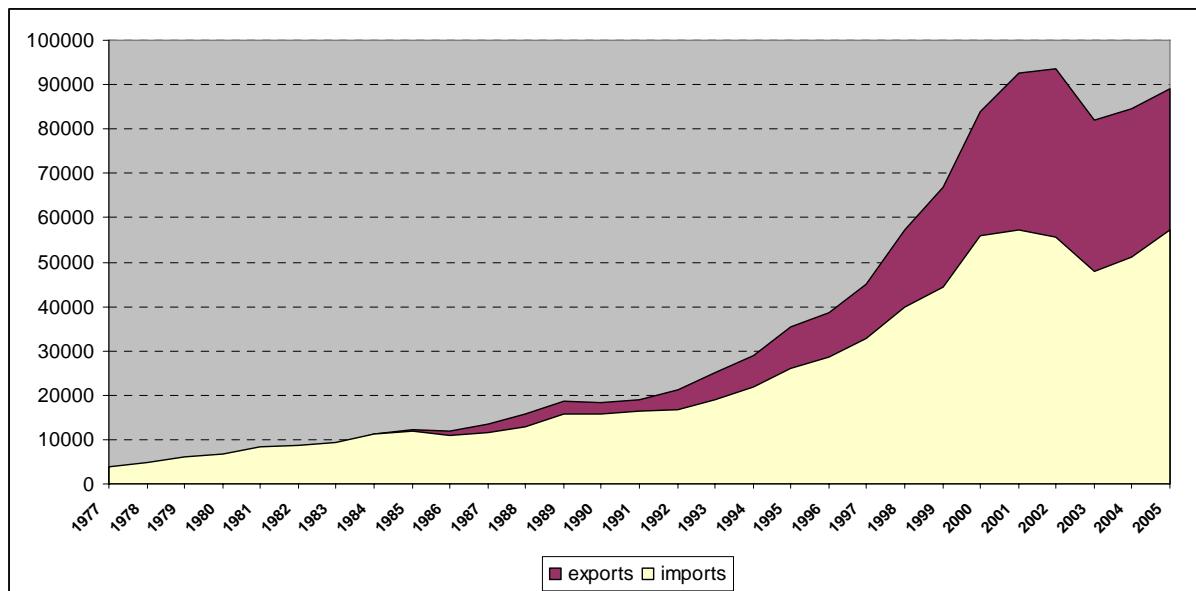
Table 2: Trade to GDP in 2005 for OECD countries

United States	13,4	Finland	39
Japan	13,6	Korea	41,2
Australia	21	Switzerland	44,5
Greece	22	Sweden	44,9
Italy	26,3	OECD average	45
France	26,6	Denmark	46,2
Spain	28,2	EU15 average	50,7
United Kingdom	28,3	Austria	51,9
New Zealand	29,1	Netherlands	66,1
Mexico	30,7	Hungary	67,1
Turkey	30,7	Czech Republic	70,8
Portugal	32,9	Ireland	74,9
Canada	36	Slovak Republic	79,8
Norway	36,7	Belgium	86
Poland	37,2	Slovenia	129,7
Germany	38,1	Luxembourg	148,6
Iceland	38,3		

Source: OECD.

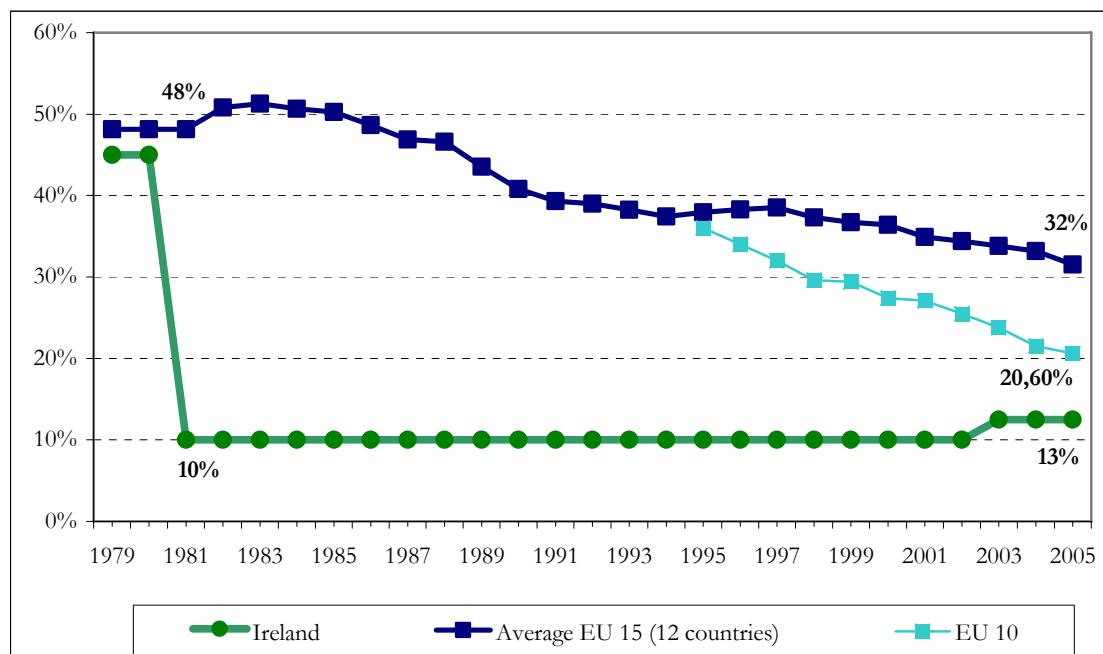
This openness is the result of the development of the Irish export sector, that led to a gradual improvement of its trade balance, exactly correlated with the development of the Single market, as shown in Chart 7. Hence, it can be said that Single market for goods and services (62% of Irish trade in 2003) has been instrumental in the Irish success. The other pillar of the Irish “functional openness” has been the choice of tax competition, as early as 1981 (Chart 8).

Chart 7: Irish export and imports, 1977-2005, in million euros



Source: Irish Ministry of Finance.

Chart 8: corporate taxation in Ireland, the EU 15 and the EU 10, 1979-2005



Source: Devereux, M.P., R. Griffith and A. Klemm (2002) "Corporate income tax reforms and international tax competition" *Economic Policy*, 35: 451-495,

http://www.ifs.org.uk/publications.php?publication_id=3210, Eurostat.

It has to be said that this strategy worked: United Nations data reveal that the stock of incoming FDI represented in 2004 126% of Irish GDP, compared to only 31,7% for the EU, 20,5% for large developed countries and 21,7% for the world economies⁸.

The two pillars of the Irish "miracle", trade and tax competition, would not have been that successful outside of the European economic constitution. The European economic constitution is asymmetric: it allows integration of capital markets but not the harmonization of tax policies. In his context, tax competition by small economies is bound to prosper. Because of its smallness, Ireland felt compelled to lower its tax rate more than other countries without having to fear retaliation.

The final important ingredient to add to the Irish recipe is the European budget, which has shown to be very efficient in small countries, with fewer regional disparities than large ones. The Irish Ministry of Finance calculates a total of 40,176.6 m euros net receipts from the EU budget

⁸ Source: UNCTAD, World Investment Report 2005, www.unctad.org/wir.

1973 to 2005, or 3,3% of GDP on average over the period. During the 2000-2006 period, while Ireland has become one of the richest European nations, structural funds still amounted to 3,35 billion euros, or 25% of the financing of the “national development plan”⁹.

For all its brilliance, Ireland performance is not guaranteed to last forever as Chart 8 suggests. Some concerns have indeed been expressed about the viability of the functional openness growth strategy, while new Eastern member states can also play the tax competition game, and in a not so distant future, the trade one also. But does an “Irish model” exist, or was it more something of a prototype? Can the Irish success be replicated by others or was it only possible because Ireland was the only country playing this game? In any event, under-investment in human capital in particular is a concern for the Irish economy if it is to change the nature of its growth strategy (see OECD, 2006).

4. The German frog: how to shrink a large country

Katzenstein (1985) remarked that States were shrinking as they gradually became more open to foreign trade in an integrating world. But large states remain fundamentally dependent on their domestic market for growth. The German economic paradox lies at the intersection of those two assertions: Germany is the largest European state (34% of euro area GDP and 26% of EU GDP) and, at the same time, the world leading exporter (cf. infra).

First, the obvious fact is that Germany is large economy. As such, its domestic demand plays the dominant role in the use of its GDP: private consumption alone represented almost 60% of German GDP in 2005 (see Table 3).

⁹ Cf. The European social funds in Ireland, <http://www.esf.ie/en/homepage.aspx>

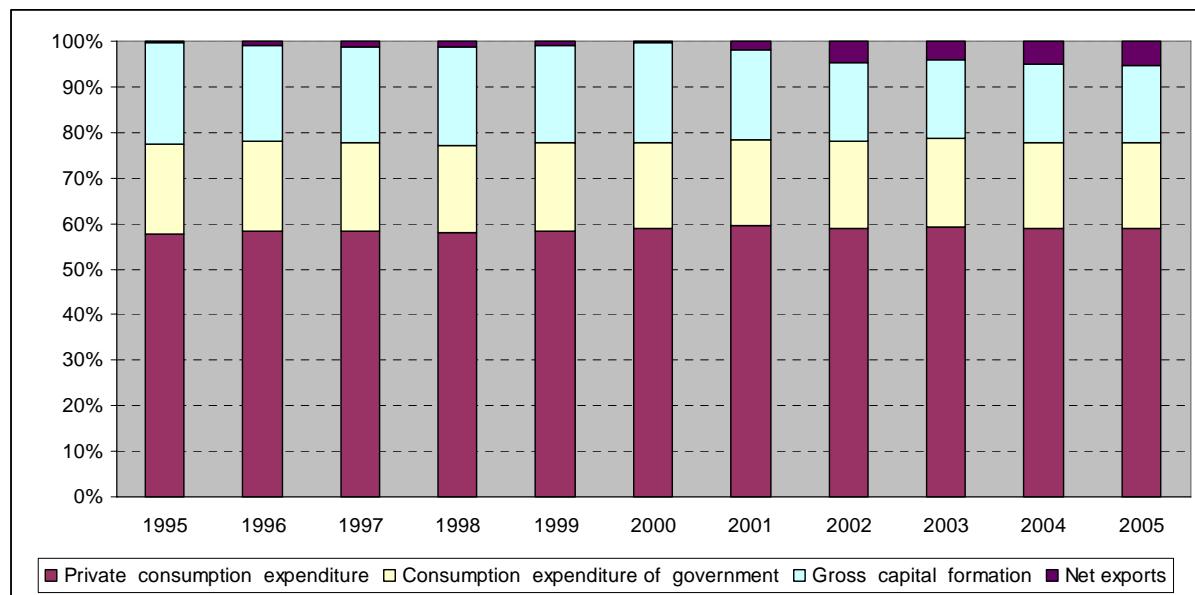
Table 3: Germany's GDP use from 1995 to 2005 at current prices, billion euros

	Gross domestic product	Private consumption expenditure	Consumption expenditure of government	Gross capital formation	Exports	Imports	Net exports
2005	2 241,00	1 321,06	419,64	384,29	912,27	796,26	116,01
2004	2 207,20	1 302,94	415,06	378,32	844,12	733,24	110,88
2003	2 161,50	1 281,76	417,23	376,99	770,74	685,22	85,52
2002	2 143,18	1 263,46	411,8	370,2	765,7	667,98	97,72
2001	2 113,16	1 258,57	400,23	411,85	735,6	693,09	42,51
2000	2 062,50	1 214,16	391,91	449,18	688,39	681,14	7,25
1999	2 012,00	1 175,01	387,24	432,31	591,49	574,05	17,44
1998	1 965,38	1 137,51	376,36	424,69	563,24	536,42	26,82
1997	1 915,58	1 115,78	371,47	404,42	526,25	502,34	23,91
1996	1 876,18	1 091,50	371,75	396,06	467,09	450,22	16,87
1995	1 848,45	1 067,19	361,82	410,77	442,79	434,12	8,67

Source: Destatis and authors calculations.

Given this structure, coherent with the country's economic nature, the dynamics of German use of GDP from 1995 to 2005 is disturbing (Chart 8). While private consumption and consumption expenditure of government remain more or less stable, gross capital formation has shrunk for the benefit of net exports. The share of exports in GDP has skyrocketed from 25,7% in 1995 to 40,1% in 2005, while that of investment went from 23,9% in 1995 to 17,2% in 2005.

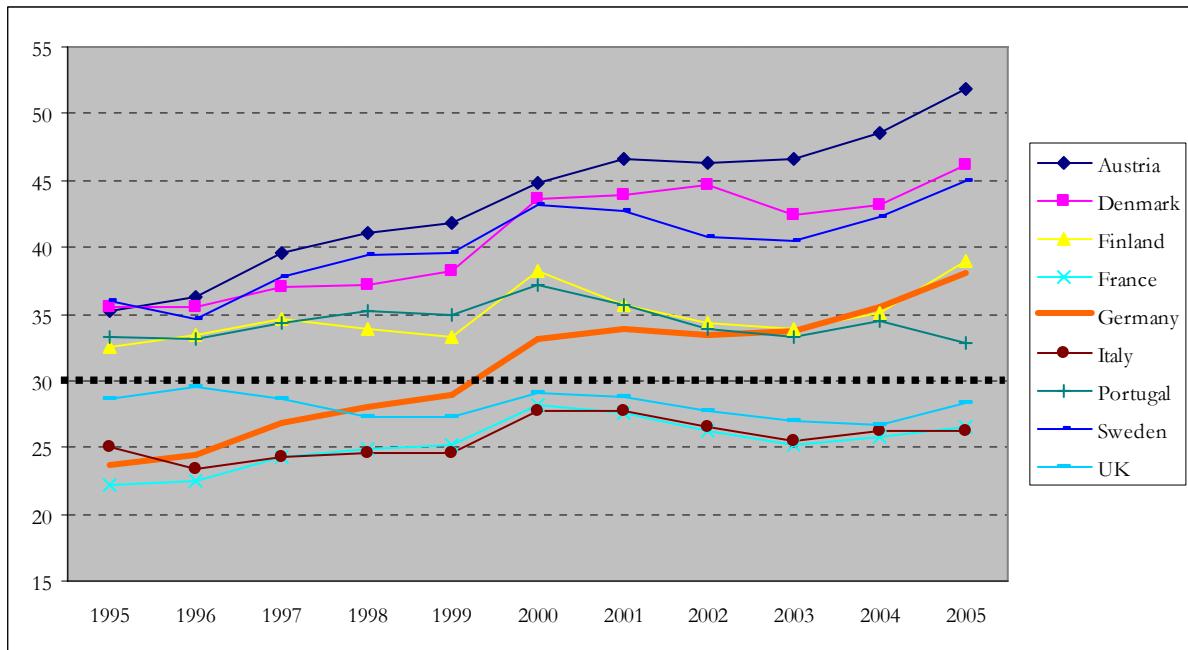
Chart 8: use of German GDP, 1995-2005, in %



Source: Destatis and authors calculations.

The openness dynamics is indeed the most important phenomenon in Germany's economic history for the last fifteen years. The OECD calculates that the trade to GDP ratio of Germany went from 23,7% in 1995 (it was 25% for Italy, 22,2% for France, 28,6% for the UK) to 38,1% in 2005 (26,6% for France, 26,3% for Italy and 28,3% for the UK). Consequently, Chart 9 shows that, judging on this criterion, Germany has left the group of large European countries to join the group of small European countries.

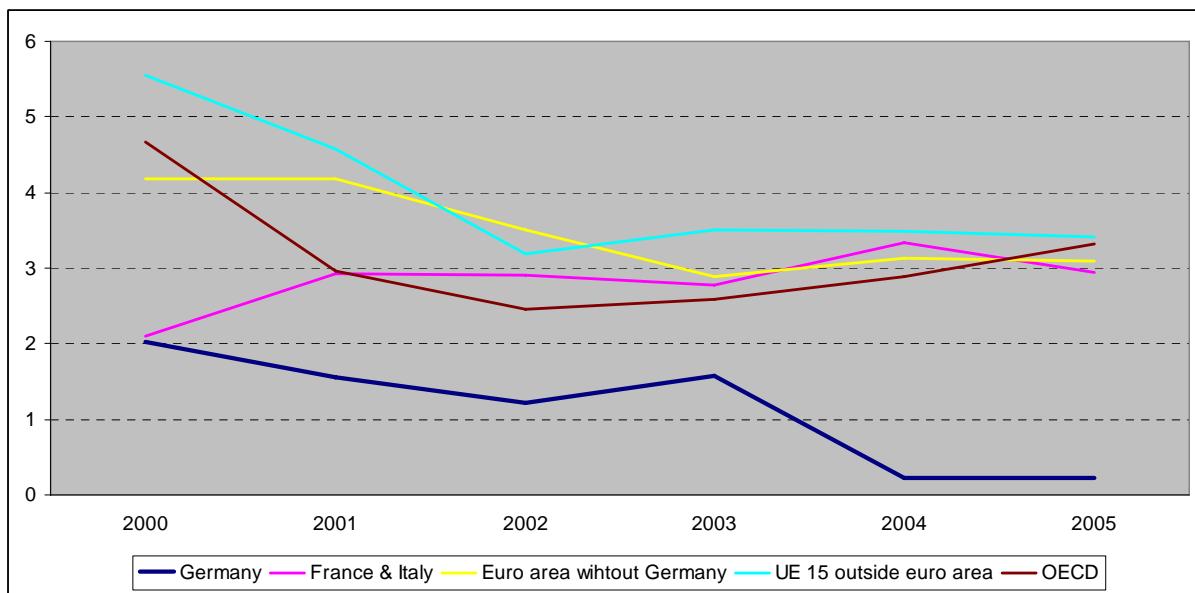
Chart 9: Trade to GDP ratio for selected EU member states, 1991-2005



Source: OECD.

As a result of this impressive external effort, Germany regained in 2003 its rank of leading global exporter lost in 1992, at least for goods. The WTO data show that in 2005, Germany exports amounted to 971 billions \$ in merchandise (with a 12% growth between 2000 and 2005) and 143 billion \$ in services (with the same growth rate), compared to 353 billion \$ in services for the US (with a 5% growth) and 904 billions \$ in merchandise (with a 3% growth). Of course, this has to be put in the perspective of Germany's reunification. In 1990, for the GFR, the GDP was 1306 billion euros and exports 421 billions (already 32% of GDP). In 1991, GDP for the whole country amounted to 1534 billions euros with exports falling to 395 billions (27% of GDP). But while the German domestic market has been enlarged, the export-led growth strategy was pushed further and not moderated. The share of exports in GDP is almost stable from 1991 to 1999 (it increases from 25% to 29%) but climbs by 10 points from 1999 to 2005. How did Germany achieve this performance? Mostly thanks to an aggressive competitiveness strategy.

Chart 10: Compensation per employee in the private sector, 2000-2005



Source: OECD.

Chart 10 shows how, between 2000 and 2005, German wages under-performed those of OECD economies, Euro area member states and the two other large EMU countries. The explanation of the German performance given by Sinn (2007) appears odd in this respect: while he denounces rightly “a pathological export boom” and “Landslide sector shift towards export industries with excessive destruction of the domestic sectors”, he attributes this to a “rigidity of wages” (pp. 47-48). Chart 10 shows how much on the contrary wages have been flexible.

As with Ireland, one can wonder if the German performance was mostly due to specifically European factors or more generally to globalization. One interesting point to look at in this respect is the evolution of the Euro exchange rate, which in effective terms has appreciated since 2002. How to make sense of an exports boom with a currency appreciation? One has to distinguish two elements for Germany: the real exchange rate with Euro area main trade partners and the nominal exchange rate with main trade partners outside the Euro area. The European component of the German success then appears prominent.

Table 4: First 15 trade partners of Germany in 2005

Exports	912,2	%	Imports	796,2	%
France	79	8,7	France	53,7	6,7
US	69,3	7,6	Netherlands	51,8	6,5
UK	60,4	6,6	US	41,8	5,2
Italy	53,9	5,9	China	40,8	5,1
Netherlands	49	5,4	UK	39,1	4,9
Belgium	43,6	4,8	Italy	36,3	4,6
Austria	43,3	4,7	Belgium	28,8	3,6
Spain	40	4,4	Austria	26	3,3
Swiss	29,6	3,2	Swiss	22,6	2,8
Poland	22,3	2,4	Russia	22,3	2,8
China	21,2	2,3	Japan	21,8	2,7
Russia	17,3	1,9	Spain	18,1	2,3
Tch. Rep.	19,2	2,1	Tch.Rep.	17,7	2,2
Sweden	17,2	1,9	Poland	16,8	2,1
Hungary	13,6	1,5	Norway	15,1	1,9

Source: Destatis and authors calculations.

Table 4 lists the fifteen first trade partners of Germany in 2005, for exports and imports. Not surprisingly, 4 out of the first 5 and 8 out of 15 belong to the EU, 3 out of the first 5 and 6 out of 15 to the Euro area (the Single market represented 65% of German external trade in 2003). If competitiveness was achieved, it was thus in the Single market and compared to Euro area trade partners. In this latter case, the exchange rate that matters is not of course the nominal rate of the Euro, but the real exchange rate, i.e. labours costs. Table 5 shows the dramatic evolution of unit labour costs between Germany and Euro area trade partners. The gap with the Euro Area has almost been multiplied by a factor 5 between 1999 and 2005.

Table 5: Gap with Germany in Unit Labour costs growth (whole economy)
from 1999 to 2005, % points

	1999	2000	2001	2002	2003	2004	2005
France	0,5	0,3	1,4	2	0,8	1,2	2,8
Italy	0,7	-0,1	2,3	2,8	3,3	2,6	3,4
Netherlands	1,2	2,2	4,1	3,9	1,7	0,5	0,6
Belgium	0,9	-0,4	3,4	1,2	-0,4	-0,1	3,2
Austria	-0,4	-0,9	0,1	0,1	0,1	-0,2	1,8
Spain	1,4	2,1	2,3	2	2	2,7	3,1
Euro area	0,4	0,4	1,3	1,5	1	1,1	1,9

Source: ECB and authors calculations.

What about the other trading partners outside the Euro area? Table 6 shows the evolution of nominal exchange rates between Germany and its main trading partners outside the Euro area. Here also, the evolution is favorable, with the US of course but also with China and Russia while Germany's competitiveness has been stable with the UK, Poland or Hungary.

Table 6: Nominal exchange rate of Germany (Euro) with main trade partners outside the Euro area from 1999 to 2005

	1999	2000	2001	2002	2003	2004	2005
US	1,16	1,01	0,93	0,88	1,06	1,26	1,31
UK	0,7	0,61	0,63	0,61	0,65	0,69	0,69
Poland	4,1	4,16	3,85	3,59	4,07	4,71	4,07
China		8,13	7,76	7,31	8,79	10,43	10,85
Russia	26,6	28,6	26,6	27,01	33,8	36,3	36,6
Tch. Rep.	35,7	36	35,1	32	31,4	32,7	30,3
Hungary	250,7	254,9	265	243,8	240,3	264,3	246,4

Source: ECB

There is no denying that the German competitiveness effort has been a huge success in terms of net exports growth. But is it compatible with the fact that Germany is a large country? It appears that the “shrinking” of Germany is so far (with the exception of 2006, cf. infra) a counter-productive small country growth strategy. In his famous fable, “The Frog who Aspired to Become as Big as the Ox,” La Fontaine warned courtesans of the vital danger of trying to become, blinded by ambition, what they were not. The frog that wants to be as big as the ox by filling itself with air ends up exploding. The German ox wants the opposite: it wants to let go with domestic demand and focus on external competitiveness. On the road to becoming the “German frog”, it risks the same peril: by investing abroad and depressing wages, it puts a severe constraint on domestic consumption and investment, and eventually on growth. The results of this strategy so far are eloquently feeble (with 2006 as the exception that confirms the rule or the turning point, see infra).

Table 7: German growth, domestic demand, share of exports in GDP, unemployment and long-term unemployment, 1999-2005

	Share of exports in GDP	Real GDP growth	Real domestic demand growth	Unemployment rate	Long term unemployment rate
1999	29,4	1,9	2,5	7,9	4,1
2000	33,4	3,5	2,4	7,2	3,7
2001	34,8	1,4	-0,4	7,4	3,7
2002	35,7	0,1	-1,9	8,2	3,9
2003	35,7	-0,2	0,6	9,1	4,5
2004	38,0	1,1	0,1	9,5	5,4
2005	40,2	1,1	0,3	9,5	5

Source: Eurostat, OECD.

Table 7 shows how Germany has fared in the most recent period, where the small country strategy has been the most intensively pursued (the share of exports in GDP jumping more than 10 points from 1999 to 2005), in terms of real GDP growth, real domestic demand, unemployment rate and long term unemployment rate. The comparison between France and Germany, the two largest Euro area countries, in terms of real growth and domestic demand is enlightening.

Chart 11: real GDP growth among the “big two”, 1995-2005

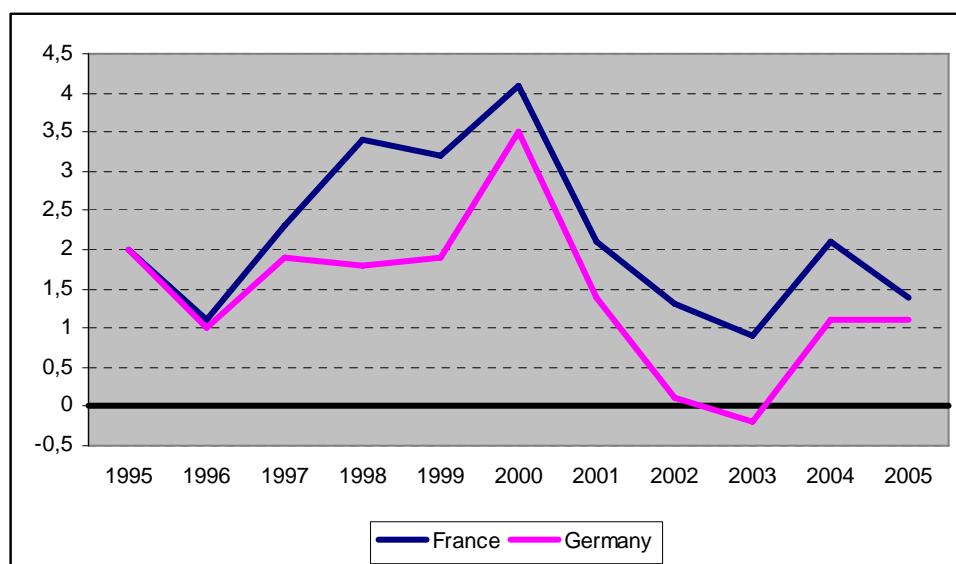


Chart 12: Real domestic demand among the “big two”, 1995-2005



Source : OECD.

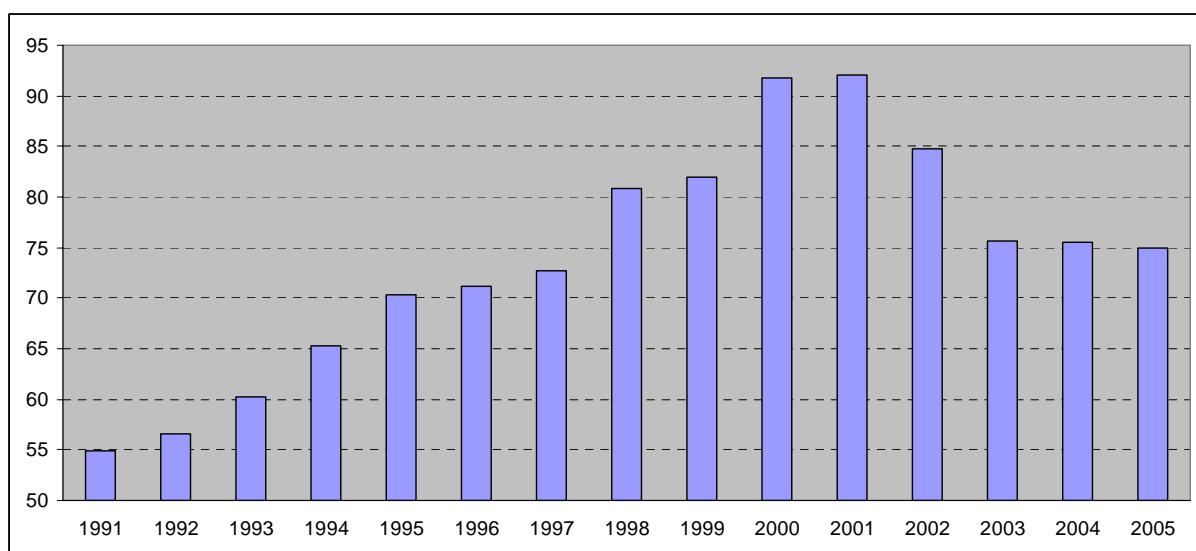
Why did Germany choose that strategy? The answer lies in the incentives system devised by the European economic constitution and especially the Euro area constraints on stabilization policies: large countries are encouraged to behave like small ones, and thus to compete using real “social disinflation” rather than nominal exchange-rate policy, i.e. to adopt competitiveness policies focused on labor cost reduction and welfare state roll-back policies. Since they are not small, the results are not as good for them and, worse even, they trigger strategic reaction from other large countries, who in turn will engage in the social race to the bottom. Some elements of this worst-case scenario for Euro area social models have already appeared (see Laurent, 2006).

A turning point in 2006? Weighting the future

Is Ireland growing up?

The Irish strategy has been extremely effective until the 2004 enlargement, but the integration of a number of small Eastern European countries now forces Ireland to revise its growth strategy. Domestic demand appears to progressively play a greater role in the Irish growth. Chart 13 shows that the degree of openness of Ireland has been reduced from 2001 to 2005 by 15 points. Table 8 shows that in 2005 and 2006, real domestic demand and private consumption have been buoyant while imports and exports have cooled. One is thus entitled to wonder if Ireland is not growing up economically, that is shifting away from an aggressive small economy strategy to a more balanced growth.

Chart 13: Trade to GDP ratio, 1995-2005



Source: OECD.

Table 8: Domestic and trade indicators for Ireland, 2004-2006, in % growth

	2004	2005	2006
Private consumption	3,8	6,6	6,2
Real total domestic demand	3,6	8	6,3
Exports	7,3	3,9	5
Imports	8,6	6,5	5,4

Source: OECD.

Is Germany gaining weight?

Germany appears to develop its domestic market again in 2006 (consumption remains weak but investment has certainly picked up), but the exports performance is still a major part of national growth. The strength of the current recovery is thus more than ever in question, and the issue of the evolution of wages will be crucial in this perspective. If Germany continues its economic extraversion, it is possible that its recovery will be short-lived, not to mention the risk of a downturn in global demand.

Table 8: Main economic indicators for Germany in 2005 and 2006, in % growth

	2005	2006
GDP at market prices	1,1	3
Total domestic demand	0,6	1,9
Private consumption	0,3	1
Gross fixed investment	1	6,4
Exports	7,1	12,9
Imports	6,7	11,5
Net exports	0,5	1,2
Compensation per employee	-0,6	1,4
Unit labour cost	-0,9	-1,6
Unemployment (rate)	9,1	8,1
Employment	-0,1	0,7
Labour productivity	1,2	2,2

Source: OECD.

The exports performance can once again be detailed. The two phenomena already noted, the real depreciation of the German “currency” in the Euro area and the nominal depreciation of the Euro against Germany’s main EU Eastern trading partners have intensified. If there is some truth to the idea of the “Bazaar economy” (Sinn, 2007), it is in the fact that Germany has become something of a “Mittleconomy”: it competes eastward with appreciating currencies in nominal terms for buying, and westwards with appreciating currencies in real terms for selling. While the trade with Easter Europe increases (Table 9), real depreciation in the Euro area (Table 10) and nominal depreciation with Eastern European countries (Chart 14) have continued.

**Table 9: Imports variation from 2005 to 2006
for Germany's main trade partners, in %**

35,4	Russia
24,9	Tch. Rep.
23,1	Belgium
23	Poland
19,4	China
18,2	France
16,8	Netherlands
16,1	US
14,8	Austria
11,4	Swiss
10,9	Italy
9,6	UK
8	Spain

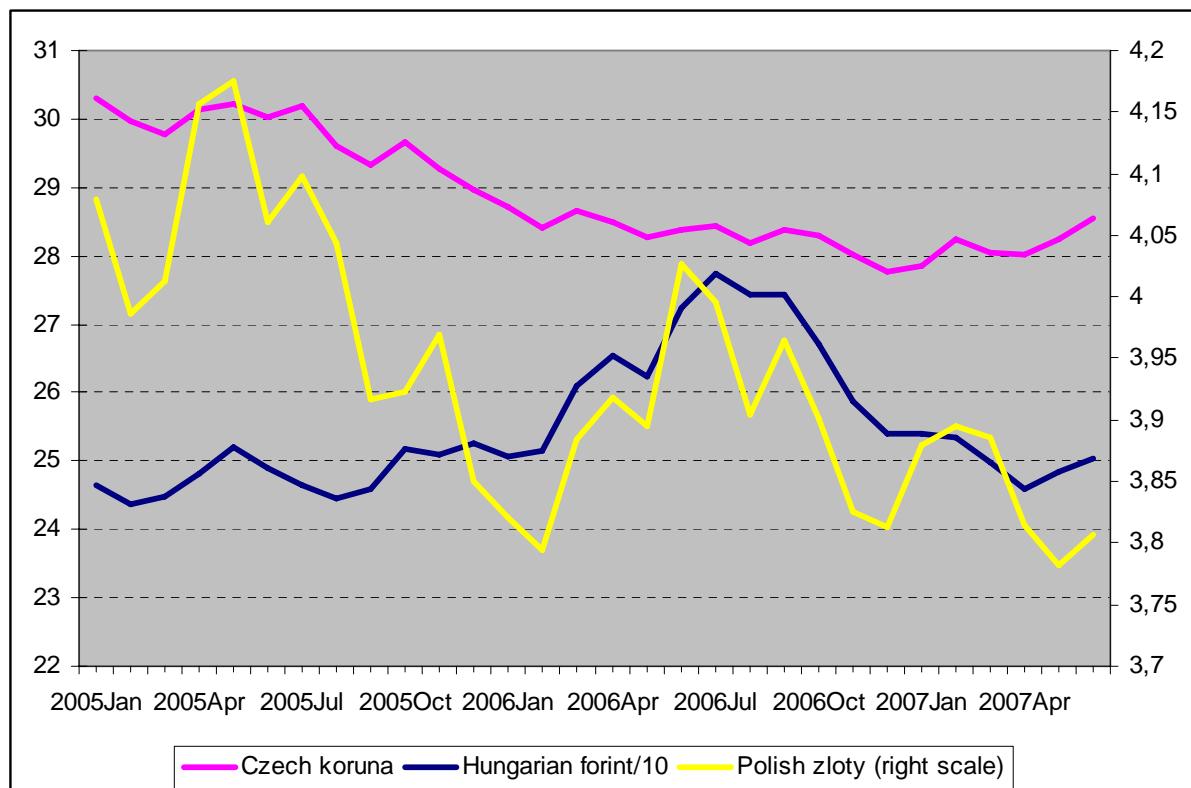
Source: Destatis.

**Table 10: Unit labour costs variation from 2005 to 2006
for Germany and its main trade partners in the Euro area**

Germany	-0,9	-1,6
Euro area	1	0,9
France	1,9	1,9
Italy	2,5	2,6
Spain	2,2	2,5
Netherlands	-0,3	0,2
Austria	0,9	0,6
Belgium	2,3	0,7

Source: ECB.

**Chart 14: Exchange rate variations between the Euro
and Germany's main trade Eastern EU partners, 2005-2007**



Source: ECB.

Epilogue: Is the Euro area becoming a competitive large country or a collection of competing small economies?

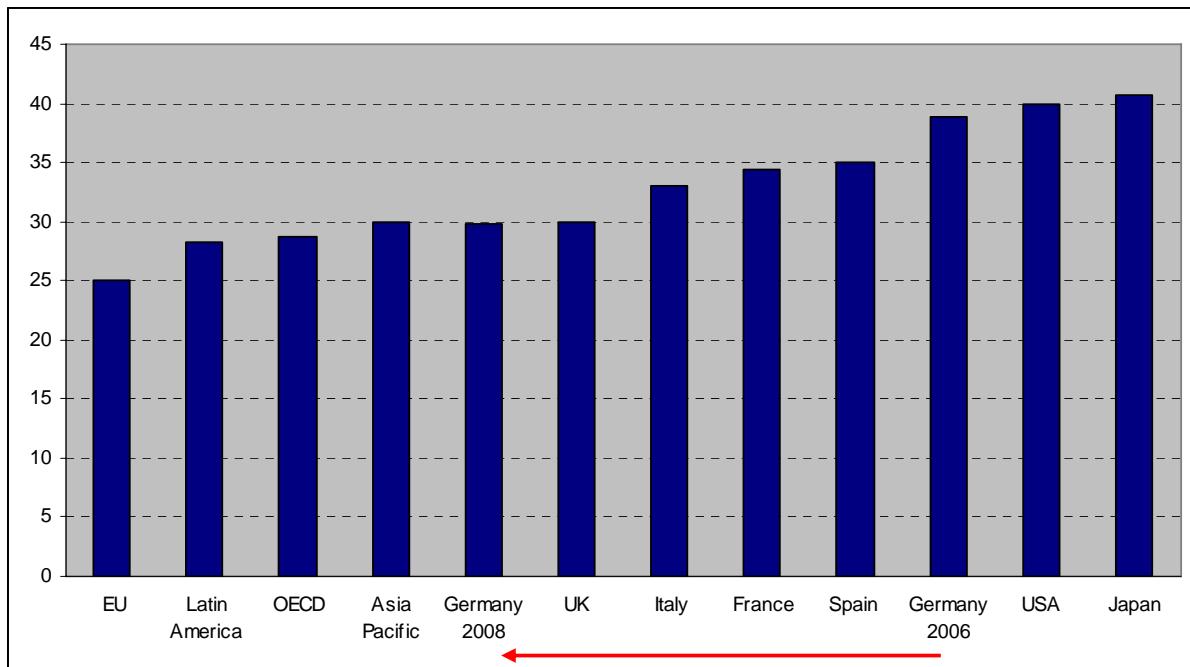
The German and Irish case studies show how much country size matters in the Euro area. Taken together, they also point to a concerning evolution: if all Euro area countries start behaving like small economies, social and tax competition is bound to prosper, but not the Euro area.

The Euro area is fundamentally a big closed economy: its degree of openness is close to that of the largest of its members. This means that it should allow for macroeconomic policies in order to make the most of its domestic market if it wants to stimulate its economic growth, like much of large countries in the developed world (US, UK, Australia, Canada,...). Otherwise, in applying economic rules made for small economies while it is truly a large economy, it runs the risk of structurally jeopardizing its growth and pitting against one another its largest economies.

The recent evolution of tax competition on corporate taxation is a striking example of how not only small countries compete against large ones, but large ones compete against other large economies. Germany announced in May 2007 that it would lower its global corporate taxation (local and federal) from 38,9% today to 29,8% on January 1st 2008. This move targets the other large economies of the EU (see Chart 15), and the UK has already announced that it would lower its own tax rate from 30% to 28%, exactly below the new German level. France (34, 4%) and Italy (33%) are bound to follow suit. The EU is already the region of the world were corporate taxation is the lowest (see Chart 15).

Because of economic rules that do not take enough into account country size, European countries today find themselves in the opposite movement of building the welfare state in the context of the first globalization (1870-1914). A century after Bismarck, the French law on labor accidents (1898) or the institution of the income tax, they rival not to build but to dismantle their welfare state. And yet, social compacts remain the only efficient way to balance globalization.

Chart 15: Corporate taxation in the world in 2006



Source: OECD and KPMG.

References

- AGHION, PHILIPPE, AND MARINESCU, IOANA, "Cyclical Budgetary Policy and Economic Growth: What Do We Learn from OECD Panel Data?", mimeo
<http://www.marinescu.eu/AghionMarinescu2007.pdf>
- ALESINA, A. & SPOLAORE, E., 2003, *The Size of Nations*, Cambridge, MA: MIT Press.
- ALESINA, A., SPOLAORE, E. & WARCZIARG, R., 2005, "Trade, Growth and the Size of Countries" in AGHION P. & DURLAUF S. (eds.), *Handbook of Economic Growth*, Amsterdam: North Holland,
<http://www.stanford.edu/~wacziarg/>
- CAIRNCROSS, F., 1997, *The Death of Distance. How the Communications Revolution is Changing Our Lives*, Boston: Harvard Business School Press.
- CREEL, JEROME, LAURENT, É. AND LE CACHEUX, J. 2007. « Politiques et performances macroéconomiques de la zone euro : Institutions, incitations, stratégies », *OFCE Working Paper* n°2007-23, September. <http://www.ofce.sciences-po.fr/pdf/dtravail/WP2007-23.pdf>
- DEMAS, W. 1965, *The Economics of Development in Small Countries*, Montreal: McGill University Press.
- HAMADA, KOICHI. 1976. "A Strategic Analysis of Monetary Interdependence." *Journal of Political Economy* 84 (August): 677-700.
- KATZENSTEIN, P. J., 1985, *Small States in Global Markets*, Ithaca: Cornell University Press.
- LAURENT, E. & LE CACHEUX, J., 2006, "Integrity and Efficiency in the EU: The Case Against the European Economic Constitution", *Center for European Studies Working Papers Series 130*, Harvard University. http://www.ces.fas.harvard.edu/publications/docs/abs/Laurent_LeCacheux_abst.html
- LE CACHEUX, J. 2005. "Politiques de croissance en Europe : un problème d'action collective." *Revue économique* 56: 230-45.
- MCCALLUM, J., 1995, "National Borders Matter: Canada-US Regional Trade Patterns", *American Economic Review*, June 615-23.
- MILL, John Stuart, 1844, *Essays on Some Unsettled Questions of Political Economy*, London: Longmans, <http://www.econlib.org/library/Mill>
- OECD, 2006, *Economic Survey: Ireland*, Paris.
- OUDIZ, G AND SACHS, J (1985), 'International policy co-ordination in dynamic macromodels' in Buiter, W and Marston, R (eds), *International Economic Policy Co-ordination*, Cambridge, CUP.
- ROBINSON, E. A. G. (dir.), 1960, *The Economic Consequences of the Size of Nations*, London: Macmillan.
- SAPIR, ANDRE, "Globalization and the Reform of European Social Models". *Journal of Common Market Studies*, Vol. 44, No. 2, pp. 369-390, June 2006.
- SINN, HANS-WERNER. *Can Germany Be Saved?: The Malaise of the World's First Welfare State*. MIT Press, 2007