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Country Size and Strategic Aspects of Structural Reforms in the EU*

by

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Abstract

The European Constitutional Treaty (ECT) was presented by its drafters as an explicit constitution for the European Union (EU 25). We argue that considered as the European economic constitution its provisions do not sufficiently allow for the possibility of cooperative collective decision (leading to convergence in welfare) in a more than ever numerous and heterogeneous EU. Our essential argument in this respect regards the implications of the structurally different economic performances and incentives of small and large countries under the European economic constitution. Finally, since the present European trade-off between "integrity" and "efficiency" appears sub-optimal, we present two original ways of achieving potentially better ones in the EU, through a "Great compromise" or "Economic constitution(s)," expressing a preference for the latter.

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"If all nations were small and none were large, humanity would surely be freer and happier. But one cannot prevent the existence of great nations."

Alexis de Tocqueville, *Democracy in America*, Volume I, Chapter VIII.[1]

1. Introduction

In the context of the growing economic literature on the peculiar brand of federalism the EU exemplifies,[2] we consider the role of economic and political size in federal regimes, not from the external perspective – the question of *the size of the EU* (what is the critical size for the EU, what the EU should do that the member states shouldn't, etc.., i.e. an *absolute* approach to size) – , but on the internal level, or the question of *size within the EU* (how does size matters within the EU, i.e. a *comparative* approach of size). We are eventually able to propose some original ways forward for the EU out of its current political, economic and social predicament.

The paper is organized as follows: the second section substantiates the question of efficiency and sheds some light on a possible "size nexus" in the EU; finally, the third section presents the ideas of the "Great compromise" and the "European economic constitution(s)" as ways to improve the European integrity-efficiency trade-off, expressing a preference for the latter.

2. The dubious efficiency: A "size nexus" in the EU?

Searching for consent is costly. How is it possible to minimize the decision-making costs for policies that are deemed mutually beneficial, given that decision costs increase with the number of parties involved, both because of increased heterogeneity of preferences and because of bargaining and other transactions costs? This interrogation led to the original formulation by Buchanan and Tullock (1962) of what we call the "efficiency" principle. But a reformulation of the principle is necessary to shed some light on the EU constitutional political economy.

We define efficiency in the EU as the ability of European economic rules to insure both an upward coordination of European economies (high economic growth and full employment) and to avoid the choice of harmful non-cooperative strategies (such as "race to the bottom" tax and

[1] (New York: Library of America, new translation by Arthur Goldhammer, 2004) 182. We thank Art Goldhammer for the references of all Tocqueville quotations in this paper.
[2] See Hix (2005) for a survey.

social competition). In doing so, we still acknowledge that efficiency cost increase with the number of participants that are involved in the process but we add that: i) those costs can be very low if constitutional economic rules are efficient enough (the benefit of upward coordination balancing the cost of the quest for good rules); ii) they have to take into account heterogeneity and especially size heterogeneity of participants in collective action. The simple dynamic of "efficiency" is illustrated in Chart I.

[Chart I here]

One should note that this adapted representation allows both for the formal definition of efficiency, leading to paralysis when all member states have a voice in the constitutional choice, and for the substantial definition, leading to divergence when the rules chosen do not sufficiently take into account heterogeneity, not only in preferences, but in characteristics of member states.

What emerges from the abundant economic literature on policy co-ordination is the generic idea that the need for co-ordination arises in contexts characterized by interdependencies: in such contexts, decentralized decision-making in the absence of co-ordination devices will lead to sub-optimal, non cooperative, Nash equilibria. In a monetary union with decentralized fiscal authorities, economic interdependencies may arise from different channels. They generally result from spillovers, i.e. unintended consequences of national macroeconomic policies on other member states economies, and such spill-over effects may be positive or negative.

While the economic rationales for policy coordination in a monetary union are quite numerous – but of unequal and debatable empirical relevance – they leave open the issue of how to design institutions at the constitutional level that would foster coordination, and also of the costs and benefits of the various tools that may be used to elicit favorable behavior from national governments of member states in a monetary union (see Laurent and Le Cacheux, 2004a). Fiscal policy rules, such as the SGP, constitute the minimum coordination devices: by setting limits on what national governments are allowed to do, they are meant to prevent them from embarking on behavior reputed harmful for the union as whole. But the provisions of the European economic constitution, by and large respected, appear insufficient to go further down the path of efficiency as we have defined it. Worse, they trigger opposite dynamics.

If European integration is the "invisible hand" described in the Prologue of this paper, then the key issue it faces is the economic incentives given to the member States toward reaching mutually beneficial equilibrium. In this regard, claiming that the EU has the "right institutions" but the "wrong policies" and chastising EU or member States officials accordingly (the naming, blaming, shaming approach) has a weak analytical foundation: policies are the outcomes of incentives produced by institutions. If policies are *systematically* wrong, institutions *must* be flawed.

The "European output"

There are two ways of assessing the efficiency of the European economic constitution. The first one is to assess the global performance of the EU. Since the euro area is the most integrated part of the EU (see Section 4), and thus the one part where the sacrifice of integrity is the most costly, one can try to assert its performance, then compare it to the EU (where the sacrifice is less costly, see next sub-Section) and to the rest of the world (where no integration of such scope has taken place). As it is now well established, the growth performance of the euro area under the European economic constitution is nothing less than dismal compared to that of the US and Asia, its main economic counterparts (see Chart II).

[Chart II here]

Our estimation of the surprising gap, given the gradual implementation of the European economic constitution and economic and monetary integration that resulted from it, is the following: during the 1990-2004 period, the growth rate of the euro area was approximately half of that of the US and a quarter of that of Asia. The result of this sustained dismal growth is respectively a 16 percent and 49 percent gap in terms of output at the end of the period regarding its two counterparts in globalization. The concern over this "growth gap" that strikingly seems to widen as the economic integration progresses, is reinforced by the decreases in standard of living and productivity from 1996 to 2003 (our period of reference, see infra Box I). In the meantime, unemployment maintained itself between 9 percent and 11 percent, barely decreasing in the late 1990s only to increase again in the early 2000s onward. Whatever the explanation, this performance has to be related to the considerable effort implied by European integration.

The second way to assess the efficiency of the European economic constitution is to measure the degree of coordination between European economies that the application of European constitutional provisions has allowed. The overall performance might not be that good, but this could be explained by numerous factors (among them the much-maligned "social models," see following Sections), although, once again, the non-application of the European economic constitution could not be said to be one of them. A convergence among member states in nominal (the "Maastricht convergence" and EMU management) and structural terms (the "Lisbon strategy") would be the sign of the partial success of the EMU rules and the promise of a better growth and development performance for the future. Alas, this picture is also surprisingly disappointing (see Chart III).

[Chart III here]

Our estimation leads to the conclusion that nominal and real divergence in the euro area is roughly the same in 2003 as it was in 1996. Standard deviation in inflation rates has decreased from 0.98 to 0.95 while standard deviation in productivity levels has decreased from 18.2 to 17.9, the same negligible 0.03 convergence.

This general picture of the "European output" is of great importance for the relevance of the input-output trade-off. Two specific conclusions can also be drawn from it. The first one is that in spite of efforts during the transition phase to economic and monetary union, especially through the imposition of convergence criteria toward the Euro for almost a decade (1992-1999), the economies of the euro area have proven much more heterogeneous than what had been expected and, in a way, resistant to the convergence process chosen and implemented. This resistance has to be explained. Second, this resistance to convergence has very important consequences in terms of macroeconomic management, both with regard monetary and fiscal policies. While "social models" on the one hand, and monetary conditions and transmission mechanisms on the other have been pushed forward in the recent literature as candidates able to account for such differences, we offer another explanation, that we test, based on the heterogeneous size of European countries.

Our main argument can be summed up as follows: one of the major reasons why European economic constitution provisions have become increasingly inefficient is that they do not take

into account a *structural* heterogeneity among member states, namely their sizes. To put it simply, European constitutional provisions are "size-blind" while size matters and therefore are systematically biased which is the worse a constitutional provision can be. The consequence of this bias is far-reaching: heterogeneity in size in a monetary union means heterogeneity in structures, performances and incentives, eventually resulting in conflicting strategies that can become inefficient for all parties.

The "size nexus"

The theory of collective action[3] has first identified a size issue in political economy dynamics. But our "size nexus" argument goes back to the very beginning of the modern understanding of the dynamic of international trade. It was John Stuart Mill, after the classical contributions of Adam Smith, his own father James Mill and David Ricardo, who first made the case for the role of size in trade and economic performance.

As it is well known, the point of departure of Mill is the idea that if trade is mutually beneficial, it is not *equally* beneficial to participants. As Mill (1844) puts it in "Of the Laws of Interchange between Nations; and the Distribution of the Gains of Commerce among the Countries of the Commercial World:" "it is the purpose of the present essay to inquire, in what proportion the increase of produce, arising from the saving of labor, is divided between the two countries," what he calls "the question of exchangeable value." In doing so, he goes on, "we must revert to a principle anterior to that of cost of production, and from which this last flows as a consequence,- namely, the principle of demand and supply." In other words, while Ricardo's comparative advantages, whatever their origin, determines pre-trade relative prices, Mill intend on explaining post-trade prices, that determine which country, or type of country, gain the most from trade, given that all countries' gains are assumed to be positive when compared to autarchy.

His theory, re-asserted in Mill (1848)[4] and later called "reciprocal demand," is formulated by him as follows:

> It may be considered, therefore, as established, that when two countries trade together in two commodities, the exchangeable value of these commodities relatively to each other will adjust itself to the inclinations and circumstances of the consumers on both sides, in

[3] See Olson (1965).
[4] "Of International values", chapter XVIII, book III.

> such manner that the quantities required by each country, of the article which it imports from its neighbour, shall be exactly sufficient to pay for one another.

The subtle and profound conclusion of Mill, directly leading to the idea of a structural advantage of small countries over large one in international trade is further explained in those terms:

> If the question be now asked, which of the countries of the world gains most by foreign commerce, the following will be the answer. If by gain be meant advantage, in the most enlarged sense, that country will generally gain the most, which stands most in need of foreign commodities. But if by gain be meant saving of labour and capital in obtaining the commodities which the country desires to have, whatever they may be; the country will gain, not in proportion to its own need of foreign articles, but to the need which foreigners have of the articles which itself produces.

Translated in modern economic parlance, this intuition means that the gain from international trade of a given country will be determined by the relative strength of the demand for its exports compared to its demand for imports. More precisely, the gain from trade between two nations will be distributed equally only if their terms of trade (the value of their exports in term of their imports) are equal. When the two nations are unequal in size (i.e. economic size, *cf. infra*), Mill thus showed that the small country could reap the benefit of trade since its needs in terms of internal demand could be satisfied by (labor saving) trade while its exports could be amply demanded to fulfill the consumption needs of the large country, unable to fully satisfy its internal demand.

On the contrary, the large country would only benefit in a limited way (the limit being the capacity of production of the small country) of trade, responding to its unanswered internal needs by a forced "production of commodities by more costly processes at home" and thus losing the corresponding specializing gains. In sum, while trade between two nations of equal size can produce terms of trade halfway to the pre-trade prices of each nation, and thus equal gains resulting from post-trade prices, trade between a small and a large nation is likely to produce an unequal outcome in the favor of the small nation, the post-trade prices being too close from the large nation pre-trade prices. How to make sense of Mill's argument in the euro area context without stretching it too far?

We have shown elsewhere (in Laurent and Le Cacheux, 2006) that the European economic constitution can broadly be characterized by four essential provisions, themselves resulting in two main features: a well-institutionalized Single market allowing for a strong (free) trade integration and a strong constrain put on macroeconomic instruments, reducing the ability to implement stabilization policies. In this context, it is our belief that economic performances will systematically differ between small and large countries, which may account for a substantial part of the inefficient divergence observed *supra*.

To test our analysis and prove our point, we devise a very simple theoretical framework and empirical strategy. We first have to define what we mean by small and large European countries. The literature trying to stress the importance of size, in particular the one that focused on "small states," while at least two decades old in its modern version (see Katzenstein, 1985), has recently gained momentum and is now in a state of fast-development in relation with European integration (see Archer and Nugent, 2002).

A crucial point of this literature with which we find ourselves in complete agreement is to show that while there is no consensual definition of size, it is because this notion is essentially relative in international relations. Depending on the context in which small states find themselves, their "smallness" can translate into very different power position. It is obvious that given the "over-representation" of small states in the EU, their power is considerably higher than equally small states not implied in such an a-typical regional organization.[5]

We make ours such a comparative definition of size: in the remainder of the paper, a "small" state, whatever the criterion used, is defined as one with a quantitative characteristic inferior to the fourth of that of the biggest or largest state. A "medium" state is defined as one with half (of the biggest state). "Large" states are those remaining. We then introduce two different definitions of size: demographic size (Table I) and economic size (Table II).

[Tables I & II here]

As shown in Tables I and II, in terms of demographic size, the EU as a whole can be said to be composed of 19 small states, 2 medium states and 4 large states. In economic terms, the count is

[5] We come back to this important point in Section 3.

almost identical, the EU being composed of 20 small states, 1 medium state and 4 large states (Poland logically being the "swing" state). Our definition is even more symmetrical for the euro area, which can be said to be composed, both in terms of population (demographic size) and GDP (economic size), of 8 small states (hereafter "the small 8"), 1 medium state (Spain) and three large states (hereafter "the big 3"). Equipped with this definition of size, we now turn to our theoretical framework. Using Mill's intuition, we build our model with the first block being demographic size (see Chart IV).

[Chart IV here]

The theoretical part of the Chart is straightforward. While demographic size (defined as the population level) logically determines economic size (defined as the GDP level), economic size determines whether a country will be open to trade (openness being measured by trade to GDP ratio), the traditional "small open economy" or, on the contrary dependent on its domestic market to grow ("the big closed economy"). This theory is then applied to the euro area and the reference to Mill follows: we wonder in what direction economic size determines the growth performance. Growth performance in turn determines inflation and public finance performance. It also determines unemployment on the one hand, and the ability/gain from implementing structural policies (or, conversely, the need for macroeconomic stabilization policies). This sequence finally determines the policy implication of our model: the relevance (or irrelevance) of the size-blind European economic constitution. Eventually, if our empirical analysis confirms our theoretical intuition, a reform in the European economic constitution as well as in the growth strategy pursued in the EU (the "Lisbon agenda") would be needed. [6]

The very simple empirical strategy we have chosen to test this set of hypotheses is explained in detail in Box I, as well as our main results and their implications.

[Box I here]

The results are presented graphically and numerically in Chart V to VII.

[6] The signs and numbers shown on Chart IV result form our empirical analysis (see Box I).

[Charts V to VII here]

In a nutshell, our conclusion is that "size matters" for growth and macro-management in the euro area in a similar geographic way that "borders matter" for trade. Theories of trade, however sophisticated, have to take into account the basic geographical determinant consisting of physical proximity. In the same way, macroeconomic management depends fundamentally on country size. Actually, in the EU case, size matters even more than borders matter; since the fact that European countries are geographically close explains a good deal of trade intensity which in turn determines size-related economic performance divergence. Focusing on monetary policy, we offer an empirical example of the consequences of the "size nexus" in Chart VIII, giving evidence of a "size penalty" in the euro area (the bigger the country, the lower the inflation rate, the higher the real interest rate).

[Chart VIII here]

In qualitative terms, we believe we have gathered evidence of the existence of a "Millian growth" (see Box I), systematically biased under the European economic constitution in favor of small states of the euro area. In quantitative terms, we present evidence of a *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 (see Charts V to VII).

Our results, in addition to the evaluations presented in Box I (see next sub-section), are also to be confronted with the historical and geographical perspectives. This is done respectively in Tables III-A & III-B and in Table IV.

[Tables III-A, III-B here]

Table III-A shows that a certain convergence has taken place among EU 12 countries in terms of productivity. But the persisting differences can be attributed to the differences between small and large countries. It also confirms the idea that the gap in standard of living between the euro area and the US between 1975 and 1990 can not be attributed to a gap in productivity, but that this catch-up seems now over, the productivity gap beginning to increase again between 1990 and 1998. Table III-B rules out the hypothesis of growth performances explained by a Solow type convergence (less capital per capita leading to higher productivity and higher growth) between

small and large countries in the euro area. The convergence is already achieved by 1990. What is spectacular on the contrary, and the symptom of the "Millian growth" under the European economic constitution (see Box I), is the inversion of GDP per capita difference between small and large countries in the future euro area between 1990 and 1998. The increasing gap in terms of GDP per capita between 1990 and 1998 relative to the US accounts for the well-documented difference between the American "glorious decade" and the European dismal one.

Table IV, beside our basic argument that EU 12 member states diverge according to size, shows that our results are consistent, from a geographical perspective, on two different levels.

[Table IV here]

During our period of reference, the small country under the economic provisions of the EU but not in the euro area (Sweden) does less well than small countries in the euro area (but better than large countries), while both are outperformed by countries outside the EU. The economic effects of the European economic constitution seems thus to follow a "U" curve for small countries, in relation to the degree of openness to trade that the Single market on the one hand and globalization on the other offer and to the macroeconomic stability provided by the monetary union. Symmetrically, the large country outside the euro area but in the EU (the UK) does better than large euro area countries, while large countries outside the EU do better than both. This time, the degree of macroeconomic autonomy seems to be the driving factor behind those differences in performance.

Our main finding is that small countries have substantially outperformed large ones in the euro area because they are more open to trade. The two groups thus exhibit systematic macroeconomic divergence in terms of inflation and public finances inconsistent with the present state of the European economic constitution as well as with the growth strategy entailed in the Lisbon agenda (Chart IV). This result is in line with some of the recent literature relating economic performance to size.

On the one hand, Alesina and Spolaore (2005) show that country size matters for economic prosperity insofar as it is correlated with the country's degree of economic integration with the rest of the world. More precisely, the fact that small countries have prospered more than large

ones in the EU seems related to the fact that the benefits of country size decrease as economic integration increases, or that benefits of trade openness and economic integration become larger for smaller countries. The fact that the European economic constitution gives small countries the advantage of trade while not allowing large countries to compensate their handicap may therefore explain part of the divergence in their performances in the recent period.

On the other hand, the theoretical idea according to which small size favors the implementation of structural reforms while large countries are in need of macroeconomic stabilization (argument elaborated in detail in Le Cacheux 2005) has recently received empirical validation. Duval and Elmeskov (2005), who perform regressions for 21 European countries in the period 1983-2003, find for instance that the incentive to implement structural reform is strengthened for small countries, because "the up-front costs of structural reform may rise more as a result of moving to EMU in large, relative closed economies than in smaller, more open economies." "Simulations using OECD's macroeconomic model, Interlink, supports these conjectures" they add, arguing that "In the more open (Dutch) economy, improved competitiveness leads to market share gains that fairly quickly translate into a fall in unemployment …In the more closed (French) economy the process is much slower."

Furthermore, they note that: "The results concerning the influence of monetary autonomy and country size can be rationalized within a framework where structural reform is expected to create slack resources in economies. In small open economies such slack is more quickly taken up through changes in net trade and incentives to undertake structural reform are therefore stronger. In larger, more closed economies, by contrast, net trade is less powerful as a mechanism for taking up slack. Hence, such economies are more reliant on accommodation through monetary policy when they undertake structural reform, and when exchange-rate arrangements exclude such accommodation they undertake less reform." This line of reasoning is consistent with our finding that the monetary "size penalty" endured by large countries in the most recent period (see Chart VIII) is likely to slow even more their implementation of structural reforms.

In the light of this section, the present design of the European economic constitution which does not discriminates countries on the criterion of size, appears to be systematically biased against large countries. It thus might be ill-suited to promote high levels of growth, employment and convergence among member states belonging to the EMU. Moreover, the present constitutional economic provisions are likely to increase the risk that non-cooperative strategies will be chosen

in the EU. Before coming to this point, we first have to show that our "size nexus" argument holds despite the widely held belief that European economic shortcomings are first and foremost the result of a "social nexus."

The size nexus vs. the "social nexus"

Since the publication of the seminal work by Layard, Nickell and Jackman (1991) and the 1995 *OECD Job study*, the debate over European economic performances has been dominated by the idea that labor market quality (itself determined by the "flexibility" allowed by low levels of taxation and redistribution, i.e. a small "socio-tax wedge") fundamentally determines growth in Europe. While this partial equilibrium analysis is nothing new[7] and empirically doubtful (see Fitoussi and Passet, 2000, Fitoussi, 2002b, and Le Cacheux and Sterdyniak, 2003), the argument seems to exhibit an hysteresis of its own, at it is perpetually re-asserted as the starting point for diagnosing Europe's growth problem.

In Tables V-A to V-F and Charts IX and X, equipped with the framework of the "size nexus," we offer new evidence that its foundations seem weak.

[Tables V-A to V-F here]

While the coefficients for the "size nexus" presented in Tables V-B, V-E & V-F remain strong and significant against the "social nexus," social transfers seem to contribute positively to growth. An analysis based on the relation between growth and social transfers and total expenditures must nevertheless consider the possibility of strong reverse causation, i.e. counter-cyclical behavior of those expenditures (due to "automatic stabilizers"), such that as growth increases, expenditures and transfers should fall. When social transfers enter significantly in the regression, however, the surprising result is that they are positively related to growth.

Here a reference can be made to the literature relating openness to the size of the government. Rodrik (1998) has argued that small open economies compensate the risk of openness to trade by large social transfers. Our results, as limited as they are by the very simple methods we have chosen, confirm this view in showing that social transfers are positively related to openness.

[7] The founding contribution of Jacques Rueff identifying unemployment insurance as the major cause of persistent unemployment was published in 1931.

Furthermore, they indicate that while small open economies need a strong welfare state to compensate the hazards of openness, large closed economies need autonomous macroeconomic policies to compensate their lack of openness and make the most of their domestic market in order to grow.

In any event, unemployment and long-term unemployment, do not seem related to either of these variables, while they are strongly related to size. We 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 the "social nexus" in the EU 12. Chart IX & X graphically confirm this result.

[Charts IX & X here]

While Chart X shows that the relation between size and unemployment seems strong, Chart IX gives some evidence of the weakness of the "social nexus." Two versions of the "social nexus" are confronted with reality with no success, the intra-model differences in unemployment being much more significant than inter-model differences, suggesting that another factor drives the divergence among EU 12 member states, namely size.

A final way to measure the apparent irrelevance of the "social nexus" is to pair EU 15 countries two by two, one small and one large, in the same social model category (the "nordic model" has only one small representative). This is done in Chart XI which once more seems to confirm that size trumps social in the euro area.

[Chart XI here]

As already observed in Table V, the performances of the UK among the big countries of the EU 15 are unambiguously the best. One has to keep in mind in this regard that the UK does not belong to the euro area and that, as such, its economic system is ruled by another economic constitution, namely a "golden rule" for public finances (while government consumption has to be balanced, pubic investment can be in deficit) and a subtle constrained discretion model for its

central bank, independent in terms of means ("instrument independence") but not in terms of objectives and accountable to public authorities ("goal independence").

Having presented what we believe to be convincing empirical evidence of the existence of the "size nexus" in the euro area, we now turn to its consequences for the stability of the European monetary union under the current economic constitutional regime.

The ox, the frog and the road to tax and social competition

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. We would like in this sub-Section to articulate the same warning in the EU case, although in the opposite direction. The EU is essentially a big closed economy. Its degree of openness is close to that of the largest of its members. Following our argument, it means that it should allow for macroeconomic policies in order to make the most of its domestic market. Otherwise, in pretending to be a frog while it is an ox, or in applying economic rules made for small economies while it is a large economy, it takes the risk of structurally jeopardizing its growth. "Millian growth" is not suited for the euro area in the long-run.

This is not to say that "Millian growth" has not produced some success. The case of Ireland presented in Chart XII is nothing less than spectacular.

[Chart XII here]

The country is EU' s greatest economic success and best argument for (small) new comers: the country was among the poorest among Western nations before joining the EU (and then the euro area) and is now only second to Luxembourg in terms of GDP per capita. There is no doubt that it was its integration into the Single market that explains its economic success, while its openness is the major feature of its economic structure. The economic constitutional provisions of the EU, the free trade and macroeconomic constraints they entail, fit (and actually shaped) Ireland's economic strategy perfectly well. The downside is that Ireland accounts for less than 2 percent of EU 12 total GDP, which is ultimately the Single market on which Ireland itself

depends, along with all the other small states of the EU. Chart XIII shows how GDP is distributed in the euro area. The three largest countries represent 71 percent of the total. The reason why the European economic constitution appears inefficient is thus straightforward in our view: it is ill-suited for 71 percent of the economic area it rules.

[Chart XIII here]

The paradox and the peril of the situation is that large countries are domestic-driven economies, as shown in Chart XIII, which small countries depend on, as shown on Table VI (while the opposite is not true), but that the European economic constitution is made of rules for small open economies.

[Table VI here]

Another way of looking at the problem is to say that a small country does not need macroeconomic stabilization instruments the way a large one does.[8] The tools available to adjust to a negative macroeconomic shock (recession and rise of unemployment) are not of the same essence, and thus of the same effects, than for a large one. Because its economy is largely open, regarding goods and services as well as foreign direct investments and other capital flows, a fiscal policy will have little effect on domestic demand for a small economy, since most of its impact will be absorbed through imports.

Hence, 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

[8] See Le Cacheux (2005b).

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.

The fate of Germany over the past few years seems to be a perfect illustration of this difficulty of large countries in an economic and monetary union regulated by the rules of the kind of European economic constitution. The "frog strategy" adopted by the largest Euro area country (see Chart XIV) consists in lowering its labor costs to gain export competitiveness. But its growth crucially depends on domestic demand. Hence Germany, against its economic nature, *behaves like a small country*.

[Chart XIV here]

The incentive system devised by the European economic constitution is thus likely to damage growth performance in the EU even further. Small countries could be tempted, like Ireland, to engage in tax and fiscal competition, hoping that retaliation from the large countries will not come. Large countries, *behaving like small countries* and thus trying to compete using "social disinflation" rather than exchange-rate policy, would adopt competitiveness policies focused on labor cost reduction and welfare state roll-back policies. Since they are not small, they will trigger strategic reaction from other large countries, who in turn will engage in the race to the bottom. Some elements of this worst-case scenario have already appeared (see Laurent, 2006).

It should be noted here that social-tax competition acts as a "shadow constitution" for redistribution policies in the EU, as noted by Brennan and Buchanan (1980). It constitutes a set of invisible but effective rules imposed on social policies.[9] It should also be stated that, if this dynamic could be further influenced by the Eastern enlargement, it does not at all seem to result

[9] See Laurent (2006).

from it, but from the economic constitutional regime chosen by Western member states of the EU 25 when they were the EU 15.

This system, if not reformed, could eventually lead to the transformation of the EU 12 into a low growth non-cooperative area[10] whose existence could quickly become uncertain, the fate of the small countries not being any better than that of the large.[11]

In the face of the evidence presented in this and the previous section, it is quite hard to believe that the EU has reached a "stable and attractive" "constitutional compromise" that it would be irresponsible to "upset" (Moravcsik, 2005b). On the contrary, one is inclined to search for solutions to the present and mostly future instability of the European polity induced by the unfair and inefficient European economic constitution. We finally turn to two possible ways of re-contracting the European economic constitution.

3. Economic democracy and federalism: The "Great compromise" *vs.* the "European economic constitution(s)"

In the previous Sections of this paper, we have attempted to show that the trade-off between integrity and efficiency in the EU was sub-optimal: while integrity costs seem very high, efficiency benefits seem very low. In our view, the serious crisis in which the EU is engaged since May 2005 has no other fundamental explanation. We believe, like Paul Romer, that "a crisis is a terrible thing to waste." We thus finally offer in this section two original ways out of the current European predicament, taking into account the necessity of reconciling unity in the EU with diversities in both social model and size.

We first try to formalize a starting point for policy, in the framework of the integrity-efficiency trade-off. The EU is confronted with four possibilities in the space defined by the integrity-efficiency trade-off (see Chart XV).

[Chart XV here]

10 The scenario of a competitive Europe was first presented by Fitoussi (1999). See also Le Cacheux and Saint-Etienne (2005) and Laurent (2005b).
11 Fontagné (2004) shows how the "Luxembourg model" has developed a fatigue of its own.

The first one is the status quo, which, given our arguments in Section 6, isn't really a possibility. An un-reformed European economic constitution would plunge the EU into tax and social competition and eventually result in des-integration (less integrity; less efficiency). Another choice would be to regain some integrity (i.e. national sovereignty) but, if un-coordinated, this risks jeopardizing the global efficiency of the EU (and euro area) and finally not be very different from the pseudo-status quo of tax and social competition (less efficiency; more integrity).

The two remaining choices imply political re-contracting, i.e. the drafting of a new European economic constitution. The first method on this path consists of acknowledging the discrepancy between the "size nexus" and the size-blind economic rules of the European economic constitution and the role it plays in diminishing the efficiency of the EU. It implies discriminating among European countries on the basis of size, and thus sacrificing some integrity (understood here as equality between member states with respect to the choice of economic constitutional provisions) to gain some efficiency. We call this solution the "Great (European) compromise" (less integrity; more efficiency, cf. infra).

The last solution is our preferred solution since it would allow progress both in terms of integrity and efficiency. It would consist of giving a full autonomy to the euro area inside the EU 25, thereby distinguishing between the EU 25 and the EU 12 in terms of choice of constitutional economic provisions. Furthermore, this solution implies what we call a "small compromise" among EU 12 member states, recognizing the importance of the "size nexus" (which explains why, graphically, the frontier between "Great compromise" and "European economic constitutions" is porous). The reason why this last solution would be able to improve both integrity and efficiency, is that it is likely to minimize both integrity and efficiency costs, or, to say it differently, to expand the trade-off frontier between efficiency and integrity.

Before developing these two ways out of the current European crisis in detail, we first have to characterize empirically the context in which they could be undertaken. That is, the spectacular rise of the number of small states in the EU, changing the democratic balance between economic and political power both in the EU 25 and EU 12. In other words, the "size nexus" to be taken into account in economic policies, has first to be taken into account in terms of policy-making.

The rise of the smalls in the EU

To fully understand why size matters and is likely to matter even more in the future, one should actually keep in mind the spectacular contemporary evolution of the number of small and large countries in the EU (see Chart XVI).

[Chart XVI here]

Started in the 1950s with only six countries, three of which were "large" and three "small," the European integration process has progressively included more and more countries but mostly "small" states, that have come to represent 50 percent, 60 percent, 66 percent and finally 76 percent of the total. Chart XIV shows that the tipping point of the contemporary European Union (and of the future euro area) in this respect seems to be 1995, when Finland, Austria and Sweden joined the EU (Finland and Austria later joining the euro area). As shown in Table II & III, the EU and the euro area respectively encompass now, at the end of this evolution, 19 and 8 small states, 2 and 1 medium state and 4 and 3 large states.

As noted in Alesina and Spolaore (2003), the emergence since 1945 of a large number of economically highly integrated and "small" countries is a global, and not only European, phenomenon, corresponding to a simultaneous "economic integration" and "political disintegration". The specificity of the EU "small" states however is that, being the product of the two former evolutions, they have then been able to re-integrate themselves in the framework of a political regime where they have acquired a power unrelated to their demographic and economic size. The idea of the "Great compromise" would be precisely to re-balance the EU in favor of the large states, in the name of "efficiency."

A "great (European) compromise"

"The federal system was created in order to combine the various advantages of largeness with those of smallness"[12] argues Tocqueville in the Chapter VIII, Volume I of his *Democracy in America*. If that is so, given the degree of economic integration achieved in the EU, an agreement between small and large countries should be possible for the sake of mutual benefit.

But first, one should take the measure of the problem at stake, namely the imbalance of power between small and large states in the EU, or more precisely, between economic size and political size in the EU. While small European states are "magnified" by the EU decision-making system in the EU 12 and the EU 25, large European states appear to be "shrunk" when their economic and political size is compared in the euro area and in the EU (see Table VII for the EU 12 and Table VIII for the EU 25).

[Tables VII & VIII here]

This imbalance results in the fact that economic majority and political majority are far from being synchronized in the EU 12 and the EU 25 (see Table IX).

[Table IX here]

Table X shows that 74 percent of the economic size in the EU 25 corresponds to 38 percent to 48 percent of the political size depending on the measure chosen. In the EU 12, 71 percent of the economic size corresponds to 21 percent to 27 percent of the political size (the majority being at 30 percent). Conversely, a solid "economic majority" (56 percent of economic size) represents 23 percent to 32 percent of political size in the EU 25 and 14 percent to 18 percent (compared to a total of 60 percent) in the EU 12.

We should clarify the choice of economic size rather than demographic size for comparison with political size (even if when they are expressed in percentage terms, they only differ little).

[12] Op. cit., p. 182.

The issue of size in the EU is almost always considered, in the political and academic field, from the strictly political point of view. The reason for this is that voting rights are legally distributed in the EU Treaty according to a "principle of population:" the larger the state in terms of inhabitants, the higher the number of votes. But this criterion does not fit in our framework. Our focus in this paper is the EU as an economic democracy between states (as we have tried to define it with the criteria of "integrity" and "efficiency"). While models to build political voice and assess EU's democratic character typically rely on demographic size, we thus prefer the criterion of economic size, in relation to our argument in Section 6.

What would be the point of a "Great European compromise?" For scholars of the history of federal states and institutions, this reference is no surprise (see Laurent and Le Cacheux, 2004c) for the "Great compromise" was the name given to the agreement reached in July 1787 between small and large states in the Philadelphia Convention. The "Virginia Plan," devised by James Madison and presented by Edmund Randolph to preserve the interest of the large states in the Union, equated political power (in the Congress) with demographic size. As such, it was rejected by smaller states. They instead proposed the "New Jersey Plan," drafted by William Paterson, which would leave the structure of Congress unchanged, with each state having one vote. The famous solution later proposed by Roger Sherman, that eventually became the constitutional one, balanced the proportional ("apportioned") representation of the House of representatives with the equal representation in the Senate (one state, two votes). What form could such an agreement, designed to restore efficiency to the European economic constitutional provisions by reducing the power of small states, take in the European Union? Can one imagine a compromise between an "Ireland Plan" and a "Germany Plan?"

To have a clear idea of the possibility of reaching such an agreement, one can briefly look back at the tumultuous recent history of decision-making in the EU. The substantial efficiency, as we have tried to define it (see Section 2 and Section 6), was actually never considered with respect to size. But the formal efficiency of constitutional rules, i.e. the fact that they could allow (or not) for decisions to be taken (whatever their content) has been at the centre of a heated debate between small, medium and large states in the EU in the recent period.

Because they were aware of the increased difficulty of making collective decisions in a Union that was to become more numerous and more heterogeneous, the national governments of the EU15 countries had decided to reform the decision-making rules of the Council before enlarging the

EU. Indeed, this reform was the major, if not only, objective of the Intergovernmental conference (IGC) convened in 2000 to draft what was to become the Nice Treaty.

But the weighting scheme and the triple threshold for qualified majority (72 percent of the votes in the Council, representing at least 50 percent of the member states and at least 62 percent of the EU population) agreed upon are highly complex and hardly transparent. They mostly make it fairly easy for countries to form a blocking minority coalition, so that the decision-making process is most likely not to be efficient.[13] Adopted precipitously without any simulation of how it would actually function, this qualified majority rule immediately appeared to be too complex, inefficient and probably inconsistent in a Union of 25 or more members (Baldwin and Widgrén, 2004a). Realizing that Nice rules would not be sustainable, the European Convention tried to address this issue but did not eventually manage to propose a satisfying "great compromise" between European nations.

The Convention proposed a simpler and apparently more efficient rule: a double majority threshold, with 50 percent of the member states representing at least 60 percent of the EU population. But these lower thresholds gave more power – especially veto power – to "large" member states, thus relatively weakening the blocking powers of coalitions of "small" member states, but mostly that of the two "medium" countries – Poland and Spain – which benefit the most from the compromise reached in Nice (Laurent and Le Cacheux, 2004b and 2004c). In addition, the efficiency gain compared to the Nice decision rules, although real, was actually not very significant (Baldwin and Widgrén, 2004b).

Following the failure of the Brussels summit in December 2003, mostly due to the opposition of the Polish and Spanish governments to what was clearly a loss of influence of these countries compared to what they had gained in Nice, a new round of negotiations, this time within the Intergovernmental conference, led to the adoption of higher thresholds for the double majority rule in the Council. The majority rule adopted in the ECT (and presented in its Article I-25) was the following:

[13] On the probabilities of reaching decision on collective issues with the qualified majority rules of the Nice Treaty, see Bobay (2001) and (2004).

> 1. A qualified majority shall be defined as at least 55% of the members of the Council, comprising at least fifteen of them and representing Member States comprising at least 65 % of the population of the Union. A blocking minority must include at least four Council members, failing which the qualified majority shall be deemed attained.
>
> 2. By way of derogation from paragraph 1, when the Council does not act on a proposal from the Commission or from the Union Minister for Foreign Affairs, the qualified majority shall be defined as at least 72 % of the members of the Council, representing Member States comprising at least 65 % of the population of the Union.
>
> 3. Paragraphs 1 and 2 shall apply to the European Council when it is acting by a qualified majority.

Whereas the double majority rule that had been originally proposed by the Convention – 50 percent of the member states representing at least 60 percent of the EU population – could be regarded as both simple and potentially more efficient than the qualified majority rules of the Nice Treaty, the thresholds finally adopted represented actually a small progress. According to the calculations made by Baldwin and Widgrén (2004b), the probability of reaching collective decisions would have risen from about 5 percent under Nice rules to a little less than 10 percent under the new rules with the 25 present member states, and even slightly more with 27 or 28 (including Turkey, in this case).[14] With the already signed accession of Bulgaria and Romania, the double majority thresholds amount to 15 states and at least 310 millions EU citizens; and if Turkey were to join, the thresholds would be 15 states and at least 360 millions EU citizens.

An additional condition, adopted at the end of the IGC negotiations in Brussels in June 2004, stated that a blocking minority had to include at least four states, a condition that turns out to be binding only for "large" countries, but not for "small" ones. In order to illustrate the properties of this particular double majority rule, and especially the numerous possibilities of forming blocking coalitions, we may give a few examples. A coalition of the six founding countries (Germany, Benelux, France and Italy), or even one that would not include France or Italy, could oppose any decision in the Council; the same could be achieved by a coalition of the 12 new members in the enlarged Union at 27, or indeed any coalition representing at least 170 millions citizens; and in a situation like that prevailing in the Spring of 2003, Italy, Poland, Spain and the UK could have opposed any common decision on Iraq.

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[14] See also the calculations performed by Bobay (2004). The author reaches similar conclusions concerning the decision-making efficiency of the rules eventually included in the ECT and insists on the power gained by "small" states.

Now that the ECT is invalidated, the EU is back to the Nice Treaty rules, which are certainly worse in terms of efficiency than the first Convention compromise, but not that far from the second one, eventually proposed for ratification. The problem of efficiency, considered from a strictly formal point of view remains, and the risk of paralysis of the EU under the Nice rules are high.

Furthermore, the sequence of bargaining on political size opened by the prospect of a new European constitution illustrate the difficulty of negotiating in a more numerous and diverse EU than ever before. Achieving a European "Great compromise" could thus prove very difficult for the very reason it is necessary: the imbalance between small and large states and the existence of medium ones as potential veto players. Table X shows that one important reason why the US succeeded in reaching an agreement between small and large states was their almost perfect balance, reducing the veto power of the medium states.

[Table X here]

But a more fundamental question is to determine, not if a "Great compromise" in the EU 25 is possible, but if it is desirable, i.e. whether a rebalance of power in favor of large states would be enough to insure that more balanced constitutional rules might be chosen. Here, one has to remember that the small economy rules that have been chosen for the EU 12 and that appear so harmful for its economic performances have been essentially pushed forward by France and Germany. So, ultimately, the reason why a "Great compromise" appears unlikely to trigger efficiency is because large states could well end up not choosing the good rules for themselves.

However, the growing opposition between large and small countries in the EU should not be understated. The vote of 25 November 2003 on the SGP can be read as a (nuanced) size-driven opposition between France and Germany (that did not take part in the final vote) on the one hand (supported by Italy and Portugal, Ireland, Belgium, Luxembourg and Greece), and The Netherlands, Finland, Austria and Spain on the other hand, which voted against the conclusions of the EU Council suspending the sanctions contained in the excessive deficit procedure.

Second, if a global reform appears unlikely, some incremental improvements toward a new balance between "large" and "small" states in the EU on the basis of economic size seem

possible. An interesting reform in this respect regards the European central bank that modified its status in April 2003, introducing for the first time in relation to the enlargement of the euro area the criterion of economic size instead of population (or demographic size) and recognizing a specific status to the five countries with the highest GDP in the euro area (Art. 10.2):

> Each member of the Governing Council shall have one vote. As from the date on which the number of members of the Governing Council exceeds 21, each member of the Executive Board shall have one vote and the number of governors with a voting right shall be 15. The latter voting rights shall be assigned and shall rotate as follows:
>
> – as from the date on which the number of governors exceeds 15, until it reaches 22, the governors shall be allocated to two groups, according to a ranking of the size of the share of their national central bank's Member State in the aggregate gross domestic product at market prices and in the total aggregated balance sheet of the monetary financial institutions of the Member States which have adopted the euro. The shares in the aggregate gross domestic product at market prices and in the total aggregated balance sheet of the monetary financial institutions shall be assigned weights of 5/6 and 1/6, respectively. The first group shall be composed of five governors and the second group of the remaining governors.

In this respect, Table VIII and X show that beyond (or more accurately within) the question of the balance between small and large countries in the EU lies the question of the balance between the EU and the euro area. This leads us to our final argument: the constitutional differentiation of the euro area, or the implementation of the European economic constitutions.

The European economic constitution(s)

Admiring the young states of the new American republic, Tocqueville (mistakenly) remarked in Chapter VIII, Volume I of his *Democracy in America* that "One is much like another. Their mores, ideas, and needs are homogeneous. Though some are larger than others, differences of size alone have not given rise to strongly opposing interests."[15]

Uniting the euro area countries enough by giving them a true economic sovereignty so that the difference in their sizes would not be a threat to the future of the EU is the idea behind the "European economic constitution(s)."

[15] Op. cit., p. 134.

Going back to Table VII and Table IX, it appears that the euro area is heavily dependent on the EU for the implementation of its own policies. Given the concentric circles structure of the European economic constitution, this is not surprising. But the imbalance between the economic size and the political size in the euro area and the EU is as striking as that between small and large countries in the EU. Actually, members of the euro area only account for 60 percent of its political size in the Council. While the Council makes decisions that allow for a certain degree of autonomy of the euro area on the *policy* level, the dependence of the euro area on the *constitutional* level is total. EU 12 countries can not choose their Economic constitution without the agreement of the 13 other countries and of the ECB.

Furthermore, Table IX shows that the consistency between economic size and political size is not better in the EU 12 than in the EU 25, or, to say the same thing differently, that the EU 12 is not more integrated politically than the EU 25, while it is much more integrated economically.

Two imperatives thus finally appear. The first is to better differentiate the EU 12 within the EU 25 in terms of economic constitutional choice; the second is to integrate the EU 12 politically at the level of its economic integration. This would provide the foundations for a sustainable economic and monetary union. These two ambitions can only be met through a differentiation between the two European economic constitutions corresponding to the EU 25 and the EU 12.

Alesina and Spolaore (2003) formalize the "optimal size" of countries in public economics terms as resulting from a trade-off between the efficiency of the provision of public goods (economies of scale) and the heterogeneity of preferences. This is a generalization of the classic argument of the economic federalism theory[16] on the optimal level of public policy within federations ("subsidiarity" in EU parlance). In the constitutional framework that we have chosen, this optimal trade-off is between efficiency and integrity. In theory, it should in fact be related to the issue of optimal (external) size. There should be a coalition of countries that, given their characteristics in terms of diversity both according to their social model and their size, makes it possible to minimize integrity and efficiency costs. Once more, we turn to Buchanan and Tullock (1962) to illustrate this idea of an "optimal constitution" in the EU (see Chart XVII).

[Chart XVII here]

[16] See Oates (1999).

How do we define the boundaries of this coalition of countries, or, to put it in Buchanan's (1965) terms, how do we justify an "optimal exclusion" (and inclusion) in the EU? There, we have to add to our normative framework an unmistakable positive reality: twelve EU countries have *already* decided to give up their monetary sovereignty to form the euro area. The question is thus not how to form the coalition of countries that would minimize integrity and efficiency costs, but how to effectively reduce integrity and efficiency costs for this coalition given the fact that it exists. As argued, the two steps in this direction would have to be autonomy and integration.

Autonomy in the constitutional choice of economic policies rules implies that integrity and efficiency costs would be reduced simultaneously by respecting two conditions. The first is that the rules chosen in the euro area are general and take into account the size of member states. This means that euro area countries should reform the rules of monetary and fiscal policies in the course of a "small compromise" leading to an efficient and proactive macroeconomic framework. It should be easier than a "great compromise" because of the presence of only 66 percent of small states and 1 medium state in the euro area, instead of 76 percent and 2 medium member states in the EU as a whole. Only then would the large and small states be on an equal footing.

Since the UK and Poland remain outside the euro area, the latter comprises 4 of the 6 large countries of the EU. If the UK and Poland keep their macroeconomic autonomy and use it to compensate the handicap of their size in the Single market, giving the euro area an economic constitution respecting the integrity and efficiency principles makes it possible to ease the consequences of the "size nexus."

A further important question would be to know what kind of rules a European economic constitution for the euro area should have. There, a trade-off in the trade-off could appear between revision and neutrality, the euro area members being able to take the risk of political integration (with a revisable economic constitution) because preferences would become close enough under the effect of more neutral rules. In the classical terms of federalism, this idea means allowing for homogenous preferences to form at the level where externalities and economies of scale occur. An important step toward further integration once autonomy is gained would be to define "European public goods" financed by a real autonomous budget paid for by a unified corporate tax (see Laurent & Le Cacheux, 2004).

Two different economic constitutions should thus be implemented in the EU 25. The first one, the "EU economic constitution," would be submitted to the EU 25 member states and legally bind them. Including the main elements of the first historical economic constitution, it would combine the regulations of the Single market (and the competition policy attached to it) with a reformed EU budget (see Le Cacheux 2005). Member states should be left free regarding their macroeconomic policies.

The second economic constitution would really be the "euro area Constitution." Submitted only to the ratification of euro area members and amendable by them only, it would be revisable through qualified majority and include neutral and efficient provisions regarding monetary, exchange rate and fiscal policies taking into account size.[17]

In the end, the major reason why the "European constitution(s)" solution seems better suited for the EU is that it answers our "integrity" and "size nexus" concerns in a less costly way, in efficiency sense, than the "Great compromise."

4. Epilogue: 1955 or 1965?

The solutions proposed to the current predicament of the EU (which present crisis is a symptom of) rely ultimately on one possibly heroic assumption: that the EU has the political resources to invent innovative new political paths into the future. If the time is 1955, at the moment when the Messina conference opened the way for the Treaty of Rome after the European Defense Community crisis, then our optimism is justified. If the time is 1965, when the "Luxembourg compromise" blocked the way of European integration, that only the Single Act, 20 years later, revived, then it is simply, for now, misplaced.

[17] See Laurent & Le Cacheux (2004a), (2004b) and (2004c).

References

ABRAMOVITZ, M. 1989. *Thinking About Growth*. Cambridge MA: Cambridge University Press.

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." AGHION P. & DURLAUF S., eds. *Handbook of Economic Growth*. Amsterdam: North Holland, accessed at http://www.stanford.edu/~wacziarg/

AMAR, A. R. 2005. *America's Constitution: A biography*. New York: Random House.

ARCHER, N. & NUGENT, C. (eds.) 2002. "Small states and the European Union." *Current politics and economics of Europe* 11:1.

ARROW, K., J. 1951. *Social Choice and Individual Values*. New York: Wiley & Sons.

ATKINSON, A. B., FITOUSSI, J-P. et al. 1993. *Competitive Disinflation and Economic Policy in Europe*. Oxford: Oxford University Press.

BALDWIN, R. & WIDGRÉN, M. 2004a. "Council voting in the Constitutional Treaty: Devil in the details." *CEPS Policy Brief* n°53. Center for European Policy Studies, Brussels, accessed at www.unige.ge/baldwin.

BALDWIN, R. & WIDGRÉN M. 2004b. "Winners and Losers Under Various Dual Majority Rules for the EU Council of Ministers." *CEPR Discussion Paper* n°4450. Center for European Policy Research, London.

BEARD, C. A. 1913. *An Economic Interpretation of The Constitution of The United States*. New York: Macmillan, accessed at http://socserv.mcmaster.ca/econ/ugcm/3ll3/beard

BLANKART, C. B. & MUELLER, D. C. (eds.). 2004. *A Constitution for the European Union*. Cambridge MA: MIT Press.

BOBAY, F. 2001. "La réforme du Conseil de l'Union européenne à partir de la théorie des jeux." *Revue française d'économie* 16: 3-61.

BOBAY, F. 2004. "Constitution européenne : redistribution du pouvoir des Etats au Conseil de l'UE." *Économie et Prévision* 163: 101-115.

BRENNAN, G. & BUCHANAN, J. M. 1988. *The reason of rules–Constitutional political economy*. New York: Cambridge University Press.

BRENNAN, G. & HAMLIN A. 1998. "Constitutional Economics." *The New Palgrave Dictionary of Economics and the Law*. New York: Macmillan Reference.

BRETON, A., SALMON P. & WINTROBE R. (eds.) 2000. *Rational Foundations of Democratic Politics*. New York: Cambridge University Press.

BUCHANAN, J. M. 1965. "An Economic Theory of Clubs." *Economica* 125: 1-14.

BUCHANAN, J. M. 1987. "The Constitution of Economic Policy." *American Economic Review* 77: 243-25.

BUCHANAN, J. M. & TULLOCK, G. 1962. *The Calculus of Consent*. Ann Arbor: University of Michigan Press.

CREEL, J. LAURENT, E., LE CACHEUX, J. 2005. "Delegation in Inconsistency: The 'Lisbon strategy' Record as an Institutional Failure." *OFCE Working Paper* n°2005-07, June, available at http://www.ofce.sciences-po.fr/.

COLLIGNON, S. 2003. *The European Republic; Reflections on the Political Economy of a Future Constitution*. London: Federal Trust for Education & Research.

DEMEYER, F. & PLOTT, C. R. 1970. "The probability of cyclical majority." *Econometrica* 38: 345-354.

DUVAL, R. & ELMESKOV, J. 2005. "The Effects of EMU on Structural Reforms in Labour and Product Markets." *OECD Economics Department Working Paper* n°438. Organization for Economic Cooperation and Development, Paris.

ELSTER, J. 1979. *Ulysses and the Sirens: Studies in rationality and irrationality*. New York: Cambridge University Press.

ELSTER, J. 2000. *Ulysses unbound–Studies in rationality, pre-commitment, and constraints*. New York: Cambridge University Press.

FITOUSSI, J-P. 1995. *Le débat interdit : monnaie, Europe, pauvreté*. Paris: Arléa.

FITOUSSI, J-P. (ed.). 1999. *Rapport sur l'état de l'Union européenne 1999*. Paris: Fayard/Presses de Sciences-Po.

FITOUSSI, J-P. 2002a. *La règle et le choix*. Paris: Seuil.

FITOUSSI, J-P. 2002b. "Comments on Nickell, Nunziata, Ochel and Quintini." AGHION, P., FRYDMAN, R., STIGLITZ, J. & WOODFORD, M., eds. *Knowledge, information, and expectations in modern macroeconomics*. Princeton NJ: Princeton University Press.

FITOUSSI, J-P. & LAURENT, E., 2004. "L'empire de la règle: l'intégration européenne en mal de démocratie." DE MONTBRIAL, T. & MOREAU DESFARGES, P., eds. *Ramsès 2004 : les grandes tendances du monde*. Paris: Ifri/Dunod.

FITOUSSI, J-P. & LAURENT, E. 2005. "Overruled Europa: Market vs. Democracy in the EU." FITOUSSI, J-P. and PADOA SCHIOPPA, F. (eds.). *Report on the State of the European Union Vol. 1*. London: Palgrave Macmillan.

FITOUSSI, J-P., & LE CACHEUX, J. (eds.) 2003. *Rapport sur l'état de l'Union européenne 2004*. Paris: Fayard/Presses de Sciences Po.

FITOUSSI, J-P. & Passet O. 2000. *Réduction du chômage: les réussites en Europe*. Rapport du Conseil d'Analyse Economique n°23. Paris: La Documentation Française.

FONTAGNE, L. 2004. *Compétitivité du Luxembourg : une paille dans l'acier*. Rapport pour le Ministère de l'Economie et du Commerce extérieur du Grand-Duché de Luxembourg (novembre), accessed at http://www.eco.public.lu/documentation/rapports/Rapport_Fontagne.pdf

HALL, P. A. AND SOSKICE, D. (eds.) 2001. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.

HIX, S. 2005. *The Political System of the European Union*, 2nd edition. London: Palgrave.

JOERGES, C. 2004. "What is Left of the European Economic Constitution?" *EUI working paper Law* n°2004/13, European University Institute, Florence.

KATZENSTEIN, P. J. 1985. *Small States in Global Markets*. Ithaca: Cornell University Press.

KING, M. 2004. "The Institutions of Monetary Policy," Richard T. Ely Lecture. *American Economic review AEA Papers & Proceedings* 94:1-13.

KNIGHT, F. H. 1921. *Risk, Uncertainty and Profit*. Boston & New York: Houghton Mifflin Company.

KYDLAND, F. E. & PRESCOTT, E. C. 1977. "Rules Rather than Discretion: The Inconsistency of Optimal Plans." *Journal of Political Economy* 85: 473-491.

LAURENT, E. 2005a. "From Tax Competition to Social Race to the Bottom: European Models and the Challenge of Mobility." Fitoussi, J-P. and Padoa Schioppa, F. K., eds. *Report on the State of the European Union, Vol. 1*. London: Palgrave Macmillan.

LAURENT, E. 2005b. "La croissance du progrès social." *Revue de l'OFCE* 93: 357-366.

LAURENT, E. 2006. "From Competition to Constitution: Races to bottoms and the 'Shadow' Social Europe." Forthcoming.

LAURENT, E. & LE CACHEUX, J. 2003a. "Constitution européenne : l'union politique dans les limbes." *Lettre de l' OFCE* n°238, available at http://www.ofce.sciences-po.fr/

LAURENT, E. & LE CACHEUX, J. 2003b. "The New Social Europe and The Capability Approach." Paper presented at the EUROCAP Workshop "*Grounds for a New approach to Social Policies in Europe*." European University Institute, Florence, June 6-7.

LAURENT, E. & LE CACHEUX, J. 2004a. "Large Hence Vicious, Small Thus Virtuous? The Criterion of Size in Macroeconomic Policy Making in the Euro zone." Paper presented at the XVI Villa Mondragone International Economic Seminar: *"Rules, International Economy and Growth*." Monte Porzio Catone, Rome, June 23-24.

LAURENT, E. & LE CACHEUX, J. 2004b. "L'Europe 'boucles d'or': trois maximes pour sortir d'une impasse." *Lettre de l'OFCE* n°246, available at http://www.ofce.sciences-po.fr/

LAURENT, E. & LE CACHEUX, J. 2004c. "L'Union européenne en quête d'un grand compromis." *The Tocqueville Review/La Revue Tocqueville* 25 : 23-40.

LAYARD R., NICKELL S. & JACKMAN R. 1991. *Unemployment-Macroeconomic Performance and the Labour Market*. Oxford: Oxford University Press.

LE CACHEUX, J. 2003. "Démocratie et marché. Politiques macroéconomiques: règles et modes de prise de decision." R. Damane, ed. *La Démocratie en Europe*. Paris: Economica.

LE CACHEUX, J. 2004. "L'avenir du budget européen et le financement des politiques communes." LEFEBVRE, M., ed. *Quel budget européen à l'horizon 2013?* IFRI/CEES. Paris: La Documentation française.

LE CACHEUX, J. 2005a. *European budget: The poisonous budget rebate debate*. Studies & Research n°41. Association Notre Europe. Paris.

LE CACHEUX, J. 2005b. "Politiques de croissance en Europe : un problème d'action collective. " *Revue économique* 56: 230-45.

LE CACHEUX, J. & SAINT-ETIENNE, C. 2005. *Croissance équitable et concurrence fiscale*. Rapport du Conseil d'Analyse Economique n°56. Paris: La Documentation Française.

LE CACHEUX, J. and Sterdyniak, H. 2003. "Comment améliorer les performances de l'Europe ?" *Revue de l'OFCE* n° 87, available at http://www.ofce.sciences-po.fr/

LEONARD, M. 2005. *Why Europe Will Run the 21st Century*. London: Fourth Estate.

LINDERT P. H. 2004. *Growing Public: Social Spending and Economic Growth Since the Eighteenth Century, Volume I: The Story*. New York: Cambridge University Press.

MADURO, L. M. P. 1998. *We the court, The European Court of Justice and the European Economic Constitution*. Oxford: Hart Publishing.

MAJONE, G. 1996. *Regulating Europe*. London: Routledge.

MAJONE, G. 2005. "Delegation of Powers and the Fiduciary Principle." Paper presented at the CONNEX Workshop "Delegation and Multi-Level Governance." Paris, 11 May 2005.

MCCALLUM, J. 1995. "National Borders Matter: Canada-US Regional Trade Patterns." *American Economic Review* 85: 615-23.

MILL, J. S. 1844. *Essays on Some Unsettled Questions of Political Economy*. London: Longmans, accessed at http://www.econlib.org/library/Mill

MILL, J. S. 1848. *Principles of Political Economy*. London: Longmans, accessed at http://www.econlib.org/library/Mill

MILWARD, A. S. 1992. *The European Rescue of the Nation-state*. Berkeley & Los Angeles: University of California Press.

MORAVCSIK, A. 2002. "In Defence of the Democratic Deficit: Reassessing Legitimacy in the European Union." *Journal of Common Market Studies* (40th Anniversary Edition) 40: 603-24.

MORAVCSIK, A. 2005a. "Europe without Illusions." MORAVSCIK, ed. *Europe without Illusions*. Lanham, MD: University Press of America, accessed at http://www.princeton.edu/~amoravcs/

MORAVCSIK, A. 2005b. "The European Constitutional Compromise and the Neofunctionalist Legacy." *Journal of European Public Policy* 12: 349-86, *idem*.

MUELLER, D. C. 2005. "Constitutional political economy in the European Union." *Public Choice* 124: 57–73.

OATES, W. E. 1999. "An Essay on Fiscal Federalism." *Journal of Economic Literature* 37: 1120-49.

OLSON, M. 1965. *The Logic of collective action*. Cambridge MA: Harvard University Press.

PARKER, W. N. 1984. *Europe, America, and the Wider World*. Cambridge: Cambridge University Press.

PHELPS, E. 1985. *Political Economy: An Introductory Text*. New York & London: W.W. Norton and Co.

PLOTT, C. R. 1991. "Will Economics Become an Experimental Science." *Southern Economic Journal* 57: 901-19.

RAWLS, J. 1971. *A Theory of Justice*. Princeton NJ: Princeton University Press.

RODRIK, D. 1998. "Why do more open economies have bigger governments?" *Journal of Political Economy* 106: 997-1032.

SCHARPF, F. 1999. *Governing in Europe: Effective and Democratic?* Oxford: Oxford University Press.

SCHARPF, F. 2002. "The European Social Model-Coping with the Challenges of Diversity." *Journal of Common Market Studies* (40th Anniversary Edition) 40: 645-70.

SIEDENTOP, L. 2002. *Democracy in Europe*. New York: Columbia University Press.

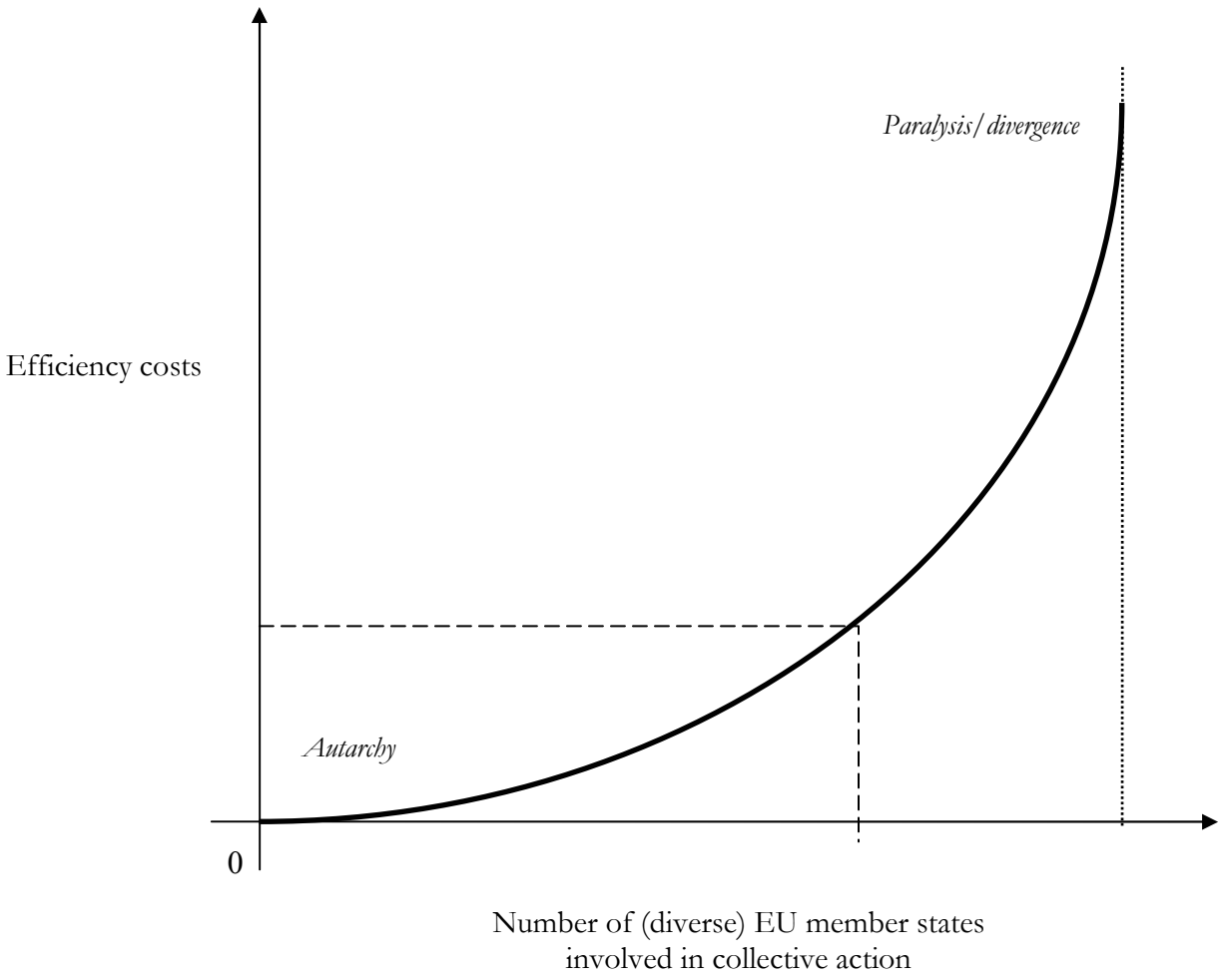
SKACH, C. 2005. "We, the Peoples? Constitutionalizing the European Union." *Journal of Common Market Studies* 43: 149-70.

WEILER, J. H. 2002. "A Constitution for Europe? Some Hard Choices." *Journal of Common Market Studies* (40th Anniversary Edition) 40: 563-80.

WEILER, J. H. 2003. "In defense of the status quo: Europe's constitutional *Sonderweg*." WEILER, J.H. & WIND, M. eds. *European constitutionalism beyond the state*. New York: Cambridge University Press.

WICKSELL, K. 1896. "A New Principle of Just Taxation." Quoted in BUCHANAN. 1987.

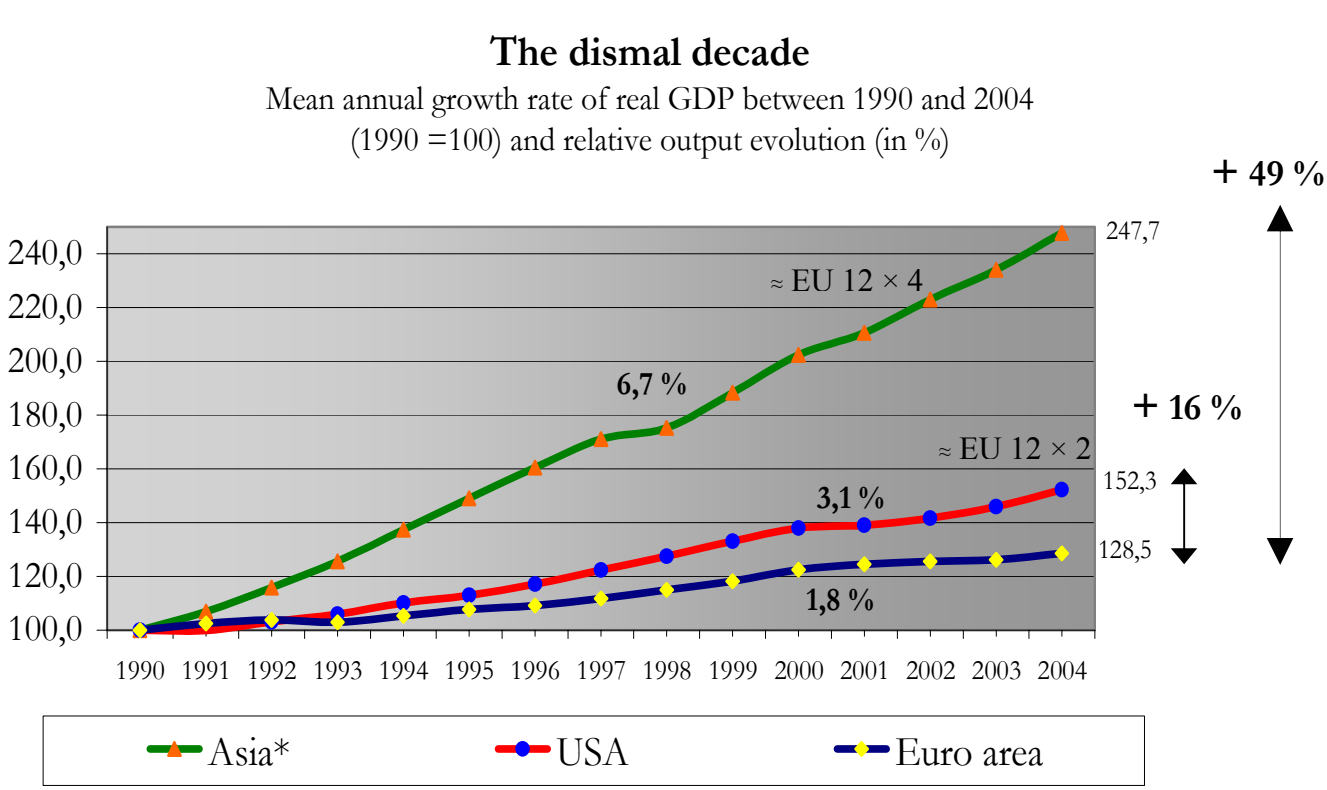
Chart I
THE "PRINCIPLE OF EFFICIENCY"



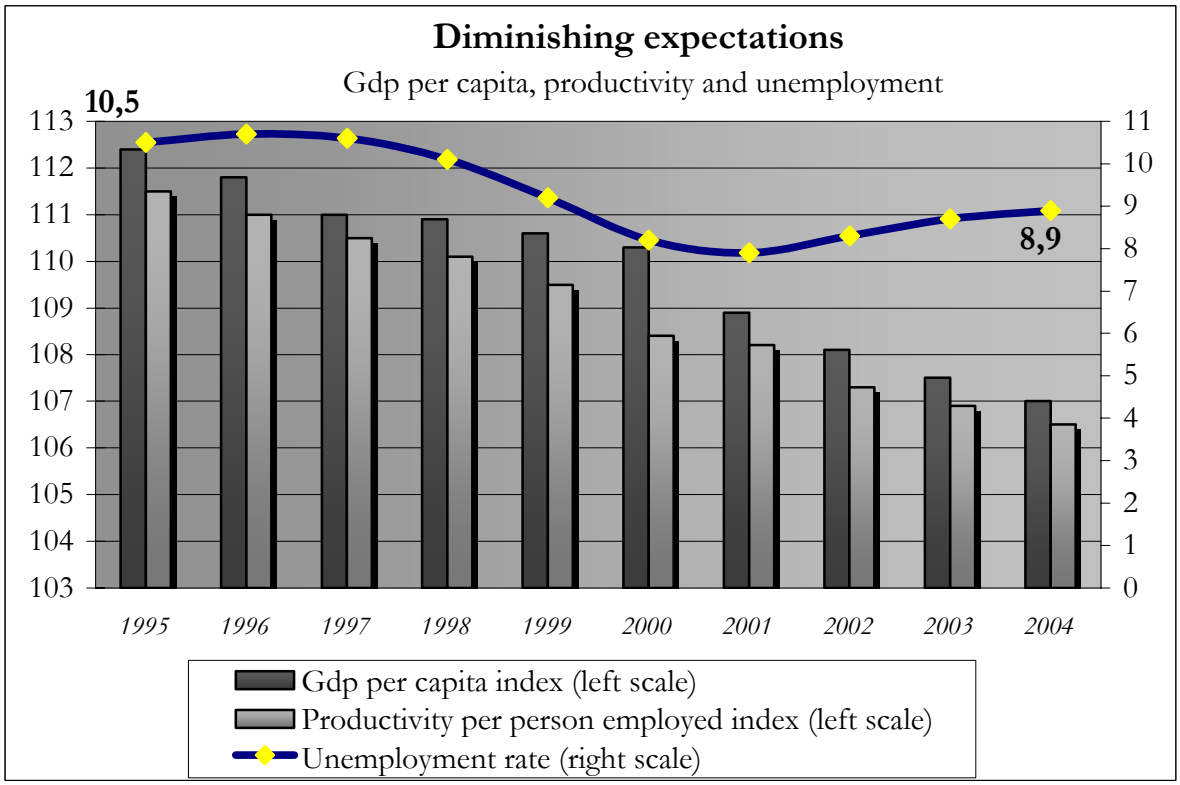
Source: Adapted from Buchanan and Tullock (1962).

Chart II

THE EURO AREA: NOT GROWING, NOR DEVELOPING…



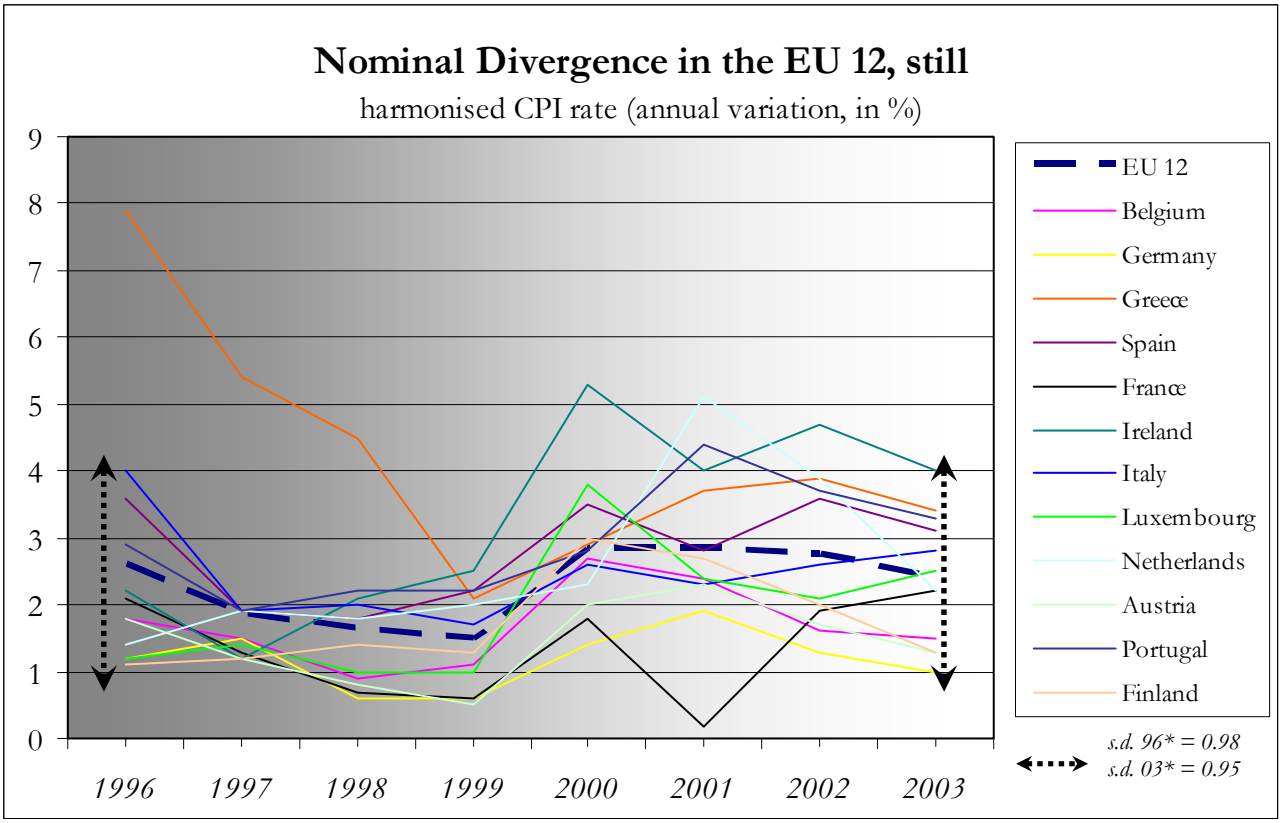
* Asia is composed of China, India, South Korea, Hong Kong, Taiwan and Singapore.
Source: Fitoussi and Le Cacheux (2005) and own calculations.



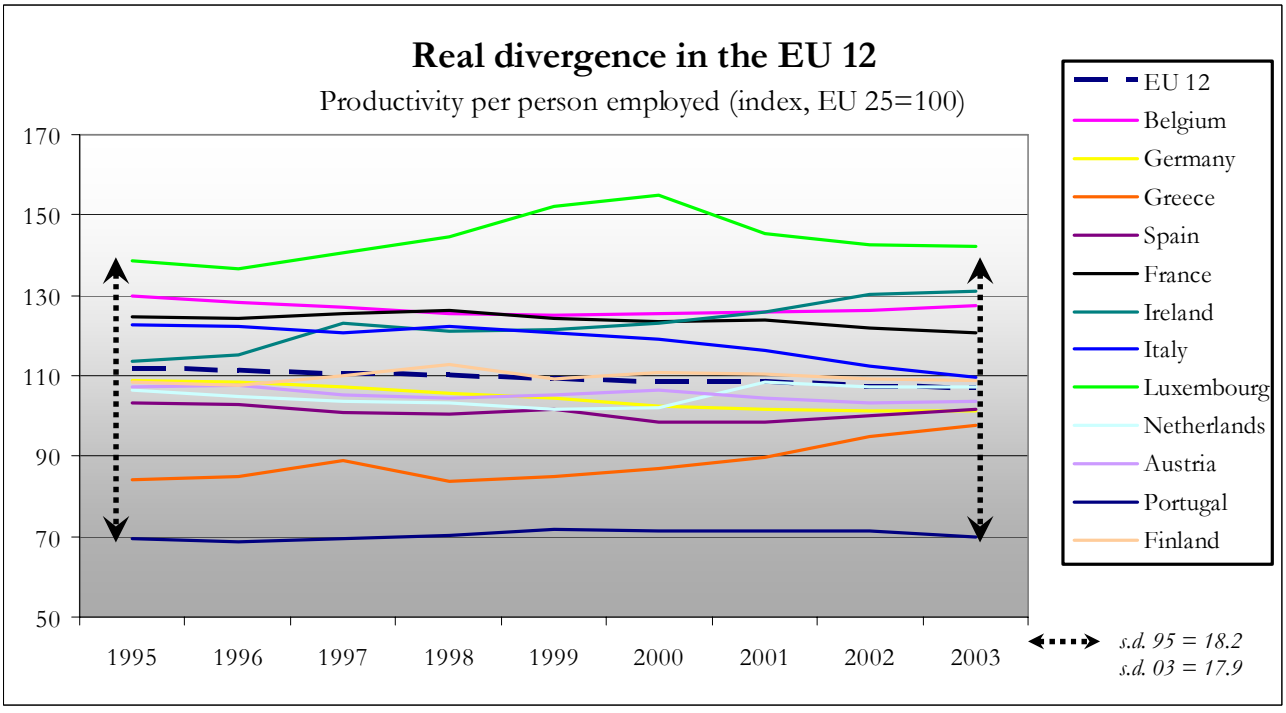
Source: Eurostat.

Chart III

...NOR CONVERGING.



* excluding Greece.



Source: Eurostat.

Table I

DEMOGRAPHIC SIZE IN THE EU 25 (AND EU 12) IN 2003

in million

Country★	Population *	
Malta	0.4	
Luxembourg	0.4	
Cyprus	0.7	
Estonia	1.4	
Slovenia	2.0	
Latvia	2.3	
Lithuania	3.5	
Ireland	4.0	
Finland	5.2	
Slovakia	5.4	
Denmark	5.4	
Austria	8.1	**«SMALL»** (19, **8)**
Sweden	8.9	
Hungary	10.1	
Czech Republic	10.2	
Belgium	10.4	
Portugal	10.4	
Greece	11.0	
Netherlands	16.2	
20 m		
Poland	38.2	**«MEDIUM»** (2, **1)**
Spain	40.7	
41 m		
Italy	57.3	**«LARGE»** (4, **3)**
United Kingdom	59.3	
France	59.6	
Germany	82.5	

★ Euro area members in bold.

* As of January 1, 2003.

Note: A "small" state is defined as one with a population inferior to the fourth of the population of the biggest state. A "medium" state is defined as one with a population inferior to half of the population of the biggest state. "Large" states are those remaining.

Table II

ECONOMIC SIZE IN THE EU 25 IN 2003

(GDP AT 1995 MARKET PRICE)

in million euros

Country★		
Malta	3060.0	
Estonia	4587.5	
Latvia	6006.9	
Lithuania	7473.4	
Cyprus	9141.7	
Slovakia	20157.2	
Slovenia	20547.5	
Luxembourg	20822.5	
Hungary	45952.8	
Czech Republic	49084.2	
Ireland	94028.1	**«SMALL»**
Portugal	100791.6	**(**20, **8)**
Greece	120580.7	
Finland	132971.4	
Poland	141918.2	
Denmark	161290.0	
Austria	218603.4	
Sweden	232715.9	
Belgium	249184.9	
Netherlands	386653.6	
539946		
Spain	591615.8	**«MEDIUM»** **(**1, **1)**
1079892		
Italy	944964.5	
UK	1086470.6	**«LARGE»**
France	1442220.8	**(**4, **3)**
Germany	2159784.9	

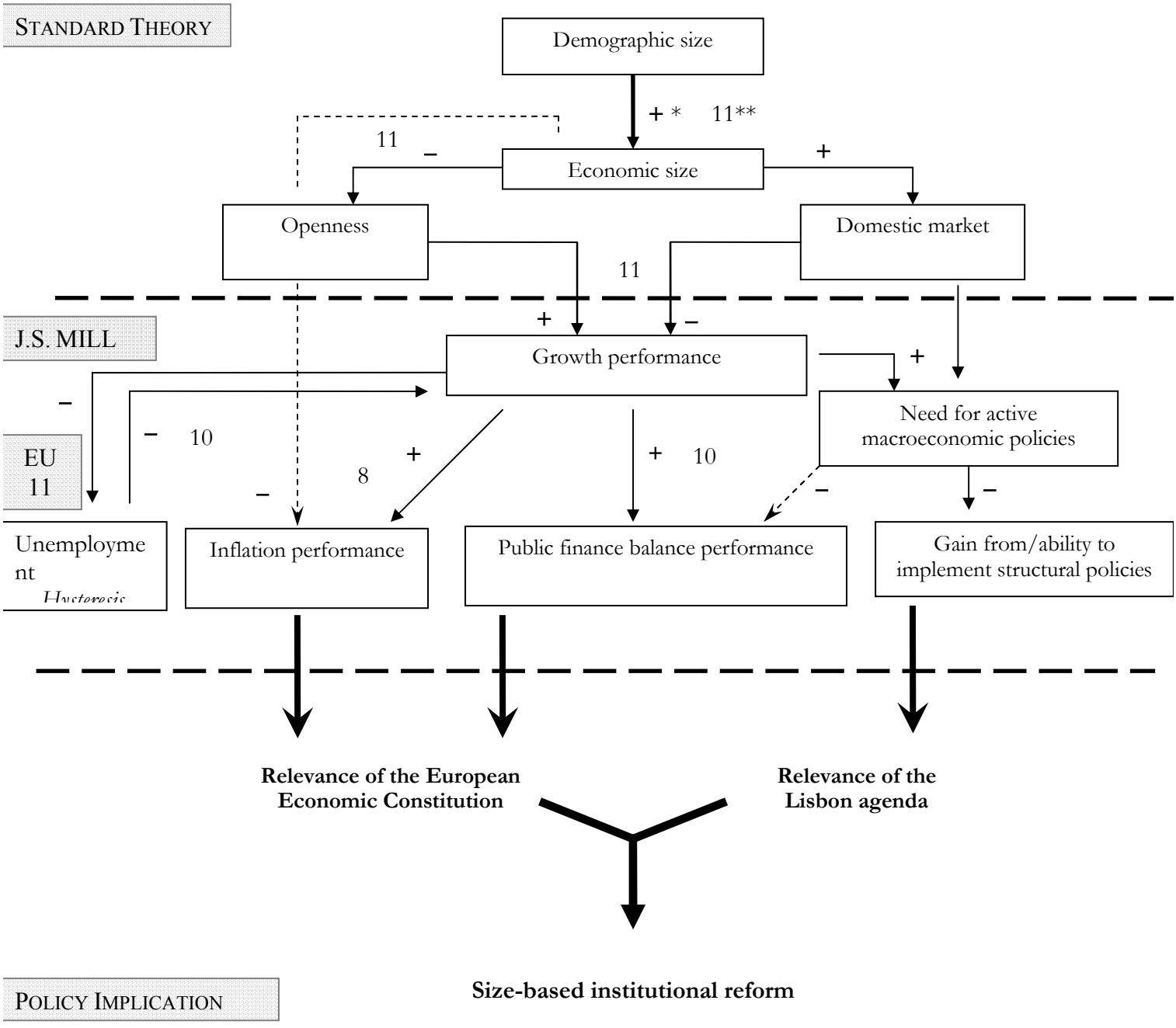
★ Euro area members in bold.

Note: A "small" state is defined as one with a GDP inferior to the fourth of the GDP of the biggest state. A "medium" state is defined as one with a GDP inferior to half of the GDP of the biggest state. "Large" states are those remaining.

Source: Eurostat.

Chart IV

THE "SIZE NEXUS" IN THE EU 12: A SIMPLE THEORETICAL FRAMEWORK



*: Empirical sign of the relation (see infra).
**: Number of EU 12 countries for which a significant relation was empirically found (see infra).

Box I

THE "SIZE NEXUS" IN THE EU 12: A BASIC EMPIRICAL STRATEGY

— The data —

Given the small number of countries belonging to the euro area (12 in 2006) and its young age (the Euro was launched in 1999 and became public in 2002), a lot of studies assessing the performance of the European economy crucially rely on "subjective data," following the concepts developed and publicized by the OECD. The most widely used are, quantitatively, the "output gap" (and its derivatives: "structural" growth, "structural" unemployment…) and, qualitatively, "labor market rigidity" indexes (such as "employment protection," "coordination," "centralization"…).

In order to test our hypotheses we have chosen instead to rely on (the most possible) "objective" and recent freely available data. They largely come from Eurostat (with the exception of "openness" data, which come from OECD). This choice has its own serious limitations.

Our data cover the 1996-2003/2004 period. This is the only timeframe where two conditions are satisfied in order to evaluate the effects of the European economic constitution and the related issue of (country) size. First, the European economic constitution, partly implemented in 1993 and renewed in 1992 (see Section 4), is in place by the beginning of the period and fully in effect by the middle of it. Second, a certain convergence has taken place before the beginning of our period (although we show that it was not deepened by the European economic constitution).

Our dataset comprises 11 of the 12 euro area countries. We have chosen not to include Spain because it is the only "medium" country of the EU12. Our results thus really shed light on the gap in performance between "large" (the "big 3") and "small" (the "small 8") countries of the euro area.

If size really matters, as we argue, then our results could be very fragile. The dataset on which we perform our estimations can indeed seem very small by the standard of contemporary econometrics. However, one should keep in mind that ours is not a sample, but the population itself. By the same token, the exclusion of one or more outliers in some regressions is in our view counterbalanced by their economic significance. None do encompass less than 94 percent of the EU 11 GDP, 62 percent of the small states and 100 percent of large states. Furthermore, even if the number of observations is obviously small, each is an average calculated on the 1996-2004 period. Finally, correlation coefficients and individual coefficients obtained are quite strong. To further allow the reader to test the validity of our methodology, we have added a table containing our data that we use to compare them to other countries outside the euro area (Table V and Section 6). It shows that "estimations" provided by means are close to those obtained by OLS regression.

— The theoretical framework —

The issue is to determine how our theoretical framework (described in Chart IV) compares to standard economic theory. Two questions emerge. The first one is the relation between population and growth levels. We assume that the two are highly correlated and that population causes GDP levels and not the other way around. In doing so, we rely on the basic assumptions underlying the standard production function that relates population (labor, skilled or not), capital and technical progress to output. But one could then argue that population should be represented by the labor force and not total population.

However this measure would only account for production and not consumption, while we are interested in the size of the domestic market.

Another related question is how to avoid the reverse causation between size and macroeconomic performance. If GDP levels are used as the size variable, then high inflation and low public deficit could cause high GDP levels, and not the reverse. This is why we use demographic size as a proxy for economic size. Demographic size is almost perfectly correlated to economic size and the direction of this correlation is un-ambiguous. The direction of the correlation between demographic size and economic performances is also un-ambiguous.

A further assumption is that since demographic size is a proxy for economic size, economic size is mediated by openness, which effect on growth captures both the importance of openness and, conversely, the importance of the domestic market. We can indeed write approximately that GDP = domestic market + trade with the world. Hence that domestic market = GDP-openness (defined as the trade to GDP ratio).

Our measure of demographic size, in percentage of the total, is unconventional. As explained in Section 6, we wanted a comparative measure of demographic size and not an absolute one (like logs of population), i.e. a significant measure of the weight of each country in the euro area.

— The models —

We estimate four models:

1) The first one reveals approximations and mediations between demographic size, economic size and openness when regressed on real economic growth (Table V-A);

2) The second one attempts to test the quality of the univariate regression of size on growth by confronting it to two other hypotheses: the "social nexus" and the endogenous growth theory (Table V-B);

3) In the third, which is two-fold (Table V-C & Table V-D), inflation and public deficit regressions are tested to see if the only effect of openness on their variances runs through growth or if a direct effect of size exists on either or both;

4) Finally, size regressions on unemployment and long-term unemployment are tested against the "social nexus" hypothesis (Table V-E & Table V-F).

— The results —

- We first find, as expected, that size influences real growth in the EU 12. Economic size is proxied by demographic size and size is mediated by openness in influencing the real growth of GDP.

- Our results are also useful to understand the effect of size on the conduct of macroeconomic policy in the euro area. In particular, they reveal a systematic divergence between small and large countries in terms of inflation and public deficit. However, the inflation coefficient is weaker and more fragile than the public deficit coefficient, which appears on the contrary too strong. As regards inflation, the reason might be that the European economic and monetary integration has lowered the importance of domestic factors in predicting accurately inflation rates. Another explanation could be the consequence of competitive strategies undertaken by small countries in the European context. Whatever the reasons, the weakness of the coefficient must not lead to the conclusion that size and monetary policy are merely un-related. The consequence of a uniform restrictive monetary policy on large countries and on euro area weighted

growth appears very real (see Chart VIII). As for public deficits, the direct effect of size is positive: the bigger the economy, the larger the need for macro stabilization, the bigger the deficit.

- We find that GDP per capita and real GDP growth are negatively correlated with size in the EU 12 and that openness is strongly and negatively correlated with size. Size, it seems, determines openness that in turn determines growth, inflation and public deficit performance. The results presented in Alesina and Spolaore (2003) suggest that GDP per capita and real GDP growth should be positively associated with size, but that openness*size should be negatively correlated with both, giving small open economies a comparative advantage in a globalized world. Our results being contradictory to this finding, we are able to interpret them as the symptom of the development of a specific kind of growth process in the euro area brought about by the implementation of the European economic constitution.

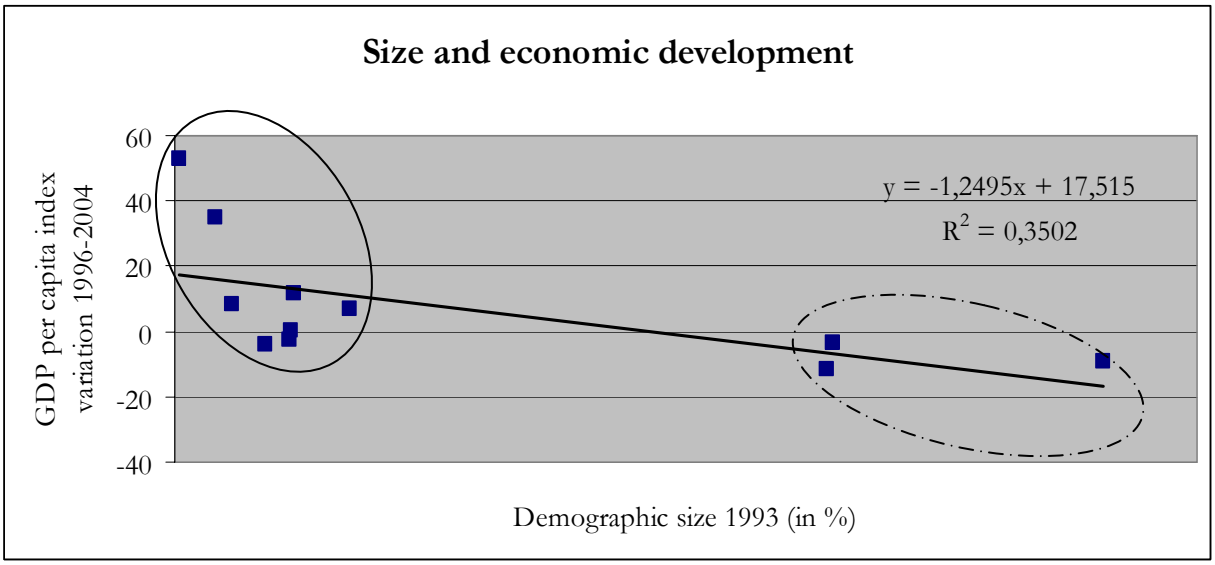
- Our results, as limited as they are, could thus shed some light on the nature of the European growth. One would expect, according to a standard result of the endogenous growth theory, that GDP per capita and GDP levels would be connected to growth rates and, from there, to macroeconomic performances. As noted in Alesina, Spolaore & Warcziarg (2005), "scale effects may be more present in the increasing returns, endogenous growth phase that characterises advanced industrialized countries." We find the opposite: GDP levels, represented by population levels, and GDP per capita levels, are negatively correlated to growth rates.

The growth process in the EU therefore appears more "Smithian" than "Schumpeterian" (Parker, 1984), but in a very specific way. We propose to call it "Millian" in reference to the arguments developed by J. S. Mill on the impact of country size on trade benefits (see Section 6). Hence, the "Millian" growth in the EU designates the bias of the growth process in favor of small open countries that end up doing systematically better than large ones under the European economic constitution. The (Solow) hypothesis of a simple catch-up by small member states should be rejected both because of the dynamic shown in Table IV-A and IV-B and of the results of the regression of GDP per capita level on growth.

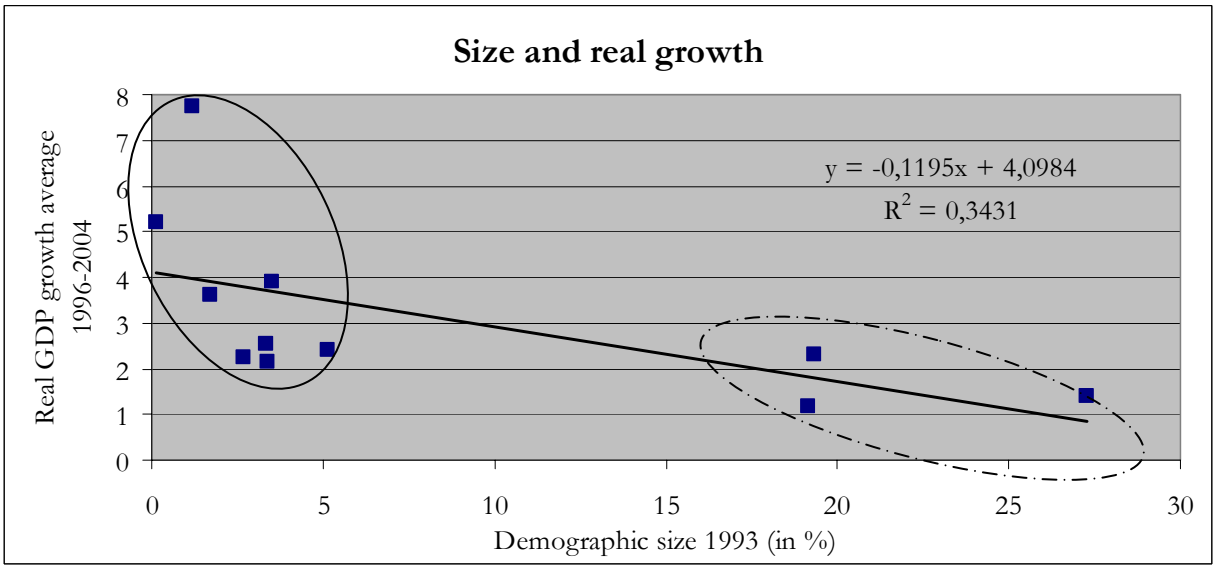
- Finally, our last result regards the existence of a "social nexus" in the euro area. We find that the "size nexus" does a much better job at explaining differences in unemployment and long-term unemployment than a "social model" based explanation (see Charts IX to X and Section 6 for an explanation).

Chart V

THE "SIZE NEXUS" IN THE EU 12: DEVELOPMENT & GROWTH



Difference between "small eight" and "big three" = 24.08
Coefficient significant at 5 %.



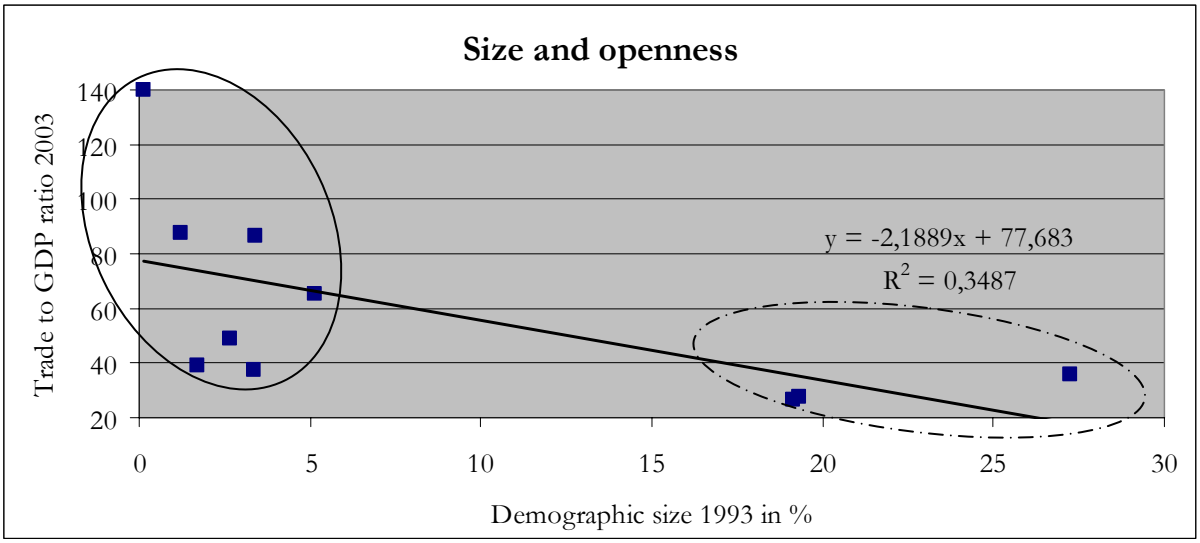
Difference between "small eight" and "big three" = 2.3
Coefficient significant at 5 %.

Source: Eurostat.

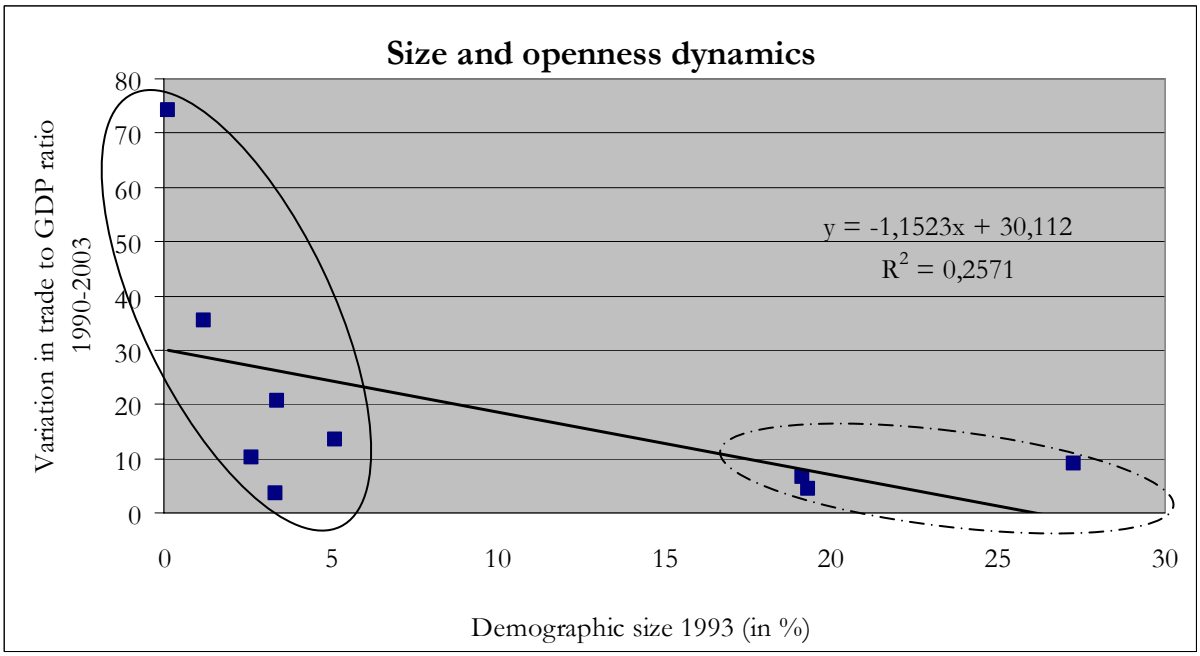
"Small eight" "Big three"

Chart VI

THE "SIZE NEXUS" IN THE EU 12: OPENNESS



OLS regression without Greece.
Difference between "small eight" and "big three" = 42.
Coefficient significant at 10 %.



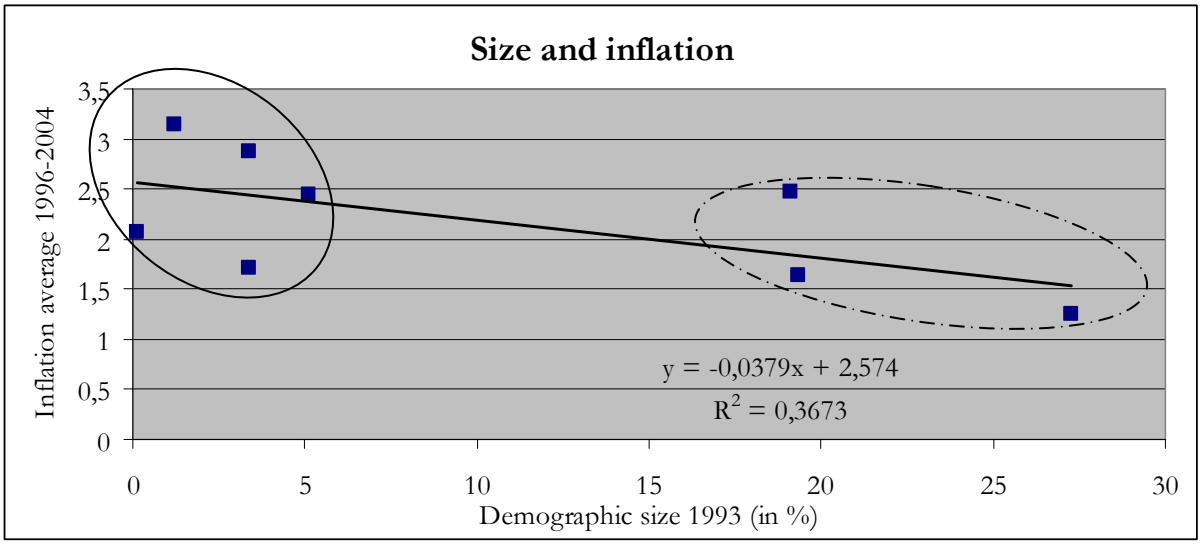
OLS regression without Greece and Finland.
Difference between "small eight" and "big three" = 21.
Coefficient significant at 10%.

Source: OECD.

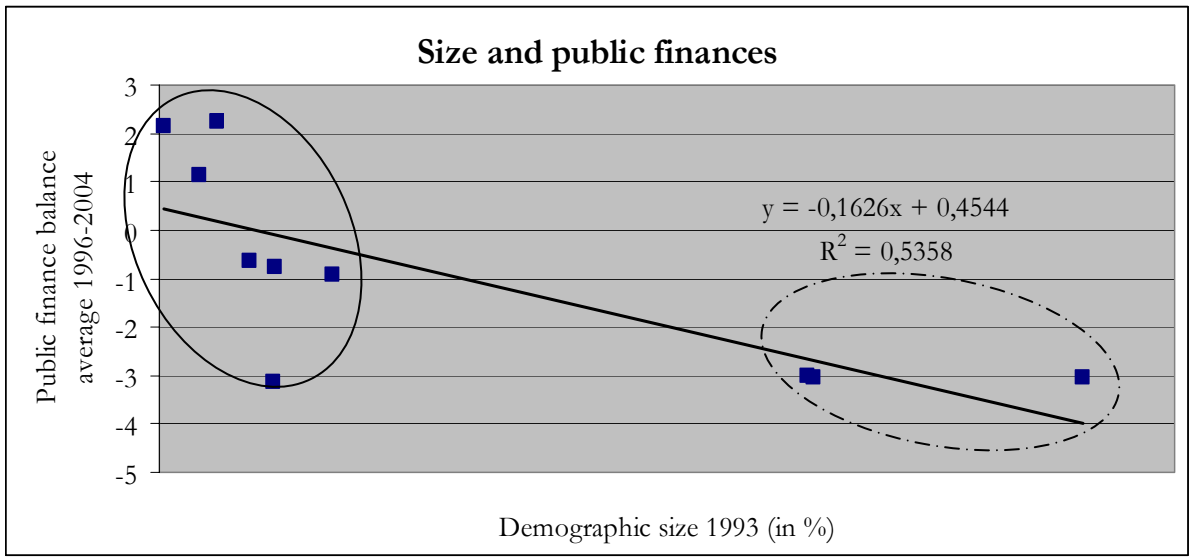
"Small eight" "Big three"

Chart VII

THE "SIZE NEXUS" AND MACROECONOMIC MANAGEMENT



OLS regression without Greece, Finland and Austria.
Difference between "small eight" and "big three" = 0.73
Coefficient significant at 10%.



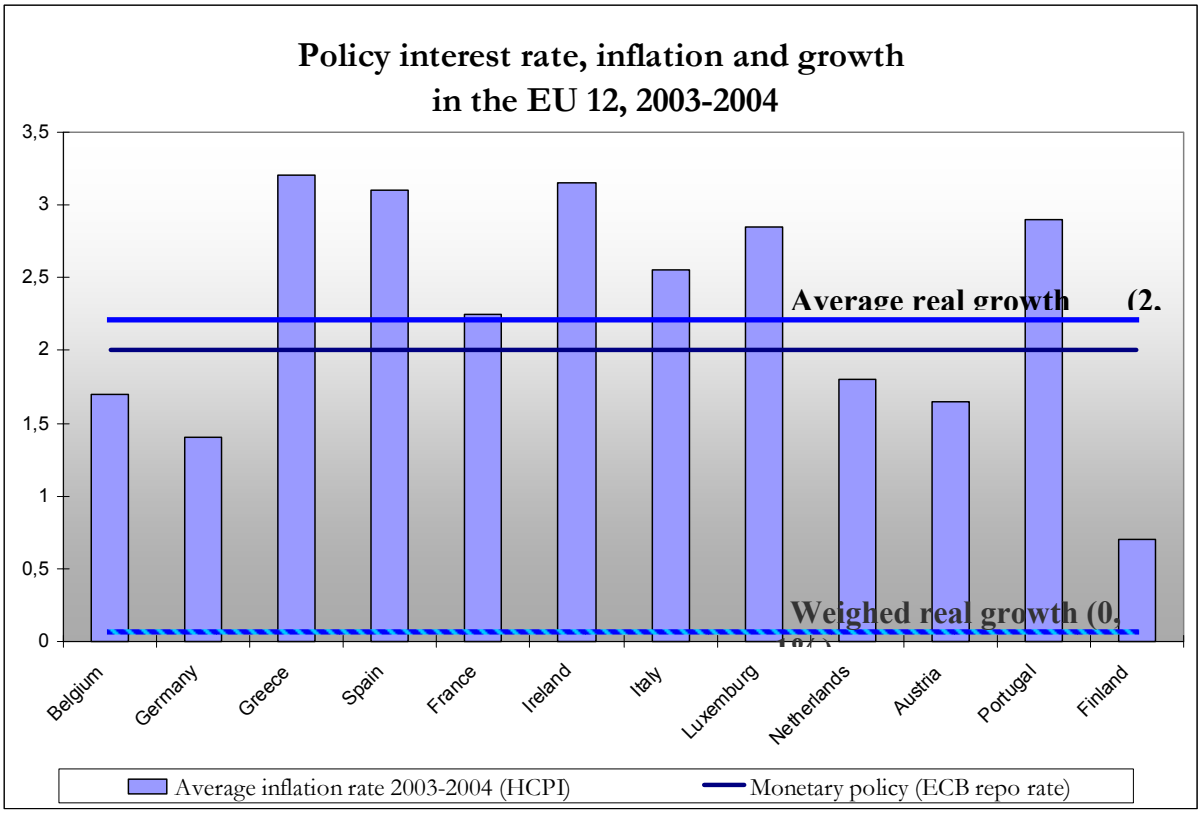
OLS regression without Greece.
Difference between "small eight" and "big three" = 3.12
Coefficient significant at 1 %.

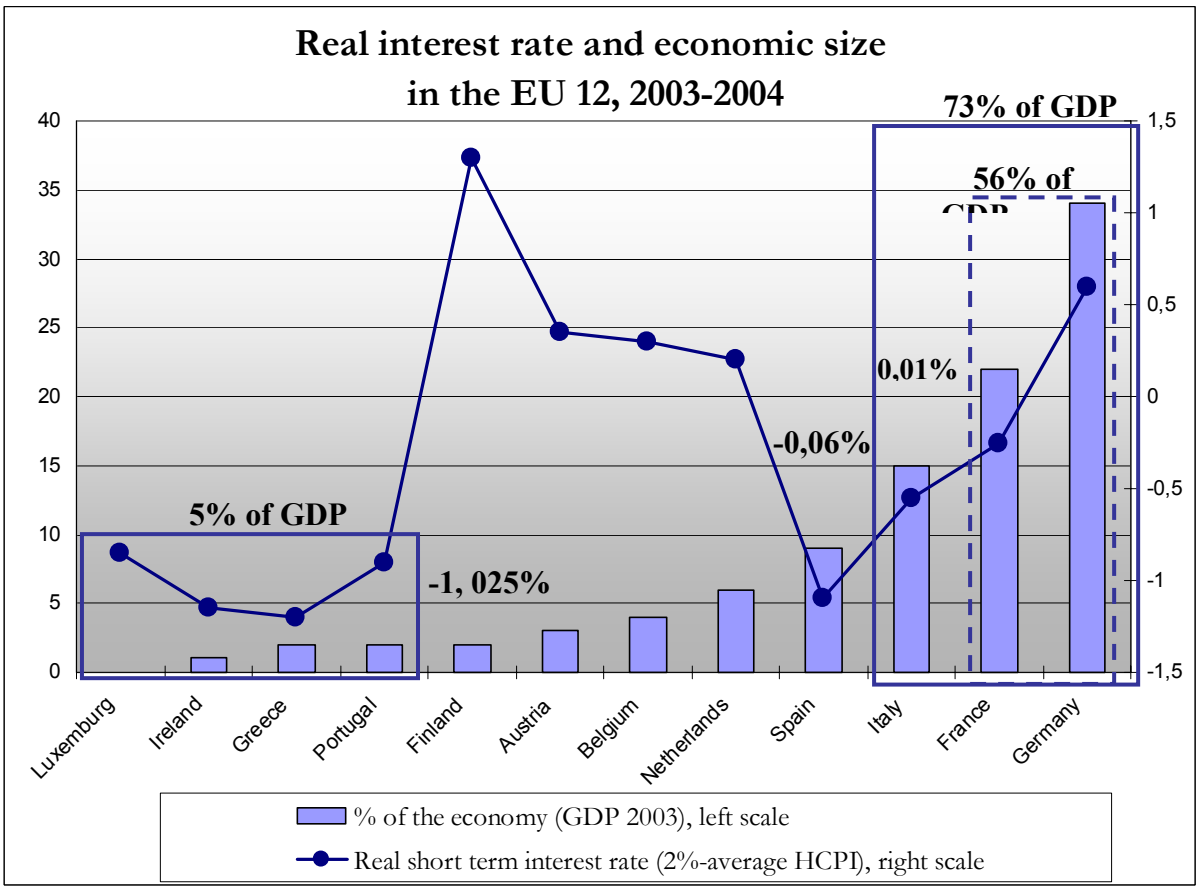
Source: Eurostat.

"Small eight" "Big three"

Chart VIII

THE "SIZE PENALTY" OF MONETARY POLICY





Source: Eurostat.

Table III-A

THE "SIZE NEXUS": AN HISTORICAL PERSPECTIVE

Productivity of labor
(GDP per hour worked, in 1990 $)

	1950	**1973**	**1990**	**1998**
Austria	4.05	15.17	24.05	27.07
Belgium	6.19	16.89	27.44	33.57
Finland	4.28	13.81	20.27	25.69
Ireland	3.73	9.84	21.66	27.05
Netherlands	6.67	19.49	30.15	30.62
Average Small 5*	4.9	15	24.7	28.8
Italy	4.38	15.92	24.08	27.9
France	5.82	18.02	29.47	33.72
Germany	3.99	14.76	21.94	26.56
Average Big 3	4.7	16.2	25.2	29.4
Convergence diff. Small(s)-Large(s)	0.25	-1.19	-0.45	-0.59
Convergence (std. dev. EU 12*)	1.15	2.93	3.72	3.19
Average EU 12*	4.89	15.49	24.88	29.02
USA	12.65	23.72	30.10	34.55
Catch-up (diff. USA-EU 12*)	7.76	8.23	5.22	5.53

* No data for Luxembourg, Portugal and Greece.

Table III-B

THE "SIZE NEXUS": AN HISTORICAL PERSPECTIVE

GDP per capita
(in 1990 $)

	1950	**1973**	**1990**	**1998**
Austria	3706	11235	16881	18905
Belgium	5462	12170	17194	19442
Finland	4253	11085	16868	18324
Ireland	3446	6867	11825	18183
Netherlands	5996	13082	17267	20224
Average Small 5*	4573	10888	16007	19016
Spain	2397	8739	12210	14227
Italy	3502	10643	16320	17759
France	5270	13123	18093	19558
Germany	3881	11966	15932	17799
Average Big 3	4218	11911	16782	18372
Convergence diff. Small(s)-Large(s)	355	-1023	-775	644
Convergence (std. dev. EU 12*)	993	1994	1919	903
Average EU 12	4440	11271	16298	18774
USA	9561	16689	23214	27331
Catch-up (diff. USA-EU 12*)	5122	5418	6917	8557

* No data for Luxembourg, Portugal and Greece.

Note: according to Abramovitz (1989), "catch-up" is the narrowing of the productivity gap compared to the leading country and "convergence" is the narrowing of the gap among follower countries.

Source: A. Madison, The World Economy: A Millennial Perspective *(Paris: OECD, 2001) and own computations.*

Table IV

THE SIZE NEXUS: A GEOGRAPHICAL PERSPECTIVE

Country	Demographic size 2003 Population share in EU 12 (in %)	Economic size 2003 GDP level share in EU 12 (in %)	GDP per capita in 2003 Index EU 25=100	Real GDP growth Average 1996-2004	Inflation Average 1996-2004	Public finance balance Average 1996-2004
Luxembourg	0.13	0. 32	213	5.19	2.07	2.15
Ireland	1.2	1.46	136	7.73	3.14	1.13
Portugal	3.36	1.56	77	2.54	2.88	-3.12
Greece	3.51	1.87	81	3.89	4.09	-4.88
Finland	1.7	2.06	113	3.62	1.57	2.24
Austria	2.66	3.38	121	2.26	1.51	-0.63
Belgium	3.39	3.86	117	2.16	1.71	-0.78
Netherlands	5.13	5.98	126	2.41	2.44	-0.92
Mean/median "small eight"	2.63/3.01	2.88/2.06	123/119	3.73/3.08	2.43/2.25	-0.60/-0.70
Sweden[Δ]	2*	3*	114	2.73	1.51	1.82
Iceland and Norway	-	-	131.15	3.47	2.44	4.56
Italy	19.14	14.62	106	1.18	2.47	-3.02
France	19.32	22.32	112	2.32	1.63	-3.03
Germany	27.27	33.42	109	1.41	1.26	-3.04
Mean/median "big three"	21.91/19.32	23.4/22.32	109/109	1.64/1.41	1.79/1.63	-3.03/-3.03
UK	13*	13*	118	2.89	1.47	-1.55
USA and Canada[18]	-	-	140.7	3.3	2.4	-0.3
Stand. dev. EU 11	9.33	10.97	35.70	1.90	0.86	2.37

Source: Eurostat

[Δ] Sweden was chosen as the typical non-Euro area small country over Denmark because the latter is a member of the exchange rate mechanism II (ERM II). As such it is closer to the third-phase of EMU (see Chart VIII).

* In the EU 25.

[18] 1996-2003 data.

Table V
THE "SIZE NEXUS": MULTIVARIATE ANALYSIS

Table V-A: size(s), openness and growth

Dependent variable: growth rate of real GDP 1996-2004					
	(1) DEMO. SIZE	(2) ECO. SIZE	(3) OPENNESS	(4) SIZE & SIZE	(5) OPEN * SIZE
Demographic size Population 1993	-0.119467** (0.055102)	-	-	-0.295037 (0.337969)	-
Economic size GDP 1993	-	-0.094372* (0.047522)	-	0.149349 (0.283310)	-
Openness 1995	-	-	0.057511* (0.027953)	-	-
Openness * Demo.	-	-	-	-	-0.005718** (0.002303)
Number of EU 12 countries	11	11	11	11	11
Constant	4.098371*** (0.655377)	3.943648*** (0.641852)	0.835909 (1.232896)	4.236735*** (0.732038)	4.449751*** (0.699296)
Adjusted R-squared	0.34	0.30	0.32	0.20	0.40

Table V-B: size and growth

Dependent variable: growth rate of real GDP 1996-2004				
	(1) SIZE NEXUS	(2) ENDOGENOUS	(3) SOCIAL	(4) GLOBAL
Demographic size Population 1993	-0.119467** (0.055102)	-0.113155* (0.053887)	-0.099593** (0.042840)	-0.102224*** (0.032271)
GDP per capita level 1995	-	-0.033993 (0.030799)	-	-0.042609** (0.016792)
Productivity average 1996-2004	-	0.066970 (0.043118)	-	0.059866** (0.022038)
Social transfers by public administrations average 1996-2003	-	-	0.246975 (0.227024)	0.337888* (0.194458)
Total expenditures by public administrations average 1996-2003	-	-	-0.330765** (0.118488)	-0.361905*** (0.099215)
Constant	4.098371*** (0.655377)	0.444848 (2.967036)	15.85544*** (3.328531)	14.09211*** (3.367158)
Number of EU 12 countries	11	11	11	11
Adjusted R-squared	0.34	0.30	0.66	0.82

Table V-C: size and inflation

Dependent variable: inflation rate average 1996-2004					
	(1) SIZE NEXUS	(2) OPENNESS	(3) REAL GROWTH	(4) ECO. SIZE	(5) OPEN * SIZE
Demographic size Population 1993	-0.037899* (0.020308)	-	-	-	-
Economic size GDP 1993	-	-	-	-0.035862** (0.015536)	-
Openness 1995	-	0.011999 (0.012364)	-	-	-
Real GDP growth Average 1996-2004	-	-	0.159782 (0.099710)	-	-
Openness * Demo	-	-	-	-	-0.001770* (0.000935)
Constant	2.573971*** (0.281189)	1.667945** (0.793440)	1.701791*** (0.373803)	2.582737*** (0.245088)	2.702412*** (0.330068)
Number of EU 12 countries	8	8	8	8	8
R-squared	0.36	0.13	0.29	0.47	0.37

Table V-D: size and public deficit

Dependent variable: public finance balance average 1996-2004					
	(1) SIZE NEXUS	(2) OPENNESS	(3) REAL GROWTH	(4) ECO. SIZE	(5) OPEN * SIZE
Demographic size Population 1993	-0.162605*** (0.053515)	-	-	-	-
Economic size GDP 1993	-	-	-	-0.126605** (0.049092)	-
Openness 1995	-	0.077691** (0.032350)	-	-	-
Real GDP growth Average 1996-2004	-	-	0.776517*** (0.267822)	-	-
Openness * Demo	-	-	-	-	-0.007558*** (0.002312)
Constant	0.454360 (0.664916)	-4.214149** (1.486222)	-3.293536*** (0.968026)	0.243864 (0.695020)	0.936114 (0.734719)
Number of EU 12 countries	10	10	10	10	10
R-squared	0.53	0.41	0.51	0.50	0.51

Table V-E: size and unemployment

Dependent variable: unemployment rate average 1996-2004		
	(1) SIZE NEXUS	(2) SIZE NEXUS VS. SOCIAL NEXUS
Demographic size Population 1993	0.200113*** (0.066216)	0.225346** (0.091045)
Social transfers by public administrations average 1996-2003	-	-0.360709 (0.439331)
Total expenditures by public administrations average 1996-2003	-	0.182733 (0.225272)
Constant	4.754781*** (0.866414)	1.451946* (6.549308)
Number of EU 12 countries	9	9
Adjusted R-squared	0.56	0.39

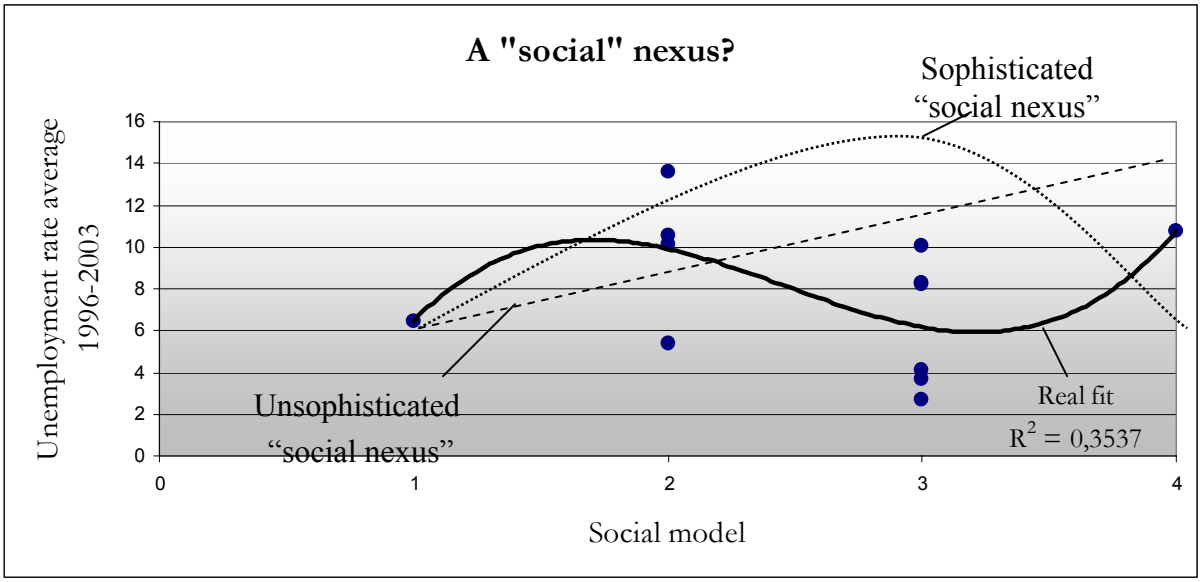
Table V-F: size and long-term unemployment

Dependent variable: long-term unemployment rate average 1996-2004		
	(1) SIZE NEXUS	(2) SIZE NEXUS VS. SOCIAL NEXUS
Demographic size Population 1993	0.114498** (0.044705)	0.124990* (0.058325)
Social transfers by public administrations average 1996-2003	-	-0.172626 (0.302924)
Total expenditures by public administrations average 1996-2003	-	0.092006 (0.158754)
Constant	2.061090 ** (0.555452)	0.286653 (4.477501)
Number of EU 12 countries	10	10
Adjusted R-squared	0.45	0.22

All regressions were estimated using OLS and data from Eurostat and OECD. Standard errors are in parentheses. Individual coefficients *significant at 10% level; ** at 5% level or ***1% level. All Eurostat data are available at http://epp.eurostat.cec.eu.int/. OECD "openness" data are available at http://www.oecd.org/

Chart IX

A "SOCIAL NEXUS" IN THE EU 12?



Country	Model	Degree of redistribution	Actual rounded coefficient[19]
Belgium	Continental	3	1.8
Germany	Continental	3	1.8
Greece	Mediterranean	2	1.5
Spain	Mediterranean	2	1.5
France	Continental	3	1.8
Ireland	Liberal	1	1
Italy	Mediterranean	2	1.5
Luxembourg	Continental	3	1.8
Netherlands	Continental	3	1.8
Austria	Continental	3	1.8
Portugal	Mediterranean	2	1.5
Finland	Nordic	4	2

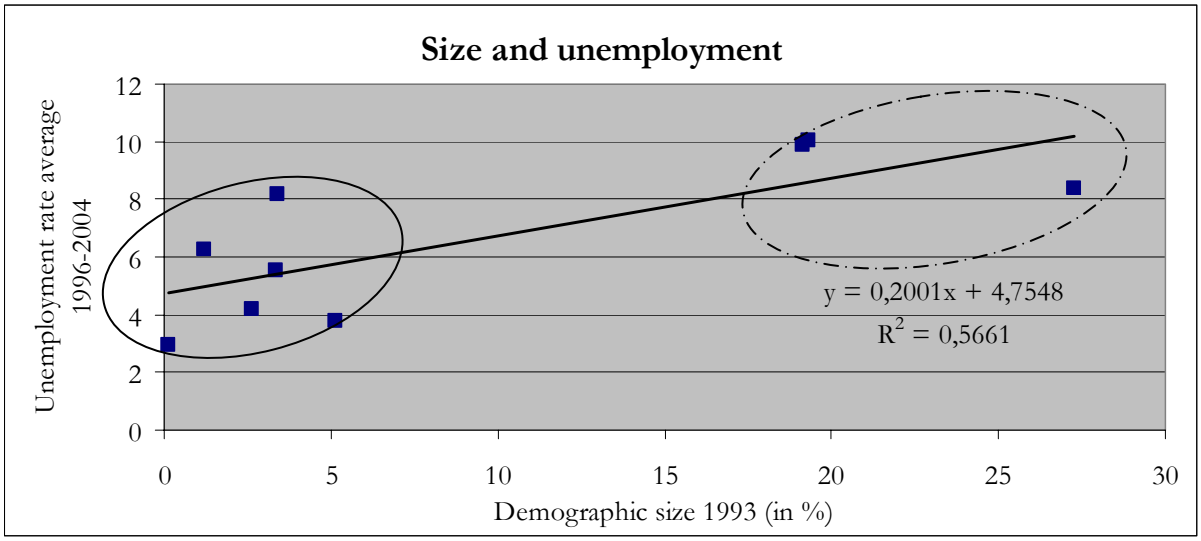
	Model Average	Inter-model difference	Intra-model difference	Inter-model standard deviation	Intra-model standard deviation
Continental	6.1*	4.6	7.37	2.3	3.03
Mediterranean	9.9*		8.12		3.38
Liberal	6.4*				
Nordic	10.7*				

*Unemployment rate average 1996-2003, in %.

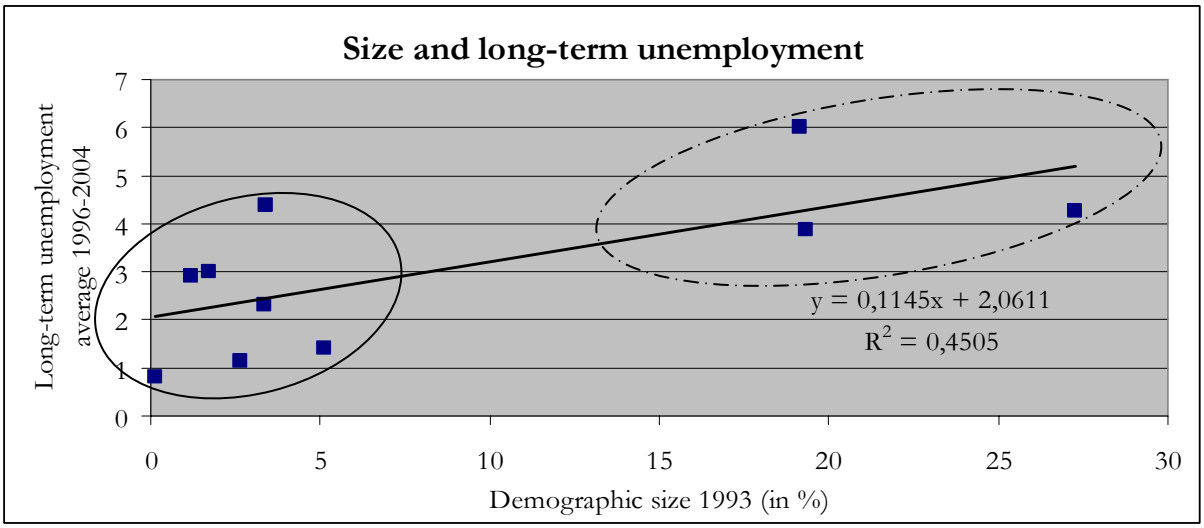
[19]Average social transfers by public administrations between 1996 and 2003, in % of GDP. Ireland=1, coefficient=model average.

Chart X

THE "SIZE NEXUS" *VS* THE "SOCIAL NEXUS"



OLS regression without Greece and Finland.
Difference between "small eight" and "big three" = 3. 9
Coefficient significant at 1 %.



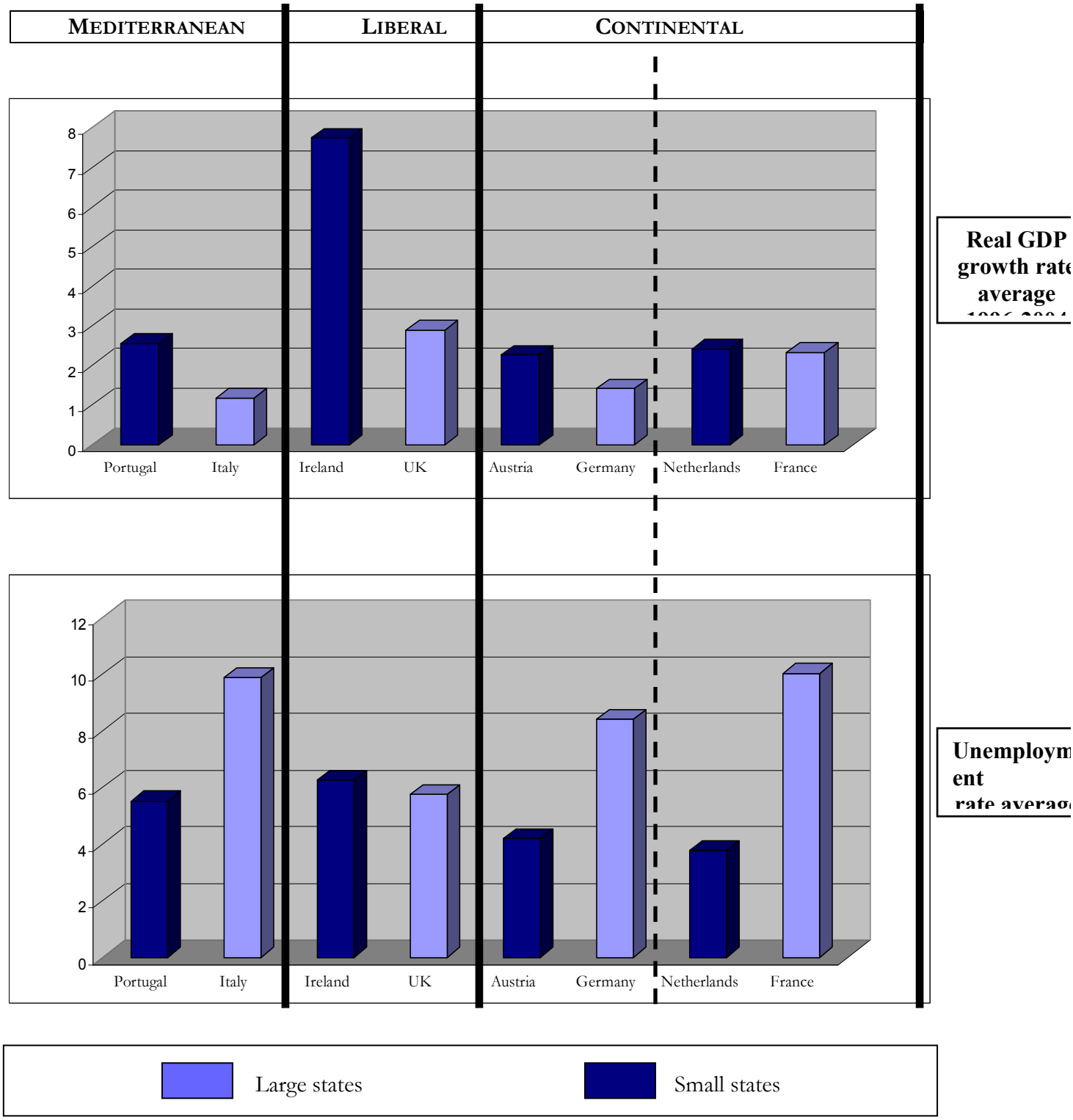
OLS regression without Greece.
Difference between "small eight" and "big three" = 2. 2
Coefficient significant at 5 %.

Source: Eurostat.

"Small eight" "Big three"

Chart XI

THE "SIZE NEXUS" *VS* THE "SOCIAL NEXUS"

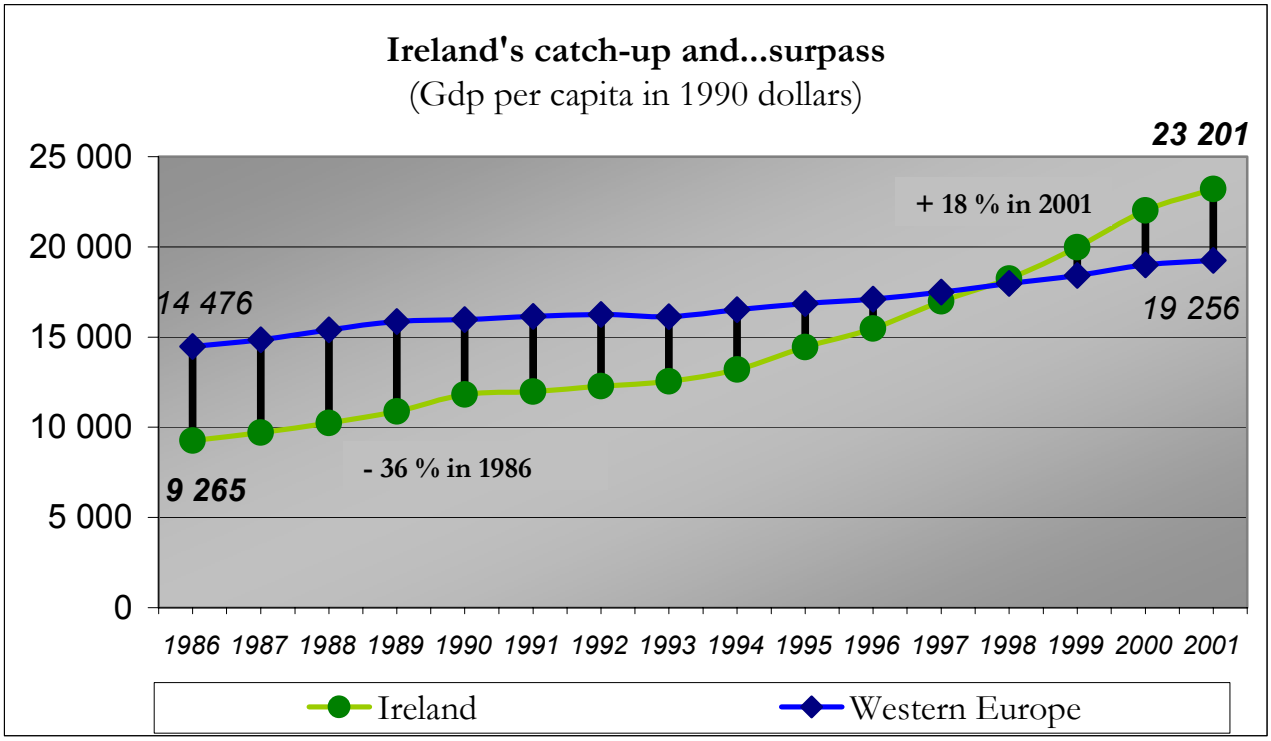


Source: Eurostat.

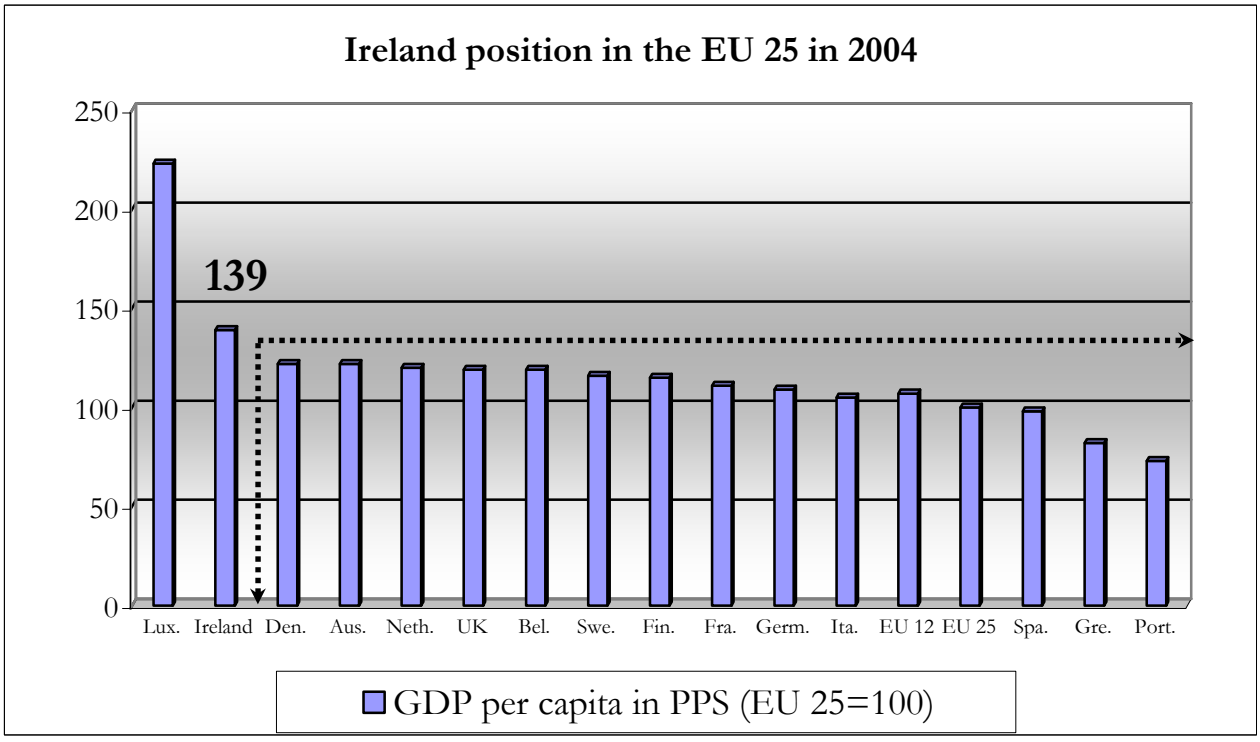
Chart XII

IRELAND: EU'S FINEST

The "rags to riches" European success story...

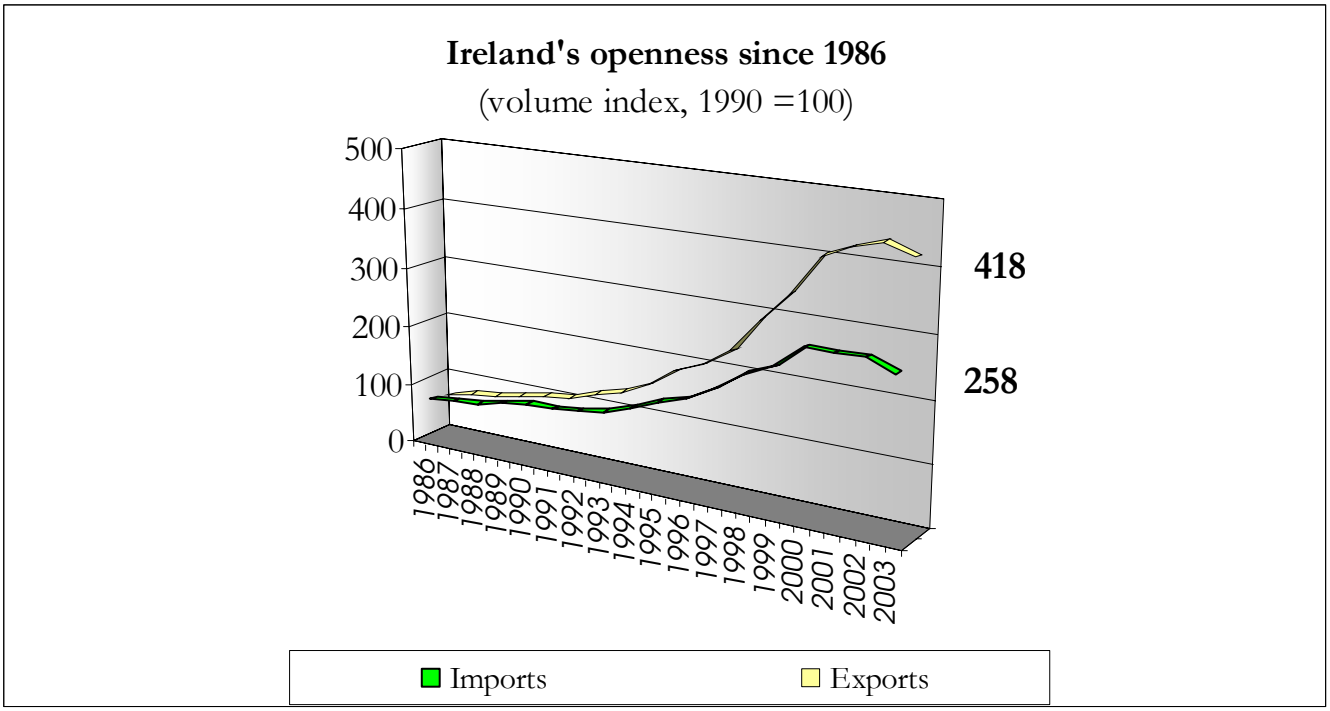


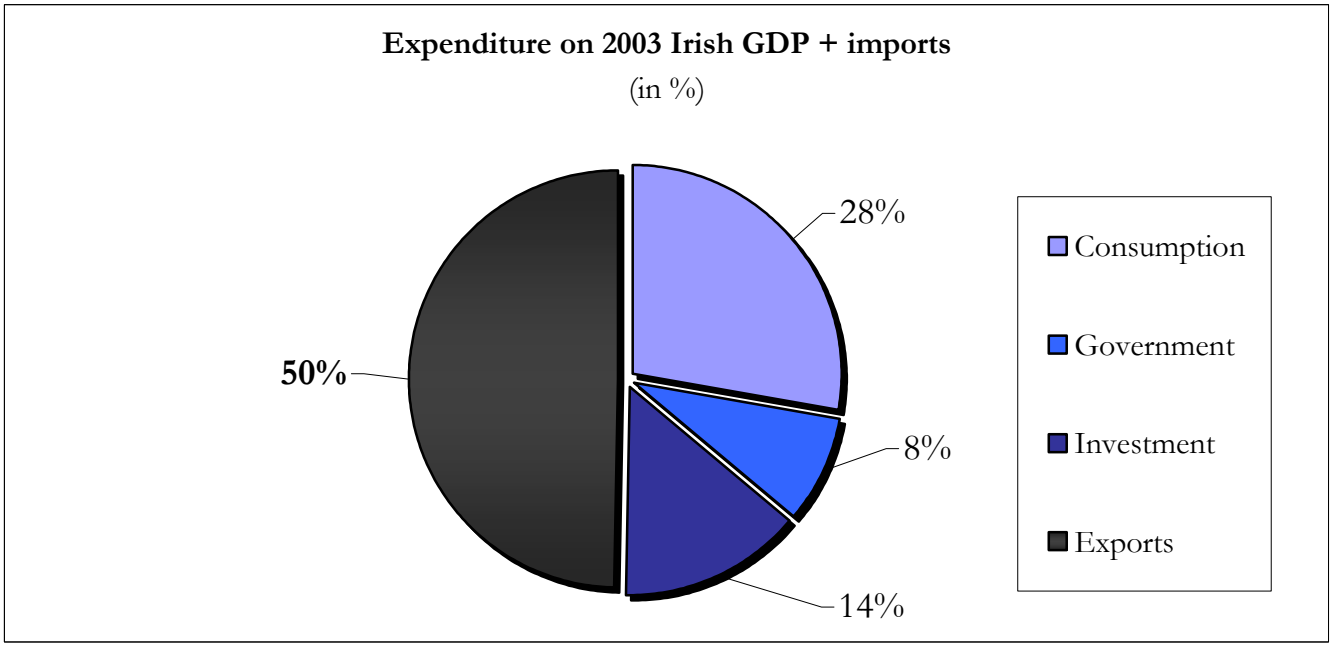
Source: A. Madison, The World Economy: Historical Statistics *(Paris: OECD, 2003).*



Source: Eurostat.

...relying heavily on a flourishing single market driven external trade.

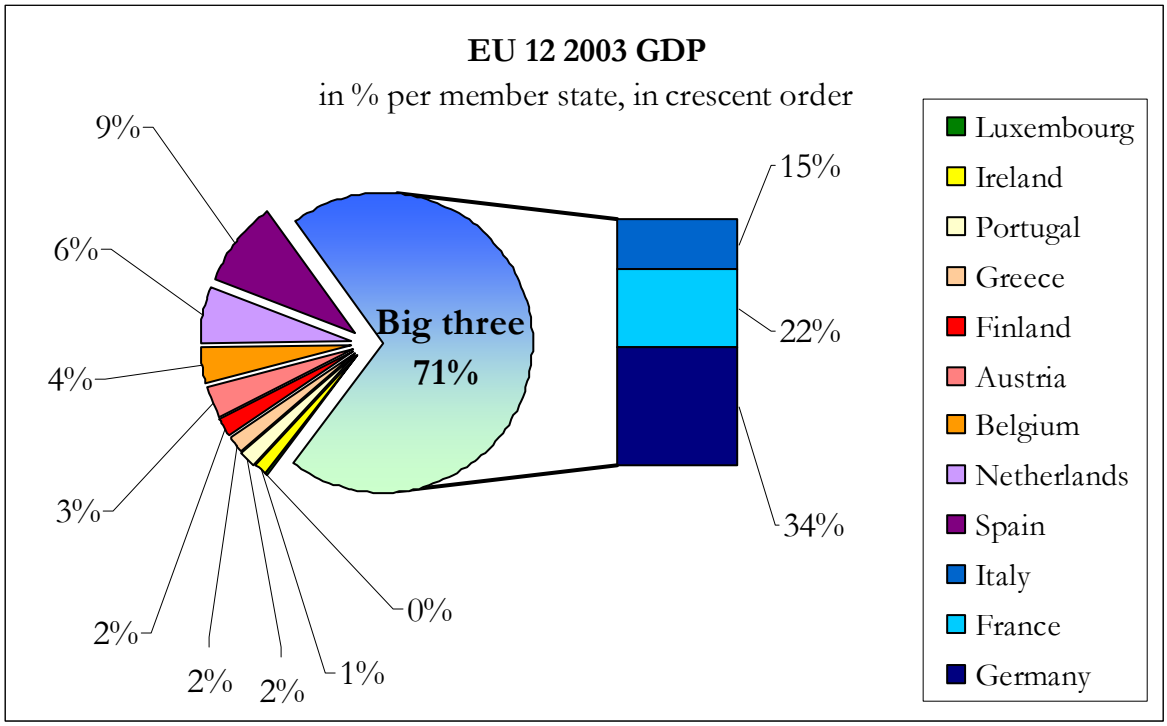


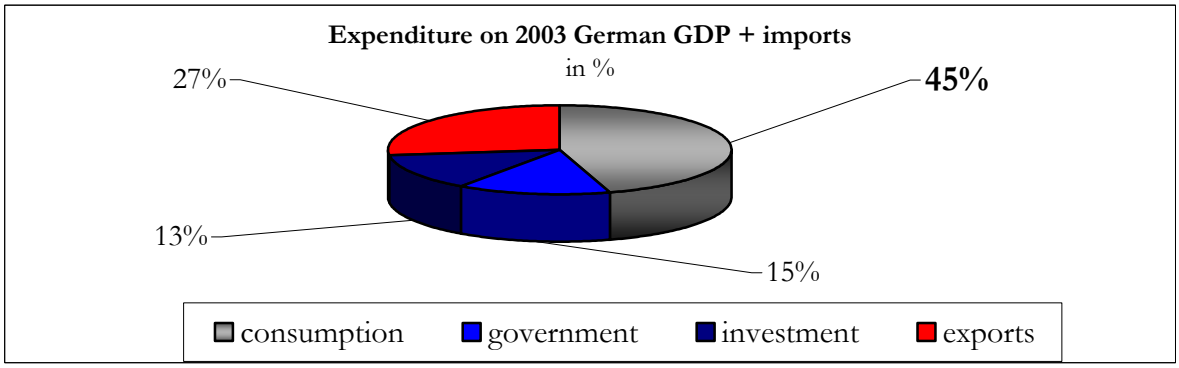


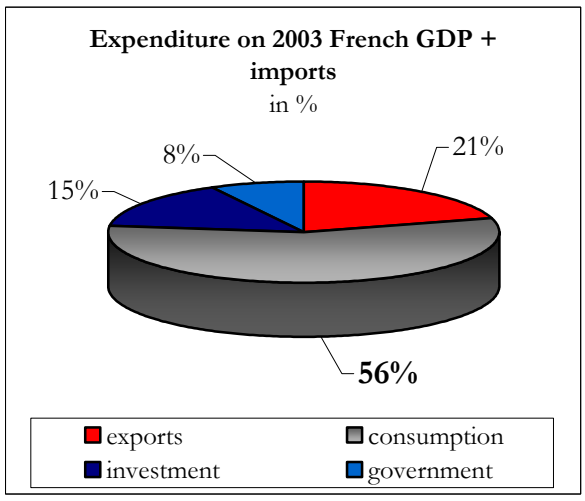
Source: Economic Review and Outlook 2004, *Ireland Department of Finance, accessed at* http://www.finance.gov.ie/documents/publications *and* Budgetary and Economic Statistics, *Ireland Department of Finance, April 2005, accessed at* http://www.finance.gov.ie/documents/publications.

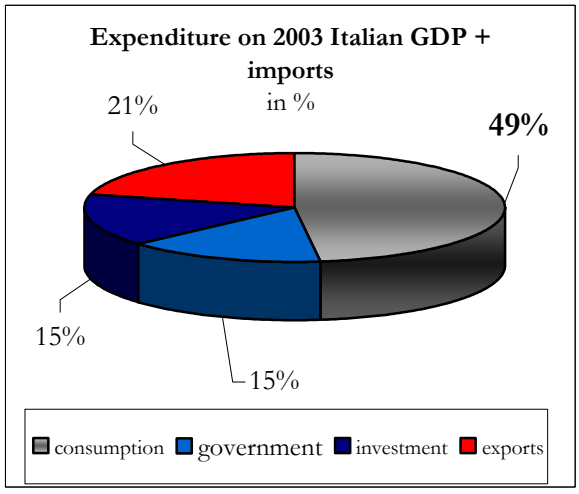
Chart XIII

THE "BIG THREE" AND THE EU 12: A BASIC DECOMPOSITION







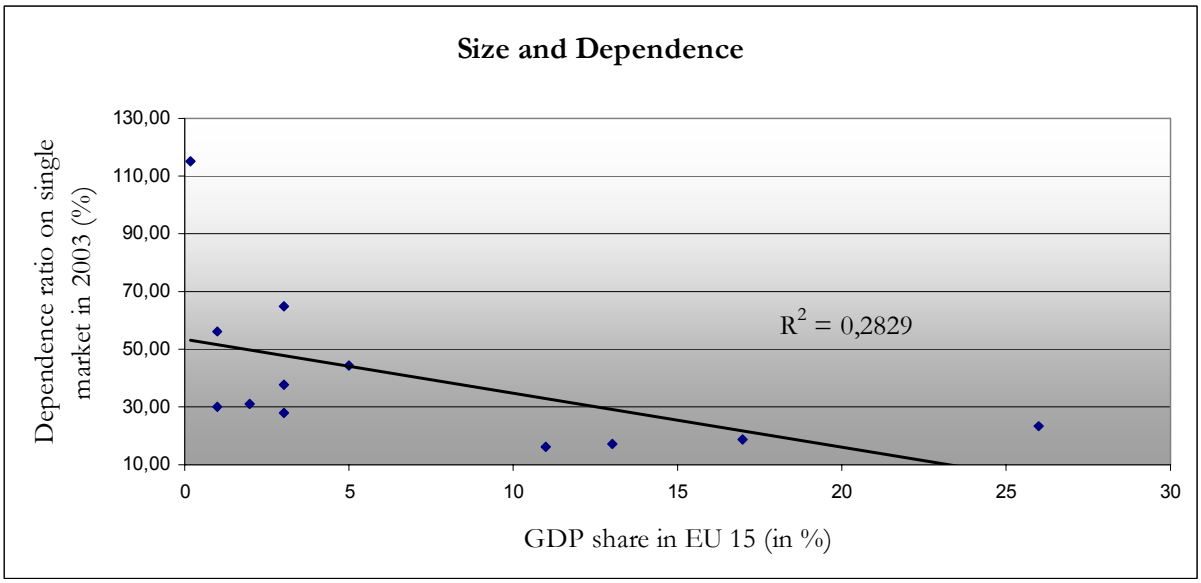


Source: DESTATIS, INSEE and OECD.

Table VI

SINGLE MARKET DEPENDENCE RATIOS IN THE EU 15[20] IN 2003

Country	Total trade in GDP (2003)	EU trade in total trade (2003)	Dependence on Single market ratio	
UK	29,9	57	**17,02**	
Italy	26,4	61	**16,1**	
				Independent
France	27,7	68	**18,8**	
Germany	35,8	64,8	**23,1**	
Sweden	43,5	64,4	**28,01**	
Portugal	37,5	79,9	**29,9**	
Denmark	43,7	71,5	**31,2**	**Dependent**
Austria	48,8	77,2	**37,6**	
Netherlands	65,5	68,1	**44,6**	
Ireland	89,8	62,4	**56,03**	
				Hyper-
Belgium	86,3	75,1	**64,8**	**dependent**
Luxembourg	139,8	82,4	**115,1**	

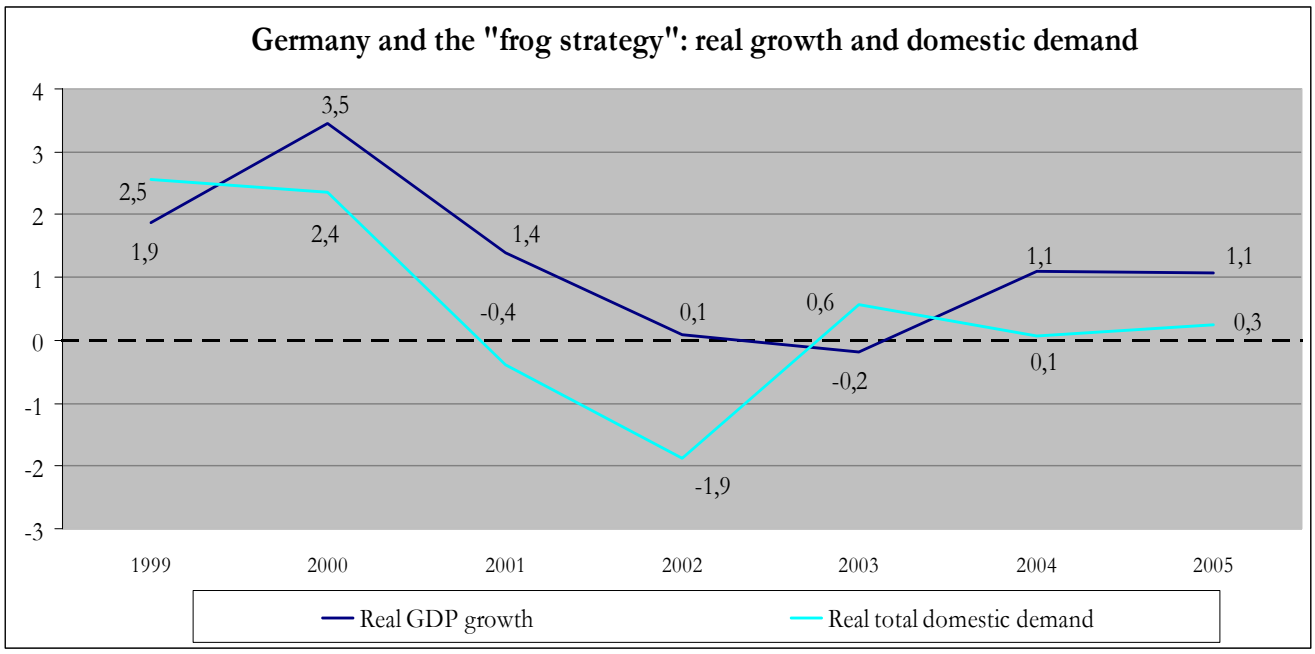


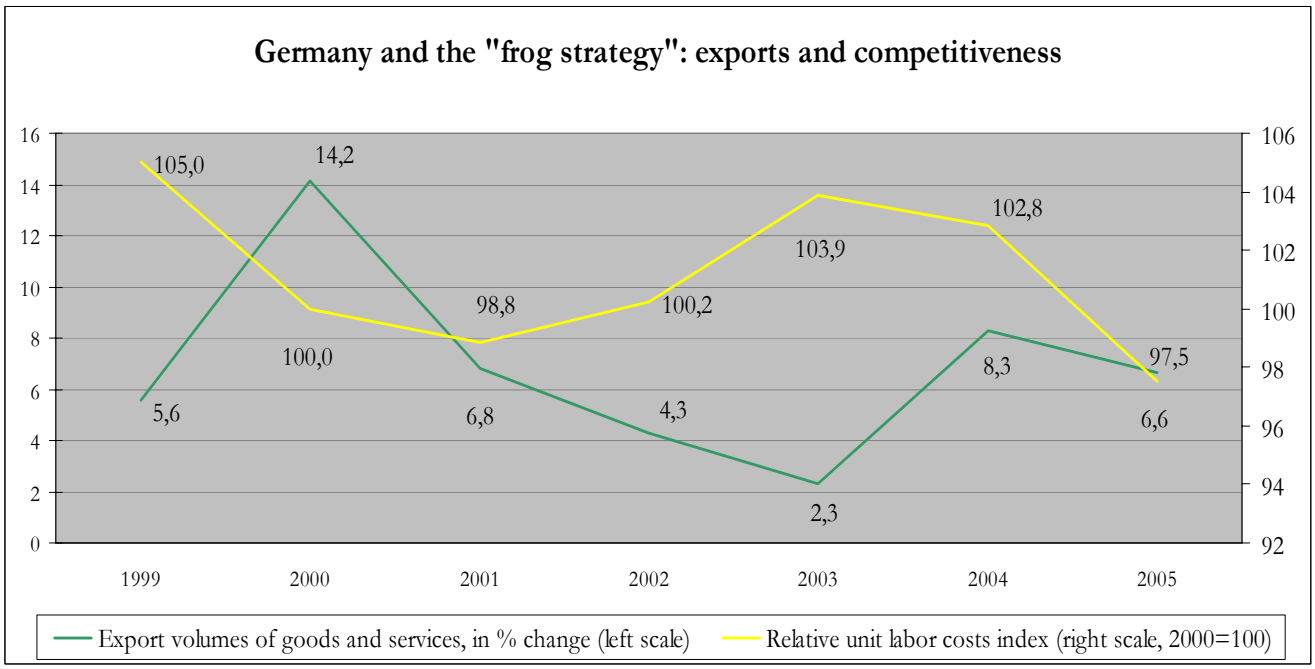
Source: Eurostat and OECD.

[20] Missing data for Finland. Spain and Greece are excluded.

Chart XIV

GERMANY AND THE "FROG STRATEGY"





Source: OECD.

Chart XV

INTEGRITY AND EFFICIENCY: OLD AND NEW TRADE-OFFS

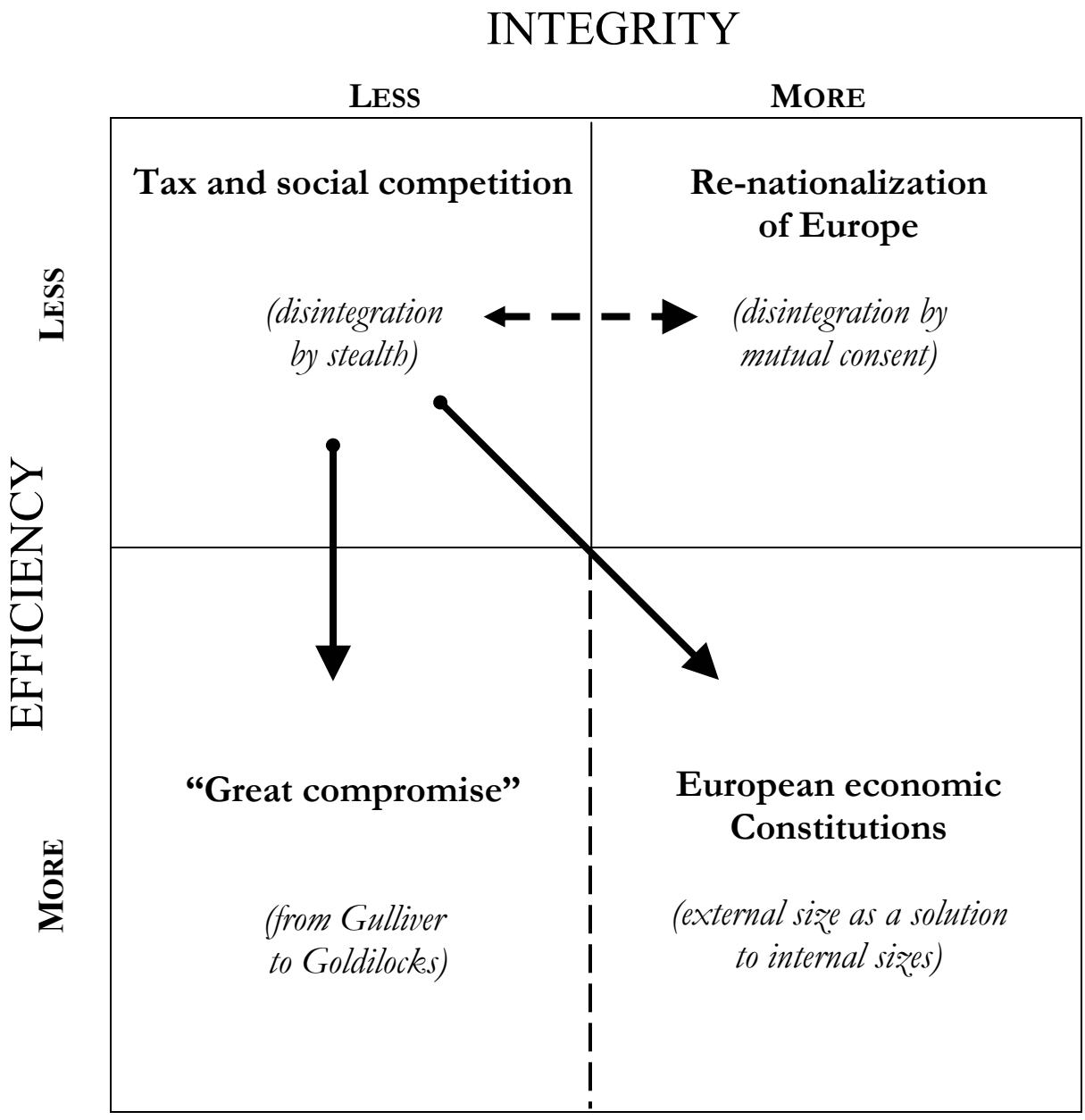
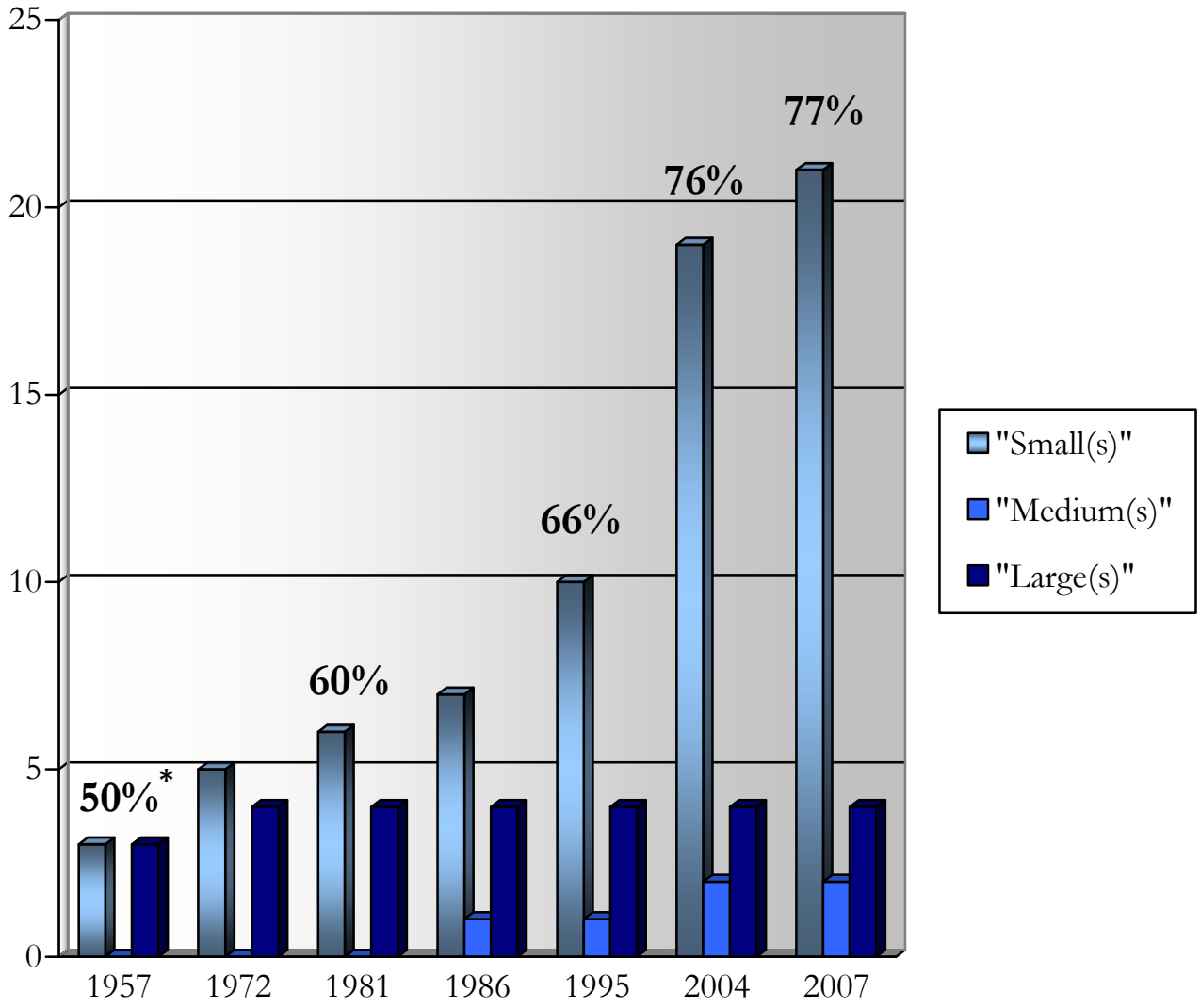


Chart XVI

THE RISE OF THE "SMALLS" IN THE EU

Number of states by size in the EEC and the EU



2007: If Romania and Bulgaria eventually integrate the EU then.
* Percentage of small states in the European Economic communities and EU.

Note: A "small" EEC and then EU member state is defined as one with a population inferior to the fourth of the population of the biggest state. A "medium" state is defined as one with a population inferior to half of the population of the biggest state. "Large" states are those remaining.

Table VII

ECONOMIC SIZE *VS* POLITICAL SIZE WITHIN THE EU 12

Country	Economic size (GDP in 2003) *in %*	Political size (voting rights as of 2005 i.e. Nice Treaty provisions) *in %*					≈ Magnification (or minimization) Average political size / economic size (or the opposite)	
		ECB€	*SGP*‰	*EU budget*‰	*Comp. policy*©	*Pol. size*Σ	Laurent & Le Cacheux *vs.* (unanimity)	Using Banzhaf index[21]
Luxembourg	0. 3	8.33-8.33	8.33-1	4-1	4-4	4.8	X 16.2 (27.7)	1.3 X 4.3
Ireland	1	8.33-8.33	8.33-2	4-2	4-4	5.1	X 5.1 (8.3)	2.2 X 2.2
Portugal	2	8.33-8.33	8.33-4	4-3	4-4	5.4	X 2.7 (4.1)	3.7 X 1.8
Greece	2	8.33-8.33	8.33-4	4-3	4-4	5.4	X 2.7 (4.1)	3.7 X 1.8
Finland	2	8.33-8.33	8.33-2	4-2	4-4	5.1	X 2.5 (4.1)	2.2 X 1.1
Austria	3	8.33-8.33	8.33-3	4-2	4-4	5.2	X 1.7 (2.7)	3.1 X 1.03
Belgium	4	8.33-8.33	8.33-4	4-3	4-4	5.4	X 1.3 (2)	3.7 ÷ 1.08
Netherlands	6	8.33-8.33	8.33-4	4-4	4-4	5.6	÷ 1.06 (X 1.4)	4 ÷ 1.5
Spain	9	8.33-8.33	8.33-8	4-7	4-4	6.1	÷ 1.4 (1.08)	7.4 ÷ 1.2

€ The two numbers correspond respectively to the ability of amending and enforcing monetary rules. The six members of the Executive board (that form the Governing Council of the ECB together with the twelve national bankers) are not included in this count. Unlike for instance ECJ judges, they are not supposed to be nominated (or to act) on a national basis. Still, another way of calculating the votes would be to divide only 66% among the 12 member states (12 out of 18). However, we assume the remaining third to be "size-blind" as it should according to its mandate. This method would in any event be neutral for the value of coefficients in the last column.

‰ Idem, but with respectively the Council's ability to amend unanimously and implement by qualified majority the SGP. For the sake of simplification votes have been distributed among members of the EU 12. However, more than half of those votes actually belong to the other members of the EU 25, even the implementation of the "excessive deficit" procedure (a clear symptom of the lack of sovereignty of the EU 12 inside the EU 25, see Section 7). Romania and Bulgaria, included in the Nice Treaty agreement, are not taken into account here.

‰ Ibidem, but with respectively the Council's unanimity and the Parliament's majority. The EU's annual budget is jointly determined by the Parliament and the Council. The Parliament debates in two successive readings, and the budget does not come into force until it has been signed by the President of Parliament. The budgetary procedure or the budget's content can not be amended without EU 25 members' unanimity.

© Competition policy is enforced by the Commission, where each of the EU 25 state has a representative.

Σ Average of ECB, SGP, EU budget and competition policy.

[21] See note 43.

Italy	15	8.33-8.33	8.33-9	4-11	4-4	7.1	÷ 2.1 (1.8)	7.8 ÷ 1.9
France	22	8.33-8.33	8.33-9	4-11	4-4	7.1	÷ 3.08 (2.6)	7.8 ÷ 2.8
Germany	34	8.33-8.33	8.33-9	4-14	4-4	7.4	÷ 4.5 (4)	7.8 ÷ 4.3

Table VIII

ECONOMIC SIZE *VS* POLITICAL SIZE WITHIN THE EU 25

Country	Economic size (GDP in 2003) *in %*	Political size (voting rights as of 2005 i.e. Nice Treaty provisions) *in %*				≈ Magnification (or minimization) Average political size / economic size (or the opposite)	
		Commission	*Council*[†]	*Parliament*	*Pol. size*[Σ]	Laurent & Le Cacheux *vs.* (unanimity)	Using Banzhaf index[22]
Malta	0.03	4	1	1	2	X 66 (133)	0.9 X30
Estonia	0.05	4	1	1	2	X 40 (80)	1.3 X26
Latvia	0.07	4	1	1	2	X 28 (57)	1.3 X18.5
Lithuania	0.09	4	2	2	2.6	X 29 (44)	2.2 X 24
Cyprus	0.1	4	1	1	2	X 20 (40)	1.3 X 13
Slovakia	0.2	4	2	2	2.6	X 13 (20)	2.2 X 11
Slovenia	0.2	4	1	1	2	X 10 (20)	1.3 X6.5
Luxembourg	0.2	4	1	1	2	X 10 (20)	1.3 X6.5
Hungary	1	4	4	3	3.6	X 3 (4)	3.7 X3.7
Czech Rep.	1	4	4	3	3.6	X 3 (4)	3.7 X3.7
Ireland	1	4	2	2	2.6	X 2 (4)	2.2 X 2.2
Portugal	1	4	4	3	3.6	X 3 (4)	3.7 X3.7
Greece	1	4	4	3	3.6	X 3 (4)	3.7 X 3.7
Finland	2	4	2	2	2.6	X 1.3 (2)	2.2 X1.1
Poland	2	4	8	7	6.3	X 3 (2)	7.4 X3.7
Denmark	2	4	2	2	2.6	X 1.3 (2)	2.2 X1.1
Austria	3	4	3	2	3	X 1 (1.3)	3.1 X1.03
Sweden	3	4	3	3	3.3	X 1.1 (1.3)	3.1 X1.03
Belgium	3	4	4	3	3.5	X 1.2 (1.3)	3.7 X1.23
Netherlands	5	4	4	4	4.25	÷1.25 (1.25)	4 ÷ 1.25
Spain	7	4	8	7	6.5	÷1.10 (1.75)	7.4 ÷ 0.9
Italy	11	4	9	11	8.75	÷1.3 (2.75)	7.8 ÷1.4
UK	13	4	9	11	9.25	÷ 1.6 (3.25)	7.8 ÷1.6
France	17	4	9	11	10.25	÷ 2.1 (4.25)	7.8 ÷2.1
Germany	26	4	9	14	13.25	÷ 2.8 (6.5)	7.8 ÷3.3

[†] A qualified majority in the Council is reached under the Nice rules: if a majority of member states (in some cases a two-thirds majority) approve; if a minimum of 232 votes (72.3 percent of the total) is cast in favor; if the votes represent at least 62 percent of the total population of the Union.

[Σ] Average of Commission, Council and Parliament.

[22] Index built on population shares and representing the proportion of times a member state is pivotal in decision-making, see Bobay (2004). Romania and Bulgaria are not counted here.

Table IX

ECONOMIC SIZE *VS* POLITICAL SIZE IN THE EU 12 AND EU 25

	Economic size % of GDP	**Political size** % of votes		
		Council	**Banzhaf indexes**	**Laurent & Le Cacheux**
EU 25	≈100	≈100	≈100	≈100
Political majority	**82**	**52**	**46.3**	**55.7**
	79	48	42.6	52.2
	74	44	38.6	48
	67	36	31.2	41.5
Economic majority	**56**	**27**	**23.4**	**32.7**
	43	18	15.6	23.5
EU 12	≈100	≈60 (majority 30)	≈55 (majority 27.5)	≈70 (majority 35)
Political majority	**80**	**35**	**30.8**	**27.8**
	71	27	23.4	21.7
Economic majority	**56**	**18**	**15.6**	**14.6**
	34	9	7.8	7.4

Table X

THE US 13 IN 1787:
WELL BALANCED AND READY FOR THE "GREAT COMPROMISE"

State★	*in thousands* Population*	
Delaware	59	
Rhode Island	68.8	
Georgia	82.5	«SMALL»
New Hampshire	141.8	(5)
New Jersey	184.1	
186		
Connecticut	237.9	«MEDIUM»
South Carolina	249	(2)
373		
Maryland	319.7	
New York	340.1	
Massachusetts	378.7	«LARGE»
North Carolina	393.7	(6)
Pennsylvania	434.3	
Virginia	747.6	

★ The first 13 American colonies.

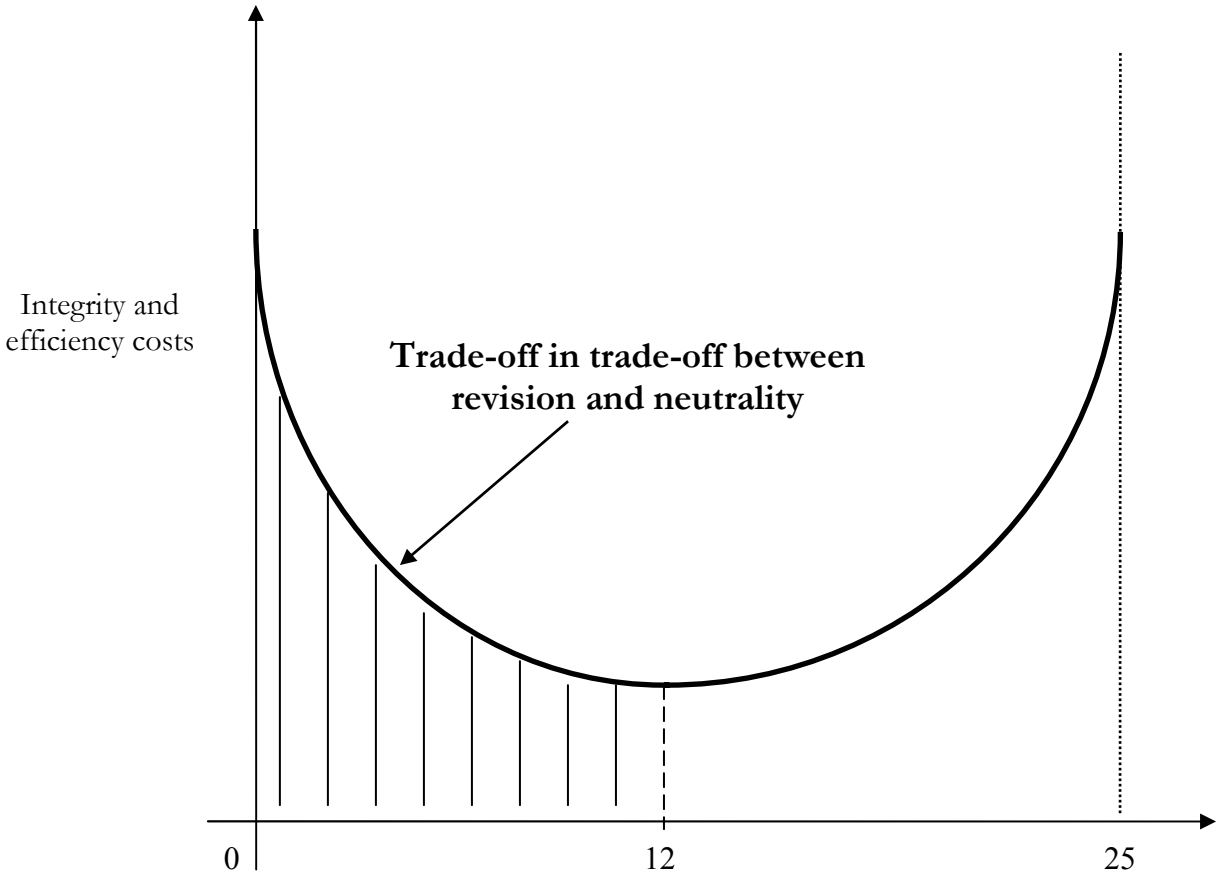
* As of 1790, the first US Census.

Note: A "Small" state is defined as one with a population inferior to the fourth of the population of the biggest state. A "Medium" state is defined as one with a population inferior to half of the population of the biggest state. "Large" states are those remaining.

Source: US Census Bureau, extracted from a table available at www.infoplease.com.

Chart XVII

THE OPTIMAL EUROPEAN CONSTITUTION(S)



Source: Adapted from Buchanan and Tullock (1962).