The Flotilla Effect

Europe’s small economies through the eye of the storm

A Report for Jill Evans MEP by Adam Price with Ben Levinger
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Adam Price with Ben Levinger
Today, Europe consists solely of small countries. The only relevant distinction that remains is that some countries understand this, while others still refuse to acknowledge it.

Paul-Henri Spaak
Acknowledgements

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Forward by Jill Evans, Member of the European Parliament for Wales

The geopolitics of the world is changing and nowhere is this truer than in Europe. In 1990 there were only 159 members of the United Nations, today there are 192. In the same time period the European Union has increased from 12 to 27 members. The story of EU enlargement is a continuing one with four countries now official candidates and three more having applied for membership. The increasing success of nationalist movements across Europe means that future enlargement is highly likely to come from within the EU as well as from outside it.

It will soon be impossible for anyone to ignore this trend with so many nationalist parties in government, the United Kingdom being a case in point. In Wales, under the stewardship of Plaid Cymru, a successful referendum on full lawmaking powers for the Senedd was delivered whilst the people of Scotland gave a sweeping victory to the Scottish National Party in the Holyrood elections. As a result, the constitutional settlement of the UK will come under intense scrutiny over the coming years, with business as usual no longer an option.

With these developments in mind, what is no longer in doubt is that change is coming. The Flotilla Effect is, therefore, a timely piece of research, providing further evidence that economically, Wales and other nations should have nothing to fear from independence. Rather than being a hindrance to success, independence can be its catalyst.

There is, however, no doubting that times are tough. Europe is suffering from a financial crisis that is unprecedented in the history of the EU, with both small and large countries hovering on the edge of collapse. Yet the versatility of Europe's smaller members puts them in good stead to recover from this crisis whilst the larger members attempt to haul themselves to smoother waters.

So while there have always been persuasive political, linguistic and cultural reasons for wanting independence, there are also sound economic reasons for wanting to do so. Being small and independent does not guarantee success but nor does being large and independent. What is evident, however, is that with good governance, focused on the needs and aspirations of smaller nations, there are many compelling reasons to believe that being a small, independent nation is more desirable than being a small, dependent region.
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Introduction

André Gide, the great French novelist, was reported to have declared on his deathbed: “I believe in the virtue of small nations. I believe in the virtue of small numbers. The world will be saved by the few.”1 During the time of the Great Moderation, the long lingering worldwide economic boom of the nineties and the 2000s, those words seemed to develop an almost prophetic air. Small and nimble open economies like Ireland, Iceland and the Baltic States became the poster-boys of globalisation, much as the Asian tigers had been a generation before. Countries the size of Norway and Iceland topped virtually every virtuous league table in existence from GDP per capita to indices of wellbeing and peacefulness.2

Now, as the economic conditions have turned, so too has the tide of ideas.3 The travails of small countries have made big headlines worldwide. The sovereign debt crisis in Greece, the banking collapse in Iceland, the property crash in Dubai and Ireland’s fall from “Celtic Tiger” grace have cumulatively led to a shift in the intellectual terms of trade. This was perhaps best summed up by an epithet attributed to Paul Volcker, the former Federal Reserve Chairman (with a sideways nod to Roy Schneider’s character in the movie Jaws): “In turbulent times it’s better to be on the bigger boat.”4

Can the small survive and thrive through the present storm? This is no small matter for any of us. We live in a world of small states: approximately two thirds of the voting power in the UN and the EU belong to countries with less than 15 million citizens. And in Europe there is no shortage of candidates to join their ranks: Scotland, Wales, the Basque Country, Catalonia and Flanders, to name a few. If small countries are thought to founder on the overhanging rocks of economies of scale, then independence, for some, will remain a risk not worth taking.

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2 See Gideon Rachman, “For nations, small is beautiful” Financial Times, December 4, 2007.
3 For a post-crisis view see Gideon Rachman, “How small nations were cut adrift”, Financial Times, October 20, 2007.
4 Volcker, a long-time supporter of the Euro, in all probability has never expressed it as succinctly as this but has consistently argued that small countries are at the mercy of the international financial markets, e.g., his comments on Argentina during the Tequila crisis of 1995 in: R. A. Mundell, Paul J. Zak and D. Schaeffer, International Monetary Policy After the Euro: (Cheltenham, England: Edward Elgar, 2000), 145.
In this short report, we seek then to ask a simple question: how does country size affect economic output? Section one gives an overview of the literature of the economics of country size. We use a standard tool of econometrics: a cross-country regression of population size versus real GDP growth, both before and during the recent crisis, to ascertain the relationship, if any, between them. Section two provides commentary on the policy implications of the recent economic crisis as it has particularly affected small countries. Finally, in section three, we seek to draw out the implications of the above for Europe in general, for existing small countries and for those candidate countries for Europe’s “internal enlargement”.

The central focus of this report – of country size and national prosperity – is critical if we are to evaluate the economic viability of political independence as an option for small emerging nations within the European Union. Its results will be surprising to many, as they will be heartening for more than just a few.
Section One

Sizing Up The Evidence

In the wake of the recent global crisis Lehman-like moments for small countries have hardly been in short supply: Icelandic assets seized under Britain’s terror laws, Liechtenstein and Swiss banks strong-armed into going open-book, and the sight of Papandreou the Younger declaring near-bankruptcy under the raging Aegean Sun. Little wonder that “big is best” has replaced “small is beautiful” as the new global mantra. Dominique Strauss-Kahn, the scandal-hit former head of the International Monetary Fund, declared boldly that in future “the strength of a nation will be measured by population…. without getting into any real specifics…a large country is very likely to be stronger than a small country”.  

Bloomberg Business Week added salt in the wound, suggesting that ailing telecoms giant Nokia – once a gleaming symbol of small country success – “should have relocated to California a decade ago”. For global strategists, the age of the Asian Tigers has been replaced by the battle of the BRICs.

Figure 1: The Ever Smaller Union

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5 Interview, Newsweek, November 8 2010.
7 BRIC is the common acronym used to describe the four fast-growing giant economies of Brazil, Russia, India and China.
This debate has no small significance for the world’s biggest market. Where once the European Union’s membership was evenly divided between large and smaller states, it is now a patchwork mosaic of meso- and micro-economies whose economic wellbeing is critical to the core. Figure 1 shows how “small nations” (those with less than 15 million people) now outnumber larger nations.\(^8\) At the international level, the rise of the G2 – China and the US – as the super-powers of the global economy contrasts with the architecture of the new Europe, built to ride, not rule, the waves. Where the rest of the world is building dreadnoughts and super-tankers, Europe is in flotilla formation. In this blue riband race of economic competitiveness, will size matter?

**Small Countries: Heroes or Zeros?**

A natural starting point for gauging the effect of country size is simply to compare GDP per capita levels across countries. Figure 2 gives us the figures for GDP per capita measured in US dollars for 2009, with smaller countries within the EU marked in red and larger countries in blue. Even if we ignore the phenomenal performance of the second smallest EU member-state, Luxembourg, the most prosperous country in the world according to this measure, we can see from the chart that among EU 15 member states many small countries seem to enjoy an economic advantage over larger countries, with the exception of the Netherlands which would itself have been classified as small under our definition before the mid-90s. Small size is no impediment to prosperity, it would appear.

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Indices of prosperity have become popular in recent years as disenchantment has grown with GDP per capita as a measure of broader societal welfare. As the Fitoussi-Sen-Stiglitz Commission has pointed out, this is particularly relevant to small countries: GDP figures can mask the fact that profits are often repatriated and make no contribution to the income of citizens, a particular issue in the case of Ireland, for example, because of its success in attracting foreign direct investment. Luxembourg’s GDP figures are also inflated by the high number of French and German citizens who commute to work there.

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It is important to note, therefore, that small countries tend to perform well in more broadly-based cross-country comparisons. Table 1 shows that the top three spots in the *Legatum Prosperity Index*, the *Insead Global Innovation Index* and the *World Economic Forum’s Global Competitiveness Index* are taken up by small countries. Small countries also feature highly in indices using wider measures of human development, peace-ability and happiness. EFTA members Iceland and Switzerland are particularly well represented and non-EU member Norway is at the top of three of the five most popular global welfare indices – but small EU Member-States like Denmark, Sweden and Finland also figure strongly.

**Table 1: Global Indices of Economic and Social Welfare**

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<tr>
<td>1</td>
<td>Norway</td>
<td>Switzerland</td>
<td>Iceland</td>
<td>Norway</td>
<td>Norway</td>
<td>Costa Rica</td>
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<tr>
<td>2</td>
<td>Denmark</td>
<td>Sweden</td>
<td>Sweden</td>
<td>Australia</td>
<td>Iceland</td>
<td>Denmark</td>
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<td>Singapore</td>
<td>Hong Kong</td>
<td>Iceland</td>
<td>Japan</td>
<td>Iceland</td>
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<tr>
<td>4</td>
<td>Australia</td>
<td>United States</td>
<td>Switzerland</td>
<td>Canada</td>
<td>Austria</td>
<td>Switzerland</td>
</tr>
<tr>
<td>5</td>
<td>New Zealand</td>
<td>Germany</td>
<td>Denmark</td>
<td>Ireland</td>
<td>New Zealand</td>
<td>Norway</td>
</tr>
<tr>
<td>6</td>
<td>Sweden</td>
<td>Japan</td>
<td>Finland</td>
<td>Netherlands</td>
<td>Ireland</td>
<td>Mexico</td>
</tr>
<tr>
<td>7</td>
<td>Canada</td>
<td>Finland</td>
<td>Singapore</td>
<td>Sweden</td>
<td>Denmark</td>
<td>Finland</td>
</tr>
<tr>
<td>8</td>
<td>Switzerland</td>
<td>Netherlands</td>
<td>Netherlands</td>
<td>France</td>
<td>Luxembourg</td>
<td>Sweden</td>
</tr>
<tr>
<td>9</td>
<td>Netherlands</td>
<td>Denmark</td>
<td>New Zealand</td>
<td>Switzerland</td>
<td>Finland</td>
<td>Panama</td>
</tr>
<tr>
<td>10</td>
<td>United States</td>
<td>Canada</td>
<td>Norway</td>
<td>Japan</td>
<td>Sweden</td>
<td>Canada</td>
</tr>
</tbody>
</table>

Small countries’ high rankings in these global ‘beauty contests’ certainly undermine the argument that small size is somehow a barrier to success. Of the top ten places in these six key global indexes, two thirds are held by countries with populations less than 15 million. But here we must issue a disclaimer. The majority of countries in the world have fewer than fifteen million inhabitants. Indeed the figure is two thirds – so the representation of small countries in the upper echelons of the indices of success is exactly as expected. To reiterate that point, Table 2 shows that small countries are also prominently, though not disproportionately, represented in the “Misery Index”, which combines unemployment rates and government deficits, to measure poor economic performance.
The simple fact that there are relatively large numbers of small countries in the world, especially with the huge expansion in independence during the 20th century, means that they will figure strongly in any subset of countries measured by almost any variable, positive or negative – whether as ‘tigers’ or ‘basket cases’. Outliers, however, do help us understand the dynamics behind any country-size effect. It is also important to note that small countries appear to exhibit a significant advantage over larger countries in the innovation and peace indices. And while Bhutan may have invented Gross National Happiness, it’s not the only small nation that seems to exude serenity.

Table 2: Moody’s Misery Index, 2010 (Small Nations in Bold)

<table>
<thead>
<tr>
<th>Country</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain (10% deficit, 20% unemployment)</td>
<td>1.</td>
</tr>
<tr>
<td>Latvia (8.5%, 19.9%)</td>
<td>2</td>
</tr>
<tr>
<td>Lithuania (9.2%, 17.6%)</td>
<td>3</td>
</tr>
<tr>
<td>Ireland (12.5%, 14%)</td>
<td>4</td>
</tr>
<tr>
<td>Greece (12.2%, 10.2%)</td>
<td>5</td>
</tr>
<tr>
<td>UK (12.9%, 8.7%)</td>
<td>6</td>
</tr>
<tr>
<td>Iceland (10.7%, 10.6%)</td>
<td>7</td>
</tr>
<tr>
<td>United States (10.3%, 10.4)</td>
<td>8</td>
</tr>
<tr>
<td>Jamaica (9.1%, 11.3%)</td>
<td>9</td>
</tr>
<tr>
<td>France (8.3%, 10.2%)</td>
<td>10</td>
</tr>
</tbody>
</table>

A Question of Scale

For most of the twentieth century, economics was silent on the question of country size.10

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10 The honourable exception to this was Professor Leopold Kohr, the Austrian economist who extolled the virtues of self-determination from his adoptive countries of Puerto Rico and Wales and whose work *The Breakdown of Nations*
The assumption of constant returns to scale used in the basic economic models (Swann-Solow in growth, for example and Hecksher-Olin in trade) meant that size simply was a non-issue in the academic literature. A single conference in 1957, and its associated proceedings, was the sum total of intellectual output during much of the post-war period.  

The 1980s intellectual revolutions represented by new growth theory, principally associated with Paul Romer, and new trade theory, developed by Paul Krugman, were based on a radically different assumption: that of increasing returns to scale. For new growth theorists the larger the country, the larger the human capital endowment and, as a consequence, the larger the economic growth rate. As the development economist Michael Kremer pointed out, in a paper whose analysis stretched back to 1,000,000 BC: “models of endogenous technological change, such as Aghion and Howitt and Grossman and Helpman typically imply that high population spurs technological change” and that “an increase in population leads to an increase in technological change.” More people equals more inventors, more inventors, more innovation, and so on.

In new trade theory firms in sectors that display increasing returns – capital-intensive sectors like the car industry, for example, or knowledge-intensive industries like pharmaceuticals – tend to locate as close as possible to the largest market for their products. This self-reinforcing trend leads to the deepening of comparative advantage. The logic of this “home market” effect in new trade theory is that large countries can earn higher GDP and higher wages, while smaller countries tend to become “backwaters”, producing commodified production not subject to increasing returns. These ideas are paralleled in the new economic geography’s idea of economies of agglomeration, itself echoing


11 Robinson (1960).
Gunnar Myrdal’s earlier concept of cumulative causation, whereby large cities attract workers and capital making them even larger and more successful, and so on in a virtuous circle.\textsuperscript{18}

The general upshot is that large countries are predicted to do better. The problem is that the empirics point in a different direction.

As the exasperated supporter of Catalan independence and the author of the World Economic Forum’s Global Competitiveness Index, Xavier-Sala-i-Martin is quoted as insisting:

\textit{It is simply not true that larger countries are more economically successful. Notice that large countries like China, India and Russia and among the poorest countries in the world (although the first two have now a large growth rate), and that Belgium, Holland and Switzerland are among the richest. The correlation between size and wealth in the data is zero…}

\textit{It has been argued that, as time goes by, the desirability of having smaller nations increases. And the economists who say so are not (I repeat, NOT) some crazy Catalan nationalists…… they are Italian, American, and French professors from Harvard and Stanford.}\textsuperscript{19}

As well as the great growth guru Robert Barro, Sala-i-Martin was referring to Alberto Alesina and Romain Wacziarg, who together with Enrico Spolaore, have made the most significant intellectual contribution to the debate on the consequences of country size since Austin Robinson’s edited volume a couple of generations earlier, (building on Alesina and Spolaore’s 2003 publication, \textit{The Size of Nations}, which concentrated on the causes of country size).\textsuperscript{20} At the core of their seminal 2005 paper on trade, growth and size lay a comprehensive cross-country regression analysis of the growth rate of real GDP, trade openness and country size for 113 countries dating back to 1960. The results are summarized in Table 3.

Table 3: Openness, Country Size and Growth Correlations

<table>
<thead>
<tr>
<th></th>
<th>Country Size and Growth for open countries</th>
<th>Country Size and Growth for closed countries</th>
<th>Openness and Growth for large countries</th>
<th>Openness and growth for small countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation</td>
<td>0.11</td>
<td>0.43</td>
<td>0.11</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Source: Alesina, Spolaore and Wacziarg (2005)\(^\text{21}\)

These results can be broadly interpreted as showing that the advantages of size decline with trade openness, and that small countries stand to benefit more from globalization.

The debate on the evidence for such a country-size effect on economic performance on a global scale remains highly contested, but exclusively between those who argue for size-neutrality and those who find a positive return to smallness. We are aware of no one who has proposed a large country premium in recent times. In one recent study of 200 countries over a forty-year period, Andrew Rose, looking at a very wide range of economic indices, concluded that “size really doesn’t matter” (with the exception of small size’s relationship to trade openness – which some might argue is a fairly crucial caveat).\(^\text{22}\) However in a global study of small states (population <1 million) the World Bank economists William Easterly and Aart Kraay found that small countries, controlling for their being oil producers or members of the OECD, were 50% richer than their regional neighbours.\(^\text{23}\)

This inverse scale effect – whereby small size represents a significant advantage in terms of economic performance – can now be said to have a solid evidential basis, at least in the context of Europe,\(^\text{24}\) according to a five-year-long programme of research, supported by the French National Research Agency ANR on “country size and growth strategy” at the Parisian Institut d’Études


\(^{24}\) The TPSC (Taille des Pays et Stratégies de Croissance) team failed to find a small country bonus among their wider OECD sample: Éloi Laurent, Economic Consequences of the size of nations. 50 years on, Working Paper, ANR no.6, (Paris: OFCE, 2008).
In a remarkable series of papers, largely unnoticed so far in the English-speaking world, this new school of geo-economists at the French Economic Observatory formerly headed by Jean-Paul Fitoussi (a member of the aforementioned tripartite commission on the measurement of growth) claim to have discovered a “size nexus” at work in the European economy, with size acting as a key driver of economic strategy, and small EU countries enjoying a clear and consistent advantage over the larger laggards, which particularly exercised these researchers at the French Economic Observatory as this latter group includes a relatively poor-performing France.

Summarising these findings Laurent and Le Cacheux write: “In qualitative terms, we believe we have gathered evidence of the existence of a “Millian growth”…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” (emphasis added; see Figure 3).

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Our own analysis echoes the French results. In Figure 4 we present data on the volume of exports per capita in the EU-27 from 2000 to 2008. To calculate the volume of exports per capita, we treated the small country and large country groups as distinct blocs. In total, the small countries have seen a 50% increase in exports per capita over this period compared to a 35% increase for larger countries. This finding is consistent with the argument that there is a small country bonus to trade opening.\(^{28}\) Hans Badinger and Fritz Breuss have examined this same issue in the period since the creation of the Euro and found the euro has led to an improvement of the small country euro area’s relative export performance by 3–9%.\(^{29}\)

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\(^{28}\) It is also important to note that this small country trade bonus exists among western as well as eastern European countries i.e. it is not merely a consequence of the greater prevalence of smaller countries among poorer countries in a process of “catch-up”.

How has this trade bonus affected growth? Figure 5 shows the real terms increase in GDP per capita for Large and Small Europe. There has been a rapid process of convergence with small countries halving the gap over the course of the decade. Figure 6 shows annual growth rates averaged for the two country size-groups over the period. Small Europe remains above Large Europe throughout, except for the period following the dot.com crash of 2000 and the economic crisis of 2007. Figure 7 shows that the small country bonus has existed over a long period – even for those countries that joined the European Economic Community at its inception. The small country advantage does not seem to be simply a short-term “joining effect” that the trade gain theory might imply.
Figure 5: Change in GDP per Capita, EU-27

Source: IMF, author’s own calculations

Figure 6: Aggregate GDP per capita growth rate (in %) by country group

Source: IMF, authors’ own calculations
To understand the direction and magnitude of the relationship between size and economic performance within the EU-27, we constructed a linear regression between average country growth rates and the natural log of population over the last 15 years, between 1996 and 2010 – from the period of relative calm following the economic turbulence suffered by Eastern Europe due to the fall of communism through to the recent global economic crisis. Figure 8 shows a negative relationship between population size and economic growth, i.e., the larger the country the slower the economic growth. The R-squared figure is 0.18, (see Appendix Table 1) indicating that population differences alone account for some 18% of the variation in economic growth. Furthermore, Column 1 of Appendix Table 1 shows that population is statistically significant at the 5% level. In Column 2, initial GDP per capita is introduced as a control variable. In this specification, the coefficient on population remains negative and is statistically significant at the 1% level. The coefficient on initial income level is also negative and significant at the 1% level. In Column 3, a “dummy variable” which indicates whether a country is Eastern European is introduced as another control variable. The coefficient on this variable is positive but is not statistically significant.
Importantly, the addition of this control did not change the significance level of the coefficient of the population variable. Therefore, the addition of initial income level and the Eastern Europe indicator variable did not undermine the relationship, further suggesting that country size is a significant factor in explaining differences in growth rates over this period.

**Figure 8: Regression of growth rate on population, EU 27 (excl. Malta)**

An even stronger relationship can be found when we examine the relationship between country size and economic growth rates for EU-15 nations (where initial GDP is not as strong an explanatory variable) over the thirty year period till 2010 as we can see from Figure 9. Nearly half (49%) of the variation in economic growth can be accounted for by country size, with the relationship between smaller size and economic growth once again a positive one: i.e. smaller countries grow faster (see Appendix Table 2). This is an extremely large R-squared value by the standards of most growth regressions, although the sample size is by its very nature limited.
The recession has in the very short-term changed the sign and scale of the relationship between size and economic growth. But as we can see from Appendix Table 3, which summarises results from a series of regressions of annual GDP per capita growth rates on population, this has to be seen in a broader context. The table shows the sign and significance level of the population coefficient. The first specification is a simple regression on the natural log of population. The second specification includes the per capita GDP level from the previous year as a control. The third specification includes the GDP level and an Eastern Europe indicator variable as controls. The sign of the population coefficient was negative from 1995 to 2007. It was statistically significant (at 10% level or better) in seven of those years. This suggests that the inverse relationship between population and economic growth was fairly consistent over this time period. The sign was consistently negative.
all but five years in this sample\textsuperscript{30}, and in four of these years, the effect was statistically insignificant. However, in the year of 2009, the population variable had a positive coefficient that was marginally significant. This suggests that smaller nations performed worse, but only slightly so, during this uniquely tough economic year.

\textit{Figure 10: Bouncing Back: Europe’s gazelles}

\begin{center}
\includegraphics[width=\textwidth]{figure10.png}
\end{center}

\textit{Source: OECD}

In 2010 the relationship between size and growth has changed its sign back to negative – though not significantly so as small countries are only doing marginally better. There are some other signs that the smallest are the fastest to recover. Figure 10 shows those European “gazelle economies” that have registered above average growth in 2010. Eight of the ten are small countries – and the other two, Germany and Poland, can be said to have adopted a small country strategy based around export

\textsuperscript{30} In 1991 and 1994, the sign was positive in some specifications and negative in others, although all of these results were statistically insignificant.
growth and competitiveness.³¹ Germany and Poland’s shift towards a small-country-like economic structure is illustrated in Figure 11 that shows them following a pattern of trade openness similar to that of Austria, Denmark and Finland rather than larger, typically more domestic-oriented economies. Western and Eastern Europe’s largest economies, behave, in other words, like some of the smallest.

Figure 11: Trade as a Percentage of GDP

Source: OECD

The Volatile and the Vulnerable

The economic crisis has focused minds once again on the consequences of macroeconomic volatility, and the perceived vulnerability of smaller states. The emerging picture is that in recent

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decades small European countries have tended to do better in the good times, and some, though by no means all, worse than larger countries when times are bad. What does that say about the overall economic performance of small countries? What happens when normalcy returns? Will the rising tide lift small boats faster?

Recent research has suggested that volatile economies perform less well than the more stable. Ramey and Ramey, for example, point to the strong negative effect of volatility on growth. Some authors have presented volatility as the negative correlate of trade openness, and a recent paper by Furecér and Carras does find that smaller countries are more likely to experience volatile business cycles. The hypothesis is that smaller countries are more volatile because their reliance on external trade renders them more vulnerable to exogenous shocks, and this heightened volatility feeds through to lower growth.

More recent work by Garcia Herrero and Vilarubia has found that while very high volatility is detrimental to growth, a moderate level of volatility may actually be growth-enhancing. This “Laffer curve” of volatility may be explained, they argue, by the underlying nature of the crisis: banking crises may actually act as catalysts for economic innovation, while sovereign debt crises can have more long-term negative effects.

In conducting our own analysis of economic volatility, measured by the standard deviation of the GDP per capita annual growth rate, we found (see Figure 12) that there is a small but statistically significant relationship between volatility and country size (measured by the log of population): small EU countries were, on average, more volatile between 1996 and 2010. In regressing that measure of volatility against average growth we were able to find, as shown in Figure 13, a strong positive correlation between volatility and stronger growth. (This result was also statistically significant.) The more volatile a country, the faster it grew over this time period. This finding echoes that by Easterly and Kraay:

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Small states do have greater volatility of annual growth rates, which is in part due to their greater volatility of terms of trade shocks. This terms of trade-based volatility is in turn due to small states’ greater openness. However, their greater openness on balance has a positive net payoff for growth.\footnote{Easterly and Kraay (2000).}

Evaluating the policy trade-off between stability and growth will depend on the relative prosperity of the country in question.

**Figure 12: GDPPC growth rate standard deviation and population, EU-27 (excl. Malta)**

Source: IMF, authors’ own calculations
Figure 13: GDPPC growth rate standard deviation and GDPPC average growth, EU-27 (excl. Malta)

The Big Advantages of the Small

What are the secrets of small country success? While we have presented credible evidence that small size is positively correlated with stronger economic performance within the European Union over the last few decades, correlation itself does not prove causation. To hypothesize about the nature of possible causal linkages between size and prosperity we have to draw upon what is to date a relatively limited reservoir of scholarship.

The highpoint in economic analysis of country size is probably the conference held in 1957 in that most global of small nation trading centres, the Hague, on the “Economic Consequences of the Size of Nations”, the proceedings later published in 1960, collated by E.A.G Robinson, the Cambridge economist and long-term editor of the Economic Journal.
Many of the questions the Conference listed in its programme cover much of the ground we seek to address in this report:

- How far does freedom of movement of goods, resulting from free trade, customs unions, etc., permit the enlargement of markets without the necessity for political unity?
- How far is a large nation more stable than a small one, (a) in consequence of a smaller dependence on international trade in general; (b) in consequence of a smaller dependence on its ability to sell a small range of exported goods; (c) in consequence of wider opportunities for adjusting its economy to changes in both markets and technologies?
- How far does a small nation have an advantage in its capacity to adjust more quickly its policies to changing conditions? Is research and development work likely to achieve greater results in a large nation? How far can customs union...provide opportunities for enlarging markets and permitting specialization...How far does the existence of a single currency...facilitate trade?

The most substantive contribution was by the future Nobel laureate, Simon Kuznets, based on a speech he first gave at an economic development seminar at the Hebrew University of Jerusalem.

The core of Kuznets’ argument is that small countries face a mix of advantages and disadvantages. Small countries cannot benefit from economies of scale in production and their degree of product diversification is narrower – the “penalty of smallness”. But “because of their smaller populations and hence possibly greater homogeneity and closer internal ties”, small nations “may find it easier to make the social adjustments needed to take advantage of the potentialities of modern technology and economic growth.”

By the same token larger countries face a similar though reversed trade-off:

It is reasonable, I believe, to argue that since reliance on foreign trade is, perforce, limited, particularly in these times of international strain and strife, a large domestic market is an important prerequisite to the economies of scale of many modern industries and to the diversification of the domestic productive structure that provides varied opportunities for the growing population; To be sure, larger size poses other dangers, particularly the

36 Robinson (1960).
37 Kuznets (1960).
possibilities of greater disunity among the various parts of a large and regionally diversified population and the consequent difficulties of making promptly and without great cost the secular decisions essential in setting and adjusting conditions for a country’s economic growth.  

Based on the consensus view among those that have studied the question, and the new insights gained from the French analysis, the advantages of small nations appear to consist of four core characteristics:

**Openness to Trade:** Small economies tend naturally – because of the smaller size, relative to total income, of their domestic market – to be more export-oriented than large countries. But small countries are not just “structurally open” automatically because of their small size, they are also “functionally open” in the sense that they pursue trade openness as a conscious policy choice, e.g., the tax-cutting fiscal competition that has been a feature of many small countries’ policies. This means they are better positioned to benefit from the expansion of trade, are more skilled in responding to changing markets, developing specialization in niche markets and internationalizing their businesses. As the Nobel Prize-winning economist Gary Becker has argued, small nations are now proliferating because economies can prosper by producing niche goods and services for world markets:

> In fact, small nations now have advantages in the competition for international markets. Economic efficiency requires them to concentrate on only a few products and services, so they often specialize in niches that are too small for large nations to fill.

The two real stars of small state globalisation are the Netherlands – Shell, Phillips, Heineken, Unilever – and Switzerland – Nestlé, Zurich, Credit Suisse, Roche, Novartis, UBS, ABB, Swiss RE etc – but Table 4 shows the Heineken effect – small countries’ capacity to reach the markets others

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39 John Dunning, for example, finds the small countries (population <10 million) in his sample to have a trade/GDP ratio in 1995 of 111%, compared to the 62% ratio recorded for large to medium-sized countries: in J. Dunning, “Resolving Some Paradoxes of the Global Economy – Small Nations as Trailblazers” in *Globalization and the Small Open Economy,* eds. Van Den Bulcke and Verbeke (Cheltenham, England: Edward Elgar, 2001).

40 W.G. Demas (1965).


cannot reach is much more broadly based. Most Fortune 500 companies are based in large countries as expected, but being small, it seems, is no barrier to building an internationally successful company and may even have some intrinsic advantages. It’s a process that continues today. Slovenia’s Gorenje, established in the 1950s in the tiny village that bears its name, for example, has a 5% share of Europe’s kitchen appliance market. No wonder the entrepreneur and marketing genius Freddie Heineken became a passionate advocate of “Eurotopia”, a continental patchwork quilt of 75 historic nations and regions with a population no greater than ten million, as the solution to our economic problems.\(^{43}\)

Table 4: Small Nation Stars

<table>
<thead>
<tr>
<th>Country</th>
<th>Company</th>
<th>Sector</th>
<th>Global 500 ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>OMV</td>
<td>Oil and Gas</td>
<td>333</td>
</tr>
<tr>
<td>Austria</td>
<td>Erste Group Bank</td>
<td>Banking</td>
<td>466</td>
</tr>
<tr>
<td>Austria</td>
<td>Strabag</td>
<td>Construction</td>
<td>486</td>
</tr>
<tr>
<td>Belgium</td>
<td>Dexia Group</td>
<td>Banking</td>
<td>49</td>
</tr>
<tr>
<td>Belgium</td>
<td>Anheuser-Busch</td>
<td>Brewing</td>
<td>196</td>
</tr>
<tr>
<td>Belgium</td>
<td>Delhaize Group</td>
<td>Food retailing</td>
<td>291</td>
</tr>
<tr>
<td>Belgium</td>
<td>KBC</td>
<td>Banking and Insurance</td>
<td>361</td>
</tr>
<tr>
<td>Belgium</td>
<td>Cie Nationale à Portefeuille</td>
<td>Investment company</td>
<td>482</td>
</tr>
<tr>
<td>Denmark</td>
<td>A.P. Møller-Mærsk</td>
<td>Shipping/logistics</td>
<td>147</td>
</tr>
<tr>
<td>Denmark</td>
<td>Danske Bank Group</td>
<td>Banking</td>
<td>235</td>
</tr>
<tr>
<td>Finland</td>
<td>Nokia</td>
<td>Telecommunications</td>
<td>120</td>
</tr>
<tr>
<td>Finland</td>
<td>Nokia</td>
<td>Telecommunications</td>
<td>120</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Arcelor Mittal</td>
<td>Steel</td>
<td>99</td>
</tr>
<tr>
<td>Sweden</td>
<td>Volvo</td>
<td>Automotive</td>
<td>278</td>
</tr>
<tr>
<td>Sweden</td>
<td>L.M. Ericsson</td>
<td>Telecommunications</td>
<td>301</td>
</tr>
<tr>
<td>Sweden</td>
<td>Vattenfall</td>
<td>Energy</td>
<td>303</td>
</tr>
<tr>
<td>Sweden</td>
<td>Nordea Bank</td>
<td>Banking</td>
<td>409</td>
</tr>
<tr>
<td>Sweden</td>
<td>Skanska</td>
<td>Construction</td>
<td>476</td>
</tr>
</tbody>
</table>

Source: Fortune Magazine

The success of these small country giants, though counter-intuitive, is consistent with the underlying logic of basic trade theory. Enlarging a trade bloc increases the size of the market that a firm can reach with relative ease. This increase will be more significant for firms located in small countries, whose own domestic market is small. This means that the increases in competitiveness are relatively larger for (firms in) small countries, such that the entry of new members in a trade bloc will tend to favour small countries.

44 Fortune, July 26 2010.
This argument of asymmetric gains from trade was first made in the modern context by Alessandra Cassella.\textsuperscript{45} But its intellectual roots can be traced to John Stuart Mill – the father of modern liberalism – whose work on “reciprocal demand” built on the international trade theories of his father, the Scottish economist James Mill, and David Ricardo. The essence of Mill the Younger’s argument was that when two countries specialised, the smaller country would gain more from trade because its demand for the products of the larger country were smaller when compared to the overall production of that commodity while the larger country’s demands for the smaller country’s products were greater, causing the terms of trade to be in the smaller country’s favour.\textsuperscript{46} The question of country size for a modern European nation is thus posed within the context of a single market – an “ever closer union” – from which smaller countries stand to gain more, consistent with the findings presented above.

**Social Cohesion:** There is strong evidence that ethno-linguistic division – generally less prevalent in smaller countries – can be an impediment to economic development.\textsuperscript{47} But smaller countries also appear to be superior at integrating ethnic and linguistic minorities because of their stronger emphasis on cohesion. As John Kay argues: “the welfare systems of smaller countries have exploited the greater sense of solidarity in smaller communities to provide economic security without creating the substantial excluded minorities which are characteristic of all the four larger economies.”\textsuperscript{48} Small countries are not just generally more socially homogeneous, and less fragmented, but exhibit less income inequality as noted by Niels Kærgård in the case of Denmark: “it is typical that solidarity and interpersonal redistribution of income is easier in small and homogeneous groups than in big groups...it is easier to establish internal solidarity and an equal income distribution in smaller countries than in bigger countries”.\textsuperscript{49} This greater cohesion means more effective governance and a smoother path to social change or economic adjustment.\textsuperscript{50}

\textsuperscript{48} John Kay, *The Economics of Small States*, (Edinburgh: David Hume Institute, 2009).  
Stronger accountability and higher trust raises the quality of democratic decision-making. As the English economists Armstrong and Read have suggested, in small countries:

*Social capital is built-up through the development of social and civic institutions. These institutions act as networks which bind together individual members of society and facilitate co-ordination between them as well as enforcing norms of behaviour, reciprocity and trust through the exercise of effective sanction. The resultant social cohesion is regarded as being greater in small states because of the frequency of direct contact between decision-makers and their constituents as well as between ordinary members of society.*

The high degree of homogeneity and trust in small countries improves their ability to find social compromise. Small countries are easier to run, and therefore better ruled: the smaller number of decision-makers and stakeholders lowers the transaction costs and coordination complexities of the policy-making process. This contrasts with larger countries where there often exists a disincentive to collective action. Peter Katzenstein in his influential 1980s work, *Small States in World Markets*, also argued that their perceived vulnerability meant small countries possessed a higher propensity to collaborate for mutually beneficial ends.

**Adaptability:** Small countries’ vulnerability to exogenous shocks means they are better at adapting to change and implementing structural reform. Jeffrey Frankel of the Kennedy School, for example, has written of the role of small countries as global innovators (see Table 5). There is some echo here of the argument about “laboratories of innovation” and “market-preserving federalism” that have made similar claims for the benefits of political decentralization within the United States in the 20th century and the United Kingdom during the 19th. Large, decentralized countries and small, compact countries are both good contexts for fostering divergent thinking, though in the latter case,

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52 Kuznets (1960).


as already noted, it can be a source of resilience as much as an expression of creativity. As Katzenstein writes: “small size favours debate and learning and economic openness and international vulnerability mean control over fewer resources and the probability of greater loss. Hence the environmental conditions in which small states operate are particularly conducive for high learning.”58 In other words, while the US or the UK may conceivably witness a rerun of the events of the recent crisis, it’s highly unlikely that Icelanders or the Irish will ever make the same mistakes again, painfully embedded as they already are in national consciousness and institutional memory.

Some economists have suggested that this small country capacity for social innovation does not extend to its private sector equivalent as diseconomies of scale act as barriers to indigenous R&D and technology transfer (Briguglio, 1995).59 However the highly developed systems of national innovation in many small countries – Switzerland, for example, has more Nobel Prizes per head of population than any other nation and three universities in the World Top 100 as judged by Jiao Tong University – seem to cast doubt on this assertion.60 As Kay contends, smaller-scale does not automatically mean less sophisticated (think limited edition), more than niche need equate with local in a world where “economic competition ……is not about the capacity … (to) mobilise divisions and dreadnoughts, but about the capacity to acquire economic rents by selling mobile phones and speciality chemicals. Economic success is not achieved by armies on broad fronts, but predicated on the development of relatively narrow competitive advantages in firms and groups of firms. In this modern competition, some of the major winners have been small states whose economies have been able to pursue their strengths without the paralysis created by conflict between large, established vested interests.”61 Persistence in the face of enormous odds also breeds its own success, as the former CEO of Nokia, J.O. Nieminen is quoted as saying: “When an inventor in Silicon Valley opens his garage door to show off his latest idea, he has 50% of the world market in front of him. When an inventor in Finland opens his garage door, he faces three feet of snow”62

60 Andrew Oswald, “What we can learn from the Swiss”, The Independent, October 30, 2008.
61 Kay (2009); see also Gerhard Schwarz and James Breiding, Wirtschaftswunder Schweiz: Ursprung und Zukunft eines Erfolgsmodells, Neue Zürcher Zeitung: Zurich, 2011.
The Macro-politics of Micro-scale: The French school suggests an additional source of advantage which they dub the “institutional macro-economics of country size” within the European Union.\(^6\) In small countries, they explain, Keynesian-style fiscal policy is unlikely to be effective because any stimulus simply sucks in imports, while supply-side policies aimed at raising national competitiveness are likely to be more successful. “Europe’s economic constitution” – its absence of fiscal policy levers and emphasis through the Lisbon agenda on structural change – is tailored to the needs of small countries. This echoes criticism that a “small-country mind-set” is damaging Europe’s economy. “It is the tragedy of the eurozone”, the independent analyst Walter Münchau argued in the Financial Times at the height of the recent crisis, “that it is run as a collective of small countries” with too little emphasis on macro-policy ac compared to the micro-economics of competitiveness.\(^4\) Though small countries do have less scope for discretionary economic stimulus, it is important to note that generally they tend to have bigger governments, and stronger automatic stabilisers as a result.\(^5\) The resultant mix is a kind of socially inclusive supply-side economics that the Nordic countries have come to exemplify under parties of both Left and Right.

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Table 5: Great Little Innovators

<table>
<thead>
<tr>
<th>Country</th>
<th>Policy Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand</td>
<td>Inflation targeting (1990)</td>
</tr>
<tr>
<td>Chile</td>
<td>Private pensions (1990s)</td>
</tr>
<tr>
<td>Singapore</td>
<td>Congestion charging (1975)</td>
</tr>
<tr>
<td>Sweden</td>
<td>Keynesian demand management (1930s)</td>
</tr>
<tr>
<td>Estonia</td>
<td>Flat taxes (1994)</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>Abolition of the military (1948)</td>
</tr>
</tbody>
</table>

\(^6\) Laurent and Le Cacheux (2010).


Section Two

Surviving the Storm

In the maelstrom of the Euro-crisis, Europe’s north-western-most and south-eastern-most nations have been downgraded, berated and bankrolled. During the ensuing blame-game, two alternative readings of the events have played out in discussion. One version – popular among politicians and public opinion – sees the crisis in grand mythic terms, a modern morality tale in which over-spending governments are devoured by evil speculators. It has been most consistently expressed by the German Finance Minister, reflecting a certain Germanic Angst at the moral laxity of their Mediterranean and Ibero-Celtic partners. Listening to Wolfgang Schäuble is to be served up an economics lecture by the Brothers Grimm. 66

The problem with this account of “the PIGS and the Wolves”67 is that it’s a fairy story, with little basis in fact. The alternative, though politically less convenient, explanation is that the crisis was systemic, reflecting certain fundamental design flaws in the make-up of monetary union. These structural weaknesses would then have led inevitably to the kind of crisis we eventually saw irrespective of the actions of individual Governments. In choosing the former version of events, European policy makers have become obsessed with the fiscal symptoms of the Euro-zone’s malaise while ignoring their deeper, more monetary causes. In reality it wasn’t public debt that ballooned in the pre-crisis years but private. Essentially, higher inflation in the Euro-zone periphery combined with a single Euro-zone interest rate meant real interest rates were lowest in the most over-heated economies – precisely the opposite of what policy would ideally prescribe. The responsibility for the mess lies not with the Irish (or the Greeks, or the Portuguese or the Belgians). It’s a failure that flowed inevitably from a missing element in the Euro-constitution: under monetary union, with its banishment of monetary sovereignty, there simply was no means available of staving off localised bubbles and borrowing binges. Luckily, there is a monetary “Third Way” – drawing on another small country innovation – that retains a single currency while re-establishing some capacity for monetary policy at Member-state level: a partial renationalization to salvage the Euro.

67 PIGS is an acronym for Portugal, Ireland, Greece and Spain; sometimes includes Italy as in PIIGS.
In Search of the Profligate PIGS

Far from being fiscally profligate, for most of the last decade and a half the Irish government, if anything, had been positively parsimonious by European standards. Ireland ran a surplus in every year from the mid 90s to 2006. There was some degree of catch-up in public spending that had failed to keep pace with growth in the 1990s and ex-post public expenditure was bigger than planned for most of the decade reflecting poor budgetary management. However in 2007 Ireland could still boast, if that’s the word, the smallest Government sector in all of Euro-land, together with the most robust public finances apart from Luxemburg and Finland. As well as easily meeting the Maastricht 3% deficit rule for most of the decade, Ireland made sterling efforts with regard to the 60% public debt rule, radically reducing the stock of debt in the run-up to the crisis from over 90% to under 30% of national income.

Among the other small nations whose sovereign debt has come under the spotlight Portugal also remained below average in terms of government debt throughout the new Euro-era. While Greece was significantly above average in it debt levels and this worsened markedly with the onset of the crisis, prior to that there was no major change in its historically high levels of indebtedness. Its spending profile indeed was definitively average – forming the median point for EU public spending during this period – with exactly 13 member states spending more and 13 spending less (see Figure 14). Indeed, all the PIIGS are either at or well below the EU average in terms of public spending. The small country “big spenders” – Sweden, Denmark, etc – it is interesting to note are largely untroubled by the financial woes besetting others.

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Sovereign Debt: No Small Problem

The fiscal problems that have bedevilled the Irish and Greek economies have dominated recent policy debate. However contrary to the popular impression that the smaller the country, the higher the premium, over the medium-term there does not appear to be any country-size effect in the pricing of Government debt by the bond markets. Figure 15 shows virtually no difference in the

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average yield rates for 10-year bonds issued by small and large countries over the period 2003 to October 2010.\(^{70}\)

**Figure 15: The Costs of Small Size**

The picture changed with the economic crisis with Small Europe on average having to pay a size premium of 50 basis points. This differential is largely a result of the position of a small number of outliers: Ireland, Hungary, Greece and the Baltic States where full-blown austerity programs have been introduced to stave off a sovereign debt crisis. As we can see from Figure 16, small countries – as measured by Barclays Capital’s Fiscal Vulnerability Index – generally have more robust public finances than larger countries. With the exception of austerity-obsessed Germany and the mid-sized Netherlands Europe’s mega-states are all in difficulty, while the fiscal star-performers are the Swiss and the Scandinavians. As Buiter and Rahbari point out in a recent paper (see Table 6), the fiscal crisis has touched virtually every economy – with only a small group of EU countries in sound financial shape.\(^{71}\) Two of the worst affected ten are actually large countries and the best performing – with the exception of Germany – are also all small: Denmark, Finland, Luxemburg, Sweden, Switzerland and Norway.

\(^{70}\) This is the longest period for which is there is completely comparable data with the exclusion of Estonia.

Figure 16: Fiscal Vulnerability Index, EEA countries, 2010

Source: Barclays Capital
Greece’s gross debt of 115% of GDP in Table 6 is a huge figure, but it is actually slightly less than Italy’s. Ireland’s debt position going into the crisis was actually better than that of the United States, the UK or Germany, and a third of that of Japan. Large countries as a rule have been more profligate in building up large stocks of public debt. Smaller countries have come under greater pressure for smaller levels of debt as larger countries do appear to enjoy greater power of leverage. But even larger countries like the UK are now having to grapple with the issue of debt sustainability, and if smaller countries continue to outgrow larger countries, and carry a lower debt burden, then smaller countries may be in a more robust position going forward.
Some authors have suggested that the PIGS bear some responsibility for the crisis because of the pro-cyclicality of their fiscal policy in the run-up to the crisis.\textsuperscript{72} However, as we see from Table 7, when we measure the fiscal stance (the change in the structural Government balance) against the change in the output gap for the 14 Euro-zone members for which data is available in the period leading up to the world economic crisis, we find that only one of the sovereign debt affected countries can be said to have run a pro-cyclical policy: Greece. Spain actually ran a counter-cyclical policy during this time, and the other three (Ireland, Italy and Portugal) were basically neutral. Even Greece ran only a mildly pro-cyclical policy when compared to Austria that has maintained its Triple A status among the credit rating agencies.

**Table 7: Cyclicality of Euro-zone Countries’ Fiscal Policy, 2000-2007**

<table>
<thead>
<tr>
<th>Pro-cyclical</th>
<th>Counter-cyclical</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRONG:</strong></td>
<td><strong>MILD:</strong></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>Greece</td>
<td>Belgium</td>
</tr>
<tr>
<td></td>
<td>Slovenia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cyprus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Finland</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MILD:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cyprus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slovakia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Finland</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MILD:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>France</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spain</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td></td>
</tr>
</tbody>
</table>

Source: IMF, authors’ own calculations

Lavish spending alone is clearly not the source of the sovereign debt crisis. The essence of the fiscal problem as seen in the ballooning deficits following the onset of the economic crisis (masked in Greece’s case until the change of administration) was in the case of Greece poor tax revenue as a result of the housing crash; in the case of Ireland, the costs of the banking bail-out; and tax evasion and tax avoidance in the case of both. While Governments, it could be argued, should have been more vigilant and active on all these fronts, the origin of the crisis was not a direct result of changes in their fiscal policies.\textsuperscript{73}

\textsuperscript{72} Garret Fitzgerald, “Ireland's fiscal irresponsibility undermined the Euro-zone”, *The Irish Times*, May 15 2010.

\textsuperscript{73} Walter Münchau, “Why the stability pact is irrelevant”, *Euractiv.com*, October 26, 2010.
The Wages of Euriginal Sin

The Euro-zone periphery did have a debt problem but it was private rather than public in nature and fuelled by huge capital inflows. Ironically, as some have suggested, lower deficits in Ireland and Spain – together with the added credibility of Euro-wide monetary policy and interest rates – may actually have “crowded in” private investment.\(^74\)

As can be seen from Figure 17, private household debt increased strongly throughout the Euro-zone periphery from 2001 to 2007, almost doubling in the case of Ireland and Greece. Public debt in these four countries was either declining or stable during this period.

**Figure 17**

This explosion of private credit was driven in large part by a property boom: between 2000 and 2007 residential property prices positively soared in Greece (89%) and Ireland (90%). In Germany, by

\(^74\) Avinash Persaud, “The narrative outside of Europe about Europe’s fiscal crisis is wrong”, voxeu.org website, June 17, 2010.
contrast, house prices actually fell by almost 7%. In housing market terms therefore the Euro-zone area contained within itself more than one country with double-digit inflation while its major economy was plagued by property deflation.

A similar through more granular picture emerges when we examine corporate borrowing. As we can see from Figure 18, German corporate debt again remained fairly stable in the run-up to the crisis. Portugal (20%), Spain (43%) and Greece (52%), however, witnessed substantial increases in corporate debt in the five-year run-up to the crisis. Ireland saw a more modest rise until the crisis itself which then proceeded to add 55% to Irish non-financial corporate borrowing.

Figure 18

![Graph of non-financial corporations' debt](image)

This pattern of ballooning credit growth in the periphery and stagnant credit growth in Germany points us to a key determinant of the credit boom: it was financed by the core. The Euro-zone periphery could be said to have suffered from a form of “Euriginal sin” – not, as in the case of Latin American countries, an inability to borrow abroad in a domestic currency – but conversely, a pronounced propensity to borrow abroad in the now-domestic currency of the Euro. Eighty five per
cent of Irish treasury bonds are now owned by foreign residents compared to 15% prior to the introduction of the Euro.\textsuperscript{75}

The driver for this twin deficit of private and external debt was the difference in inflation between the periphery and the core. Higher inflation rates in the periphery combined with a EU-wide common nominal interest rate meant that real interest rates were lower. Banks in Germany struggling to find investment opportunities at home were able to find willing borrowers in places like Ireland and Greece. Monetary policy in these countries was much more pro-cyclical than anything done on the fiscal front – and this was because of the design of the monetary union rather than policy choice on the part of smaller states.

\textit{The Policy Solution: having one’s monetary cake and eating it}

As the economist Paul De Grauwe has contended, in many ways European leaders are “fighting the wrong enemy”.\textsuperscript{76} The problem with the policy response is that:

\begin{itemize}
  \item it concentrates on public debt while the problem is largely private in origin
  \item it emphasizes fiscal policy, while the longer-term problem (and solutions) are largely monetary
  \item it blames smaller countries for the problem, while the origins are systemic
\end{itemize}

The actions of Europe’s political class to date, as Kenneth Rogoff has argued, have turned a private debt problem into a sovereign debt problem, and this economic alchemy continues to cloud policymakers’ judgment.\textsuperscript{77} The prospect for debtor countries amounts to little more than a “lost decade” of monumental futility with the public sector in the role of Sisyphus, weakened by the bread-and-water diet of austerity, pushing its rock up an ever-steepening hill.

\textsuperscript{75} Finnbar Flynn, “Ireland says domestic bond buying may rise as default ruled out”, Bloomberg.com, December 17, 2010.
\textsuperscript{76} Paul de Grauwe, “Fighting the wrong enemy”, Voxeu.org website, May 19, 2010.
The current prescriptions fail to address the geo-dynamics of debt: that external debt acts as a drain on the economy, with every interest payment making the nation poorer, in a way that domestic debt doesn’t as income is retained. But they also fail to address the geo-economic issue which caused the problem in the first place: how can we prevent high inflation in some countries from resulting in low real interest rates and therefore stoking up localised asset bubbles and borrowing binges in the context of a monetary union? In this sense, as Persaud has argued, the EU faces a classic Tinbergen problem: it lacks policy instruments for the seemingly contradictory policy goal of avoiding the build-up of excessive balances at a national level while abolishing monetary sovereignty.

**So what’s the answer?**

Ireland, for all its difficulties, would do well to ignore the siren voices of revanchist Unionism extolling the supposed virtues of ditching the Euro and “coming home” to Sterling. That particular currency union didn’t do any particular favours to the Irish economy before the punt detached itself in 1979. And being pegged to a pound pumped up on economic steroids by an over-exuberant Square Mile devastated manufacturing in Wales and Scotland in the years before the Crash.

Leaving the Euro meanwhile would be a legal and logistical minefield. Luckily, there is an alternative: a hybrid of monetary union with local flexibility, a flotilla-like solution.

To combat future inflationary bubbles, national governments beyond Europe’s cordon sanitaire could be encouraged to establish new national units of account (NUA) indexed to inflation. While innovative in the context of a monetary union, the idea of an inflation-proof unit of account is not itself a novel idea having been first suggested in the 19th century and promoted in the 20th by two of the founding fathers of modern economics, Irving Fisher and Alfred Marshall. There has even been the full-scale successful implementation of the idea in Chile with the creation of the Unidad de

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78 Persaud (2010).
79 Daniel Hannan, “There is a way out for Ireland, and Britain should stand ready to offer it”, *Daily Telegraph*, November 17, 2010.
80 ‘nua’ is Irish for ‘new’
Fomento in 1967, which by the 1980s had become, and remains, the main unit of account for long to medium-term financial contracts (car loans, mortgages, corporate borrowing and government securities) while the peso is used for wages and prices.

The rationale behind the UF in Chile was to combat double-digit inflation, but according to the behavioral economist Robert Shiller who has championed the adoption of the idea in the UK and the US, an indexed unit of account would help dampen the “money illusion” that is a driving factor in property and other asset bubbles. Its attractions in the Euro-zone, however, are not purely psychological. NUA’s value in Euros would be updated daily based on an interpolation of the relevant monthly inflation rate. If a big enough proportion of domestic financial credit was conducted in NUA, this would allow a national government to engage in counter-cyclical monetary policy, influencing the interest rate by issuing NUA-denominated public debt.

The idea of a national unit of account within a monetary union – a kind of reverse-engineered ECU – is not entirely new. It first emerged as a concrete proposal as part of the debate around an Australasian monetary union at the beginning of the decade. A parallel unit of account for New Zealand, indexed against inflation, house prices, nominal GDP or the terms of trade, it was argued by a leading economist and former Central Bank adviser, could be “a way that a country could gain the microeconomic advantages of a currency union without sacrificing all of the potential macroeconomic advantages of a separate currency and yield curve.”84 In other words, this is a case of having one’s monetary cake and eating it.

Since an initial starting “rate of exchange” would have to be announced this offers some opportunity to bring about the swift and seamless restructuring of current public, and possibly even private debt, that many authors – and even apparently the German Chancellor – believe will be inevitable in any case at some point.85 “Re-denominating” current bonds in NUAs – say at 70% of their value – would remove a large part of the mountain of external debt that threatens to drag Ireland and Greece deeper into recession and insolvency, and since creditors, though given a
“haircut” would still be paid in Euros, where bonds were covered by local law this could be given effect through emergency local legislation. The countries in question would face higher premia on their external borrowing as a result – but in most cases this has already been priced in by the markets. The anticipated restructuring would inevitably lead to a Torschlusspanik – a rush to the exit door by investors – and a further combination of ECB, IMF and EU support would be necessary to cushion its effects on the banking sector in the short-term. But a short-term public bail-out to help with a longer-term private bail-in, may prove more appealing than handing private investors the fattest of blank cheques.

Our proposal has some superficial similarity with Martin Feldstein’s earlier suggestion that Greece be afforded a holiday from the Euro through the temporary reintroduction of the drachma. It differs from the Feldstein plan in two important regards:

- there is no need to leave the Euro, or create a new currency, with all the practical difficulties that would involve. The Euro would remain the sole legal tender.

- it reduces the drain on resources represented by the external debt – in a way similar to the peso-ification policy in Argentina in 2002 – while Feldstein’s plan would increase the relative cost of debt servicing as the new domestic currency depreciated.

A country with a NUA would effectively have its own national interest rate – and this should guard against low real rates of interest stoking up inflation again in future. Ireland would continue to benefit from integration but would regain the ability to run a counter-cyclical monetary policy as insurance against “economic shocks” of a localised nature. A version of this solution has been suggested by the German economist Rainer Maurer (and been echoed by others) in the form of a regional financial transaction tax or subsidy – though in this case determined by the European Central Bank, rather than national authorities, in response to local economic conditions.

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Whether centralized or decentralized in their decision-making process, the combined effect of these proposals is the introduction of regional variation in nominal interest rates (to create greater uniformity in the real rates). This sounds counter-intuitive in the context of a monetary union but, as Stanley Black argues, this is not that dissimilar to the system of regional discount rates operated by the 12 Regional Reserve Banks in the United States – unilaterally until the 1930s – in response to localised shocks.  

The above may sound like a far cry from the heady Euro-enthusiasm of 1999. It does involve the reintroduction of a type of “shadow currency” with its own interest rate, its own exchange rate (relative to other national units of account) and the rebirth of national monetary policy. Its effect, in the short term, may be to create a somewhat less integrated capital market. But perhaps the American example – regional interest rates persisted well into the 20th century – proves that the construction of “a more perfect union” in monetary terms, may take at least a generation.

**Big Fish in Small Ponds**

There is an important caveat to the small-country success story which is indicative of an institutional failing that is common to many small countries: cronyism. The village-like nature of small country connections, which in the context of information flow and the strength of social capital represent positive advantages, can create a milieu in which monopoly, rent-seeking-behaviours, weak regulation and downright corruption can flourish. As Farrugia (1993) notes: “Many necessary decisions and actions can be modified, adjusted and sometimes totally neutralised by personal interventions and community pressures. In extreme cases, close personal and family connections lead to nepotism and corruption.”

When this becomes mixed with a financial sector whose debt is measured in multiples of domestic GDP in the national equivalent of a Ponzi scheme, then trouble is only a global collapse of

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90 Black, (2010).
confidence away. From Ireland’s Golf-gate to suggestions in Iceland that personal animosity led the central bank to reject giving Glitnir a lifeline, or that the privatisation of Landsbanki was the result of jobs offered to members of the Independence Party, as a current member of the Icelandic Monetary Policy Committee, Anne Sibert, concludes: “Even if such suspicions are untrue, the widely held belief that they might be is damaging to social cohesion and the state’s legitimacy.”

Ireland and Iceland’s response to this collapse in confidence has been to heed Gide’s advice and call in, not the big battalions, but the soft-spoken experts of untainted small-countries: the Icelanders have called in the Norwegians while the Irish have called in a Finn.

Big financial institutions and small countries are not necessarily a toxic combination as the Swiss example shows. However, it takes generations to develop the institutional expertise necessary to prevent a credit boom turning into a financial crash. In the context of Scotland, which has a centuries-old financial sector, it was the complete absence of local regulatory institutions, not their weakness, which was the bigger cause of the problems of RBS and HBOS. And as Figure 19 shows, small countries, even after the crisis, continue to enjoy a comparative advantage as international centres for financial services. The markets in the mighty minnow countries (Belgium, Ireland, Luxembourg and Switzerland) are responsible for a higher proportion of US debt than “America’s banker”, China. As the IMF has argued in comparing Ireland and Iceland’s performance with Hong Kong and Singapore – both of which are small economies with very large banking sectors relative to national income – this need not pose a problem if there is a robust regime of regulation, which small countries are perfectly capable of achieving.

95 An acting central bank governor and Norwegian-born French magistrate were brought in to investigate possible criminal activity.
96 Peter Nyberg, a former Finnish Finance Ministry official, is to head up the Irish Banking Commission of Inquiry.
97 Four of the thirty systemically important financial institutions named recently by the international Financial Stability Board are Swiss.
Figure 19: Country ownership of US securities

% US Long-Term and Short-Term Debt

Source: US Treasury Statistics, June 30, 2009
Section 3

The Flotilla Advantage: why small is still bountiful

Small open economies... are like rowing boats on an open sea. One cannot predict when they might capsize; bad steering increases the chances of disaster and a leaky boat makes it inevitable. But their chances of being broadsided by a wave are significant no matter how well they are steered and no matter how sea-worthy they are.99

If the economic crisis has taught us anything it’s that no country – large or small – is wholly insulated from the global economy. No nation is invulnerable – and small countries are certainly no exception. But large countries have also “grown smaller” and are having to deal with the challenges of economic management in a context of uncertainty that small countries have been coping with for generations. Small countries have learned resilience the hard way – contrary to the Stiglitz characterisation above - by developing two generic strategies to avoid being capsized from which large countries can learn: compactness or ballast, and agility in navigating their way through the storm.

Twenty years ago Michel Albert divided capitalism into generic variants which he dubbed Alpine or Maritime after the different types of insurance created in a Swiss farming community or in Edward Lloyd’s coffee house: in the first instance a system of socialized risk, the other a case of individualized risk-taking. These developed into models of capitalism which emphasised either individual initiative – the Anglo-Saxon model – or collective endeavour, the Alpine/Rhine-ish alternative.100

The Alpine model – again with the obvious exception of the small-country-mimic Germany – is the small country model par excellence of social partnership, with left-leaning versions in Scandinavia and a more business-oriented, centrist model in Switzerland.

A competing small country version of the maritime approach – more traditionally associated with the Anglo-American tradition of heroic individualism – has emerged in the last ten years with the

rise of the Baltic States and Ireland’s embrace of a more avowedly neoliberal approach to economic policy.

Table 8 presents countries by quadrant based on their degree of trade openness (outer-oriented or inner-oriented) and their level of corporatism.\textsuperscript{101} Wales and Scotland, with their socialist and social democratic traditions, could only conceivably occupy Quadrant 1: the Alpine haven we have dubbed the “flotilla” to contrast with the individualism of the marina, the high-stakes of the trawler, and the state-dependency of the ship-yard.

\textit{Table 8: EU-15 Countries by Quadrant}

<table>
<thead>
<tr>
<th>Corporatist</th>
<th>Outer-oriented</th>
<th>Inner-oriented</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>FLOTILLA</td>
<td>SHIP-YARD</td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td></td>
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<tr>
<td>Finland</td>
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<td></td>
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<tr>
<td>Sweden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luxembourg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Corporatist</th>
<th>TRAWLER</th>
<th>MARINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td></td>
<td>France</td>
</tr>
<tr>
<td>Portugal</td>
<td></td>
<td>UK</td>
</tr>
<tr>
<td>Greece</td>
<td></td>
<td>Italy</td>
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<tr>
<td></td>
<td></td>
<td>Spain</td>
</tr>
</tbody>
</table>

Alpine countries have, in general, weathered the storm more effectively, and the lesson has not been lost on small countries quick to adapt. Ireland, in dealing with the current crisis, is having to resurrect its own indigenous tradition of “democratic corporatism” involving tri-partite agreement

between unions, business and the State. Iceland has preserved, and reinforced, its own Nordic social model through the downturn. While the Baltic States have followed a different path of radical austerity – this has only been achievable through a strong and carefully choreographed consensus behind the reforms. The Nordic countries themselves – governed with the exception of non-EU member Norway now by the parties of the centre right – are attempting to create a new type of smart state which blends social progress with private sector innovation as presaged in the 1990s by Denmark’s innovative social policy synthesis of flexicurity.

Fusing the Alpine and the Maritime conjures up the notion of the nation as flotilla – combining collective, social security with the spirit of adventure borne of the open sea. As with the metaphor of the flying geese which Kaname Akamatsu first used in the 1930s to describe the developmental model of East Asia, the flotilla exists as an organising principle both internally and externally, person-to-person and nation-to-nation.⁰¹² Cohesion at the local level and diversity writ large are in this sense Europe’s biggest strengths: the EU is flexicurity for a continent of small nations, and for their citizens; a safety valve against the fluctuations of the market, pooling risk without blunting the entrepreneurial imperative.⁰¹³

Europe conceived as a continent of small nations is for some a recipe for a race to the bottom. But small countries are, in actual fact, to quote the Prime Minister of a more medium-sized state (David Cameron): “Europe’s avant-garde, a network of dynamic comparative advantage seeding innovation and growth.”⁰¹⁴

G-Force: The new international economic architecture

In 2009 the G20, the Group of 20 leading economies, declared itself the world's supreme global economic institution. The response was largely positive: the G20, it is argued is more representative than the G8, or the G2 of China and the US, representing as it does 85% of the world's economy and two thirds of its population. But the rise of the G20 represents the biggest challenge yet to a

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⁰¹⁴ Andrew Porter, “David Cameron hosts Nordic nations and looks to have more women on boards idea”, *Daily Telegraph*, January 20, 2011.
world economic order based on the idea of democratic sovereignty. As Anders Åslund, a senior fellow at the Peterson Institute of International Economics observed in the Financial Times:

...the G20 actually violates fundamental principles of international co-operation by arrogating for itself important financial decisions that should be shared by all countries. In so doing it also emasculates the sovereign rights of small countries that have long been the prime defenders of multilateralism and international law as well as the foremost policy innovators. The rule of the big powers over the rest is in danger of becoming unjust and reactionary.105

The rules of membership of the G20 are confusing to say the least. Although many EU countries are members, so is the EU itself. Holland and Spain gate-crashed their way in though no one invited them. The rules of governance are just as unclear with half the G20 members claiming that the other, more powerful half agree on the decisions in advance without debate or consultation. So maybe it's the G10 after all.

The principal problem with this new global architecture is that it offends the principle of universality on which all international institutions – from the UN to the Bretton Woods inspired economic governance regime of the IMF, the World Bank and the WTO – have been based. While the G8 was a glorified talking shop, the G20 has set itself the explicit goal of taking control of global financial regulation, and much else besides, making decisions that it expects 160 other countries to obey even though they haven’t even been consulted. No wonder Åslund has dubbed this the new "gunboat diplomacy", a return to Metternich’s system of “Great Powers". It represents part of a much broader attempt by the economic superpowers to assert their authority.

Small Economies – fact and fallacy

There can be no doubt that the consensus view has turned against small countries in the wake of the economic crisis. But this has been driven as much by political factors as the economic facts. Within existing States like Spain and the UK, opponents of independence have latched on to the problems in Iceland and Ireland as ready evidence of the folly of secession. And between existing States the international crisis has been used by large countries as an excuse for a power-grab at the expense of the small. But who caused the economic crisis? Was it Iceland? Was it Liechtenstein? Or was it the same countries that now make up the G20 that were responsible for an excessively lax monetary policy, global imbalances in trade, and poor exchange rate policy.

Small countries have long suffered from a combination of indifference and scepticism. When Singapore left the Malaysian Federation in 1965 its viability was in question. The country’s subsequent phenomenal success gave rise to what came to be called the Singapore Paradox. In Europe we have not one paradox, but almost a dozen. As Robinson (1960) puts it in the introduction to The economic consequences of the size of nations, “country size” is indeed a “subject that well deserves more attention.”

One thing should be beyond contention. Whatever Ireland’s current difficulties nothing can detract from its enormous achievement, shown in Figure 20, in coming from a position of the most abject poverty, in relative European terms, to surpassing its former colonial master, a record of economic growth which stands in stark contrast to the abysmal performance of northern Ireland which for the last quarter of a century has vied with Wales for the bottom spot in the UK economic league table. Similar stories of phenomenal economic success can be told by the cluster of small European states – Finland and Denmark, for example as shown in Figure 21 – that were among the poorest in the 19th century and rose to be among the richest by the start of the new millennium.

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106 Robinson (1960).
Figure 20: Catching Up With Britain I

Per Capita GDP in UK and Ireland (International Geary Khamis dollars)

Source: The World Economy Historical Statistics

Despite the prejudicial attitudes of provincial politicians\textsuperscript{108}, the advantage of smallness is gaining currency in more judicious and less politicized fora, for example, the OECD:

\textit{Country size may also matter, with small countries sometimes found to undertake more reform, as in Continental Europe over the past two decades. Reasons for this could comprise greater population homogeneity, which may ease decision making, and greater openness to trade, which increases competitive pressures and eases concerns that structural reform could lead to imbalances between aggregate demand and supply.}\textsuperscript{109}

The United Nations Industrial Development Organisation (UNIDO) in its most recent biennial report ranking countries by the competitiveness of their productive capacity also concluded: “Small

\textsuperscript{108} “Murphy in ‘arc of insolvency’ attack on SNP”, Glasgow Herald, 12th October 2008
highly dynamic economies are displacing mature, developed countries as global industrial competitors.”

The opposing view, which clings to size as security, is out of date, carrying with it a kind of 19th century mercantilist notion of autarky. Friedrich List, for example, argued that “only the large and populous states….are capable of development”. He was particularly scathing about the economic prospects of Ireland:

*A nation restricted in the number of its population and territory, especially if it has a separate language, can only possess a crippled literature, crippled institutions for promoting art and science. A small state can never bring to complete perfection within its territory the various branches of production.*

Mazzini and Bismarck used this argument to sweep away the medieval city-states and princely kingdoms of pre-unification Italy and Germany. But List himself proposed a different solution to the problems of being small: the customs union or *Zollverein*, that had proven so successful in the case of Germany and the Hanseatic League to the north, could be extended, he argued, to the neighbouring small countries of Belgium, Denmark, Holland and Hungary through “the union of the interest of various states by means of free convention.” List was, in fact, an early proponent of a European Union.

A union of twenty-seven states (and rising) is that contradictory construct of unity in diversity. In any century and any context, economies of scale and diseconomies of scale exist side-by-side, although the balance between them may shift. To argue exclusively for the advantages of small size would mean, *reductio ad absurdum*, that each of us individually should secede and declare our own household a sovereign republic. Similarly, arguments in favour of larger states logically lead us to advocate a world in which there is only country.

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110 *Industrial Development Report 2009: Breaking In and Moving Up: New Industrial Challenges for the Bottom Billion and the Middle Income Countries*, (Vienna: UNIDO, 2009). In the most recent report, based on data from 2005, eight of the top ten nations are small countries headed up by Singapore and Ireland. The four biggest rises in the ranks were recorded by Qatar, Cyprus, Iceland and Slovenia which overtook the UK.


113 It should nevertheless be noted that there doesn’t seem to be a minimum size for a country. The great Leopold Kohr suggested an optimal size of between 7,000 and 12,000 inhabitants – and the success of Andorra, Monaco, San Marino and Lichtenstein – suggest this is less of a Utopian fantasy than it sounds: Kohr (1957).
The European Union seeks to balance these centripetal and centrifugal forces, and harness their complementary energy. It has undoubtedly provided important economic shelter for its smaller states without which the impact of the crisis would have been much graver – Estonia’s enthusiasm for the Euro, notwithstanding the current difficulties, attest to that fact. Historically the problem of small size may have consisted not so much in being small as being lonely – a once flourishing Venice, for example, marooned by the sudden change in the trade routes to Asia. Europe’s small countries are today, in any case, at the most two hours away from markets and minds measured in the hundreds of millions. Based on the available evidence – not the currently prevalent prejudices – what we can say with certainty is that in the context of greater European integration over the last thirty years, small size does appear to confer certain important advantages in relation to economic growth. As Peter Katzenstein wrote more than a quarter of a century ago:

None of the small European states have to soar like the eagle. What they have learned to cultivate is an amazing capacity to jump. Although they appear to land on their stomachs, in fact they always land on their feet and retain the ability to jump again and again in different directions, correcting their course as they go along. In a world of great uncertainty and high-risk choices, this is an intelligent response. Frogs can escape snakes, and the small corporatist states can continue to prosper—not because they have found a solution to the problem of change but because they have found a way to live with change.

To return to the Volcker metaphor, in turbulent times, small countries can be said to behave more like the woodchip – tossed about on the waves – but difficult to sink. When good times return, Europe’s flotilla of small boats may once again prove quicker and more adept at charting a new economic course than the Super-tankers that are all too often “too big to sail”.

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115 Katzenstein (1985).
Post-Script: The Prospect of Independence

*If all nations were small and none were large, humanity would surely be freer and happier.*
Alexis de Tocqueville

A full evaluation of the small-country effect for the economics of independence of the re-emergent nations of Europe is beyond the scope of this paper. But in addition to the relationship between size and economic growth revealed in this paper, we do have some hard empirical data, in the form of independent Luxembourg and the neighbouring Saarland region of Germany, with which to assess the respective advantages of independence or integration. Both economies have their roots in coal and steel, but while Luxembourg was to become one of the founding members of the European Coal and Steel Community, the fore-runner of the EU, the people of the Saarland rejected the option of independent statehood and membership of the ECSC by two-to-one in a referendum in 1955 (the second referendum on autonomous statehood for the Saarland, the first one lost in 1935). Both Luxembourg and the Saarland have had to cope with the painful restructuring of their steel industries, but while Luxembourg is home to the global giant Arcelor-Mittal, the Saar steel industry is a pale shadow of its former self. Figure 22 shows the difference between growth rates for the independent nation of Luxembourg and the neighbouring region that rejected independence. The results are startling.

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116 Alexis de Tocqueville, *Democracy in America*, Volume I, Chapter VIII.
Luxemburgers and Saarlanders had to cope with the difficult task of economic restructuring as a result of the Oil Shock of the 1970s. But since the beginning of the 1980s, Luxembourg has pulled away – out-stripping economic growth in the Saarland by 2.5 to 3.5 percentage points a year on average over the last thirty years. The cumulative effect has made Luxembourg the richest country in the world, and left Saarland the poorest German Land in the former West. If anyone still doubts the potential economic value of independence then suggest they take the short drive from the Grand Duchy to Saarbrucken: not even Schengen or the Euro it seems can eliminate the economic advantage of being a (small) country not a region.

But what about Wales? Since 1990 its per capita real terms growth rate has been a lamentable 0.9% on average. If – and it is admittedly a big if, but then all counterfactuals are – Wales had become a small independent country around the time the Berlin Wall fell rather than remaining a stateless nation, then based on our model of country size it would have been expected to achieve an average annual growth rate of 2.2%.\footnote{This estimate is based on the simple model (based on population only). If the full model (also controlling for initial income level) is used, the estimate would be 2.5%}

A free Wales might do better or worse depending on its choice of policies and the strengths of its institutions. The actual growth rate is well below even the lower estimate on the fan chart shown in Figure 23: if Wales had continued to perform this badly even

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\textit{Figure 22: Real GDP Growth, Luxembourg and the Saarland}\footnote{Sumwong Kim, \textit{Lack of Convergence across former West German States}, University of Wisconsin: Milwaukee, Working Paper, August 2003.}
with independence it would have been an extreme outlier.\textsuperscript{119} We can improve our model further to predict the annual growth rate that Wales would have been experienced as an independent nation, given its population size but also controlling for initial income per capita level.\textsuperscript{120} Figures 24 and 25 show the results of this simulation: Welsh people would be on average 39\% “richer” had they been a small nation over this time period, and Wales could even expect, like Ireland and Denmark, to catch and surpass a now non-existent “United Kingdom” and become a prosperous, smart, successful nation.

There are many plausible reasons for opposing Welsh independence, but the risk of impoverishment can hardly be said any longer to be the strongest. Small can be bountiful – if that’s the path that people choose. These small choices will have larger consequences. Hence the French geo-economists’ fear a return to a “Europe of city-states” where the new economic dynamos of an independent Catalonia, Flanders and the rest will lead to the “economic atrophy” of a poverty-stricken periphery.\textsuperscript{121} Suffice it to say that prospect may look different, viewed not from Paris, but from a distant land, that is someone else’s periphery, but is its own unsinkable core.

\textsuperscript{119} The regressions used for Figures 23–25 can be found in Appendix Table 4.
\textsuperscript{120} Gross Value Added figures were used as the closest available proxy for GDP for Wales.
Figure 23: Wales on EU-15 Scatter Plot of Annual GDP per Capita Growth Rate and Log(population) with Confidence Intervals, 1990–2009

Figure 24: Wales GVA per capita versus GVA per capita level predicted from model (in 2009 £)
Figure 25: The Wales That Could Be?

2009 GVA per capita (2000 US$) of EU-15 and Wales (Actual and Predicted from Model)
## Appendices

### Appendix Table 1: Average Annual Growth Rates of EU-27 (excl. Malta), 1996–2010

<table>
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<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
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<tbody>
<tr>
<td>Log(1995 population)</td>
<td>-0.0042 **</td>
<td>-0.0036 ***</td>
<td>-0.0036 ***</td>
</tr>
<tr>
<td></td>
<td>(0.00)</td>
<td>(0.0012)</td>
<td>(0.0012)</td>
</tr>
<tr>
<td>Log(1995 GDP per capita in current US$)</td>
<td>-0.0087 ***</td>
<td>-0.0060 **</td>
<td>0.0073</td>
</tr>
<tr>
<td></td>
<td>(0.0015)</td>
<td>(0.0025)</td>
<td>(0.0054)</td>
</tr>
<tr>
<td>Eastern Europe (=1)</td>
<td>0.0929 ***</td>
<td>0.1625 ***</td>
<td>0.1360 ***</td>
</tr>
<tr>
<td></td>
<td>(0.0296)</td>
<td>(0.0226)</td>
<td>(0.0297)</td>
</tr>
<tr>
<td>Constant</td>
<td>N</td>
<td>R²</td>
<td>Source</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>0.1790</td>
<td>IMF, Authors’ own calculations</td>
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<td>26</td>
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<td></td>
<td>26</td>
<td>0.6943</td>
<td></td>
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</tbody>
</table>

Source: IMF, Authors’ own calculations

Notes: Each column is an OLS regression in which the dependent variable is the average of the annual growth rates over this whole period, in decimal form. Standard errors are in parentheses.

* p<0.1, ** p<0.05, *** p<0.01

### Appendix Table 2: Average Annual Growth Rates of EU-15, 1981–2010

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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</thead>
<tbody>
<tr>
<td>Log(1980 population)</td>
<td>-0.0030 ***</td>
<td>-0.0032 ***</td>
</tr>
<tr>
<td></td>
<td>(0.0009)</td>
<td>(0.0009)</td>
</tr>
<tr>
<td>Log(1980 GDP per capita in current US$)</td>
<td>-0.0030 (0.0027)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.0677 ***</td>
<td>0.0986 ***</td>
</tr>
<tr>
<td></td>
<td>(0.0140)</td>
<td>(0.0312)</td>
</tr>
<tr>
<td>Constant</td>
<td>N</td>
<td>R²</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>0.4895</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>0.5366</td>
</tr>
</tbody>
</table>

Source: IMF, Authors’ own calculations

Notes: Each column is an OLS regression in which the dependent variable is the average of the annual growth rates over this whole period, in decimal form. Standard errors are in parentheses.

* p<0.1, ** p<0.05, *** p<0.01
### Appendix Table 3: Regressions of Annual Growth Rates on Log(population), 1991–2010

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td>Switches</td>
</tr>
<tr>
<td>1992</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td>1993</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td>1994</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td>Switches</td>
</tr>
<tr>
<td>1995</td>
<td>25</td>
<td></td>
<td></td>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td>1996</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td>1997</td>
<td>26</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>Negative</td>
</tr>
<tr>
<td>1998</td>
<td>26</td>
<td>**</td>
<td>**</td>
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<tr>
<td>1999</td>
<td>26</td>
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</tr>
<tr>
<td>2000</td>
<td>26</td>
<td>***</td>
<td>**</td>
<td>**</td>
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</tr>
<tr>
<td>2001</td>
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<td></td>
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</tr>
<tr>
<td>2002</td>
<td>27</td>
<td>*</td>
<td>**</td>
<td>**</td>
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<td>2003</td>
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<td>2004</td>
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<tr>
<td>2005</td>
<td>27</td>
<td>**</td>
<td>***</td>
<td>***</td>
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<tr>
<td>2006</td>
<td>27</td>
<td>*</td>
<td>**</td>
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<tr>
<td>2007</td>
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<td>**</td>
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<td>2008</td>
<td>27</td>
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<tr>
<td>2009</td>
<td>27</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<tr>
<td>2010</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
<td>Negative</td>
</tr>
</tbody>
</table>

Source: IMF, authors’ own calculations

Notes: Each of the columns show significance results of the ln(population) variable within regressions with real GDP growth as the dependent variable. Specification (1) has no control variables. Specification (2) includes GDP per capita from the previous year as a control. Specification (3) includes this GDP per capita variable along with a binary variable which equals one for Eastern European nations, and zero otherwise.

* p<0.1   ** p<0.05   *** p<0.01
### Appendix Table 4: Average Annual Growth Rates of EU-15, 1990–2009

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
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</thead>
<tbody>
<tr>
<td>Log(1989 population)</td>
<td>-0.0032 **</td>
<td>-0.0038 ***</td>
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<tr>
<td></td>
<td>(0.0012)</td>
<td>(0.0011)</td>
</tr>
<tr>
<td>Log(1989 GDP per capita in current US$)</td>
<td>-0.0082 **</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0035)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>0.0689 ***</td>
<td>0.1582 ***</td>
</tr>
<tr>
<td></td>
<td>(0.0195)</td>
<td>(0.0413)</td>
</tr>
<tr>
<td>N</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>R²</td>
<td>0.3517</td>
<td>0.5579</td>
</tr>
</tbody>
</table>

Source: IMF, Authors’ own calculations

Notes: Each column is an OLS regression in which the dependent variable is the average of the annual growth rates over this whole period, in decimal form. Standard errors are in parentheses. * p<0.1, ** p<0.05, *** p<0.01