



**UCD GEARY INSTITUTE
DISCUSSION PAPER SERIES**

**From tiger to PIIGS: Ireland and the use of
heuristics in comparative political economy**

Samuel Brazys
UCD Geary Institute
UCD School of Politics and International Relations

Niamh Hardiman
UCD Geary Institute
UCD School of Politics and International Relations

Geary WP2013/16
October 2013

UCD Geary Institute Discussion Papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the author.

Any opinions expressed here are those of the author(s) and not those of UCD Geary Institute. Research published in this series may include views on policy, but the institute itself takes no institutional policy positions.

**From Tiger to PIIGS:
Ireland and the use of heuristics in comparative political
economy**

Samuel Brazys
UCD School of Politics and International Relations
Samuel.Brazys@ucd.ie

Niamh Hardiman
UCD School of Politics and International Relations
Niamh.Hardiman@ucd.ie

October 1, 2013

Abstract

Acronyms for groups of countries provide an often useful shorthand to capture emergent similarities, and terms such as PIIGS, BRICs and LDCs pervade the lexicon of international and comparative political economy. But they can also lead to misleading narratives, since the grounds for use of these terms as heuristic devices are usually not well elaborated. This can become problematic when the use of such heuristics drives market responses in areas such as risk perception and changes in interest rates. In this paper we look at the narrative construction of the group of countries that has been grouped as ‘PIIGS’ (Portugal, Ireland, Italy, Greece, and Spain). We examine the process whereby the group came into being, trace how Ireland became a member of this grouping, and assess the merits of classifying these countries together. Our contention is that the repetition of the acronym in public debate shaped the behaviour of market actors toward these countries. We find evidence of Granger causality, such that increased media usage of the term ‘PIIGS’ is followed by converging interest rate correlations between Ireland and the other PIIGS, compared to the interest rate correlations between Ireland and the ‘northern’ Eurozone economies. We argue that this is a pointer toward the independent effect of perceptions and discourse over economic fundamentals. We conclude with more general thoughts and cautions on the use of heuristics in comparative political economy.

Keywords: PIIGS, interest rates, ratings agencies, media, financial crisis

JEL classification: B41, C20, E43, H63

Introduction

Country grouping heuristics pervade the lexicon of contemporary international and comparative political economy. From groupings of specific countries, the BRICS (Brazil, Russia, India, China, South Africa), to classifications of states sharing similar characteristics, LDCs (Least Developed Countries) or SIDS (Small-Island Developing States), these sometimes clever, sometimes functional, groupings shape the way we think about and discuss groups of state actors in the global economy. The advent of the Euro-zone crisis has propelled a new group to the forefront of political economy jargon; the PIIGS (Portugal, Italy, Ireland, Greece, Spain). This less-than flattering nomenclature has been widely employed in discussing these ‘peripheral’ EU countries as they have experienced severe economic downturns, budgetary and debt crises, and intervention by international institutions. The tag has stuck despite seemingly important differences in the size of the members, the underlying causes of their economic woes, and their responses and recovery.

In this paper we examine the development and consequences of using the PIIGS acronym. We first broadly review and consider the literature on the social construction of ideas and concepts in comparative political economy. We then trace the usage of the PIIGS term – identifying its origins and discussing if and how usage of the term has changed as the Euro-zone crisis has unfolded. We then briefly evaluate the socio-economic similarities and differences between the PIIGS members and assess if Ireland truly belongs in the group. Finally, we test a proposition that rather than usage of PIIGS *following* similar market treatment of the group, the usage may actually *precede* group-level market responses. These results lead us to reflect more broadly on the benefits, limitations, and dangers of using heuristics in comparative and international political economy.

Ideas and the social construction of reality

One of the most striking developments in comparative political economy in recent years has been the recognition of the formative role of ideas in shaping political choice (Blyth 2003). To accord an explanatory role to ‘ideas’ does not exclude recognition of the importance of conflicting interests in disputes over policy instruments or policy objectives, but it does enable us to understand how actors’ interests themselves come to be constituted. Beliefs about the world can,

furthermore, be insensitive to apparently disconfirming evidence, if they are widely enough shared and supported by relevant authority, and especially if there is no strong competing or alternative policy paradigm in play (Blyth 2013a, Hall 2013). For example, notwithstanding the brief experience of coordinated international reflation in response to the global financial crisis in 2008-2009, the dominant policy response advocated by all the main international lenders reverted to the economic orthodoxy of ‘expansionary fiscal contraction’, prioritizing deficit reduction and debt control over growth-promoting measures (Dellepiane 2012).

An ‘idea’ can therefore have explanatory power in accounting for actors’ behaviour. How and why ideas are formed and how they come to be adopted and shared needs to be explained in terms of processes of policy learning or policy transfer. The politics of how an idea comes to have a dominant interpretive role, such that it comes to shape policy priorities, is by no means straightforward. We can track such changes retrospectively, such as the processes whereby Keynesian policy priorities came to be accepted in western countries from the mid-twentieth century, and the struggles over a redefinition of objectives as well as of policy instruments associated with the ascendancy of neo-liberalism from the 1970s on (Hall 1993a, 1993b). But unlike the process of paradigm shift in natural sciences explanations, shifts in the dominant framework for understanding economic and political realities are more strongly contested on value grounds than on purely technical evidence (Blyth 2013a).

These insights can be extended to help us understand what is going on in the invention and popularization of new classifications in political explanation. Countries may come to be grouped together in virtue of features they are said to share in common, where no such clustering had been perceived previously. The purpose of generating new clusters with catchy acronyms is usually to provide some insight into potential for growth or for certain forms of risk, and it is generally financial economists or business analysts who give currency to such inventions. The criteria for establishing commonality in cases in which new country clusters are devised may well be based on quite transient features they share in common. Where a new acronym becomes widely used, it is because it captures a shared feature that appears to be more deeply shared, and which appears to have a bearing on the growth prospects of that cluster. Our contention is that this is very likely to result in the countries in question being treated as bloc, drawing on the shorthand assessment of growth or of risk, even if the differences between them can plausibly be shown to be more significant than the features they share in common. Our approach is

constructivist in that it not only recognizes that analytical categories for interpreting the world are freighted with values, but also holds that the classification systems can themselves generate beliefs about the world that have consequences for actors' expectations, preferences, and decision-making (Adler 2002).

The use of acronyms for country groupings purports to say something important about their shared features of economic performance. But the reasons why countries come to be grouped in a cluster may not be based on the strong predictive power of underlying shared variables, but on more superficial characteristics derived from uncertainty about their prospects for future performance. If all relevant data were indeed available, and future trends could be reliably inferred from analysis of current economic fundamentals, commentators would be in possession of high levels of certainty in virtue of having high levels of relevant information. But market performance always involves considerable levels of uncertainty. Since business transactions need some basis on which to make decisions, efforts are constantly made to domesticate uncertainty by turning it into risk, into the probability of particular kinds of outcomes coming about. We see just this process in the growing importance of ratings agencies to market activities. Ratings agencies, which had originated in the need for businesses to evaluate the risk of bilateral trade in the nineteenth-century, greatly extended the range of their activities in the late twentieth century, as they moved into providing risk ratings for ever more complex financial transactions, and as their ratings of sovereign debt became more central to international finance. The credibility of their activities seemed to be well supported from the 1980s onward by the triumph of microeconomic models in macroeconomic analysis. The rational expectations model of economic behaviour, the popularity of the efficient markets hypothesis, and the apparent plausibility of complex mathematical modeling in pricing risk correctly, all lent weight to the notion that ratings agencies could indeed make accurate predictions that would tame risk. The collapse of the Long-Term Capital Management hedge fund in 2000 showed the fragility of all these assumptions, and yet they have persisted as a guide to behaviour even through the global financial crisis (Carruthers 2013).

And yet what has also become very clear is that the ratings agencies did not behave rationally during the boom. They provided high-grade credit ratings for investment products they could not assess and that included risks that no-one could estimate, not least because they were based on short historical trends, and on risks that had been excluded from the frame, such as the possibility

of the simultaneous collapse of markets in property across geographical regions. The supposed taming of risk did not prevent investors from being subject to the usual kinds of irrational exuberance, animal spirits, and herd behaviour (Akerlof & Shiller, 2009). Widely shared expectations about how markets were likely to behave were shaped as much by common beliefs as by rational analysis, and the ratings agencies were far from immune to this too.

Market actors (and others) may use heuristics in order to avoid the search costs needed to collect complete information, or sort through complex information, for a given subject – in what has been commonly referred to as decision making under ‘bounded rationality’ (Simon 1955, Conlisk 1996, Kahneman 2003). As described by Gigerenzer (2002: 63-64) heuristics are ‘fast and frugal’ tools that can exploit ‘evolved capacities’ and environmental structures to provide solutions to problems of incomplete information that are computed ‘as if’ the decision maker possessed complete information. That agents use decision heuristics in asset pricing and market analysis is well understood in the behavioral finance literature (Stracca 2004, Heemeijer et al. 2009, Hommes 2011).

The tendency of investors to behave in non-rational, herd-like ways, guided by common expectations about outcomes that are inherently uncertain, was fully revealed in the course of the Eurozone sovereign debt crisis. After the creation of the Euro, the risk imputed to the sovereign bonds of all Eurozone member states was deemed to be very low: all converged on German interest rates. The reason for this was the assumption that political support for common risk was strong. When this expectation proved unfounded, as Greece’s fiscal difficulties came to light, the cost of borrowing across the Eurozone began to diverge dramatically. The official ECB and EC response to this has been to impose fiscal retrenchment in the worst-affected countries, without corresponding stimulus in the northern countries, thus intensifying the Europe-wide downturn. And yet it also became clear that what proved most effective in stemming investors’ panic was not this supposedly credibility-enhancing austerity, but decisive central action on the part of the ECB itself. De Grauwe and Ji have pointed out that the largest falls in bond spreads came about in mid-2012, in the wake of the ECB’s statement of unconditional commitment to support the Euro (De Grauwe and Ji 2013).

The interest of this paper therefore lies in the way in which heuristics that are designed to capture a common risk profile across a set of countries acquire an apparent solidity as a guide to real market performance, and come to generate their own consequences for market outcomes.

How Ireland joined the PIIGS

The initial incarnation of the PIIGS omitted Ireland and referred to the four ‘Southern’ Europe states, Portugal, Italy, Greece and Spain (PIGS). The ‘PIGS’ terminology itself was preceded by the perhaps less unflattering, but still loaded, ‘Club Med’ label, at times variously omitting Greece or Italy and including France and/or Belgium. ‘Club Med’ appears to have been coined no later than 1991 in the context of the EU Investment Services Directive (ISD) (Doty 1991, Warren III 1994, Tison 1999) and has since been used to lump the aforementioned countries together when discussing budget and debt dynamics of EU accession (Lankowski 1995, Eichengreen and Ghironi 2001), the debate over the European Monetary Union (EMU) (Mundell 1997, Gros 2000, Gros 2002), EU trade policy (Mason 1994, Baldwin 2006), and European and North Atlantic security (Dassu and Menotti 1997, Gillespie 2007). The Club Med group was first applied in the context of an ISD negotiating bloc that included France, Italy and Spain (and later Portugal, Greece and Belgium). This initial grouping was based on common preferences on transparency in securities transactions and had little to do with socio-economic similarities (Doty 1991, Warren III 1994). The geographic component of the name was prompted by the three ‘original’ members having Mediterranean coastline, a similarity that was soon obviated by the inclusion of Portugal and Belgium. The terminology began to shift to a more pejorative connotation when Mason (1994, p. 440) applied the label to France, Italy, Spain, and Portugal in the context of illiberal attitudes towards the entry of Japanese automobiles into the European market. The term took on a new context as it began to be used in discussions about EU enlargement and the proposed/pending EMU, separating Portugal, Italy, Spain and Greece according to their divergent economic history with regards to inflation and government debt and deficits (Mundell 1997 p. 215, Gros 2000 pp. 1368-69, Eichengreen and Ghironi 2001 p.14). However, the term only became blatantly degrading in the new millennium with Rosel (2002 p. 4374) characterizing the Club Med countries as ‘under populated, economically backward, agrarian and poor.’

However, by the turn of the century the stronger label of PIGS to refer to the sans-France-and-Belgium Club Med had already debuted in print media. The PIGS first appeared in the Wall Street Journal on 6 November, 1996 in a piece on the prospective EMU by Thomas Kamm who attributes the acronym to a banker's joke and through the remainder of the decade the term was used sporadically in print media. Waters (1997, p.3) attributed the term to Northern European 'inhabitants' and directly invokes the swine imagery of the PIGS 'wallowing in their Mediterranean trough.' The term gained further traction with the widely circulated 'BAFFLING PIGS' acronym of countries adopting the Euro currency in 2001. Around the same period, the term was also first used in an academic context independently by Borzel (2001) and Rodrigo and Torreblanca (2001). These authors appear to be the first to suggest that Ireland could/should be included in the acronym and both suggest the term is to be used disparagingly with Borzel (p. 12) applying the term to environmental policy 'laggards' and Rodrigo and Torreblanca (p. 8) suggesting the label is used to refer to the 'poor four.' Inclusion of Ireland in the acronym fundamentally changed the connotation of the group from a broader 'cultural' grouping to a narrower economic connotation. Dainotto (2007) discusses PIGS (Italy, not Ireland) as shorthand for a particular conception of a very distinctly *Southern* European identity predicated, flippantly, on pizza, the mandolin, and siestas but coming from a base in Montesquieu's climatology and '*inventio*' of the European north-south divide on that basis. In this context, the economic largess of the Club-Med PIGS is framed as a climatological (and cultural) consequence rather than a driver of identity. Including Ireland in the acronym is irreconcilable with this conception of the PIGS and must be understood to have changed the meaning of the term to one of 'periphery' or economic marginalization more generally.

Following the millennial surge, the PIGS acronym was largely put aside until the emergence of the Euro crisis. From 2002 to 2008 the term was employed just a scattering of times in the print media and scholarly publications as seen in Figure 1 below. Coinciding with the onset of the Euro crisis in late 2009 there was an enormous upsurge in the usage of the term. The 'PIIGS' term, including both Italy and Ireland, appears to have been coined in a Financial Times (2009) piece on May 19th that closely follows a brief report by Professor Andrew Clare (2008) of the Cass Business School at City University of London produced for Fathom Consulting group published May 13th, 2008. While Clare does not use the 'double I' PIIGS, he does note that the 'I' applies to both Ireland and Italy. The term makes a further appearance in the Sunday Business

Post (2009) on July 6th and is attributed to an unnamed stockbroker. These usages invoke language to equate the acronym with economic weakness and high levels of inflation, suggesting that the connotation is pejorative. The term lies relatively dormant through the remainder of 2008 and most of 2009, until it starts to pervade discourse with dozens of monthly appearances in December of that year and January of 2010, and hundreds of monthly uses from February of 2010.

FIGURE 1 ABOUT HERE

The acronym has had a rather slower uptake into the academic literature, being used in just a handful of working papers in 2009. Ryan (2009) invokes the PIIGS when discussing the possibility of the United Kingdom joining the Eurozone in order to find stability through the crisis while Masters (2009, p.146) recalls the PIGS as the ‘poor four.’ However, as with the media, academic usage of the term explodes in 2010 with hundreds of academic papers employing the acronym annually from 2010 to 2012. This contemporary literature has focused almost exclusively on the economic relationship of the PIIGS to the 2008 Euro crisis. The usage appears in a number of technical economics papers, covering topics such as asset valuation (Byström 2011), Eurozone contagion (Melander et. al 2011), or credit default swaps (Pu and Zhang, 2012). These papers largely treat the PIIGS term as a *fait accompli*; PIIGS becomes synonymous with the countries involved in European debt crisis (Hallet and Jensen, 2011). Pitelis (2012, p. 83) invokes the PIIGS in discussing how the Euro crisis began with Greece, spread next to the PIIGS and eventually to all of Europe. This Greece-led PIIGS usage is especially noteworthy to the later sections of this paper that examine the similarities and differences of the PIIGS and the market reaction to the usage of the PIIGS term.

Ireland’s entry into the PIIGS does not then appear to be the result of a considered discussion. Rather, a combination of Ireland as a peripheral EU state, its entry into economic crisis at the same time as the ‘traditional’ PIGS, and the unfortunate fact that the English language spelling of Éire begins with an ‘I’ and fits into an existing political economy heuristic, seem to have made Ireland an obvious candidate for PIIGS membership.¹ While the initial usage of ‘Club Med’ was a mostly neutral term employed to simplify the two major negotiating blocs of the EU Investment Services Directive, the term assumed increasingly negative connotations as it was transformed and permuted to the ‘Garlic Belt,’ ‘Southern Comfort,’ ‘PIGS,’ ‘BAFFLING PIGS,’

‘PIIGS,’ and ‘GIPSY.’ That the development of the PIIGS term was a largely organic social process as opposed to a carefully deliberated label begs an inquiry into if the term is indeed apt. The following section explores the similarities and differences between the PIIGS and discusses the appropriateness of the grouping.

Does ‘PIIGS’ make sense?

Since its inception as ‘Club Med’ scholars have questioned the applicability of conjoining European countries with the Club Med/PIGS/PIIGS label. In discussing viability for accession to the EMU, Fratianni (1998, p. 384) noted ‘Club Med ... is not a homogeneous group’. This sentiment was echoed a decade later by Andrade (2009) who examined the non-Ireland PIGS and concluded they could not be considered a homogeneous group in terms of the employment response to the financial crisis.

Beyond these studies there are a number of immediately visible socio-economic differences between the various PIIGS countries. The classification cuts across quite different models of capitalism and different institutional configurations of democracy. The southern European countries shared something in common in that economic growth depended on a strong state presence in the economy, shaping investments and generating demand stimulus (Molina and Rhodes 2007), while the Irish growth model depended heavily on a low-tax, market-conforming approach to encouraging foreign direct investment (Hardiman 2005). Spain, Portugal, and Greece, emerged from autocratic rule in the mid-1970s, and the reconstruction of democracy required active programmes of institutional reform and of welfare-state building from a low base. Decades of cold-war party politics in Italy had left it with pervasive corruption and institutional inertia. Irish political institutions, while also prone to corruption through access by privileged economic groups to political benefits, nevertheless proved somewhat more effective and efficient.

Nevertheless, the ‘PIIGS’ grouping sought to capture something important about economic vulnerability. Precisely because an acronym is not itself an analysis, there is scope for disagreement about which commonalities are most important and where precisely the greatest vulnerabilities are to be found. For example, the initial market responses to the crisis exposed Greece, Ireland, Portugal, and Spain to the worst ratings on their sovereign debts. During 2010 the sovereign debt crisis spread to Italy too, as its debt-to-GDP ratio of over 100% came to make

lenders increasingly nervous. However, Italy's public debt ratio had long been very high without provoking concern: some 80% of the public debt is held domestically, and Italy was far less exposed to volatility on international markets than the other countries.

If a country's debt-to-GDP ratio were the most important determinant of market nervousness, none of Spain, Portugal, or Ireland should have been vulnerable, as their debt ratios were below Maastricht convergence criteria when the crisis erupted. A common misperception of the causes of crisis was that it originated in government profligacy resulting in uncontrolled public spending. But only in Greece was the crisis primarily one of public finances. Ireland and Spain had hidden problems of revenue weakness, resulting from over-dependence on tax flows arising from the long property boom. Portugal had suffered from depressed growth following accession to the Euro at an over-valued exchange rate. All three were vulnerable to economic downturn which depressed revenues while increasing spending liabilities, thereby causing deficits in the public finances that exceeded those permissible under the Stability and Growth Pact. But the most significant source of crisis in Ireland and Spain proved to be the under-capitalization of their banks, exposure of which had grown extremely rapidly during the 2000s, fuelled by ready access to cheap credit on international markets. The Irish government's bank guarantee in 2008, designed to stem what it then thought was a liquidity crisis, has proved enormously costly in what turned out to be a solvency crisis, and the assumption of the total cost of bank bail-out onto the public finances pushed Ireland's debt up considerably after 2010. The Euro crisis dragged on as officials in the European Commission and the ECB resisted solutions that would require the introduction of either common debt liability or direct recapitalization of the financial sector through the Emergency Stability Mechanism. A country-by-country approach to crisis management resulted in the protraction of the crisis, and to the exposure of individual countries to intensified market scrutiny to assess individual risk liability.

So it can indeed be said that 'PIIGS' proved a useful shorthand for capturing market risk of vulnerability Eurozone member states, or perhaps more accurately that the non-Italy 'PIGS' did indeed prove to have vulnerabilities that were exposed by the crisis and exacerbated by the prevailing responses to the crisis. But within this grouping, there were very different kinds of vulnerability involving very different pathways to crisis. As a guide to understanding the genesis of crisis and the specific policy responses required to deal with them, a common acronym is not at all useful. But as a shorthand for a category of countries in trouble, it did the trick.

Does 'PIIGS' usage drive market behavior?

The previous sections have traced the origin development of the PIIGS term and examined the socio-economic bases for grouping the countries together. In this section we examine what consequences, if any, the term might have on the ways in which international markets treat the PIIGS members. Our inquiry follows the discussion of the social construction and use of heuristics in comparative political economy in the section above. Since heuristics are mental short cuts it is reasonable to wonder if they may lead, as well as follow, observed comparative economy phenomenon.

Applying this logic to the PIIGS, we posit that if an actor can develop an information set for one of the PIIGS for a given area of interest they may well extend that information set to the other members. This 'fast and frugal' heuristic is based on the assumption that all of the PIIGS share a common structural economic environment and a value judgment (evolved capacity) that an external shock that affects one of the members will affect the others in the same way. If market actors do indeed employ heuristics in this way, then we would expect markets to treat the PIIGS more similarly if they are considered as a collective than as five individual nation states. Beyond this, we would expect usage of the heuristic in the media to *drive* market behavior. As the heuristic becomes legitimized through increased use, market actors become more willing to rely on its 'fast and frugal' properties to avoid the costly search for complete information. We argue that the frequency of PIIGS usage in the press and the academy serves as a reasonably proxy for measuring the extent to which the PIIGS member countries are being thought of as a collective economic actor rather than the individual states.

Hypothesis 1: Increased usage of PIIGS will lead to increasingly similar market treatment of the constituent members.

We operationalize our dependent variable by looking at the difference in market interest rates between the PIIGS and five non-PIIGS EU states: Belgium, Finland, France, Germany and the Netherlands. We use the IMF's International Financial Statistics (IFS) monthly 'Interest Rates, Government Securities, Government Bonds' data from January 1999 to August 2012. In order to evaluate the difference in market treatment we look changes in a three-month moving average of the interest rate. We then calculate the correlation in interest rates changes between Ireland and each of the other PIIGS and between Ireland and each of the non-PIIGS states. We then average

the correlations between Ireland and the PIIGS states, and Ireland and the non-PIIGS states, respectively, and take the difference in those correlations. This measure shows the extent to which changes in the Irish interest rate are correlated to changes in the PIIGS or non-PIIGS interest rate changes. The range of this variable is -2 to 2, with -2 indicating a perfect negative correlation between Ireland and the PIIGS changes and a perfect positive correlation between Ireland and the non-PIIGS (with 2 indicating the opposite). This provides a direct measure of the extent to which Ireland is being treated more similarly by the markets to the PIIGS as opposed to the non-PIIGS. Our primary independent variable is a monthly count of 'PIIGS' usage in print media gathered through the LexisNexis database. In examining the relationship between PIIGS usage and interest rate change we are cognizant of the potential that there is a third, omitted, variable that might influence both PIIGS usage and interest rate change. To circumvent this concern, we propose to use lags of PIIGS usage in order to evidence Granger causality. If the 'PIIGS effect' is indeed the result of a socially constructed heuristic then we would expect increased usage of PIIGS in some period $t-lag$ to have an impact on market behavior in period t . Accordingly, in addition to examining the contemporary relationship between PIIGS and the interest rate change we also look at the relationship between the interest rate change and PIIGS usage one and two months previous. Monthly PIIGS usage and the monthly interest rate correlation differential are plotted in Figure 2.

FIGURE 2 ABOUT HERE

The simplest statistical method for examining the PIIGS/market relationship is to look for Pearson correlations. We use these correlations, least square (OLS) regression and vector autoregression (VAR) to evidence the relationship between PIIGS and interest rates. Since we are not looking at the determinants of interest rates, *per se*, but rather a difference in interest rate change correlations between two groups, it is not immediately obvious to us that other traditional determinants of interest rates, such as inflation or debt, will bear explanatory power on our dependent variable. Accordingly, we feel that Pearson correlations are appropriate. However, since there are these other well-established determinants of interest rates we also employ OLS techniques. As the 'Fisher Effect' is a long-established (Feldstein and Eckstein 1970) relationship between interest rates and inflation we include a measure of inflation as a control, despite evidence that this relationship may not hold in the short term (Mishkin 1992). We also include a control for sovereign debt since, as discussed above, the PIIGS have ostensibly been

grouped due to their shared debt issues and because there is a substantial theoretical and empirical evidence of sovereign debt as a determinant of interest rates, both in the context of the Euro crisis and more broadly (Hilscher and Nosbusch 2010, Hoelscher 1986). For inflation data we use the Consumer Price Index from the IMF's International Financial Statistics (IFS). We again take the difference of three-month correlations of price changes between Ireland and the PIIGS and between Ireland and the non-PIIGS members. We use the same method to construct the variable for debt, using the 'General Government' indicator World Bank's Quarterly Debt Statistics, which are complete from the third quarter of 2004. We are also aware that it may be credit ratings events, not PIIGS usage, which pushes market treatment of Ireland towards the PIIGS. Accordingly, we also insert a dummy variable that equals one in any month that has a negative ratings event from Moody's, Fitch's or Standard and Poor's.ⁱⁱ We use ordinary least squares with robust standard errors due to heteroskedasticity evidenced by a White test in models I-III. Summary statistics and data sources are detailed in Appendix I. Results from the Pearson correlations and the OLS estimates are presented in tables 1 and 2 below, respectively.

TABLES 1 AND 2 ABOUT HERE

The results show considerable support for our hypothesis. Table one indicates positive correlations between PIIGS usage in the current period, and the two preceding months, and the interest rate correlation differential. The p-values indicate that these results are statistically significant at the 0.1% level. Additionally, the correlation is stronger between the interest rate correlation differential and PIIGS usage in the preceding month and strongest with PIIGS usage two months prior. This supports our contention of a causal process wherein increased PIIGS usage leads to increasingly similar treatment of the PIIGS countries by market actors. These simple correlation results are also supported by our OLS results in table 2. In model I PIIGS usage two months prior has a strong, positive, correlation with the interest rate correlation differential. As shown in tables II and IIIⁱⁱⁱ this result is robust to the inclusion of the inflation and debt controls, which are both positive, as expected, but not significant, and to the inclusion of ratings events which are positive and significant.

We further test the robustness of our results by restricting the sample to the post-2007, or crisis, era. We truncate the sample in this way due to the absence of variance on PIIGS usage prior to 2007 (the term had not yet been coined) and because of the limited variance in interest rate

correlation differentials over this period. Truncating the result reduces the magnitude and significance of our Pearson correlation coefficients in Table 1. The current period PIIGS usage coefficient is still positive, but no longer significant, the one-month lagged PIIGS usage is positive and significant, but now only at the 5% level, and the two-month lagged PIIGS usage is positive and significant, but only at the 1% level. Thus, while these results still support our hypothesis, they are not as strong as when including the observations from 1999-2008. The OLS results in model III, however, appear robust to the truncation, with the coefficient on the two-month lagged PIIGS usage variable positive, significant at the 1% level, and of roughly the same magnitude as the non-truncated model III.

Finally, we test for Granger causality in models V-X. Granger causality is a concept that has been employed in the social sciences for over 40 years. The concept is that lagged values of ‘X’ (in our case PIIGS usage) add additional explanatory power when included in an auto-regressive model with a lagged dependent variable ‘Y’ (in our case the interest rate correlation differential), but that a converse, lagged ‘Y’ causes ‘X’, is NOT true (Granger 1983, Hamilton 1994). Accordingly, in models V-X in Table 2 we use one and two lag bivariate vector autoregressions (VARs). We then use STATA’s post-estimation ‘vargranger’ to test the null hypothesis of Granger non-causality and present these results in Table 3. Models V, VII and IX shows that the one-month lag of PIIGS usage adds explanatory power to the interest rate correlation differential VAR, while models VI, VIII and X shows the converse is not true. This is shown explicitly with the Granger χ^2 tests in Table 3, where the χ^2 value to reject the null hypothesis for Granger non-causality of PIIGS in the interest rate differential VAR at the 0.1% level for the one and two period lag VARs (models V and VII), and at the 1% level for the post-2007 two period lag VAR (IX). Model VII again shows Granger causality for the one-month lag of PIIGS. PIIGS usage overall is supported by the Granger χ^2 tests in Table 3 which reject the null hypothesis of Granger non-causality at the 0.1% level. Conversely the χ^2 value to reject the null hypothesis for Granger non-causality of the interest rate differential in the PIIGS VAR does not allow us to reject the null hypothesis in the one period lag or post-2007 two period lag VAR (models VI and X). While the χ^2 value of 8.535 does allow a rejection of the null hypothesis for the two period lag VAR (model VIII), the alternative signs on the interest rate lags in each of the models VII-X suggests that the interest rate differential time series is negatively serially correlated, suggesting that any Granger causality of the interest rate differential on PIIGS usage would oscillate in the

direction of impact meaning that there is no consistently positive relationship between prior interest rate differentials and PIIGS usage.

We note that the results from the OLS support a two-month PIIGS usage lag while the Granger results support a one-month PIIGS usage lag. Both lags were statistically significant in the Pearson correlations and we test a model (not shown) that aggregates PIIGS usage from the prior two months. These results are substantively similar to the results presented above and are intuitive as the monthly data does not allow daily disaggregation, so, for instance, if the 'true' lag is PIIGS usage from 15 to 45 days previous our monthly disaggregated data would not allow us to capture this effect. Part of the effect would manifest in the one-month distributed lag while the other part would be captured in the two-month lag.

These preceding results lend broad support to our hypothesis that usage of the PIIGS acronym increases the similarity in market treatment of Ireland with the other PIIGS members vis-à-vis the non-PIIGS EMU states. An interpretation of marginal effects is somewhat convoluted due to the nature of the dependent variable, the difference in correlations of interest rates between Ireland and the PIIGS and Ireland and the non-PIIGS. As noted above the theoretical range of the dependent variables is 2 to -2, while the observed minimum and maximum of the series are -0.467 and 1.292, respectively, with a mean of 0.044 and a standard deviation of 0.266. The results in models I-IX suggest mean marginal impacts of between 0.035 and 0.115 differential points for every 100 instances of PIIGS usage in the preceding months. As an illustration this suggests that the 775 instances of PIIGS usage in May 2010 would lead to an impact on the interest rate correlation differential of between 0.27125 and 0.89125 in the following months. Given the scope of the observed range this is a massive shift in market treatment of Ireland vis-à-vis the other EMU members.

Conclusion

The main benefit of country-acronym heuristics appears to be that they can conveniently capture a group of countries that may share some macro-level economic outlook for crisis or growth. However, as described above, a limitation of this shorthand is that it can disguise what may be fundamental differences in the structural economic conditions that position group members for growth or crisis. These underlying structural differences could lead to profoundly different implications for a given policy. For instance, a European banking union would almost certainly

have different implications for Ireland and Spain compared to Greece. Likewise, a debt forgiveness scheme would have a differential impact on Portugal vis-à-vis Italy. The danger of group heuristics is that if used to compensate for incomplete information they may lead to market outcomes that are unwarranted given the given the diversity of the underlying economic environments.

What has emerged from our empirical study is evidence that the danger of using these shortcuts is real and observable. An acronym for a group of countries, used as a heuristic to guide risk assessment in inherently unstable conditions, can have an independent causal effect on the very uncertainties it seeks to model. We have tracked the negative feedback effects that we believe follow from widespread adoption of the conception of a common grouping of PIIGS countries. Regardless of different degrees of underlying risk, and regardless of the very different origins and components of economic difficulties in each case, we believe we have shown that treating these countries as a bloc in economic journalism resulted in their being treated as a bloc by investment managers. Economics is indeed a morality play, and language is freighted with performative power. Labels are not just naming devices, but are rather signals that guide and shape market perceptions about opportunities for profit or the hazard of losses under conditions of uncertainty. In a world of uncertainty, in which rational risk assessment is extremely problematic, short-hand ideas captured in acronyms may well prove to be yet one more manifestation of group-think and herd behaviour.

ⁱ One wonders if the ‘PEGS’ or ‘PIEGS’ would have caught on nearly as well.

ⁱⁱ While we would expect the market to react more ‘instantaneously’ to ratings information (as opposed to a lag in ‘internalizing’ the PIIGS usage), we also include a one-month lag of the ratings events variable, especially since a number of ratings events came in the last few days of a particular month.

ⁱⁱⁱ In model 2 the current and one-month lag of PIIGS usage are dropped due to multicollinearity between the lags.

Table 1: Pearson Correlations

DV	PIIGS Usage	L.PIIGS Usage	L2.PIIGS Usage
PIIGS/non-PIIGS IR Correlation Differential (p-value)	0.3126 (0.0001)	0.4100 (0.0000)	0.4809 (0.0000)
PIIGS/non-PIIGS IR Correlation Differential (Post 2007) (p-value)	0.1560 (0.2509)	0.2862 (0.0325)	0.3788 (0.0040)

Table 2: OLS (Robust SE) and VAR Estimate

	I	II	III	IV (Post 2007)	V	VI (PIIGS DV)	VII	VIII (PIIGS DV)	IX (Post 2007)	X (PIIGS DV) (Post 2007)
PIIGS Usage (SE)	-0.0181 (0.0368)	-0.0156 (0.0286)								
L.PIIGS Usage (SE)	0.0426 (0.0396)	0.0268 (0.0387)			0.0440** (0.0113)	0.7235** (0.0563)	0.0382** (0.0096)	0.5589** (0.0753)	0.0355* (0.0164)	0.5051** (0.1286)
L2.PIIGS Usage (SE)	0.1065** (0.0425)	0.0770† (0.469)	0.0885** (0.0329)	0.0982** (0.0330)			0.0068 (0.0113)	0.2478** (0.0788)	0.0053 (0.0169)	0.2038 (0.1328)
Δ_CPI_Correlation (SE)		0.1067 (0.0924)	0.1071 (0.0910)	0.2346 (0.2197)						
Δ_Debt_Correlation (SE)		0.0735 (0.0630)	0.0705 (0.0647)	0.1744 (0.1618)						
Ratings Event (SE)		0.2472* (0.1238)	0.2426* (0.1210)	0.2716* (0.1213)						
L.Ratings Event (SE)		0.2254† (0.1331)	0.2297† (0.1311)	0.2433† (0.1459)						
L.Δ_IR_Corr (SE)					0.7881** (0.0426)	0.1368 (0.2125)	1.4225** (0.0479)	-0.9419** (0.3762)	1.4245** (0.0792)	-0.9399 (0.6228)
L2.Δ_IR_Corr (SE)							-0.7664** (0.0464)	1.0613** (0.3640)	-0.7877** (0.0779)	0.9658 (0.6124)
Constant (SE)	-0.0017 (0.0120)	-0.5137† (0.0288)	-0.0491 (0.0319)	-0.0979 (0.0632)	-0.0053 (0.0123)	0.1104† (0.0574)	-0.0029 (0.0071)	0.0876 (0.0555)	0.0123 (0.0245)	0.3620† (0.1926)
N=	160	93	93	51	161	161	160	160	56	56
R ²	0.2404	0.3684	0.3623	0.3501	0.7336	0.5396	0.9013	0.5830	0.8912	0.4302
F (Prob. > F)	4.97 (0.0026)	4.22 (0.0005)	6.04 (0.0001)	5.89 (0.0003)						
χ ² (Prob. > χ ²)					443.47 (0.0000)	188.72 (0.0000)	1460.51 (0.0000)	223.67 (0.0000)	458.68 (0.0000)	42.27 (0.0000)

Table 3: Bivariate Granger Causality

DV	L.IR_Corr_Diff	L2.IR_Corr_Diff	L.PIIGS_Usage	L2.PIIGS_Usage
PIIGS Usage				
χ^2 (Prob. > χ^2)	0.415 (0.520)	8.535 (0.014)		
PIIGS Usage (Post 2007)				
χ^2 (Prob. > χ^2)		2.461 (0.267)		
IR_Corr_Diff				
χ^2 (Prob. > χ^2)			15.155 (0.000)	39.595 (0.000)
IR_Corr_Diff (Post 2007)				
χ^2 (Prob. > χ^2)				9.023 (0.011)

Figure 1: PIGS/PIIGS Usage

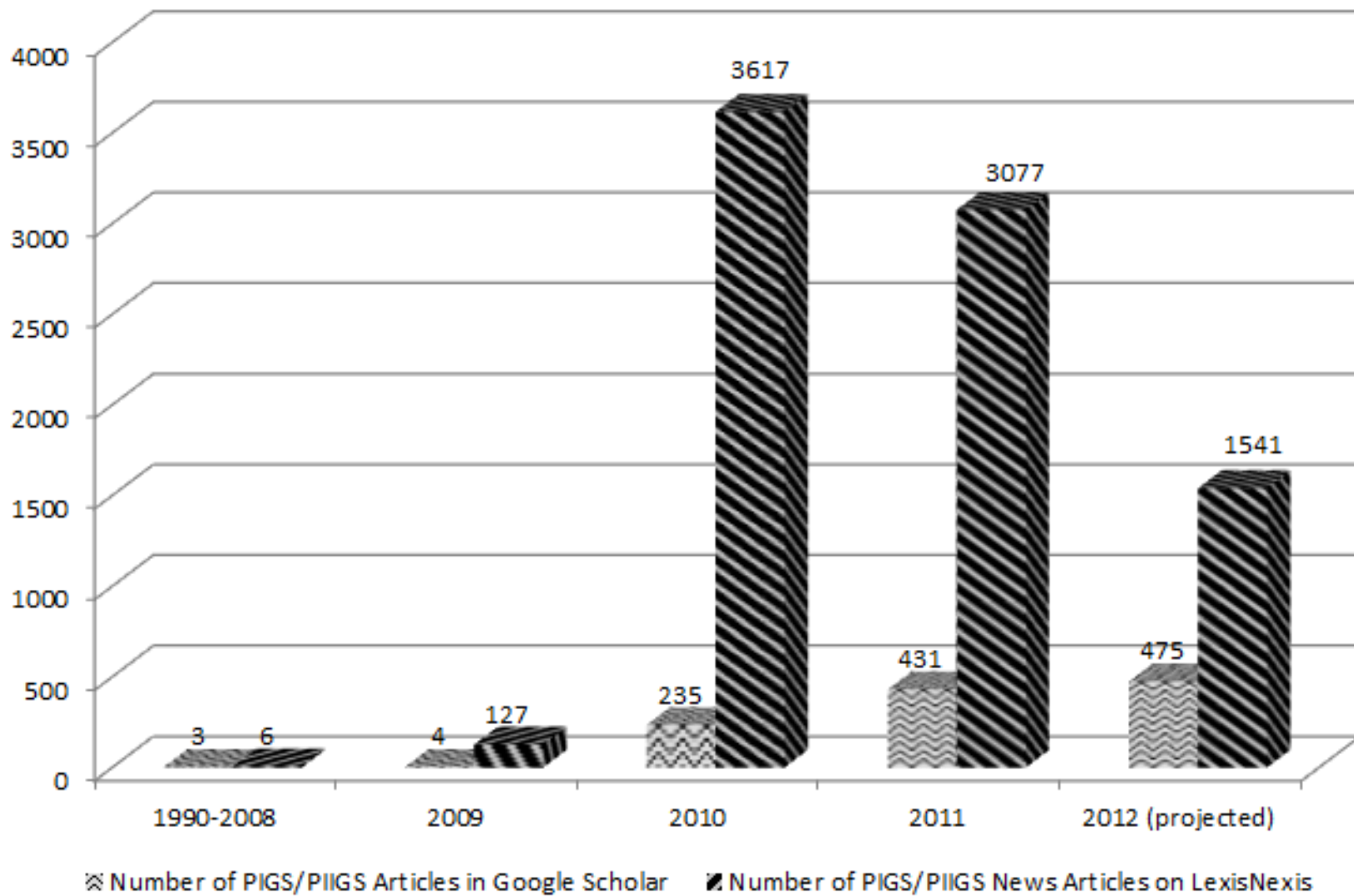
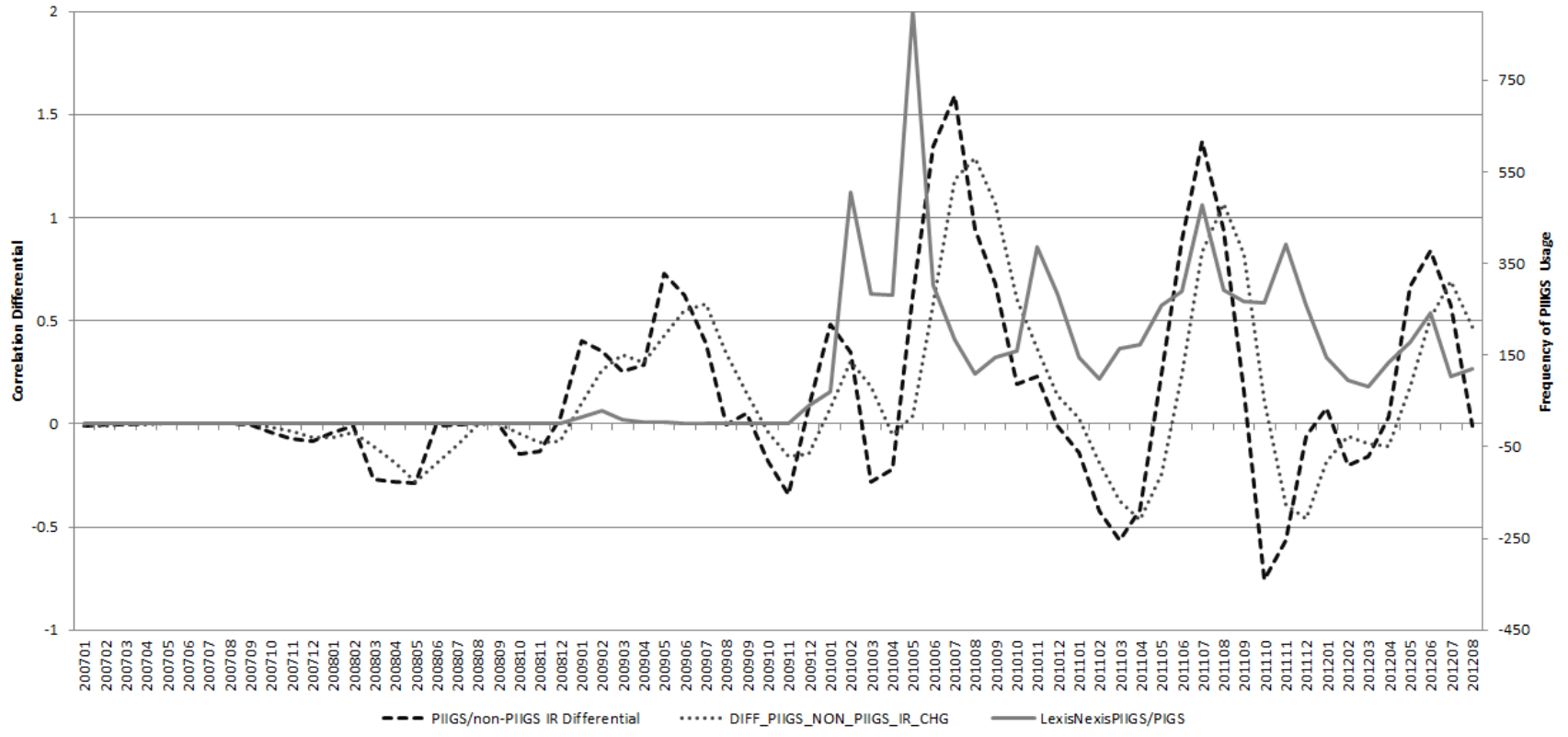


Figure 2: Differential in Interest Rate Correlation of Ireland/PIIGS and Ireland/non-PIIGS



References

- Adler, Emanuel. 2002. Constructivism and International Relations, in Walter Carlsnaes, Thomas Risse and Beth A. Simmons (eds.), *Handbook of International Relations*. London: Sage.
- Adrade, Joao Sousa. 2009. *The PIGS, does the Group Exist? An Empirical Macroeconomic Analysis Based on the Okun Law*. Working Paper No. 11. Grupo de Estudos Monetarios e Financieros. Faculdade de Economia de Universidade de Coimbra. Coimbra, Portugal.
- Akerlof, G., & Shiller, R. (2009). *Animal Spirits: How Human Psychology Drives the Economy, and Why It Matters for Global Capitalism*. Princeton, NJ: Princeton University Press.
- Baldwin, Matthew. 2006. EU Trade Politics – Heaven or Hell? *Journal of European Public Policy*, 13(6):926-942.
- Blyth, Mark. 2003. Structures Do Not Come with an Instruction Sheet: Interests, Ideas, and Progress in Political Science. *Perspectives on Politics*, 1 (4):695-706.
- Blyth, Mark. 2013a. Paradigms and Paradox: The Politics of Economic Ideas in Two Moments of Crisis. *Governance*, 26(2):197-215.
- Blyth, Mark (2013b) *Austerity: the History of a Dangerous Idea*. New York: Oxford University Press USA.
- Borzel, Tanja. 2001. *Pace-Setting, Foot-Dragging, and Fence-Sitting. Member State Responses to Europeanization*. Queen's Papers on Europeanization No. 4/2001. European University Institute, Florence and Max-Planck Project Group on Common Goods, Bonn.
- Byström, Hans. 2011. An Alternative Way of Estimating Asset Values and Asset Value Correlations. *The Journal of Fixed Income*, 21(2):30-38.
- Carruthers, Bruce G. (2013) From uncertainty toward risk: the case of credit ratings, *Socio-Economic Review*, online.
- Clare, Andrew. 2008. *Pigs Might Fly*. Research Note for Fathom Consulting FTAdviser. London, UK. May 13th.
- Conlisk, J. (1996). Why bounded rationality?. *Journal of economic literature*, 34(2), 669-700.
- Dassu, Marta and Roberto Menotti. 1997. Italy and NATO enlargement. *The International Spectator: Italian Journal of International Affairs*, 32(3-4):65-86.
- De Grauwe, Paul and Yuemei Ji. 2013. Panic-driven austerity in the Eurozone and its implications. *Vox*, 21 February. <http://www.voxeu.org/article/panic-driven-austerity-eurozone-and-its-implications>
- Dellepiane, Sebastian. 2012. The Political Power of Economic Ideas: The Case of 'Expansionary Fiscal Contraction'. *ECPR Joint Sessions*. Antwerp.
- Dianotto, Roberto. 2007. *Europe (In Theory)*. Durham, NC. Duke University Press.
- Doty, James. 1991. The Role of the Securities and Exchange Commission in an Internationalized Marketplace. *Fordham Law Review*, 60:S77-S90.

- Eichengreen, Barry and Fabio Ghironi. 2001. *The Future of the EMU*. Paper prepared for the Conference on Economic and Monetary Union. European Commission. Brussels, Belgium. March 21-22.
- Feldstein, Martin and Otto Eckstein. 1970. The Fundamental Determinants of the Interest Rates. *The Review of Economics and Statistics*, 52(4):363-375.
- Financial Times. 2008. Is there trouble ahead? *Financial Times FT Business: Investment Adviser* 19 May 2008.
- Fratianni, Michele. 1998. Maxi versus Mini EMU: The Political Economy of Stage III. *Columbia Journal of European Law*, 4:375-394.
- Freeman, John. 1983. Granger Causality and the Time Series Analysis of Political Relationships. *American Journal of Political Science*, 27(2):327-358.
- Gigerenzer, G. (2002). *Bounded rationality: The adaptive toolbox*. in Blackwell Handbook of Judgment and Decision Making Koehler, D. and N. Harvey (eds): The MIT Press, Boston, MA.
- Gillespie, Richard. 2007. Spain's pursuit of security in the western Mediterranean. *European Security*, 11(2):48-74.
- Gros, Daniel. 2000. How Fit are the Candidates for EMU? *The World Economy*, 23(10):1367-1377.
- Gros, Daniel. 2002. Health not Wealth: Enlarging the EMU. *West European Politics*, 25(2):141-151.
- Hall, Peter A. 1993a. *The Political Power of Economic Ideas: Keynesianism Across Nations*. Princeton, NJ: Princeton University Press.
- Hall, Peter A. 1993. Policy Paradigms, Social Learning and the State: The Case of Economic Policy-Making in Britain. *Comparative Politics*, 25:275-296.
- Hall, Peter A. 2013. Brother, Can You Paradigm?, *Governance*, 26:189-192.
- Hallet, Andrew and Svend Jensen. 2011. Stable and enforceable: a new fiscal framework for the Euro area. *International Economics and Economic Policy*, 8:225-245.
- Hamilton, James. 1994. *Time Series Analysis*. Princeton, New Jersey: Princeton University Press.
- Hardiman, Niamh. 2005. Politics and Markets in the Irish 'Celtic Tiger', *The Political Quarterly*, 76: 37-47.
- Heemeijer, P., Hommes, C., Sonnemans, J., & Tuinstra, J. (2009). Price stability and volatility in markets with positive and negative expectations feedback: An experimental investigation. *Journal of Economic Dynamics and Control*, 33(5), 1052-1072.
- Hilscher, Jens and Yves Nosbusch. 2010. Determinants of Sovereign Risk: Macroeconomic Fundamentals and the Pricing of Sovereign Debt. *Review of Finance*, 14:235-262.
- Hoelscher, Gregory. 1986. New Evidence on Deficits and Interest Rates. *Journal of Money, Credit and Banking*, 18(1):1-17.
- Hommes, C. (2011). The heterogeneous expectations hypothesis: Some evidence from the lab. *Journal of Economic Dynamics and Control*, 35(1), 1-24.

- Kahneman, D. 2003. Maps of bounded rationality: Psychology for behavioral economics. *The American economic review*, 93(5), 1449-1475.
- Kamm, Thomas. 1996. Snobbery: The Latest Hitch in Unifying Europe --- Northerners Sniff as 'Club Med' South Clamors to Join New Currency. *Wall Street Journal* 6 November 1996: A15.
- Lankowski, Carl. 1995. Financing Integration: The European Investment Bank in Transition. *Law and Policy in International Business*, 27:999-1026.
- Mason, Mark. 1994. Elements of Consensus: Europe's Response to the Japanese Automotive Challenge. *Journal of Common Market Studies*, 32(4):433-453.
- Masters, Adam. 2009. Republic of Ireland: From Celtic Tiger to Recession Victim. in Hart, Paul and Karen Tindall (eds.) *Framing the Global Economic Downturn: Crisis Rhetoric and the Politics of Recessions*. Canberra: ANU E Press.
- Melander et al. 2011. Dancing Spreads: Market Assessment of Contagion from the Crisis in the Euro Periphery based on Distress Dependence Analysis. *International Advances in Economics Research*, 17:347-363.
- Mishkin, Frederic. 1992. Is the Fisher Effect for Real? *Journal of Monetary Economics*, 30:195-215.
- Molina, Óscar, and Martin Rhodes. 2007. The Political Economy of Adjustment in Mixed Market Economies: A Study of Spain and Italy, In *Beyond Varieties of Capitalism: Conflict, Contradictions and Complementarities in the European Economy*, edited by Bob Hancké, Martin Rhodes and Mark Thatcher. Oxford: Oxford University Press, pp.223-252.
- Mundell, Robert. 1997. Currency Areas, Common Currencies and EMU. *The American Economic Review*, 87(2):214-216.
- Pitelis, Christos. 2012. On PIIGS, GAFFs and BRICs: An Insider-Outsider's Perspective on Structural and Institutional Foundations of the Greek Crisis. *Contributions to Political Economy*, 31(1):77-89.
- Pu, Xiaoling and Jianing Zhang. 2012. Can dual-currency sovereign CDS predict exchange rate returns? *Finance Research Letters*, 9:157-166.
- Rodrigo, Fernando and Jose Torreblanca. 2001. Germany on My Mind? The Transformation of Germany and Spain's European Policies. in Heinrich et al (eds.) *Germany's (New) European Policy – External Perceptions*. Berlin: Institute fur Europaische Politik.
- Rosel, Jakob. 2002. Eastern Extension of European Union: Restraint of Chance for Muslim World? *Economic & Political Weekly*, 37(43):4374-4379.
- Ryan, John. 2009. *United Kingdom Euro Scenarios Assessed*. Working Paper No. 09/WP/2009. Department of Economics Ca' Foscari University of Venice. Venice, Italy.
- Simon, H. A. (1955). A behavioral model of rational choice. *The quarterly journal of economics*, 69(1), 99-118.
- Stracca, L. (2004). Behavioral finance and asset prices: Where do we stand?. *Journal of Economic Psychology*, 25(3), 373-405.

- Sunday Business Post. 2009. Shell-shock as Investors Flee Irish Shares. *Sunday Business Post News Features* 6 July 2008. Dublin, Ireland.
- Tison, Michel. 1999. *The Investment Services Directive and its Implementation in the EU Member States*. Working Paper WP 1999-17. Financial Law Institute. Universiteit Gent. Belgium.
- Warren III, Manning Gilbert. 1994. The European Union's Investment Services Directive. *University of Pennsylvania Journal of International Business Law*, Summer.
- Waters, Lindsay. 1997. On the Idea of Europe. *Boston Review*, 22(2).
<http://www.bostonreview.net/BR22.2/Waters.html>