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Country Acronyms in Comparative Political Economy.¹

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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. This 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 that increased media usage of the term ‘PIIGS’ is followed by converging interest rate correlations between Ireland and the

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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.

INTRODUCTION

Country grouping heuristics pervade the lexicon of contemporary international and comparative political economy. From groupings of specific countries, such as the BRICS (Brazil, Russia, India, China, South Africa), to classifications of states sharing similar characteristics such as LDCs (Least Developed Countries), SIDS (Small-Island Developing States), or NICs (Newly Industrializing Countries), the argument of this paper is that such acronyms not only shape the way we think about and discuss groups of state actors in the global economy, but do so in ways that have real consequences for the markets' treatment of the countries in question.

The advent of the Eurozone 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 interventions 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 prospects for recovery.

In this paper we ask two questions. Why has the PIIGS acronym developed; and does usage of the PIIGS term influence market behaviour? To answer the first of these questions, we review the literatures on the social construction of ideas and concepts in comparative political economy, and the scholarship on uncertainty, risk, and subjective ambiguous belief in financial economics; and we then trace the usage of the PIIGS term as the Eurozone crisis unfolded. The factors that

shape the emergence and evolution of the PIIGS acronym are important issues in their own right. Our main concern though is to seek to build upon this analysis of the social construction of acronyms to answer our second question, that is, the impact of PIIGS as a cognitive shortcut on actual behaviour. To this end, we briefly evaluate the socio-economic variation across the PIIGS members before testing our proposition that, rather than usage of PIIGS *following* similar market treatment of the group, the usage of the term may actually *precede* group-level market responses. We conclude by showing the potential for a valuable new research agenda opened up by this analysis, to which both quantitative and qualitative analysis, including in-depth process tracing, can contribute.

Throughout the paper we focus on Ireland's membership in this group. Ireland is the least-likely member of the PIIGS, 'joining' latest and sharing none of the locational or cultural ties that prompted the original 'PIGS' grouping. Thus Ireland is a hard test for our claim that PIIGS usage affects market outcomes in PIIGS countries. Observers have suggested that Ireland's treatment by the ratings agencies is under-explained by either macroeconomic fundamentals or by the 'systemic' features of ratings agencies' behaviour, exposing an 'arbitrary' element in their decisions (Gärtner et al., 2011; Gärtner et al., 2013). This paper aims to fill this explanatory gap with reference to the cognitive biases introduced by the PIIGS acronym itself.

UNCERTAINTY, 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 be relatively 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, 2013b; Hall, 2013). For example, notwithstanding the brief experience of coordinated international reflation in response to the global financial crisis in 2008-09, 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; Blyth, 2013a).

An ‘idea’ can therefore have explanatory power in accounting for actors’ behaviour. The interpretation of social reality is shaped by many factors, and actors’ choice of interpretive frameworks may be shaped to a significant degree by their interests and preferences. This follows from the indeterminacy of political and social processes, since a period of change may be amenable to several equilibrium outcomes. Blyth has argued that, unlike the process of paradigm shift in natural sciences explanations, shifts in the politically dominant framework for understanding economic and political realities are more strongly contested on value grounds than on purely technical evidence (Blyth, 2013b). Ideas can provide a resilient template for interpreting the world, and a powerful guide to action, that is not amenable to being fundamentally changed by inconsistent or awkward evidence. ‘Ideas’ can be understood as interpretations of the world reflecting clusters of values and interpretations, in Blyth’s sense. But we can also usefully understand as ‘ideas’ the cognitive shortcuts or maps that guide decision-

making in world of pervasive uncertainty. These too are social constructs; these too are the products of epistemic communities with their own ‘dynamics of opportunity and constraint’ (Santiso, 1999, p.309); and the use of heuristics can also sometimes imply a position in the wider ideological and normative contestation of ideas.

What particularly interests us here is that new ideational classifications in political explanation, when they gain currency, can have real consequences for actors’ behaviour. The well-known example of the ‘BRICs’ shows that such an invented category may have little analytical substance to it – it may be ‘a mirage’ (Armijo, 2007, p.40) that is thinly rooted in socio-economic fundamentals – and yet its use may have real consequences for the way markets function (O’Neill, 2011). As Brooks et al. have shown, market actors appear to categorize governments into ‘peer’ groups based on geography, risk ratings and development indicators (Brooks et al., 2012). Brooks et al. use the ‘PIIGS’ as an exemplar of such a peer group. We seek to explore the role of this type of acronym in *creating* a peer group.

Our contention is that the performative aspects of language are likely to result in the countries in question being treated as a bloc by the financial markets, drawing on the shorthand assessment of growth or of risk. The use of a new symbolic grouping can actually generate changes in the perceptions of plausible connections between countries even where the economic fundamentals are in fact quite different. As Marion Fourcade asks, ‘Who would you rather put your money on – the BRICs or the PIGS? The terms (which evocate, respectively, a sturdy material and a filthy porcine) are not irrelevant here: we think and feel through language... (T)he economy is always and everywhere a morality play...’ (Fourcade, 2013, p.262). 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 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 aimed at taming uncertainty about their prospects for future performance. As first conceptualized by Knight, and later formalized by Bewley and others, uncertainty deals with classes of events with no known probability distributions (Bewley, 2002; Knight, 2012). If modern financial history tells us anything it is that markets are plagued by imperfect information and situations of uncertainty. But since business transactions still 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. Under the conditions described here, market actors can do no better in translating uncertainty to risk than through the formulation of subjective ambiguous beliefs. Rigotti and Shannon (Rigotti and Shannon, 2005) apply this 'Knightian uncertainty' to decision-making in financial markets, showing that equilibrium prices and allocations vary with levels of uncertainty. The larger the uncertainty, the larger the set of ambiguous beliefs, resulting in multiple (if not infinite) equilibria.

That financial markets exhibit this Knightian uncertainty has been suggested by a number of commentators, including Colander et al. (Colander et al., 2009), who criticized the economics profession for failing to warn the public that financial models assumed away uncertainty by

converting it to risk. Since Knightian uncertainty can only be approached with subjective belief, a process which may introduce behavioural or psychological elements, this type of imperfect cognition has also been referred to as ‘bounded rationality’ (Rizzi, 2008). Bounded rationality or ‘risk misperception’ is understood as a key driver of the recent financial crisis (Rötheli, 2010).

Historically, a number of strategies have been employed to convert uncertainty to risk. Perhaps the most common has been to ‘outsource’ the formulation of subjective beliefs to ratings agencies. The credibility of their activities seemed to be well supported from the 1980s onward by the triumph of microeconomic models in macroeconomic analysis. 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 of 2008 and beyond (Carruthers, 2013). Ratings agencies provided high-grade credit ratings for investment products with subjective ambiguous beliefs based on short historical trends, and without incorporating other external shocks, such as the possibility of the simultaneous collapse of markets in property across geographical regions. Yet the supposed translation of uncertainty to risk did not prevent (and perhaps encouraged) investors to engage in the usual kinds of irrational exuberance, animal spirits, and herd behaviour (Akerlof and Shiller, 2009). As Santiso notes, the extremely short time-horizons and high volatility of financial markets generate powerful incentives to adopt herding behaviour, in which underlying cognitive biases can be maintained over relatively long periods (Santiso, 1999, p.310). Widely shared expectations about how markets were likely to behave were shaped as much by the common reassertion of these subjective beliefs as by measured and independent analysis, and the ratings agencies were far from immune to these dispositions.

Bounded rationality fuelled by uncertainty may then prompt market actors (and others) to use heuristics in order to overcome situations of incomplete information or to avoid the search costs needed to collect complete, or sort through complex, information (Simon, 1955; Conlisk, 1996; Kahnemann, 2003). As described by Gigerenzer (Gigerenzer, 2004, pp.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. The use of these decision heuristics in asset pricing and market analysis has been well-researched (Stracca, 2004; Heemeijer et al., 2009; Hommes, 2011).

Stauber provides us with a formal mechanism for the ways in which heuristics may be used in situations of decision-making under Knightian uncertainty. He shows that any ‘close enough’ perturbation of ambiguous belief leads to an equilibrium strategy that can be interpreted as sufficiently close to the original equilibrium. He contends that we can interpret the equilibrium set as a ‘single profile of “thick” equilibrium strategies’ (Stauber, 2011, p.269). We suggest that this is precisely the mechanism that drives the use of heuristics among market actors. In the context of sovereign debt, market actors will develop a full subjective ambiguous belief set for one sovereign (Greece, for example) and then use heuristic grouping to determine which other states belong to the set of ‘close enough’ belief perturbations. This saves time for market actors when making allocation decisions based on the original subjective belief set but, crucially, *also* when new information surfaces which causes the actor to update her subjective ambiguous belief. The market actor then needs only to understand how the new information changes the

beliefs (and allocations) for the original sovereign (say Greece) and then apply the same changes to all the other members of the heuristic grouping. In the context of our project, this means that we would expect new information about *any one* of the PIIGS to affect the other members in a similar way.

The Eurozone sovereign debt crisis revealed the full extent to which investors make market decisions in herd-like ways, on the basis of shared subjective ambiguous beliefs about outcomes that are inherently uncertain. As Lanteri and Carabelli suggest, this type of herd-like decision-making in the face of subjective information may be understood through the use of Keynes' 'beauty contest' analogy (Lanteri and Carabelli, 2011). Once group heuristics have been established, even if an individual investor may not believe PIIGS to be a useful mechanism for inferring information sets, nevertheless if that investor believes the rest of the market, on average, *does* believe in the PIIGS heuristic, then the investor is individually rational in also adopting the heuristic.

Risk perception is also a consequence of the political shaping of expectations as it is about economic fundamentals. After the creation of the Euro, the risk subjectively 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 after Greece's fiscal difficulties came to light, the cost of borrowing across the Eurozone began to diverge dramatically. Mohl and Sondermann found that 'disorderly public statements of euro area politicians' had an independent and measurable impact on the 'surging bond yields of countries on the periphery'

(Mohl and Sondermann, 2012, p.1). Conversely, what proved most effective in stemming investors' panic was not the supposedly credibility-enhancing austerity policies, but decisive political intervention on the part of the ECB itself (De Grauwe and Ji, 2013).

The interest of this paper therefore lies in uncovering the way 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, which in turn generates consequences for market outcomes. In order to focus our examination, we consider the PIIGS acronym as a case study of a country-grouping acronym creating a heuristic cluster. Our contention is that increased media usage of the PIIGS acronym will increase the extent to which market actors use it as a heuristic device for transferring subjective ambiguous beliefs from one member of the cluster to the rest. We first trace the ideational construction of the term 'PIIGS' then turn to an empirical investigation of the impact of this heuristic on market outcomes.

HOW IRELAND JOINED THE PIGS

We focus on Ireland as having been the 'least likely' case for PIIGS 'membership' prior to the onset of the crisis. As Ireland's economic troubles gathered, it gained plausibility as a candidate: we will show how this happened. But we will go on to argue that the use of the PIIGS acronym itself then shaped the expectations and behaviour of market analysts in distinctive ways. Our contention is not that Ireland's economic woes made it implausible for it to be grouped with the other crisis countries at all. It is rather that its inclusion in this grouping may have amplified the scale of its experience of crisis, because market actors' expectations were not solely shaped by

Ireland's own economic fundamentals or the quality of its government strategy. We suggest that market actors' behaviour is 'stochastic' in the sense identified by Schofield, where rapid changes in actors' beliefs are part of a process in which 'individual changes in opinion are no longer "independent", but highly correlated', and a 'belief cascade' quickly develops that pushes analysts to a convergent conclusion (Schofield, 2003, p.26).

The initial incarnation of the PIIGS made no reference to Ireland and referred only 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) and has since been used to lump the aforementioned countries together when discussing budget and debt dynamics of EU accession (Eichengreen and Ghironi, 2001), the debate over the European Monetary Union (EMU) (Mundell, 1997; Gros, 2000), EU trade policy (Mason, 1994; Baldwin, 2006), and European and North Atlantic security (Dassù and Menotti, 1997). 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). The geographic component of the name was prompted by fact that the three 'original' members had 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 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 (Mason, 1994, p.440). 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 characterizing the Club Med countries as ‘under-populated, economically backward, agrarian and poor’ (Rosel, 2002, p.4374).

The term PIGS, referring to the sans-France-and-Belgium Club Med, appeared as early as 6 November 1996 in a piece in the *Wall Street Journal* on the prospective EMU by Thomas Kamm, who attributes the acronym to a banker’s joke. It was immediately pejorative with Waters referring to the PIGS ‘wallowing in their Mediterranean trough’ (Waters, 1997, p.3). The term gained further traction with the widely circulated ‘BAFFLING PIGS’ acronym of countries adopting the Euro currency in 2001. Around the same time, the term was also first used in an academic context, independently by Börzel and by Rodrigo and Torreblanca (Börzel 2002; Rodrigo and Torreblanca, 2001). These authors appear to be the first to suggest that Ireland could or perhaps even should be included in the acronym. Both attach disparaging connotations to the term, with Börzel applying the term to environmental policy ‘laggards’ (p. 12), and Rodrigo and Torreblanca referring to the ‘poor four’ (p. 8). Inclusion of Ireland in the acronym fundamentally changed its designation from a broader ‘cultural’ grouping to a narrower economic one. Dainotti discusses PIGS (Italy, not Ireland) as shorthand for a particular conception of a very distinctly *Southern* European identity that is predicated, flippantly, on pizza, the mandolin, and siestas, but which owes something to Montesquieu’s climatology and the

related *'inventio'* of a European north-south divide (Dianotti, 2007). In this context, the supposed fiscal laxity 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. Its inclusion must be understood to have changed the meaning of the heuristic to one of 'periphery' or economic marginalization more generally.

Between 2002 and 2008, the term was employed no more than a scattering of times in the print media and scholarly publications, as seen in Figure One below. But 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* article on May 19th 2008 that closely follows a brief report by Professor Andrew Clare of the Cass Business School at City University of London published on May 13th (Financial Times, 2008, Clare, 2008).³ 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* the following year on July 6th, attributed to an unnamed stockbroker (Sunday Business Post, 2009). The acronym is pejoratively used to summarize shared features of economic weakness and high inflation. The term starts to pervade discourse with dozens of monthly appearances in December 2009 and January of 2010, and hundreds of monthly uses from February of 2010.

FIGURE 1 ABOUT HERE

³In response to an e-mail inquiry (26-11-2013), then editor of the FT's Investment Adviser magazine Mr. Hugo Greenhalgh indicated he may well have come across the Clare (2008) research which indicated both Ireland and Italy as "PIGS" but had no recollection of being the first to employ the double 'I' 'PIIGS'. In a telephone interview (26-11-2013) Professor Clare also did not claim origin of the term, but instead recalls coming across it through his interactions with traders in the City of London who did in fact use the term as a heuristic in order to apply information about Greece to their actions vis-à-vis the other members.

The acronym has had a rather slower uptake into the academic literature, being used in just a handful of working papers in 2009. Ryan invokes the PIIGS when discussing the possibility of the United Kingdom joining the Eurozone in order to find stability through the crisis, while Masters labels the PIGS as the ‘poor four’ (Ryan, 2009; Masters, 2009, p.146). 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. The usage appears in a number of technical economics papers, covering topics such as asset valuation (Byström, 2011), Eurozone contagion (Melander et al., 2011), and credit default swaps (Pu and Zhang, 2012). The term PIIGS here becomes synonymous with the countries involved in European debt crisis (Hallet and Jensen, 2011). Pitelis invokes the PIIGS while discussing the origins of the Eurozone crisis in Greece’s difficulties, spreading next to the other peripheral states, and eventually to all of Europe (Pitelis, 2012, p.83), a trope of Greek-led crisis tendencies that proved to be a powerful motivator and reinforce of the heuristic for market actors as time went on.

Ireland’s accession to the cluster of PIIGS does not appear to be the result of a considered discussion. Rather, Ireland’s peripheral geographic location, its entry into economic crisis at the same time as the ‘traditional’ PIGS, and the accident of having a country name beginning with ‘I’, pushed it into the acronym and yoked it to the heuristic.⁴ 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 mutated from ‘GarlicBelt’ and ‘SouthernComfort’ to ‘PIGS,’ ‘BAFFLING PIGS,’ ‘PIIGS,’ and ‘GIPSI.’ The development of the PIIGS term was a quickly constructed label rather than a term

⁴Would ‘PEGS’ or ‘PIEGS’ have caught on as well?

that was carefully developed on a clear analytical basis. What then, if any, were the bases on which it gained currency as a heuristic for market actors' expectations?

DOES 'PIIGS' MAKE SENSE?

From the outset, 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 noted 'Club Med ... is not a homogeneous group' (Fratianni, 1998, p.384). This point was echoed a decade later by Andrade who concluded that the (non-Ireland) PIGS could not be considered a homogeneous group in the light of their employment responses to the financial crisis (Andrade, 2009).

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 a good deal more effective and efficient.

The 'PIIGS' grouping sought to capture something important about economic vulnerability, but quite what that may be remained rather elusive. 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. If a country's debt-to-GDP ratio were the most important determinant of market nervousness, neither Spain nor Portugal nor Ireland should have been vulnerable, as their debt ratios were below Maastricht convergence criteria when the crisis erupted. 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. In all three, the crisis was a consequence and not a cause of their fiscal problems. 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 late September 2008, designed to stem what was then thought to be a liquidity crisis, proved enormously costly in what turned out to be a solvency crisis (Clarke and Hardiman, 2012). The assumption of the total cost of the bank bail-out onto the public finances pushed Ireland's debt up considerably after 2010 (O'Brien, 2011). The European leaders' 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. 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 such as this is not at all useful. But as shorthand for a category of countries in trouble, it did the trick.

DO MARKETS MAKE ‘PIIGS’ AND ‘PIIGS’ MAKE MARKETS?

In this section, we assess the degree to which the PIIGS acronym became a heuristic device, guiding market actors’ behaviour in relation to these countries. We posit that the acronym acts as a cognitive map to transmit relevant, though perhaps incomplete, market information for one of the PIIGS to the other members. This ‘fast and frugal’ heuristic is based on two features: the assumption that all of the PIIGS share a common structural economic environment, and a value judgment (evolved capacity) that an external shock will affect all members in the same way. If market actors employ heuristics in this way, we would expect markets to treat the members of the PIIGS more similarly as a collective rather than as five individual nation states. 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. Thus, while we recognize that market volatility in the PIIGS countries may lead to a surge in usage of the PIIGS term, we argue that this increased usage may also influence bond-spreads in the

constituent countries. Using Ireland as our critical case, we focus on inquiry on how PIIGS usage affected market treatment of Irish bonds. We propose two hypotheses.

Hypothesis 1: Increasingly similar market treatment of the constituent members will lead to increased usage of the PIIGS acronym.

Hypothesis 2: Increased usage of PIIGS will lead to larger changes in the Irish bond-spreads.

We operationalize our primary dependent variable and secondary independent variable as the first-difference in the daily spread between the Irish and German 10-year bond yield. We recognize that our causal mechanism between PIIGS usage and bond spreads may work both ways. *Positive* ‘PIIGS-related’ news may *decrease* the spread, while *negative* news may increase the spread. To avoid this directionality, we formulate the variable as the absolute value of the first difference.

Our primary independent variable and secondary dependent variable is a daily count of ‘PIIGS’ usage in print media gathered through the LexisNexis database. To examine the bi-causal relationship between PIIGS usage and bond yield change we employ the concept of Granger causality (Freeman, 1983; Hamilton, 1994), which has been widely employed in the international finance literature (Reisen and Von Maltzan, 1999; Gómez-Puiga and Sosvilla-Riverob, 2013). We use the PIIGS and bond-yield measures in vector auto-regressive models (VARs) whose results allow for the post-estimation testing of Granger causality hypotheses. As we have no *a priori* expectation of the lag-order, we use lag selection statistics to inform our choice. The

Schwartz Bayesian, Akaike selection, Hannan and Quinn information criterion and the final prediction error all suggest that a second-order lag between our endogenous variables is appropriate, and a two-period distributed lag is our preferred specification.⁵ While there may be a direct relationship between PIIGS usage and bond-yield spreads, we also recognize that both may be driven by some other variable or, as discussed above, that PIIGS usage may be the transmission mechanism for some more fundamental cause. In particular, we suspect that PIIGS usage may act as a vehicle for facilitating contagion effects, by serving as the heuristic that is used by market actors to apply information about one member of the cluster to the others. Credit ratings events have been documented as a font from which contagion effects can flow (Longstaff, 2010). Accordingly, we compile ratings events for each of the PIIGS members, separating Irish ratings events from the remaining PIIGS, and include these as exogenous regressors in the VARs. We include these measures in the specification to examine any direct effect from credit rating events on changes in Irish bond-yield spreads, and to see if they have an indirect effect by prompting increased PIIGS usage, which in turn impacts the yield spreads.

Finally, we also include other well-established determinants of bond-yields as further exogenous controls. As the ‘Fisher Effect’ is a long-established relationship between interest rates and inflation (Feldstein and Eckstein, 1970), we include a measure of changes in 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

⁵ As a robustness check we also examined a 1st order lag, finding comparable results, with weakly statistically significant evidence of Granger causality from bond-yield changes to PIIGS usage (See Appendix II).

context of the Euro crisis and more broadly (Hoelscher, 1996; Hilscher and Nosbusch, 2010;). As is standard practice in the literature, we further include a common measure of ‘risk aversion’ (the spread between AAA corporate bonds and the US 10-year treasury yield) to control for general market sentiment. Finally, we include macro-economic controls including changes in unemployment, government budget deficit (surplus), and changes in the current account. Accordingly our general model specification is:

$$\begin{pmatrix} y_{1t} \\ y_{2t} \end{pmatrix} = \begin{pmatrix} a_1 \\ a_2 \end{pmatrix} + \begin{pmatrix} \pi_{11}^1 & \pi_{12}^1 \\ \pi_{21}^1 & \pi_{22}^1 \end{pmatrix} \begin{pmatrix} y_{1t-1} \\ y_{2t-1} \end{pmatrix} + \begin{pmatrix} \pi_{11}^2 & \pi_{12}^2 \\ \pi_{21}^2 & \pi_{22}^2 \end{pmatrix} \begin{pmatrix} y_{1t-2} \\ y_{2t-2} \end{pmatrix} + \begin{pmatrix} \beta_1 \\ \beta_2 \end{pmatrix} \mathbf{X} + \begin{pmatrix} \varepsilon_{1t} \\ \varepsilon_{2t} \end{pmatrix} \text{ (eq.1)}$$

Where y_{1t} and y_{2t} are the change Irish bond-yield spread, and the count of PIIGS usage, respectively. The α 's are the constants, while the π 's are the coefficients on the first and second order auto-regressive lags. The β 's are the vectors of coefficients on the vector of exogenous variables, \mathbf{X} , while the ε 's are the errors. Our sample begins on November 30th, 2009 with the first instance of PIIGS usage and runs until October 16th, 2013 for a total of 1013 daily observations.

TABLE ONE ABOUT HERE: VAR Estimates for Δ Irish-German Bond Spreads

TABLE TWO ABOUT HERE: Table 2: Bivariate Granger Causality

The results show considerable support for our hypothesis that the use of ‘PIIGS’ influences changes in Ireland’s bond-yield spreads. Model I in Table One shows a positive relationship between the first and second lags of PIIGS usage and the change in the bond yield, with the second lag significant at the 1% level. The coefficient on the second PIIGS lag suggest that for

every 10 instances of PIIGS usage, the yield spread will change by 0.03 of a percentage point, a non-negligible move in a market worth tens of billions of Euro. Table 2 shows evidence of Granger causality from PIIGS usage, where the χ^2 value to test the null hypothesis for Granger non-causality of PIIGS on the bond-yields is rejected at the 0.1 percent level. Conversely, the evidence in Tables One and Two does *not* support our hypothesis of Granger causality from bond-yields to PIIGS usage. While the first order lag of the yield spread has a positive and weakly significant effect on PIIGS usage, the χ^2 value for Granger non-causality in Table Two does not allow us to reject the null hypothesis. Thus, it seems that while PIIGS usage strongly influences changes in the yield spread, changes in the yield spread do *not* strongly influence PIIGS usage.

There is, however, evidence of our contention that the PIIGS heuristic may be acting as a transmission mechanism for contagion effects from other political-economic events. While ‘PIIGS’ credit rating events appear to have no direct impact on changes in the yield spread, they do appear to influence PIIGS usage. The first lag of PIIGS events is positively and significantly related to increased PIIGS usage in the following period. Running a two-period lag VAR between PIIGS credit events and PIIGS usage supports a Granger-causal relationship from PIIGS credit events to PIIGS usage.⁶ Using the results from this VAR to create an impulse response function, shown below as Figure 2, shows a marked uptick in PIIGS usage in response to the PIIGS credit event impulse variable in the first period, and then a sharp move back down to the steady state in the second period, accounting for the negative sign on the second lag of the ratings event. The results suggest that a credit event in a PIIGS country in period $t-1$ triggers

⁶As the credit events is a binary event variable a VAR is not an appropriate estimator with credit events as the dependent variable. However, for the sake of symmetry we present these results alongside of specification of interest, PIIGS usage, in Appendix II.

increased usage of the term PIIGS in t , which leads to increased change in the Irish bond-spread in $t+1$ and $t+2$. Interestingly, Table One shows *no* relationship between Irish credit events and the Irish bond-spread *or* between Irish credit events and PIIGS usage. It appears then that the ‘PIIGS’ grouping is acting as a mechanism to transmit information about non-Irish PIIGS countries which is having an impact on Irish market outcomes. The social construction and use of the ‘PIIGS’ term seems, at a minimum, to facilitate and perhaps create this contagion.

FIGURE 2 ABOUT HERE

As is also evident in Table One, with the exception of ‘risk aversion’ and ‘unemployment’, the exogenous controls are largely insignificant in the yield spread model. We suspect that this is due to the aggregation level of most of these variables at the quarterly level, as opposed to the daily level of bond yields and PIIGS usage. The fact that ‘risk aversion’ (daily data) and unemployment (monthly data) are significant and signed in line with our expectations further supports this suspicion. Since inclusion of these variables may be introducing specification bias, we remove them in models III and IV, and find both a better overall model fit, and that the magnitude and significance of our key findings increase slightly.

CONCLUSION

The PIIGS acronym gained widespread use because it seemed to provide a convenient heuristic for countries that may share some macro-level economic outlook for crisis or growth. However, this can disguise real differences in economic fundamentals. The danger of the heuristic is that if

the ambiguous subjective beliefs for one member are not a ‘close enough’ perturbation for another member, then applying this information set may lead to market outcomes that are ‘unwarranted’, given the diversity of the underlying economic environments.

What has emerged from our empirical study is evidence that the impact 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 a causal effect on the very uncertainties it seeks to model. We have tracked the 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 have shown that treating these countries as a bloc in economic journalism resulted in their being treated as a bloc by investment managers.

These conclusions suggest that economics can indeed be viewed as a morality play, and that 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. ‘Ideas’ are the interpretive filter through which actors interpret the world and frame their responses; heuristics can be understood as a particular kind of ‘idea’. In a world of uncertainty, in which rational risk assessment is extremely problematic and response time is extremely limited, short-hand ideas captured in acronyms guide behaviour in materially significant ways. And yet, as we have noted on theoretical grounds, this kind of heuristic use of acronyms is as susceptible as others to the hazards of group-think and herd

behaviour. Far from providing a rational guide to action, the too-ready use of acronyms as a heuristic can intensify crises unnecessarily.

Space constraints in this paper preclude a full investigation of the micro-foundations of the relationship we believe we have identified between the extent of usage of an acronym and the behaviour of market actors. A fuller analysis would require more in-depth investigation, and might draw on qualitative process tracing, and on anthropological analysis of the ‘myriad of actors, analysts, strategists, economists, and portfolio managers’ who constitute the epistemic communities of market decision-makers (Santiso, 1999; Santiso, 2005). Our investigation into the PIIGS is only a first cut at what is a much broader phenomenon in comparative political economy. The importance of social construction in constituting an ideational framework which then has real consequences has been analysed in relation to the ‘BRICs’ (O'Neill, 2011), but other heuristic groupings have attracted much less scholarly attention as *drivers* of socio-economic outcomes. Thus we see our work as a starting-point for further analysis of the ways in which the ideational construction of heuristic devices in the form of country acronyms may have a profound impact on political economy.

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Table 1: VAR Estimates for Δ Irish-German Bond Spreads

	I (Yield DV)	II (PIIGS DV)	III (Yield DV)	IV (PIIGS DV)
L.PIIGS Usage	0.0017	0.4405**	0.0019†	0.4697**
(Z-stat)	(1.51)	(13.07)	(1.74)	(14.63)
L2.PIIGS Usage	0.0029**	0.2056**	0.0030**	0.2350**
(Z-stat)	(2.55)	(6.15)	(2.79)	(7.38)
L. Δ _Yield_Spread	0.1360**	1.875†	0.1377**	1.7698†
(Z-stat)	(3.62)	(1.70)	(3.82)	(1.65)
L2. Δ _Yield_Spread	0.0160	0.0041	0.0182	-0.1499
(Z-stat)	(0.42)	(0.00)	(0.51)	(-0.14)
PIIGS Rating Event	0.0156	0.4525	0.0173	0.4931
(Z-stat)	(0.86)	(0.85)	(1.00)	(0.95)
L.PIIGS Rating Event	0.0228	1.3501**	0.0242	1.3949**
(Z-stat)	(1.24)	(2.51)	(1.38)	(2.67)
L2.PIIGS Rating Event	0.0292	-1.0426*	0.0301†	-1.0362*
(Z-stat)	(1.61)	(-1.96)	(1.74)	(-2.01)
Ireland Rating Event	0.0237	-0.4463	0.0339	-0.5131
(Z-stat)	(1.18)	(-0.49)	(1.17)	(-0.59)
L.Ireland Rating Event	0.0367	0.5425	0.0322	0.6430
(Z-stat)	(1.09)	(0.58)	(1.08)	(0.73)
L2.Ireland Rating Event	0.0089	-0.6148	0.0094	-0.7819
(Z-stat)	(0.27)	(-0.64)	(0.231)	(-0.86)
Risk Aversion	0.0852**	-1.8652*	0.0894**	-0.8977
(Z-stat)	(2.85)	(-2.13)	(3.38)	(-1.14)
Δ _Unemployment	0.0103*	0.5394**	0.0101*	0.4994**
(Z-stat)	(2.06)	(3.69)	(2.39)	(3.96)
Δ _Budget Deficit	-0.0000	0.0022*		
(Z-stat)	(-0.26)	(2.15)		
Δ _Inflation	-0.0013	0.6112†		
(Z-stat)	(-0.10)	(1.70)		
Δ _Debt	-0.0003	-0.0785**		
(Z-stat)	(-0.42)	(-3.99)		
Δ _Current_Account	0.0000	0.0001		
(Z-stat)	(0.11)	(1.04)		
Constant	-0.0979†	5.1583**	-0.1102*	2.8882*
(Z-stat)	(-1.73)	(3.11)	(-2.25)	(1.97)
N=	740	740	804	804
R ²	0.1294	0.5582	0.1426	0.5641
(Prob. > χ^2)	0.0000	0.0000	0.0000	0.0000

†Significant at 10% level, *Significant at 5% level, ** Significant at 1% level.

Table 2: Bivariate Granger Causality

DV	Excluded $\Delta_Bond_Yield_Spread$	$PIIGS_Usage$
PIIGS Usage		
χ^2	2.955	
(Prob. > χ^2)	(0.228)	
PIIGS Usage (mod)		
χ^2	2.7303	
(Prob. > χ^2)	(0.255)	
$\Delta_Bond_Yield_Spread$		
χ^2		17.548
(Prob. > χ^2)		(0.000)
$\Delta_Bond_Yield_Spread(mod)$		
χ^2		24.867
(Prob. > χ^2)		(0.000)

Figure 1: PIGS/PIIGS Usage

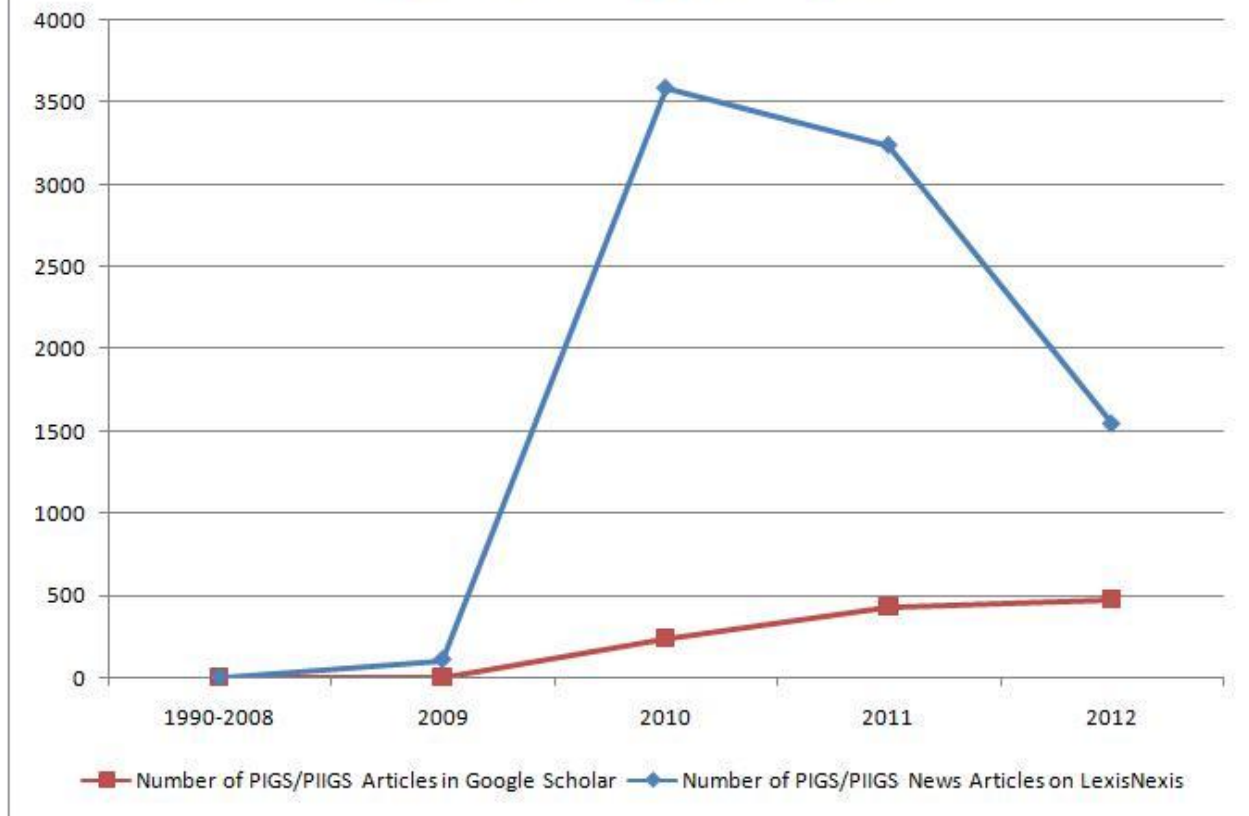
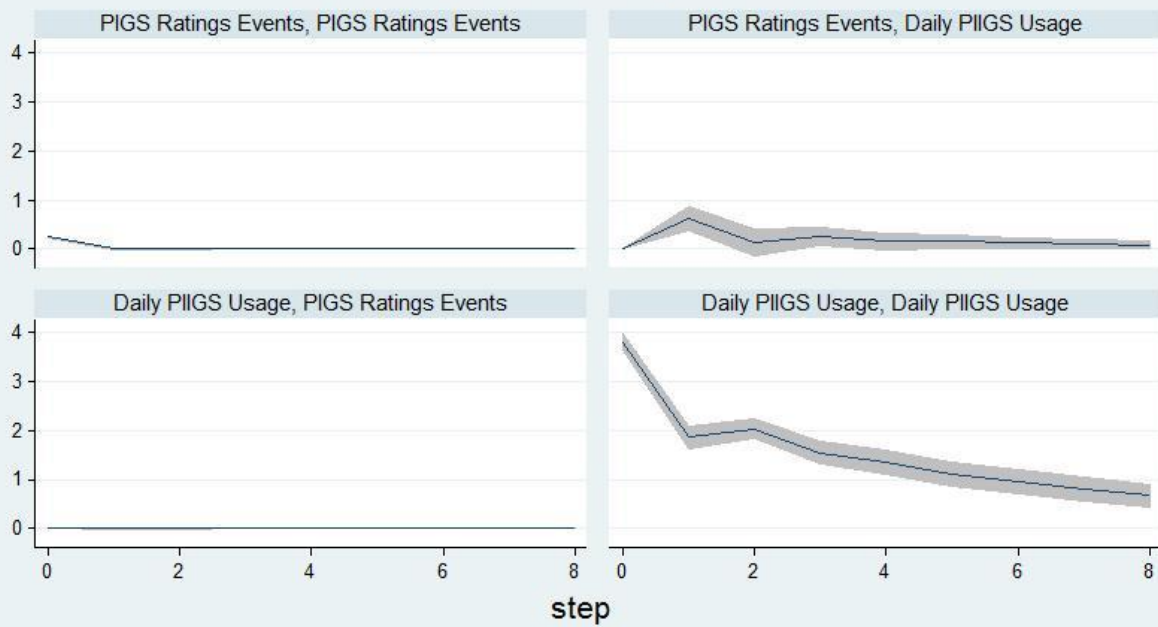


Figure 2: Impulse Response Functions PIIGS Usage/PIGS Ratings Events VAR



95% CI
 orthogonalized irf

Graphs titles impulse variable, and response variable

APPENDIX I: Data
Table I.1 Regression Data Sources and Summary Statistics

Variable	Source	Mean (SD)	Min	Max	N=
PIIGS Usage	http://www.lexisnexis.com.eproxy.ucd.ie/ authors calculations	4.818 (5.5589)	0	51	1013
Δ _Yield_Spread	http://epp.eurostat.ec.europa.eu/ authors calculations	0.098 (0.130)	0	1.66	909
PIIGS Rating Event	https://www.moody.com/credit-ratings/ https://www.fitchratings.com		0	1	1013
Ireland Rating Event	http://www.standardandpoors.com/ratings/ https://www.moody.com/credit-ratings/ https://www.fitchratings.com		0	1	1013
Risk Aversion	http://www.standardandpoors.com/ratings/ http://research.stlouisfed.org/fred2	1.830 (0.169)	1.39	2.27	973
Δ _Unemployment	http://www.cso.ie	-0.046 (1.132)	-2.29	2.88	1013
% Δ _Budget Deficit	http://epp.eurostat.ec.europa.eu/	42.60 (142.00)	-	474.43	935
Δ _Inflation	http://www.cso.ie	0.103 (0.391)	-0.60	1.00	1013
% Δ _Debt	http://data.worldbank.org/	4.239 (8.108)	-9.39	24.63	935
Δ _Current_Account	http://www.cso.ie	215.84 (1645.97)	-2797	3574	935

APPENDIX II: Robustness Checks

Table II.1: VAR Estimates for Δ Irish Bond Yields (I-IV), PIIGS Usage/Credit Events (V-VI)

	I (Yield DV)	II (PIIGS DV)	III (Yield DV)	IV (PIIGS DV)	V (Usage DV)	VI (Credit DV)
L.PIIGS Usage	0.0011	0.4386**	0.0037**	0.5398**	0.4810**	0.0022
(Z-stat)	(1.09)	(13.06)	(3.96)	(17.97)	(16.04)	(1.12)
L2.PIIGS Usage	0.0030**	0.2037**			0.2973**	0.0008
(Z-stat)	(2.55)	(6.08)			(10.04)	(0.44)
L. Δ Yield Spread	0.1322**	1.522	0.1508**	2.8659**		
(Z-stat)	(3.61)	(1.34)	(4.15)	(2.45)		
L2. Δ Yield Spread	0.0461	1.1454				
(Z-stat)	(1.28)	(1.00)				
PIIGS Rating Event	0.0123	0.7262	0.0147	0.2780		
(Z-stat)	(0.73)	(1.37)	(0.85)	(0.50)		
L.PIIGS Rating Event	0.0218	1.4980**	0.0253	1.9753**	2.5384**	0.0398
(Z-stat)	(1.29)	(2.80)	(1.42)	(3.45)	(5.21)	(1.26)
L2.PIIGS Rating Event	0.0303†	-1.0088†			-0.7790	0.0178
(Z-stat)	(1.81)	(-1.89)			(-1.58)	(0.56)
Ireland Rating Event	0.0324	-0.5041	0.0355	-0.3220		
(Z-stat)	(1.18)	(-0.55)	(1.16)	(-0.33)		
L.Ireland Rating Event	0.0356	0.4781	0.0333	0.4728		
(Z-stat)	(1.20)	(0.51)	(1.06)	(0.47)		
L2.Ireland Rating Event	0.0209	-0.6794				
(Z-stat)	(0.68)	(-0.70)				
Risk Aversion	0.0833**	-2.2516**	0.0779**	-3.0931**		
(Z-stat)	(3.06)	(-2.61)	(2.74)	(-3.39)		
Δ Unemployment	0.0079†	0.5626**	0.0127**	0.8000**		
(Z-stat)	(1.73)	(3.86)	(2.68)	(5.26)		
Δ Budget Deficit	-0.0000	0.0023*	-0.0000	0.0024*		
(Z-stat)	(-0.12)	(2.15)	(-0.35)	(2.14)		
Δ Inflation	-0.0034	0.6323†	0.0024	1.0029**		
(Z-stat)	(-0.30)	(1.74)	(0.20)	(2.64)		
Δ Debt	-0.0002	-0.0823**	-0.0007	-0.1183**		
(Z-stat)	(-0.30)	(-4.19)	(-1.03)	(-5.76)		
Δ Current Account	-0.0000	0.0001	0.0000	0.0001		
(Z-stat)	(-0.35)	(1.02)	(0.05)	(1.21)		
Constant	-0.1098*	5.8321**	-0.0753	7.9129**	0.9569**	0.0460**
(Z-stat)	(-2.13)	(3.57)	(-1.40)	(4.58)	(5.78)	(4.30)
N=	755	755	774	774	1011	1011
R ²	0.1258	0.5581	0.1222	0.5246	0.5371	0.0069
(Prob. > χ^2)	0.0000	0.0000	0.0000	0.0000	0.0000	0.1357

†Significant at 10% level, *Significant at 5% level, ** Significant at 1% level.

Table II.2: Bivariate Granger Causality

DV	Excluded		
	Δ_Bond_Yield	PIIGS_Usage	PIIGS Ratings
PIIGS Usage			
χ^2	3.326		29.154
(Prob. > χ^2)	(0.190)		(0.000)
PIIGS Usage (mod)			
χ^2	6.014		
(Prob. > χ^2)	(0.014)		
$\Delta_Bond_Yield_Spread$			
χ^2		17.319	
(Prob. > χ^2)		(0.000)	
$\Delta_Bond_Yield_Spread(mod)$			
χ^2		15.69	
(Prob. > χ^2)		(0.000)	