Electoral Volatility in Old and New Democracies:
Comparing Causes of Party System Institutionalisation

By
Benjamin Rowe Jones

Submitted to
Central European University
Department of Political Science

Central European University

In partial fulfilment of the requirements for the degree of
Masters of Arts

Supervisor: Zsolt Enyedi

Budapest, Hungary
(2012)
Abstract
Although interest in party system institutionalisation remains high within the discipline, few scholars have considered what factors may or may not contribute to this phenomenon. This paper attempts to fill this gap in examining the causes of party system institutionalisation through both statistical and case study analyses. Based on the most extensive data assembled, this study finds that contrary to the findings of much of the traditional literature on party system institutionalisation, age of democracy does not play a determining role. Instead, we find that the period in which democratisation took place is the decisive factor, with those democracies inaugurated in earlier periods experiencing a significantly lower level of electoral volatility than those regimes inaugurated more recently. Additionally, the most original finding of the paper is that unlike parliamentary or presidential regimes, semi-presidential regimes serve to undermine party system institutionalisation causing a significant increase in electoral volatility. Finally, this paper also provides an in depth case study of the Brazilian party system concluding that alongside the historical legacy left by twenty years of military rule, party system stability has been hampered by both institutional and elite-driven factors.
**Acknowledgements**
I would like to thank my supervisor Zsolt Enyedi for his support and wise guidance throughout this project. I am also grateful for the generosity shown by Scott Mainwaring, Eleanor Neff Powell and Joshua Taylor in sharing their data with me. Finally, I would like to thank Levente Littvay for his patience and insightful comments. Without these contributions this thesis would not have been possible.
Table of Contents

ABSTRACT .................................................................................................................................................. I

ACKNOWLEDGEMENTS ......................................................................................................................... II

TABLE OF CONTENTS .......................................................................................................................... III

LIST OF TABLES ....................................................................................................................................... V

LIST OF FIGURES ..................................................................................................................................... VI

LIST OF ABBREVIATIONS ..................................................................................................................... VII

1 INTRODUCTION ...................................................................................................................................... 1

2 PARTY SYSTEMS .............................................................................................................................. 4

2.1 What is a Party System? ................................................................................................................ 4

2.2 Why do they Matter? ...................................................................................................................... 5

2.3 What is Institutionalisation? ........................................................................................................... 6

2.4 Party System Institutionalisation .................................................................................................. 6

2.5 Causes of Party System Institutionalism – The State of the Art ...................................................... 7

DESIGN, DATA, AND HYPOTHESES ................................................................................................. 11

3.1 Mixed-Methods ................................................................................................................................... 11

3.2 Operationalisation .......................................................................................................................... 12

3.3 Dependent Variable ........................................................................................................................ 13

3.4 Measurement ..................................................................................................................................... 15

3.5 Dataset .............................................................................................................................................. 16

3.6 Independent Variables and Hypotheses ....................................................................................... 17

3.6.1 Volatility and Time ...................................................................................................................... 17

3.6.2 Volatility and the Economy ....................................................................................................... 20

3.6.3 Volatility and Fragmentation ..................................................................................................... 21

3.6.4 Volatility and Regime Type ....................................................................................................... 23

3.6.5 Volatility and Education ........................................................................................................... 25

4 RESULTS AND FINDINGS .............................................................................................................. 27

4.1 Ranges .............................................................................................................................................. 28
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2 Trends over time</td>
<td>30</td>
</tr>
<tr>
<td>4.3 Volatility in Order</td>
<td>34</td>
</tr>
<tr>
<td>4.4 Regime Type</td>
<td>36</td>
</tr>
<tr>
<td>4.5 Education</td>
<td>37</td>
</tr>
<tr>
<td>4.6 Fragmentation</td>
<td>37</td>
</tr>
<tr>
<td>4.6 Bivariate Correlation Analysis</td>
<td>38</td>
</tr>
<tr>
<td>4.7 Multivariate Regression Analysis</td>
<td>41</td>
</tr>
<tr>
<td>4.8 Multi-level Regression Analysis</td>
<td>47</td>
</tr>
<tr>
<td>4.9 Discussion</td>
<td>49</td>
</tr>
<tr>
<td>5  CASE STUDY</td>
<td>59</td>
</tr>
<tr>
<td>6  CONCLUSIONS</td>
<td>68</td>
</tr>
</tbody>
</table>
List of Tables

Table 1 – Average volatility by group
Table 2 – Volatility ranges by group
Table 3 – Average volatility by election number
Table 4 – Average volatility by election number group 4
Table 5 – Highest average volatility by country
Table 6 – Lowest average volatility by country
Table 7 – Determinants of average electoral volatility
Table 8 – Determinants of electoral volatility by single election
Table 9 – Determinants of electoral volatility random intercepts model
Table 10 – Correlations of electoral volatility between elections
Table 11 Position of the Parties in Executive and Legislative Office (%)
List of Figures

Figure.1 – Average volatility by election number

Figure.2 – Average volatility by election number for Groups 1, 2, and 3

Figure.3 – Average volatility by election number Group 4

Figure.4 – Average volatility by election number Group 4b

Figure.5 – Average school life expectancy (years)

Figure.6 – Average ENP

Figure.7 – GDP per capita and electoral volatility scatter plot

Figure.8 - Cooks distance for model 1

Figure.9 - Party shares Rio de Janeiro delegation to Chamber of Deputies 1982 – 2002
List of Abbreviations
AREN – Aliança Renovadora Nacional
MDB – Movimento Democrático Brasileiro
NIMD – Netherlands Institute for Multiparty Democracy
PRN – Partido da Reconstrução Nacional
PSD – Partido da Social Democracia Brasileira
PTB - Partido Trabalhista Brasileiro
1 Introduction
Political parties play a crucial role in aggregating individual citizens’ interests and passions into collective demands to the extent that to discuss democracy without political parties is ‘unimaginable’ (Weber), ‘unthinkable’ (Schattschneider) and ‘unworkable’ (Aldrich) (Cited in Hale, 2006, p.1). Furthermore, parties, and by extension party systems, help shape the political landscape (Mainwaring & Scully 2005 p.3); ensure the organisation of government, and maintain democratic accountability (Bartolini and Mair 2001 p.328). A well functioning and institutionalised party system, therefore, is an important and valid measure of democratic consolidation (Sartori 1990 p.317; Ágh 1998 p.206). Many leading democratic theorists argue that a well-institutionalised party system not only helps democracies operate but also ensures legitimacy, accountability and stability, thereby constituting an essential requirement of modern democracies (Mainwaring & Scully 2005 p.1; Mair 1997 p.199; Kitschelt 2001 p.317). Consequently the study of party system institutionalisation is particularly salient in new or struggling democracies.

Although party system institutionalisation is an area of political science that has at times sparked vibrant and heated debate, particularly in the last decade (Mainwaring & Zoco 2007 p.155), the causes of party system institutionalisation have often been overlooked (Casal Bétoa 2010 p.1; Mainwaring & Zoco 2007 p.156). Given the wide divergences in levels of institutionalisation across geographical regions; across countries with similar experiences of democracy; and across countries with similar levels of economic development, it would seem as if a more robust analysis of the factors that can contribute to successful party system institutionalisation may well provide a fruitful area of research.

This paper re-evaluates the findings of the handful of previous studies into the causes of party system institutionalisation, whilst also providing a unique contribution to the literature in several respects. It ties together a number of heretofore unconnected strands of analysis and in
doing so provides a more robust basis upon which conclusions can be drawn. It has also established a new benchmark for subsequent comparative analyses of the causes of party system institutionalisation. The analysis is applied to a much wider range of cases than has been considered previously (in terms of number, region, experience with democracy, and levels of economic development). Previously Mainwaring and Zoco’s 2007 article, *Political Sequences and the Stabilization of Interparty Competition*, was unique in analysing causes of party system institutionalisation in forty-seven countries; this study extends this figure by twenty-one cases, including a much more diverse range of new democracies, with a particular emphasis on those that underwent transition in the 1990s. This wider range of cases suggests that my findings are not due to sample selection bias and further indicates that the causes I find to be significant in explaining levels of party system institutionalisation in new democracies can be more widely inferred. Secondly, this study further substantiates the ‘period effect’ thesis (Mainwaring & Zoco 2007 p.166) by including a fourth wave of democratisation within the analysis (those countries that experienced democratic transition in the 1990s). This finding suggests that those democracies that inaugurated in earlier periods experience a significantly lower level of electoral volatility than those regimes inaugurated more recently, even when controlling for a number of variables hypothesised to influence party system institutionalisation.

Arguably the most original finding of this study is that regime type can play an important role in determining the level of electoral volatility experienced by a country, but not in the manner typically hypothesised in much of the literature. The results of both the multivariate and multi-level regression show that neither parliamentary or presidential regime types influence levels of electoral volatility. Instead, semi-presidential regimes are shown to produce particularly low levels of party system institutionalisation.
Finally, this study is novel in finding that neither level of education nor GDP produce any change in levels of party system institutionalisation. This contradicts the previous findings of several important studies. However, given the size and diversity of the data included in my study, I have good reason to believe that my findings here are robust and therefore call into question the conclusions drawn by the previous literature.
2 Party Systems

2.1 What is a Party System?
There has been much debate about what exactly constitutes a party system and more particularly, how to clearly distinguish party systems from political parties (Randall and Svassand 2002). As Lewis notes, “party systems have been singled out as being a particularly enigmatic element in the study of contemporary democracy (Lewis 2006 p.566). Traditionally, party systems have been classified simply by counting the number of parties partaking in electoral competition, normally contrasting between two-party governments, traditionally characterised by the UK and the US, and multi-party governments, characterised by France and other mainland European democracies (Duverger 1954). In recent years, however, theorists have endeavoured to move away from this definition, finding the “confusion and profusion of terms” (Macridis 1967 quoted in Sartori 1990 p.317) that have emerged in the literature unable to deal with the subtle differences between party systems across the globe (See Mair 1997 Chapter 9 for a more detailed discussion of this topic). As Sartori famously argued, when analysing party systems “a judgement as to the number of major parties…obscures more than it illuminates” (1990 p.316). If not numerically, how then can we adequately define a party system?

In recent years a more synthetic definition of what constitutes a party system has been developed. For the Netherlands Institute for Multiparty Democracy it is the parties themselves that provide the ‘parts’ of the party system. That is, “each party forms part of a larger whole, where it interacts with at least another political party, and often with more, according to existing laws and electoral rules” (NIMD 2004 p.14). They further suggest that party systems define the structure of competition in a state, and, if it is a stable system, promote more effective governance (NIMD 2004 p.14). In their highly respected 1995 work on party systems in Latin America, Mainwaring and Scully define party systems “as the set of
patterned interactions in the competition among parties” (1995 p.4). It is this idea of interactions, and most importantly patterns of competition between parties (Sartori in Mair 1997 p.203) that has come to define party systems within the literature. For Peter Mair for example, party systems are constituted by their structures of competition, and the best strategy when trying to make sense of those structures of competition is to focus on the competition for government (Mair 2007 p.3). Given the wide application of this definition in the literature, it will be employed throughout my analysis.

2.2 Why do they Matter?
As suggested in my introductory remarks, well-institutionalised party systems are an important if not essential requirement for a functioning democracy, and a key measurement criterion for democratic consolidation. There are several benefits to a well-institutionalised party system suggested in the literature, the most notable being the strong correlation between an institutionalised party system and democratic accountability. It is suggested that unlike in inchoate party systems in which actors pursue their own short-term objectives unpunished by the electorate, well-institutionalised party systems with their low level of electoral volatility allow citizens to form long-term relationships with parties, holding them to account for their actions over many years and several elections (Rose & Mishler 2010 p.802; Mainwaring & Scully 1995 p.25). Additionally, on the supply side, fluctuating support means that parties are unable to make the long-term policy commitments necessary for continuous development (Tavits 2005 p.238). Furthermore, inchoate party systems encourage personalism, with candidates more likely to pursue crowd-pleasing measures over enduring policy goals. Finally, Mainwaring and Scully suggest that due to this emphasis on personalism in inchoate party systems, political actors are less constrained by parties and therefore more likely to ‘violate the rules of the game’, potentially undermining democratic legitimacy (1995 p.22).
2.3 What is Institutionalisation?
Firstly, in order to measure levels and causes of institutionalisation, we must define what is meant when we refer to ‘institutionalisation’. As Casal Bétoa argues, “we can only speak of institutionalization when we are able to define what it is that has been institutionalised” (2010 p.4). The vast majority of the literature concerning institutionalisation makes use of Huntington’s definition that an institution becomes institutionalised when it is seen as ‘stable’ (1968 p.12); that is, an institution that is firmly established and unlikely to change in an unpredictable manner. This definition has been effectively employed by many scholars within the discipline including Mainwaring and Torcal (2006), Levitsky (1998), Birnir (2005), and Hicken and Kuhonta (2011). Given its parsimony and salience in the literature, it is the definition of institutionalisation that will be employed in this paper.

2.4 Party System Institutionalisation
In keeping with Huntington’s 1968 definition presented above, stability in a broad sense is also the key measure of the level of party system institutionalisation. Mainwaring and Scully argue that stability is the most important measurement of party system institutionalisation, suggesting that, “patterns of party competition must manifest some regularity… A venue in which major parties regularly appear and then just as quickly evaporate is not characteristic of an institutionalised party system. Where such stability does not exist, institutionalisation is limited” (1995 p.4). Additionally, they suggest that within institutionalised party systems, party organisations play an important role and are not marginalised to the whims of ambitious leaders (1995 p.5), that is, party organisations are considered independently of their leaders and not merely as electoral vehicles for personal success. Mair and Bétoa suggest that party systems become institutionalised when “patterns of interaction among political parties become predictable and stable over time (2010 p.3). Here we can see that along with stability, they place a high importance on predictability. In his earlier work, Mair has suggested that
without predictability, citizens are unable to crystallise their political identities (1997 p.182) and form lasting bonds with particular parties, *sine qua non* if parties are to perform their task of aggregating and representing citizens’ interests. I however would suggest that in this case stability and predictability are one and the same phenomenon. The fact that citizens are able to form lasting bonds with parties is in itself an indicator of stability – i.e. do the same parties repeatedly contest elections, and do a similar number of citizens consistently vote for the same parties? Furthermore, due to the fact that both Mair’s and my own analyses rely on past data, it would seem incongruous to suggest that we can therefore analyse the predictability of a party system. For these reasons, in this paper I will employ the Mainwaring and Scully understanding that indicates a party system is institutionalised when party competition is stable and manifests some regularity.

Finally, it is important to stress that party system institutionalisation is not a dichotomous variable that distinguishes between institutionalised and inchoate party systems, but should rather be seen as a continuum. As Mainwaring and Scully argue, institutionalisation is not a linear process, that is, as time progresses some party systems will become more institutionalised while some will become less so (1995 p.6).

**2.5 Causes of Party System Institutionalism – The State of the Art**

As mentioned above, there has been a distinct lack of research into what influences party system institutionalisation and why we are able to observe such high levels of variation across countries that are in many other ways similar (Casal Bertoa 2010 p.1; Mainwaring & Zoco 2007 p.156). Given the importance of a well-institutionalised party system, it would appear as if more in depth study of the causal mechanism behind this phenomenon has been mistakenly overlooked. We should note however, that increasingly there have been a growing number of important and insightful studies into this causal mechanism. Unfortunately, they have resulted in somewhat conflicting findings. Traditionally, those factors that considered to affect party
system institutionalisation have been predominantly found within the institutional and political arenas (Bartolini and Mair 1990; Birch 2003; Dalton et al. 2000; Lachat 2007; Roberts and Wibbels 1999; Tavits 2005, 2008). Simply, low levels of institutionalisation are seen as an inevitable growing pain of democracies. In the years following democratic transition, parties are notoriously weak and unable to foster more than superficial ties with the population as they struggle to organise themselves into robust movements with cogent platforms (Ferree 2010 p.764; Rose & Mishler 2010 p.802). Given this logic, length of time since democratic transition (often by geographical region) is often assumed to be the most powerful determinant of party system institutionalisation. Secondly, party system theorists as far back as Sartori have argued that the number of parties within an electoral system will be positively correlated with levels of party system institutionalisation (Dassonneville and Hooghe 2011 p.8) due to the overlapping of policy space and the inevitable similarities between parties. Voter turnout has been a cause of some debate in the literature with theorists traditionally arguing that low levels of electoral turnout suggest that parties are failing to effectively engage with citizens, therefore signifying low levels of institutionalisation. However, on the other hand, there may also be reason to expect the opposite, that is, higher levels of turnout within a country to result in higher levels of party system instability due to the fact that “in elections with a lower turnout… only the strong partisans and therefore stable voters take part” (Bartolini and Mair 1990; Birch 2003 quoted in Dassonneville and Hooghe 2011 p.8).

In some studies economic, socio-structural and person-level variables such as level of education or levels of religious sentiment have also been found to influence levels of party system institutionalisation. In terms of economic factors, evidence suggests that due to the fact that voters retrospectively hold their governments accountable for economic performance, changes in the economy and poor levels of economic development will be with instability in
the electoral arena and consequently lower levels of party system institutionalisation (Roberts and Wibbels 1999, Tavits 2005 quoted in Neff Powell & Tucker 2009 p.18). High levels of education and the growth of mass media (particularly television), are also thought to contribute to lower levels of party system institutionalisation due to the process of ‘cognitive mobilization’ (Dalton 1984; Inglehart 1970; Shiveley 1979) and the consequent reduction in the need for parties to provide cognitive shortcuts when voting (Dassonneville and Hooghe 2011 p.9). Finally, similar to the argument in favour of turnout, Bartolini and Mair (1990) notably found that alternations in the size of the electorate could have a negative effect on party system institutionalisation with high levels of unpredictability in the electoral arena. As Dassonneville and Hooghe comment, “if, for example, there is a newly franchised population, or a dramatic change in turnout, these new voters may have different preferences, which could dramatically change a country’s aggregate election results” (2011 p.12).

Recently, a new group of independent variables has been found to have significant effects on the level of party system institutionalisation. Casal Bétoa (2010) for instance, has investigated causes of party system institutionalisation in East Central European democracies (sample includes the Czech Republic, Hungary, Poland and Slovakia) finding that the level of party institutionalisation, party fragmentation, and type of regime (parliamentary vs. semi-presidential) were the strongest determinants. Conversely, Ferree’s 2010 analysis of 36 African states finds that the most powerful factor in determining levels of party system institutionalisation is ethnic homogeneity of a country, with those countries with one, and only one, majority ethnic group having less volatility than those countries with no majority group or countries with multiple nested majority groups (p.778). Similarly, for Madrid (2005), the most important determinant in Latin America is ethnic composition with countries that possess large indigenous populations more likely to witness poorly institutionalized party
systems as indigenous citizens repeatedly shift their vote to unstable, new parties (p.1).

Finally, Mainwaring and Zoco (2007) importantly argue that it is not the length of time since democratic transition that is the key determinant, but rather the period in which democracy was introduced and the societal role parties played in this period (p.155).

My analysis will consider both the most recent findings and the more traditional causes of party system institutionalisation with both political and institutional and economic, socio-structural and person-level variables analysed.
Design, Data, and Hypotheses

3.1 Mixed-Methods
My research will employ a ‘mixed-methods’ approach as advocated by Lieberman (2005), Verba (1994), and Collier (2004) amongst others. I will first utilise a large-N statistical analysis (LNA) correlating a variety of independent variables (those that have been suggested in the literature as playing a causal role in party system institutionalisation) with my dependent variable (electoral volatility) that will serve as a proxy for party system institutionalisation. I will also run bivariate, multivariate linear regression and multi-level regression. Following this, I will provide an in depth case study focussing on one of the divergent cases from the statistical analysis. This will provide a more nuanced examination of the statistically significant causes and consider more closely the role that path dependency can play in determining party system institutionalisation.

There are several advantages to the nested analysis approach. In simple terms, it is possible to synthesise the advantages of both intensive case-study analysis with those of a broader statistical approach. Furthermore, we are able to use the statistical analysis to better select and justify the relevant cases for the more detailed case-study (Lieberman 2005 p.435) section. This will ensure that the much-needed analytical rigour essential in contemporary social science research is present. As Lieberman argues, “this integrated strategy (nested analysis) improves the prospects of making valid causal inferences in cross-national and other forms of comparative research by drawing on the distinct strengths of two important approaches” (Lieberman 2005 p.435). Unlike a research design based solely around an intensive analysis of few cases, a mixed methods approach avoids the problems of selection bias, lack of systematic procedures and inattention to rival explanations (Achen and Snidal 1989; Geddes 1990; King, Keohane, and Verba 1994 quoted in Liberman 2005 p.435). Similarly in applying an intensive analysis of a small number of cases we will be more likely able to, “answer those
questions left opened by the LNA (Large-N analysis) – either because there were insufficient data to assess statistical relationships or because the nature of the causal order could not be confidently inferred” (Lieberman 2005 p.440).

3.2 Operationalisation
The operationalisation of party system institutionalism has proven to be a contentious topic within political science with no unifying method being established and few innovations being developed in recent years (Casal Bértola & Enyedi 2010 p.6). In their classic work Building Democratic Institutions: Party Systems in Latin America (1995), Mainwaring and Scully for example analysed party system institutionalisation through two variables: regular patterns of inter-party competition (measured via Pedersen’s index of volatility) and strong party roots in society (measured by comparing presidential vote compared with lower-chamber seats) (pp.6-10). An alternative operationalisation, that suggested by Peter Mair, (2001, 2007) has also been well received within the discipline, having been employed in various forms by a large number of scholars including Toole (2000); Linz (2001); Müller and Fallend (2004); O’Dywer (2004); and Rybář (2004) (in Casal Bértola & Enyedi 2010 p.15). Mair’s operationalisation focuses on three (sometimes four) distinct areas of the party system: Frequency of change, alternation in government, innovation in government and access to government (Mair and Bértola 2010 p.3). One of the key strengths of this operationalisation it employs numerical indicators that allow for more rigorous, logical and systematic cross-country and cross-region comparisons (Lieberman 2005 pp.435-436). There are however certain drawbacks associated with the Mair approach. It remains unclear as to how the three (sometimes four) indicators relate to each other, that is whether they specify a unidimensional concept, or not (Enyedi & Casal Bértola 2010 p.11). Additionally, the weighting of the indicators remains unclear with Mair seemingly suggesting that the three (and sometimes four) indicators are of completely equal importance. Finally, a distinct weakness of the Mair
approach is that in its original form at least; it does not provide a nuanced understanding of a party system due to its reliance on dichotomous variables (see Enyedi & Casal Bétoa 2010 for a more detailed discussion on this topic).

3.3 Dependent Variable
Although there are several strengths associated with Mair’s schema for party system institutionalisation, given the scope of this research, difficulties in acquiring adequately comprehensive data, and the large number of cases that will be analysed I will focus on just one aspect of party system institutionalisation: the degree to which democratic political regimes develop stable patterns of party competition (Mainwaring and Zoco 2007 p.156), in particular, competition for government. In order to measure this phenomenon, I will consider electoral volatility trends for the countries within the dataset.

There has been much debate within the literature as to whether electoral volatility is an appropriate measurement criterion of party systems institutionalisation (Tavits 2008; Enyedi & Casal Bétoa Forthcoming) and therefore the decision to focus on solely on this variable requires a certain amount of justification. These justifications fall into two distinct categories: theoretical and mechanical.

Before considering the theoretical justifications for employing electoral volatility as the dependent variable in this study, it is worth again specifying exactly what we mean when we refer to a party system, and furthermore, how we should define a well-institutionalised party system. As above, when analysing party systems we are explicitly concerned with the “structure of inter-party competition, and especially the competition for government”, what Sartori refers to as the ‘mechanics’ of the system (Mair 1997 p.206). We would therefore
expect party system institutionalisation to consider to what extent the competition for government is stable or not. As discussed above, the minimum criteria for party system stability is that parties repeatedly contest elections and are thereby able to build stable bases of support and establish party labels that “have some value independent from the appeal of the parties’ present leaders, issue positions, record and scandals” (Toka 1998 p.590). Measuring levels of electoral volatility will be able to examine whether this phenomenon is in fact occurring. As Tavits argues, “a high level of electoral volatility, the argument goes, indicates that large parts of the electorate have not developed loyalty towards any of the existing parties” (Tavits 2008 p.540). Similarly, on the supply side, analysis of electoral volatility will provide information on elite support for party democracy, with high levels of electoral volatility suggesting that there is “no positive payoff on sticking to a currently unpopular party label” (Toka 1998 p.590), further undermining stable patterns of competition.

The strongest mechanical justification for the use of electoral volatility is that there is near uniform consensus across the discipline on how it should be measured using the well known Pedersen Index of Volatility (1979). This index provides a numerical score for each election allowing for easy interpretation and the possibility for comparing and contrasting cases in a theoretically meaningful way (Pedersen 1979 p.4). As Dassonneville and Hooghe argue, “the parsimony of the Pedersen Index is much appreciated and it is therefore often used to give insight on trends over time and differences between countries” (Lane and Ersson 2007 in Dassonneville and Hooghe 2011 p.6). Additionally, several political scientists have previously used electoral volatility effectively as a proxy variable for levels of party system institutionalisation. Mainwaring and Zoco (2007), Erik Lane (2008), Ferree (2010) Dassonneville and Hooghe (2011), Neff Powell and Tucker (2009) and Drummond (2006) amongst others have all produced insightful and convincing analyses, avoiding the inevitable
complications that emerge when weighing several indicators of a particular phenomenon. Furthermore, this also means that any findings that result from this study will be directly comparable with findings of other scholars previously allowing for a more nuanced understanding of the phenomenon.

It is important to note however, that some electoral volatility is not necessarily a negative for democracy. While high levels of volatility undoubtedly undermine the essential role that parties must play, a certain level of volatility is considered to be necessary for the proper functioning of democracy in order to stave off political *immobilisme* (Toka 1998; Drummond 2006; Granberg and Holmberg 1990; Lane and Ersson 2007).

3.4 Measurement
In order to measure volatility I will employ the widely known Pedersen Index of Volatility originally published in his path-breaking 1979 work *The Dynamics of European Party Systems: Changing Patterns of Electoral Volatility*.

The formula is as follows where n is number of parties and pi represents the percentage of votes received by that party in time periods t and t + 1 (Neff Powell and Taylor 2009 p.1).

\[
\text{Volatility} = \frac{\sum_{i=1}^{n} |p_i(t) - p_i(t+1)|}{2}
\]

For example, suppose that there are three parties (A, B, and C) contesting an election. Party A receives 40% of the vote, Party B receives 40% of the vote and Party C receives 20% of the vote. At the subsequent election Party A receives 60% of the vote, Party B 40%, and Party C goes out of business. The total volatility therefore will be \((|60-40| + |40-40|+|20-0|)/2 = 20\%\) (adapted from Toka 1998 p.590).
Put simply, “the less each party’s vote changes from one election to the next, the greater the degree of institutionalisation” (Rose & Mishler 2010 p.808) with those party systems experiencing high or fluctuating levels of electoral volatility considered to have inchoate or poorly institutionalised party systems.

3.5 Dataset
The electoral volatility figures that make up the dependent variable in this study come from two distinct sources. Firstly, from the work of Scott Mainwaring, in particular the dataset created for his 2007 paper written alongside Edurne Zoco, *Political Sequences and the Stabilization of Interparty Competition*, and secondly from the from the dataset created for Eleanor Neff Powell and Joshua Aaron Tucker’s (2009) *New Approaches to Electoral Volatility: Evidence from Postcommunist Countries*. The completed dataset contains information on electoral volatility in 68 countries and 633 elections. The countries contained in the dataset are strikingly diverse in terms of history, experience with democracy and economic development. The dataset includes a range of countries from Western Europe, Central Europe, Eastern Europe, North and South America, South Asia, Australasia, the Middle East and Africa. All countries within the dataset received Polity scores of at least 2 or higher throughout the period under analysis.

In order to ensure comparability and in keeping with previous literature on the subject of electoral volatility (Dassonneville and Hooghe 2011 p.13; Lijphart 1994 p.3), the analysis will contain results solely from parliamentary elections. In the case of a two-chamber parliament, I will consider the vote shares in the lower house only. Additionally, in order to ensure I am analysing underlying causal factors, and not “the impact of disruptive events like the Depression of the 1930s or World War II” (Pedersen 1979 in Dassonneville and Hooghe 2011

---

1 For the complete dataset please contact jones_benjamin@student.ceu.hu
2 Please see appendix for full list of countries included in the dataset
3.6 Independent Variables and Hypotheses

3.6.1 Volatility and Time
As presented above, although it has been much debated, the general consensus within the discipline is that older democracies, that is, those countries that witnessed their first democratic elections in either the first or second-waves of democratisation, will experience lower levels of volatility than newer democracies. The simple logic being that volatility is something that takes time to settle to ‘normal’ levels as the electorate acclimatise to electoral politics and form durable relationships with particular parties. We may therefore hypothesise that number of years since the first democratic election in a country may well be a powerful determinant of party system institutionalisation. Similarly, scholars have also compared number of elections experienced by country (Converse 1969), arguing that as the number of elections increases, citizens are better able to determine which parties provide a realistic long-term electoral option. We would therefore expect that as the number of elections increases, electoral volatility will decline and the party system will be seen as more institutionalised.

Mainwaring and Zoco, however, contend that it is not length of time since democratisation or number of elections experienced by an electorate that is the determining factor when measuring levels of party system institutionalisation, but rather the period in which democratisation took place (2007 p.155). In their 2007 paper, the authors found convincing evidence that even when controlling for several other factors though to affect electoral volatility, competitive regimes that democratised in earlier periods have much lower electoral volatility than regimes inaugurated more recently (Mainwaring & Zoco 2007 p.156). These findings support the ‘period effect’ thesis which holds that in those countries that democratised earlier, parties played a more defined role in society, mobilising citizens and
creating social networks, which in turn resulted in strong allegiances over many years and several generations. Furthermore, the ‘period effect’ thesis holds that in those countries that democratised in later periods parties have played a significantly less important in role in society, failing to develop the strong identities that they did in early democracies (Mainwaring & Zoco 2007 p. 166).

Given the strength of this argument and its salience in the literature I believe it justifies further study. Consequently, I will split my sample into four distinct groups (as opposed to the three groups studied by Maiwaring and Zoco) according to Samuel Huntington’s ‘Waves of Democracy’ (1991 p.14):

Group 1- Old democracies - This includes those countries that democratised during Huntington’s ‘First Wave’ (1828-1942) and have consistently maintained democratic governance since this time. There are 10 countries included in group 1: Great Britain, Iceland, Australia, Canada, Finland, Ireland, New Zealand, Sweden, Switzerland and the USA.

Group 2 – This group includes Second Wave democracies - those countries that democratised during the period 1943 - 1973. Several of these countries had previous experiences with democracy (e.g. Germany pre-WW2), however, democratic elections have only been consistently guaranteed from 1943 onwards. There are 18 countries that make up group 2: Luxembourg, Malta, Austria, Belgium, Botswana, Costa Rica, Denmark, France, Germany, Israel, Italy, Jamaica, Japan, Malaysia, Netherlands, Norway, Sri Lanka and Trinidad and Tobago.

Group 3 – This group is made up of Huntington’s ‘Third Wave’ democracies, that is those countries that transitioned to democracy after 1974 (for the purpose of this paper, this group contains those countries that democratised between 1974-1989). There are 19 countries that
make up group 3: Argentina, Bolivia, Brazil, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Greece, Honduras, India, Mauritius, Mexico, Papua New Guinea, Portugal, Spain, Turkey, Uruguay and Venezuela.

Group 4 – Post 1990 democracies- those countries that were formerly either members of the USSR or former satellite states that transitioned to democracy during the 1990s. There are 21 countries that make up group 4: Albania, Armenia, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia and the Ukraine.

I believe in this case there are strong theoretical reasons to consider groups 3 and 4 separately. Firstly, given the vastly different experiences the countries within the two groups had with political parties prior to democratic transition we may hypothesise that they will institutionalise at different speeds. Furthermore, if we are to conclude that period of democratisation plays a determining role in levels of electoral volatility, this will be a more robust finding if we can show this to be the case over 4 ‘waves’ as opposed to 3.

Given this, the first independent variable I will consider will be:

1) **Period of democratisation** –If the hypothesis that elections in older democracies will have lower levels of volatility is indeed correct, then we would expect to observe a positive correlation in the data if group 1 is coded as 1, group 2 as 2 and so forth.

A further argument, in some ways similar to the above ‘period effect’ hypothesis, that has gathered support within the literature is that volatility will reduce as the number of elections increases. In his classic article, Converse (1969) argued that citizens’ exposure to elections could explain deepening attachment to political parties (in Mainwaring & Zoco 2007 p.161)
and the decreasing likelihood for them to jump between parties. Consequently, due to the low number of elections experienced in new democracies, we should expect them to be more volatile than older democracies where parties have contested a sufficient number of elections to form strong and consistent relationships with a significant number of citizens.

The second independent variable in the analysis therefore will be:

2) **Number of elections** – this variable will simply correlate the number of elections recorded for each country within the dataset with the country’s average volatility. If the hypothesis is correct, we would expect to see a negative correlation, that is, countries that have experienced few elections will have high levels of volatility and vice versa.

### 3.6.2 Volatility and the Economy

Economic performance has also traditionally been seen as a determinant of party system institutionalisation with those countries with higher levels of economic performance witnessing more highly institutionalised party systems. Kramer (1971); Lewis-Beck (1988) and Tufte (1978) have suggested that voters retrospectively punish or reward incumbents according to their successful (or not) management of the economy. Economic hardship therefore (often measured by GDP PPP), can be assumed to increase volatility by, “undermining established political loyalties, increasing anti-incumbent voting, and encouraging voters to support new electoral alternatives” (in Roberts & Wibbels 1999 p.577). Furthermore, several studies have previously shown economic development to be a strong determinant of electoral volatility with Mainwaring and Torcal (2006) suggesting that per captia GDP was able to account for 60.6% of variance in volatility scores (significant at .000).

Given this, the third independent variable I will consider will be as follows:
3) GDP per capita PPP previous election year, (Current International $1000) – this variable will consider the GDP per capita PPP ($1000) figure for each country in my dataset for the previous election year. PPP GDP considers gross domestic product converted to international dollars using purchasing power parity rates with an international dollar having the same purchasing power over GDP as the U.S. dollar has in the United States. The strength of this indicator is its easy availability and the fact that it allows for direct comparison between countries. The data is available from the World Bank website (http://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD). The data is available for all countries within the dataset form 1980 onwards except for Montenegro (from 2001) and Serbia (from 2003 onwards). The dataset therefore contains information for 407 of 633 elections. The variable will consider the GDP PPP $1000 for the previous election year due to the fact that economic voting is suggested to be a retrospective action; that is, a judgement based on previous economic management by the government. Given the findings of previous research I expect to see a negative correlation here, that is as GDP per capita PPP increases electoral volatility decreases.

3.6.3 Volatility and Fragmentation
Levels of fragmentation (measured using Laakso and Taagepera’s Effective Number of Parties measure) has also been found to play a determining role in levels of party system institutionalisation with low levels of fragmentation allowing for a small number of interactions between parties. The study of fragmentation, and particularly of the number of parties competing within a party system has long been a subject of debate within party literature with Sartori famously contending that, “the number of parties immediately indicates, albeit roughly, an important feature of the political system: the extent to which political power is fragmented or non-fragmented, dispersed or concentrated” (Sartori 1990
The dominant strand in the literature suggests that two party systems and the least fragmented multi-party systems tend towards moderate centripetal competition in which electoral alternatives are well-known and consistently present (Mair 1997 p.200) resulting in low levels of electoral volatility and high levels of party system institutionalisation. On the other hand, in those party systems with many parties competing there is thought to be greater overlap in terms of programmatic or ideological space with voters therefore more likely to switch from one party to another (Mainwaring & Zoco 2007 p.162).

The fourth variable I will analyse therefore will be as follows:

4) **Level of fragmentation** – Here I will consider the Effective Number of Parties (ENP)\(^3\) for the elections under analysis. Levels of ENP are available for the vast majority of the countries in my dataset from Professor Michael Gallagher’s Election Indices dataset which is available as an online dataset at the following address: [http://www.tcd.ie/Political_Science/staff/michael_gallagher/EISystems/Docts/Election Indices.pdf](http://www.tcd.ie/Political_Science/staff/michael_gallagher/EISystems/Docts/Election Indices.pdf). Put simply, the higher Effective Number of Parties, the greater the distance from a pure two-party system (Jackman 1987 p.410). The data included here provides ENP figures for all countries in my dataset save for Armenia, Bosnia-Herzegovina and Georgia. Data is available for Albania from 2001, Croatia from 2000, Montenegro from 2002, Serbia from 2000 and the Ukraine from 2002. The dataset therefore contains information for 550 of 633 elections. Due to the fact that changes in electoral volatility are seen to be a response to high levels of fragmentation, a retrospective phenomenon, I will consider the relationship between electoral volatility and the effective number of parties that were the product of the previous election. Given the above, I would expect to see a positive correlation in the

---

\(^3\) The measure of the effective number of parties in a given election is calculated using the formula provided by Laakso and Taagepera (1979): \( N = 1/\Sigma v^2_i \), where \( N \) is the effective number of parties, and \( v_i \) is the proportion of votes of the \( i \)th party.
data, that is, low levels of fragmentation will correlate with low levels of electoral volatility (high levels of party system institutionalisation).

3.6.4 Volatility and Regime Type
Regime type is also thought to play an important role in creating a well-institutionalised party system with semi-presidential and presidential systems thought of as more likely to undermine the predictability and stability of the party system than parliamentary systems. There are several reasons for this conclusion. Firstly, in his 1985 work, Juan Linz famously suggests that presidentialism is less likely than parliamentarism to sustain stable democratic regimes (Linz 1985 in Mainwaring and Shugart 1997 p.141) and consequently will result in higher levels of electoral volatility and lower levels of party system institutionalisation. Due to the set term limits within presidential regimes, presidents are given relatively little time to pursue their projects and are therefore often tempted to try to accomplish too much in the time frame (Linz 1985 in Mainwaring and Shugart 1997 p.143). Additionally, it has been argued that presidential systems are more susceptible to political ‘outsiders’ winning the office of chief executive. These outsiders are less likely to be committed to a party platform and less dependent on a party for financial and electoral support. Consequently, these individuals are more likely to govern in a populist manner and undermine party programmes potentially destabilizing the party system and increasing electoral volatility (Linz 1958 in Mainwaring and Shugart). On the other hand, as Samuels and Shugart argue, one would naturally assume that within parliamentary democracies the executive and the legislative branches of political parties will act in unison (2010 p.247).

Consequently, my fifth variable will be:

5) **Type of regime** – Here I will consider the power of each head of state. This will be divided into three categories: Parliamentary, Semi-presidential, Presidential according
to Samuels and Shugart’s schema within their 2010 work *Presidents, Parties, Prime Ministers: How the Separation of Powers Affects Party Organisation and Behaviour* (Data set available at [http://dss.ucsd.edu/~mshugart/samuels-shugart.html](http://dss.ucsd.edu/~mshugart/samuels-shugart.html)). According to Shugart’s operationalisation, a parliamentary regime is one in which “the executive branch consists of a prime minister and cabinet who are collectively responsible to parliament through the confidence mechanism, by which a parliamentary majority may remove and replace the executive between elections” (Samuels & Shugart 2010 p.4). There are 32 examples of parliamentary regimes within the dataset. A presidential regime on the other hand is one in which, “citizens separately elect both the executive and legislative branches of government – usually through direct universal suffrage… an assembly majority cannot remove the head of the executive branch…the executive’s term in office is fixed” (Samuels & Shugart 2010 p.4). There are 16 examples of presidential regimes within the dataset. Thirdly, semi-presidential regimes share similarities with both of the previous regime types: “the separate election of a president who is head of state…a prime minister who is head of government and who is, along with the cabinet, responsible to the assembly majority (Duverger 19080 in Samuels & Shugart 2010 p.5). There are 19 semi-presidential regimes in the dataset. Finally, Switzerland must be considered as a special case in which the, “executive emerges from the legislature but is not accountable to the parliamentary majority” (Samuels & Shugart 2010 p.28). As Switzerland is the only example of this sort in the dataset it is not included when analysing regime type. In light of the theoretical background presented above, I would expect to a positive correlation between the variables if parliamentary regimes are coded as 1, semi-presidential as 2, and presidential regimes as 3.
3.6.5 Volatility and Education

Finally I will consider level of education. This is thought to play an important role in determining electoral volatility due to the fact that well-educated individuals are less likely to rely on political parties for direction. Instead, high levels of education and the pervasion of mass media, particularly television and the internet, mean that political information is available to voters on an enormous scale, removing the importance of partisanship and party loyalty. Put simply, “individuals should be able to abandon rules-of-thumb in favour of more thoughtful deliberation as information costs decline” (Albright 2008 p.248). The consequence is dealignment and a visible increase in electoral volatility. Recently, however, this logic has been robustly challenged by Dalton (2007) who has found strong evidence that in fact, with very few exceptions, greater education and the resulting increase in political knowledge leads to an increase in party attachments (Albright 2008 p.249) and a consequent reduction in electoral volatility.

Given the debate in the literature and in order to provide some further direction, the sixth independent variable I will consider will be as follows:

6) **Average School Life Expectancy** - Here I will consider average school life expectancy as recorded by Unesco’s Global Education Digest 2004 (which is available here for download: [http://www.unesco.org/education/docs/EN_GD2004_v2.pdf](http://www.unesco.org/education/docs/EN_GD2004_v2.pdf)). The strength of this variable is that it allows for direct comparisons between countries and is available for all countries within the dataset. There are limitations with the data, however; Due to the fact that this measure is not revised annually it will be treated as a constant in each country. This would appear to be theoretically justifiable as School Life Expectancy (SLE) is renowned for its stability over time and is often preferred over variables such as school enrolment rates for this reason (see Ram 1998 p.256 for a more detailed discussion on this topic). For most countries the data provided is for
4 Results and Findings
This section of the paper will consider the findings of my analysis. Firstly I will consider
descriptive statistics from my data set before moving on to bivariate, multivariate and multi-
level analyses.

The average volatility across 633 elections in 68 countries is 18.84% with the highest
volatility for a single election being 85.93% in Moldova in 1998 and the lowest being 0.28%
in Malta in 2003. Within group 1, that is the oldest democracies, average volatility remains
below ten per cent at a mere 8.13%, a figure extremely close to the 8.6 per cent found by
Bartolini and Mair to be the average volatility in thirteen Western European countries
between 1885 and 1985 (Mair 1997 p.67). Although this finding would appear to in part
substantiate Mair’s claim that there is no Western European trend towards ‘defreezing’ of the
party system (Mair 1993 p.81), it is worth considering that four of the 10 countries that make
up Group 1 (Canada, New Zealand, Australia and the USA), are in fact not in Western Europe
at all. What this low level of volatility would more accurately suggest is that low levels of
volatility are more likely to be observed in older democracies and not simply in Western
European democracies. The periodisation thesis is further supported when the averages of
groups 2, 3 and 4 are considered. We are able to see a clear directional relationship with
average volatility increasingly markedly as we move from group 1 through to group 4. It is
important to note, however, that these averages are not, of course, accurate for all countries.
In group 1 for instance, Iceland has an average volatility of 17.29%, at times experiencing
elections where volatility has reached 43.23% (1999), far from the group average. Similarly in
group 2, Costa Rica (average volatility 29.86%) and Malta (average volatility 2.35%)
experience volatility that cannot be accurately explained by the group average. The same
phenomenon can be observed with Bolivia in group 3 (average volatility 39.45 per cent) and
Lithuania (average volatility 69.28 per cent) in group 4. In spite of this caveat, the averages
across the four groups does seem paint a clear picture: the earlier the period of democratization, the lower the levels of electoral volatility.

Table 1 – Average volatility by group

<table>
<thead>
<tr>
<th></th>
<th>Average Volatility (%)</th>
<th>N Countries</th>
<th>N Elections</th>
</tr>
</thead>
<tbody>
<tr>
<td>All countries/All elections</td>
<td>18.84</td>
<td>68</td>
<td>633</td>
</tr>
<tr>
<td>Group 1</td>
<td>8.31</td>
<td>10</td>
<td>164</td>
</tr>
<tr>
<td>Group 2</td>
<td>14.47</td>
<td>18</td>
<td>234</td>
</tr>
<tr>
<td>Group 3</td>
<td>21.92</td>
<td>19</td>
<td>143</td>
</tr>
<tr>
<td>Group 4</td>
<td>44.29</td>
<td>21</td>
<td>92</td>
</tr>
</tbody>
</table>

4.1 Ranges
Table 2 – Volatility ranges by group

<table>
<thead>
<tr>
<th></th>
<th>Volatility Lower Range (%)</th>
<th>Volatility Upper Range (%)</th>
<th>% of Elections above 30% Volatility</th>
<th>N Elections</th>
</tr>
</thead>
<tbody>
<tr>
<td>All countries/All elections</td>
<td>0.28</td>
<td>85.93</td>
<td>19.23</td>
<td>633</td>
</tr>
<tr>
<td>Group 1</td>
<td>0.8</td>
<td>43.23</td>
<td>1.2</td>
<td>164</td>
</tr>
<tr>
<td>Group 2</td>
<td>0.28</td>
<td>66.4</td>
<td>8.1</td>
<td>234</td>
</tr>
<tr>
<td>Group 3</td>
<td>0.5</td>
<td>71.95</td>
<td>20.3</td>
<td>143</td>
</tr>
<tr>
<td>Group 4</td>
<td>5.93</td>
<td>85.93</td>
<td>78.3</td>
<td>92</td>
</tr>
</tbody>
</table>

All four groups of countries experienced a wide range of electoral volatility scores during the period studied. Group 1 (old democracies) had volatility scores ranging from 0.8 – 43.23% with 1.2% of the elections considered having a volatility level of above 30%. Interestingly, the range noted here is somewhat wider than the range noted by Bartolini and Mair (1990) for thirteen European countries between 1885 and 1985 in which no elections with volatility scores above 32% were observed. Only two elections experienced volatility levels of above 30%, Iceland in 1999 and Canada in 1993. The second group had volatility scores ranging from 0.28 – 66.4% with 19 (8.1%) of the 234 elections studied seeing volatility levels of.
above 30%. In Group 3 the range of electoral volatility scores widened even further to 0.5 – 71.95% with a 20.3% of the elections in the dataset having a volatility level of above 30%.

Finally, in group 4, that is those countries that transitioned to democracy in 1990s, it is possible to note the widest range of volatility scores 5.93 – 85.93 with a staggering 78.3% of the elections having volatility levels of above 30%. In terms of range-based trends, we can again see a clear directional relationship. Those countries that democratised earlier have experience a narrower range of electoral volatility. Conversely, in the countries that democratised since 1990, it is very difficult to predict the range of volatility at each election.

The upper volatility range tells a similar story. Although the upper range for group 1 is high at 43.23 per cent, if we remove the two outlying cases of Iceland in 1999 and Canada in 1993, the most volatile election falls to 23.26 per cent (Great Britain 1992). As we move through groups 2-4 the upper volatility range increases markedly. Finally, and arguably most importantly, if we consider the column that displays the percentage of elections in each group that experienced volatility scores of over 30 per cent we can again see a very distinct relationship. As mentioned above, only two of the elections in group 1 exceeded the 30 per cent threshold, the Icelandic Parliamentary Election of 1999 which witnessed, “the most radical restructuring of electoral alternatives to occur since the Second World War” (Kristinsson 2000 p.187) with only only two of the six parties receiving seats in the 1995 elections competing (Kristinsson 2000 p.187); and the 1993 Canadian General Election which saw the Conservative party, which up until this point had been the country’s most successful party, effectively erased from the political map (Johnson 1994 p.1). These two elections are undoubtedly outliers, far from the norm within the group. On the other hand, many more elections surpassed the 30% threshold in groups 2,3 and 4. In group 2 for instance, seven of the 18 countries witnessed elections that passed the threshold and in group 3, 12 of the 19 countries witnessed elections in which the volatility broke the 30 per cent barrier. Finally,
every single country in group 4 experienced elections with volatility above 30 per cent with elections in Estonia, Georgia, Lithuania, Macedonia, Poland, Romania, Russia, Slovakia and Slovenia never experiencing volatility below 30%. Given these figures, we can certainly conclude that the party systems across group 4 have been highly unpredictable with a large number of citizens failing to form lasting bonds with particular parties.

4.2 Trends over time
A key theme within the party system institutionalisation and electoral volatility literature is trends over time. That is, does electoral volatility decrease election on election? It would appear as if the data here provides a clear answer to this question—as the number of elections in a country increases, electoral volatility decreases. As we can see below, average volatility across the full sample falls in every subsequent election suggesting that over time, citizens learn which parties can be supported and which can be thrown out, gradually forming stronger bonds with particular parties.

Table 3 – Average volatility by election number

<table>
<thead>
<tr>
<th>First Election Average Volatility (%)</th>
<th>Second Election Average Volatility (%)</th>
<th>Third Election Average Volatility (%)</th>
<th>Fourth Election Average Volatility (%)</th>
<th>Fifth Election Average Volatility (%)</th>
<th>Sixth Election Average Volatility (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.86</td>
<td>25.20</td>
<td>22.97</td>
<td>21.64</td>
<td>18.93</td>
<td>15.22</td>
</tr>
<tr>
<td>N Countries</td>
<td>68</td>
<td>68</td>
<td>68</td>
<td>61</td>
<td>42</td>
</tr>
</tbody>
</table>

This relationship is clearly visible in the graph below
Although this trend seems to be in keeping with some of the literature and goes some way to substantiate the maturation thesis as put forward by Tavits (2005), if we consider disaggregated as opposed to aggregate data, the pattern becomes somewhat less robust. The graph below shows the average volatility by election number for groups 1, 2 and 3. As we can see in group 1, although there is a tendency for volatility to reduce over time, the third, fifth and seventh elections all show increases on the previous levels of volatility. In group 2, again the relationship is not completely clear with electoral volatility seeming to reduce election on election before experiencing a notable rise in volatility following the fifth election. Finally, group 3 is the most unpredictable group without a clear tendency towards reduction suggesting that volatility levels remain unpredictable in these countries.
In group 4, however, the relationship would appear to be clear. Electoral volatility reduces election on election. Although this may not suggest that these countries have graduated from Kitschelt’s trial-and-error period (2001 p.306) to a more settled equilibrium, average volatility at the fifth election remains above 30 per cent, however, it would imply that they are moving in the right direction towards a more predictable party system in which voters are able to form stable relationships with parties.
However, as the table below shows, data for five elections is only available for nine of the 21 countries within this group.

Table 4 – Average volatility by election number group 4

<table>
<thead>
<tr>
<th></th>
<th>First Election Average Volatility (%)</th>
<th>Second Election Average Volatility (%)</th>
<th>Third Election Average Volatility (%)</th>
<th>Fourth Election Average Volatility (%)</th>
<th>Fifth Election Average Volatility (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Countries</td>
<td>21</td>
<td>21</td>
<td>21</td>
<td>18</td>
<td>9</td>
</tr>
</tbody>
</table>

If we are to consider the volatility scores for only those nine countries that have experienced five elections, the trend becomes somewhat less clear and therefore any conclusions regarding the maturation hypothesis in reference to group 4 countries should be made tentatively until more data becomes available.
4.3 Volatility in Order

It is also worth of study to order the countries within the dataset from highest to lowest average volatility. In keeping with the patterns presented earlier, we unsurprisingly find that the most volatile 14 countries are from group 4 with these 14 countries all experiencing average volatility scores of above 40%.
Table 5 – Highest average volatility by country

<table>
<thead>
<tr>
<th>Position</th>
<th>Country</th>
<th>Average Volatility (%)</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lithuania</td>
<td>69.27</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>Slovakia</td>
<td>58.35</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>Macedonia</td>
<td>56.64</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Armenia</td>
<td>55.61</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Latvia</td>
<td>50.47</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Slovenia</td>
<td>49.30</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>Albania</td>
<td>48.30</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Russia</td>
<td>47.2</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>Estonia</td>
<td>46.92</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Poland</td>
<td>46.03</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>Moldova</td>
<td>45.71</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Romania</td>
<td>45.56</td>
<td>4</td>
</tr>
<tr>
<td>13</td>
<td>Georgia</td>
<td>45.25</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>Serbia</td>
<td>42.12</td>
<td>4</td>
</tr>
</tbody>
</table>

At the other end of the scale the findings are somewhat more surprising. Of the least volatile countries, the majority are as expected from group 1, however, the country with the least volatility, Malta, is from group 2 as are Austria and Germany. Honduras is the most unexpected result, having one of the lowest average volatility levels and consistently experiencing elections of below 10 per cent volatility between 1981 and 2005.
Table 6—Lowest average volatility by country

<table>
<thead>
<tr>
<th>Position</th>
<th>Country</th>
<th>Average Volatility (%)</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>59</td>
<td>Ireland</td>
<td>9.46</td>
<td>1</td>
</tr>
<tr>
<td>60</td>
<td>Germany</td>
<td>8.04</td>
<td>2</td>
</tr>
<tr>
<td>61</td>
<td>Finland</td>
<td>8.03</td>
<td>1</td>
</tr>
<tr>
<td>62</td>
<td>Sweden</td>
<td>7.93</td>
<td>1</td>
</tr>
<tr>
<td>63</td>
<td>Switzerland</td>
<td>7.44</td>
<td>1</td>
</tr>
<tr>
<td>64</td>
<td>Australia</td>
<td>6.87</td>
<td>1</td>
</tr>
<tr>
<td>65</td>
<td>Honduras</td>
<td>6.79</td>
<td>3</td>
</tr>
<tr>
<td>66</td>
<td>Austria</td>
<td>6.64</td>
<td>2</td>
</tr>
<tr>
<td>67</td>
<td>USA</td>
<td>3.42</td>
<td>1</td>
</tr>
<tr>
<td>68</td>
<td>Malta</td>
<td>2.35</td>
<td>2</td>
</tr>
</tbody>
</table>

4.4 Regime Type
There seems to again be a reasonably clear pattern in terms of regime type. Those countries that experience the highest levels of electoral volatility are often semi-presidential systems with only four of the 15 most volatile countries being either presidential (1) or parliamentary (3). There may be some conflation here with the period of democratisation variable as those countries that make up group 4, and transitioned to democracy most recently are by and large semi-presidential (15 of 21 countries). This is an area that the regression analysis will investigate further. Similarly, of the 25 countries with the lowest levels of electoral volatility, 20 of them are parliamentary democracies with 2 presidential regimes (US and Honduras), 2 semi-presidential regimes (Finland and Ireland) and 1 unclassified regime (Switzerland).
4.5 Education
There seems to be little to glean in terms of the relationship between education and electoral volatility. If we consider the variable Average School Life Expectancy (Years) as produced by the UNESCO Global Education Digest we can observe that school life expectancy in the 10 most volatile countries is on average 14.45 years whilst in the 10 least volatile countries the average school life expectancy is 15.75.

*Figure.5 – Average school life expectancy (years)*

4.6 Fragmentation
The level of fragmentation within a party system is considers the Effective Number of Parties at each election. Those countries with higher levels of volatility also have higher degrees of fragmentation than those with lower levels of volatility. It is possible to note a distinct difference between those countries who have higher levels of electoral volatility compared with those who have low levels. The average ENP for the ten countries who have the highest levels of electoral volatility is 6.30 compared with 3.14 for those ten countries with the lowest average volatility scores.
Although the trends presented above certainly raise interesting questions, particularly regarding the importance of period of democratisation and changes in volatility as the number of elections increases, in order to ensure robustness it is important to also consider whether they reach levels of statistical significance. Firstly I will consider bivariate correlation analysis (Spearman’s correlation) before moving on to regression analysis.

**Hypothesis 1 - Period of democratisation**

Here it was hypothesised that we would witness a positive correlation, the oldest democracies, group 1 would experience the lowest levels of average volatility with groups 2, 3 and 4 experiencing increasingly higher levels.

This is indeed the case. We are able to observe a very high correlation between the two variables of 0.8374 (p-value < 0.05). Those countries that democratised in later period are more volatile than those that democratised in earlier periods.
Hypothesis 2 - Number of elections

The hypothesis above suggested we would witness a negative correlation. Those countries that had experienced fewer elections would experience higher levels of average electoral volatility.

Again, this hypothesis can be substantiated due to the strong negative correlation of -0.6048 (p-value < 0.05). Those countries that have experienced few elections have higher levels of average volatility than those that have experienced more elections.

Hypothesis 3 - GDP per capita PPP previous election year

Here the hypothesis suggested a negative correlation, those countries with low levels of GDP per capita PPP at the previous election year will experience high levels of electoral volatility.

Unlike in the hypotheses 1 and 2, the statistical analysis here provides less conclusive findings. The correlation result of 0.2017 (p-value 2e-04) signifies a weak positive correlation. Interestingly, the direction of the relationship was in fact incorrect although the weak correlation may suggest that this is not due to the fact that the theory is fundamentally flawed but rather something more subtle occurring in the data. This is supported by the scatter plot below which shows a huge variation around the line of best fit, particularly for those elections that experienced below 20% volatility. The regression analysis will shed more light onto this subject.
Hypothesis 4 - Level of fragmentation

For this test, party system theory would suggest that we will observe a positive correlation as highly fragmented systems with limited programmatic and ideological space means voters will be more likely to shift between parties.

The bivariate analysis results in a reasonably strong positive correlation 0.4548 (p-value < 0.05). It would appear as if those countries that have lower levels of fragmentation also have lower levels of electoral volatility.

Hypothesis 5 - Type of regime

The literature would suggest that if parliamentary regimes are coded as 1, semi-presidential as 2, presidential as 3 then we should expect to see a positive correlation.
Indeed, this is what we see although the correlation is weak at 0.332 (p-value < 0.05). Given the weakness of the correlation it would be ill advised to conclude that this finding alone substantiates hypothesis 5.

**Hypothesis 6 – Average School Life Expectancy**

Given the debate within the literature and the uncertainty over the direction of the relationship there was not a clear hypothesis over whether the correlation result will be positive or negative.

The bivariate analysis results in a reasonably weak negative correlation of -0.363 (p-value 0.0023). Those countries that have low levels of school life expectancy have higher levels of electoral volatility. This must be interpreted tentatively, however, due to the low correlation. The regression analysis will provide a deeper investigation of this relationship.

**4.7 Multivariate Regression Analysis**

As can be seen below there are two distinct multiple linear regression models employed. Model 1 focuses on average scores for the various indicators presented above (for the time period under analysis) with average electoral volatility by country as the dependent variable. In model 1 therefore we have an N of 68 – one dependent variable observation for each country. Model 2 considers observations for specific elections, years, etc. with electoral volatility for election years as the dependent variable. We therefore have a maximum N of 633 (the total number of elections that we possess electoral volatility data for). Two models are necessary due to the fact that some hypotheses are directly concerned with average volatility for each country (hypotheses 1, 2, 5 and 6) where as some hypotheses require volatility scores from separate elections (hypotheses 3 and 4) for useful analysis.

---

4 For example, average GDP is calculated by summing the GDP scores in the data set for a particular country and dividing the total by the number of observations
### Determinants of Electoral Volatility

*Table 7 – Determinants of average electoral volatility*

**Model 1**

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>12.67</td>
<td>13.72</td>
<td>-</td>
</tr>
<tr>
<td>Wave of democratisation</td>
<td>8.51</td>
<td>1.82</td>
<td>***</td>
</tr>
<tr>
<td>Average fragmentation (ENP)</td>
<td>2.19</td>
<td>0.81</td>
<td>**</td>
</tr>
<tr>
<td>Average GDP ($1000)</td>
<td>-0.06</td>
<td>0.06</td>
<td>-</td>
</tr>
<tr>
<td>Average School Life Expectancy</td>
<td>-0.73</td>
<td>0.72</td>
<td>-</td>
</tr>
<tr>
<td>Type of Regime</td>
<td>Ref Cat: Semi Pres</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parl -10.93</td>
<td>3.19</td>
<td>**</td>
</tr>
<tr>
<td></td>
<td>Pres -11.09</td>
<td>3.82</td>
<td>**</td>
</tr>
<tr>
<td>No. of elections considered</td>
<td>-0.11</td>
<td>0.27</td>
<td>-</td>
</tr>
</tbody>
</table>

Adjusted R-squared 0.69  
Note: Dependent variable is average electoral volatility by country in Model  
. p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001
Table 8 – Determinants of electoral volatility by single election

Model 2

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>9.28</td>
<td>8.04</td>
<td>-</td>
</tr>
<tr>
<td>Wave of democratisation</td>
<td>7.59</td>
<td>1.22</td>
<td>***</td>
</tr>
<tr>
<td>Fragmentation at previous election (ENP)</td>
<td>1.57</td>
<td>0.42</td>
<td>***</td>
</tr>
<tr>
<td>GDP at previous election year ($1000)</td>
<td>-0.21</td>
<td>0.12</td>
<td>.</td>
</tr>
<tr>
<td>School Life Expectancy</td>
<td>-0.47</td>
<td>0.42</td>
<td>-</td>
</tr>
<tr>
<td>Type of Regime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ref Cat: Semi Pres</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parl -8.05</td>
<td>2.08</td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>Pres -8.16</td>
<td>2.40</td>
<td></td>
<td>***</td>
</tr>
<tr>
<td>Election number</td>
<td>0.23</td>
<td>0.19</td>
<td>-</td>
</tr>
</tbody>
</table>

Adjusted R-squared 0.39

Note: Dependent variable is electoral volatility for each election in Model 2
. p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001

Hypothesis 1 – Period of democratisation

Hypothesis 1 suggested that as time since the period of democratisation decreased (from group 1, the oldest democracies, through to group 4, those countries that democratised in the 1990s), we would see a corresponding increase in electoral volatility. As we can see in model 1, this is indeed the case; moving from one group to the next produces an increase of 8.51% in electoral volatility (significant at p < 0.001). This relationship is further supported by model 2 in which the coefficient (7.59) also reaches levels of statistical significance below
0.001. Substantively this finding shows the very large effect period of democratisation has on electoral volatility and therefore provides substantial support for the period effect thesis. The fact that this variable reaches both the highest level of statistical significance and is also highly substantively significant in both models would suggest that period of democratisation plays a hugely important role in determining levels of electoral volatility.

**Hypothesis 2 – Number of elections**

For Hypothesis 2 it was suggested that the number of elections experienced by a country could have the effect of diminishing electoral volatility as citizens became more accustomed to electoral politics and developed sturdier relationships with specific parties. The results of the multivariate analysis suggest however, that this is not the case, with neither model reaching the accepted levels of statistical significance for the relevant variables. Put simply, the number of elections experienced by each country does not seem to have a discernible effect on volatility.

**Hypothesis 3 – GDP per capita PPP previous election year**

Here, given the theory it would be expected that higher levels of GDP per capita PPP would result in lower levels of electoral volatility, and therefore a more stable party system. As we can see above, the results of the two models provide somewhat different findings. Average GDP PPP for a country fails to reach any level of statistical significance suggesting that average GDP per capita PPP does not influence levels of average electoral volatility. On the other hand, GDP per capita PPP ($1000) for the previous election year, does reach statistical significance, albeit the at p < 0.1. For every increase of $1000 dollars at the previous election, we see a reduction in electoral volatility of 0.21%. More clearly, for every increase of $10,000 we would see a consequent increase of 2% in electoral volatility. As this variable only reached the lowest levels of statistical significance (in only one of the two models), and
its limited substantive impact, any conclusions about the number of elections causing party system institutionalisation should be interpreted tentatively.

**Hypothesis 4 – Level of fragmentation**

Levels of fragmentation were predicted to have a positive effect on electoral volatility, that is, high levels of fragmentation were predicted to cause high levels of electoral volatility. This indeed seems to be the case with both average fragmentation ($p < 0.05$) and fragmentation at the previous election ($p < 0.001$) having a determinate effect on the dependent variable. The coefficient for model 1 shows us that as the average (effective) number of parties in a country’s party system increases by one, we see an increase of 2.19% in average electoral volatility. Substantively this is an interesting finding. If we compare a traditional two-party system that consistently possesses two ruling parties throughout the period under analysis with a multi-party system that averages say six parties, the multi-party system should observe 13% more average volatility than the two-party system. Model 2 also provides us with interesting findings, arguably even more so given its more nuanced analysis. An increase in the effective number of parties in a party system by one at the previous election results in an increase of 1.57% in electoral volatility. If the number of parties within party system jumped from say three to six or sevens between two elections (not uncommon, particularly in new democracies), we would see a corresponding increase of 4.71% and 6.28% respectively in levels of electoral volatility. Clearly, the level of fragmentation does have a visible effect on party system institutionalisation.

**Hypothesis 5 – Type of regime**

Type of regime was predicted to affect levels of electoral volatility in the following way: Parliamentary regimes were thought to have the lowest levels of electoral volatility with semi-presidential regimes causing an increase in volatility and finally presidential regimes causing
the highest levels of volatility. The results are somewhat contradictory to the theory but interesting nonetheless. If we consider model 1, we can see that that semi-presidential regimes produce 11.09% (p < 0.05) more volatility than presidential regimes and 10.93% more volatility than parliamentary regimes (p < 0.05); the same causal relationship, although slightly different coefficients, can also be seen in the second model. Interestingly there is no discernible statistically significant difference between parliamentary and presidential regimes. Regime type does seem to influence electoral volatility, although it is not the one that was originally hypothesised.

**Hypothesis 6 – Average School Life Expectancy**

Average school life expectancy was suggested to have a negative effect on average electoral volatility, that is, high levels of average school life expectancy would cause low levels of average electoral volatility. This variable failed to reach statistical significance in either model suggesting that contrary to the literature average school life expectancy does not influence party system institutionalisation. If we construct a 95% confidence interval around the relevant statistics for both models 1 and 2, we are not even able to find strong evidence as to whether the relationship is positive or negative.

**Goodness of Fit**

The different $R^2$ statistics are also worthy of interpretation as provide us with information regarding the goodness of model fit; more specifically, what percentage of variation in Y (the independent variables) is explained by the variation in X. Although $R^2$ statistics across two different models are not directly comparable, the two results of 0.69 (adjusted) for model 1 and 0.39 (adjusted) for model 2 suggest that both models are well fitting. Put simply, given that the independent variables included in the two models can account for a large part of the
variation in the party system institutionalisation measuring variable, we can assume that the independent variables are in general well chosen and appropriate for the model.

4.8 Multi-level Regression Analysis
Given that the volatility scores within each country may be related, the so-called ‘country effect’, a random intercepts regression model has been run to compensate for this.

The results of the baseline model (no independent variables included) suggest that 66% of the variance is across countries. When the independent variables are included the model, we see the cross-country residual variance reduce dramatically, suggesting the model is good at explaining the between country variance, and not so powerful at explaining within country variance in the dependent variable. Given this, any conclusions drawn from model 2 (which focuses on within-country comparisons) should be interpreted tentatively.
Table 9 – Determinants of electoral volatility random intercepts model

Model 3 – Random Intercepts Model

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-0.74</td>
<td>11.32</td>
<td>-</td>
</tr>
<tr>
<td>Wave of democratisation</td>
<td>8.46</td>
<td>1.71</td>
<td>***</td>
</tr>
<tr>
<td>Fragmentation at previous election (ENP)</td>
<td>1.74</td>
<td>0.53</td>
<td>***</td>
</tr>
<tr>
<td>GDP at previous election year ($1000)</td>
<td>-0.17</td>
<td>0.15</td>
<td>-</td>
</tr>
<tr>
<td>School Life Expectancy</td>
<td>-0.61</td>
<td>0.65</td>
<td>-</td>
</tr>
<tr>
<td>Type of Regime</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ref Cat: Semi Pres</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parl -8.17</td>
<td>3.23</td>
<td>***</td>
</tr>
<tr>
<td></td>
<td>Pres -8.31</td>
<td>2.40</td>
<td>***</td>
</tr>
<tr>
<td>Election number</td>
<td>0.37</td>
<td>1.03</td>
<td>-</td>
</tr>
</tbody>
</table>

. p < 0.1; * p < 0.05; ** p < 0.01; *** p < 0.001

The results of the multilevel model show that there are three variables that remain significant in the multi-level model, Wave of Democratisation, Level of Fragmentation at the Previous Election and Type of Regime. This further reinforces the findings of the multiple regression analysis in which these variables were also the most powerful predictors of electoral volatility. GDP per capita PPP at the previous election, which only reached statistical significance in one of the two multiple regression models failed to reach the accepted levels here suggesting that any interpretation of this relationship will be at best speculative.
4.9 Discussion

The statistical analyses presented above point towards several interesting findings. In reverse order, against theoretical expectations hypothesis 6 - Average School Life Expectancy failed to reach even the minimum accepted level of statistical significance. As discussed previously, there has been noteworthy debate within the literature over the direction of the relationship between education and electoral volatility. In brief, traditionally, scholars hold that higher levels of education will in turn cause higher levels of electoral volatility due to the reduction in importance of cognitive shortcuts previously provided by parties. On the other hand, there have recently been scholars who have argued the opposite, that is, higher levels of school life expectancy will result in lower levels of electoral volatility due to the more educated forming stronger bonds with parties. Given the debate in the literature, it was hoped that this analysis would provide some useful empirical findings to support one of the theoretical arguments. Unfortunately, due to the fact that the relevant variables failed to reach significance in either multivariate model, we must conclude therefore, either that levels of education do not play a determining role in levels of electoral volatility or possibly that both theories concerning the effect of education are correct and in fact cancel each other out. A third possibility may also be that the operationalisation of education is incorrect and an alternative variable should be employed. A particular problem with the operationalisation of this variable is that due to lack of data available, the figures had to be treated as constants throughout the period of study. In future, in order to provide a more nuanced analysis with more available data, perhaps an alternative variable such as percentage of population in higher education could be utilised.

Hypothesis 5 similarly produced interesting results, somewhat contradictory to the theory. The fact of being a parliamentary or presidential regime does not seem to influence levels of party system institutionalisation, however semi-presidentialism would appear to cause around 10% more volatility on average for those countries within the dataset. This finding, that
presidential regimes do not seem to cause more volatility than parliamentary regimes, while semi-presidential regimes do seem to cause higher levels of volatility would suggest the established theory on the effect of regime type may need to be reconsidered. It has long been argued (see Linz 1985) that in strong presidential systems, political ‘outsiders’ who do not require party support are more likely to come to power and consequently govern in a populist manner (Mainwaring & Scully 1997 p.5). This is hypothesised to reduce chances of party system institutionalisation, yet in this case at least, this is not strictly what we find. Instead, it is in semi-presidential systems, which has increasingly been seen as the arrangement which best corrects for the shortcomings of ‘pure’ models (Protsyk 2006; Cheibub & Chernykh 2008), that we observe increases in electoral volatility.

There are several arguments as to why semi-presidential regimes would cause significantly more electoral volatility than parliamentary and ‘pure’ presidential regimes. Firstly, it is important to note that in recent years the number of regimes with some form of presidential government (either ‘purely’ presidential or semi-presidential) has risen dramatically in recent times. As Samuels and Shugart note, in the 1950s, of 20 democracies 12 were parliamentary. While the number of democracies doubled by 1983, exactly half remained parliamentary. Following the democratisation of many countries in Latin America during the 1980s (which was dominated by presidential regimes), and the democratisation of Eastern Europe in the 1990s (which saw the birth of a number of semi-presidential regimes), the regime landscape now looks somewhat different to that of 50 years previously. The most plausible reason for this increase in volatility in these countries due to the inevitable complications associated with ‘intra-executive’ coexistence (Protsyk 2006 p.219); that is, the contemporaneous existence of a popularly elected president and an assembly-supported government. Protsyk argues that the interactions between the presidency, the cabinet and the legislature dominate political life in semi-presidential regimes (2006 p.220). The multiple possible interactions between these
three spheres can and do result in confusion between accountability, responsibility and patterns of hierarchical control (Protysk 2006; Cheibub & Chernykh 2009). The result is unstable governments, almost unlimited opportunities for conflict between political elites and short cabinet lifespans (Cheibub & Chernykh 2009 p.208). This can logically have a direct effect on party system stability with not only the potential anti-party and populist risks that come with presidential regimes, but also a situation in which neither citizens nor elites are sure who to hold accountable for governmental decisions.

It is important to note, however, that there is no consensus within the literature about the ways in which semi-presidential regimes will affect democratic stability, nor well-developed theoretical arguments (Cheibub & Chernykh 2009 p.202). Given that my findings are consistent over three models; directly call into question the traditional literature on the influence of regime type; and that this study is, as far as I’m aware, the first on such a large scale into the relationship between regime type and electoral volatility, further analysis would be of undoubted value.

Level of fragmentation (hypothesis 4), reached levels of statistical significance in both the multivariate models suggesting that this is a powerful determinant of party system institutionalisation. Indeed, this finding substantiates the claims of party system theorists who from the time of Sartori (1990) have claimed that the number of parties within a system directly affects stabilisation (Laakso & Taagepera 1979 p.3). How though can we account for this finding? The most salient explanation for this phenomenon employs Pedersen’s theory of spatial of voting. As the number of parties within the party system increases, we see a corresponding reduction in the average perceived distance between parties (Pedersen 1983 in Roberts & Wibbels 1999 p.578; Toka 1998). In systems with small distances between parties, programmatic and ideological overlaps are more likely which in turn allows voters to switch allegiances more easily. The consequence being that parties struggle to differentiate
themselves from their opponents and form long term bonds with citizens. Although this has been found to be a significant cause of party systems institutionalisation by several studies (Bartolini and Mair 1990; Remner 1991; Mainwaring & Zurco 2007; Neff Powell & Tucker 2009), I believe that the findings presented above are the first to note the significance of fragmentation in influencing party system institutionalisation in such a wide range of countries, adding even further support to the well-known claim in party system institutionalisation literature, “the number of parties matters” (Sartori 1990 p.318) and more importantly, in analysing post-1990 democracies, showing that the number of parties still matters. What makes this finding particularly notable is that it implies that changes in volatility are to a certain extent a mechanical, endogenous effect of party systems themselves, as opposed to exogenous factors such as economic voting or changes in the makeup of the electorate (Roberts & Wibbels 1999 p.578).

The conclusions we can draw from multivariate analysis relating to hypothesis 3 are among the most interesting in this study. This is due to the fact in model 1, average GDP per capita PPP was found not to have an effect on average levels of electoral volatility, whilst in model 2, levels of GDP per capita PPP at the previous election were found to have a statistically significant influencing role. This would suggest that average volatility of a country is too crude a measure. Instead, electoral volatility can be seen as a short-term reaction to low levels of GDP at the previous election year. Currently, economic voting theory holds that voters are rational and will punish incumbents for poor economic performance and in times of economic strife are more likely to shift their votes to new electoral alternatives (Roberts & Wibbels 1999 p.577). Given the findings above, it may be contended that it is not simply poor economic performance comparative to other nations (potentially measured by average GDP per capita PPP for a country) that affects causes increasing levels of electoral volatility. That is, we should not assume that countries with consistently low levels of GDP per capita PPP to
exhibit high levels of electoral volatility. Instead, voters seemingly look for electoral alternatives following short-term economic hardship.

Although theoretically this finding is interesting, particularly in terms of theory development, substantively the results are not that notable. Unlike Mainwaring and Torcal (2006) who found that a $1000 increase in per capita GDP produced a decrease of 1.29% in electoral volatility, in this case we are only able to witness a decrease of 0.21%. Furthermore, given the low values of statistical significance reached in model 2, we must interpret any conclusions tentatively. Given the potentially important findings, I would suggest that further investigation into this relationship would be fruitful, possibly considering a wider range of elections (GDP per capita PPP data was only available for elections post-1980).

It is in the results relating to hypotheses 1 and 2 that provide the most interesting and substantively significant findings of the paper given that the influence of time on party system institutionalisation has recently come under renewed focus. The traditional position is unsurprising and logical in its formulation: given the rupture inevitable in democratic transition, time and multiple elections are needed for the party system to become institutionalised (Bétoa and Mair Forthcoming p.85). Recently however, Mainwaring and Zoco (2007) have suggested that it is not the number of elections that determine levels of party system institutionalisation, but rather the period of democratisation and the role of parties in society during this period.

The results of the multivariate and multi-level analysis suggest that Mainwaring and Zoco may well be correct in their analysis. Given that neither of the variables relating to the number of elections in the models reached the minimum levels of statistical significance, we must conclude therefore that it is not time that has an effect on party system institutionalisation in so far as volatility stabilises over time, or in line with the number of elections experienced;
but rather that it is the period of time in which democratisation took place that is the determining factor. In both multivariate and the multi-level models the corresponding variables reached the highest levels of statistical significance.

How, then, can we account for this finding?

As argued by Mainwaring and Zoco, those theories that promote the idea of strengthening voter identification over time (Converse 1969) are based on the assumption that party representation functions as it is supposed to in normative democratic theory (2007 p.169). That is, parties are seen by citizens to be widely accepted as the main political representation and governing organisations. However, as theorists such as Schmitter (2001 in Mainwaring & Zoco 2007 p. 166) and Kitschelt have shown, in new democracies, and increasingly in old democracies a large number of citizens feel that parties fail to adequately represent their views and govern their societies.

The table below shows correlations between volatility levels by election number for all countries in the data set. As we can see, the correlation between countries’ volatility at the first and second election is 0.806 (p>0.01), first and third election 0.723 (p>0.01), first and fourth election 0.646 (p>0.01), and even remains reasonably strong between the first and fifth elections 0.410 (p>0.01). While there are some countries that increase or decrease dramatically over time, in general, over five election periods at least, volatility levels stay relatively stable within countries adding credence to the finding that longevity of regimes does not affect party system institutionalisation. Instead, those countries that begin with low levels of volatility remain at low levels and vice versa. However, it must be noted that something unexpected seems to occur at the sixth electoral cycle due to the fact that there are no significant correlations with the sixth electoral period, not even the fifth electoral period. This is an interesting finding and would warrant further research.
Table 10 - Correlations of electoral volatility between elections

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>68</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>68</td>
<td>0.806***</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3rd</td>
<td>68</td>
<td>0.723***</td>
<td>0.706***</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th</td>
<td>65</td>
<td>0.646***</td>
<td>0.6239***</td>
<td>0.636***</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5th</td>
<td>51</td>
<td>0.410***</td>
<td>0.4179***</td>
<td>0.392**</td>
<td>0.606***</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>6th</td>
<td>37</td>
<td>0.359</td>
<td>0.222</td>
<td>0.302</td>
<td>0.274</td>
<td>0.165</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The row and column headings denote the number of the election for each country. Cells show Spearman’s correlation figures between levels of volatility in first election and second election, third election etc.

** p<0.05; ***p>0.01

Given the results of the multivariate regression and the table presented above, we must conclude that the party systems in older democracies are more stable for a reason other than longevity. This finding would indicate the role of path dependence (Mainwaring and Scully 2007 p.170) in keeping with the period effect.

Parties in older democracies have a fundamentally different relationship to voters than the vast majority of parties in the post-1974 democracies and have played a fundamentally different role in forming and structuring society. In the older democracies (groups 1 and 2), parties are traditionally products of defined social movements whose goal has been to “make demands of the state, and ultimately attempt to capture control of the state by placing their own representatives in key offices” (Katz & Mair 1995 p.6). Parties are seen as the only
viable means of state capture and the best means for influencing government policy; as Toka argues, in the older democracies with high levels of party system institutionalisation, political entrepreneurs and interest groups have no other choice than to seek their goals through established parties (Toka 1998 p.599).

One of the most important factors for influencing volatility is the strong relationship parties in old democracies have with society. Oftentimes, particularly in the socialist/mass party model, parties in fact pre-date universal suffrage and often grew out of the struggle of the disenfranchised to gain the vote (Katz & Mair 1995 p.8). The result being that firm allegiances were born that passed from generation to generations. Furthermore, in the older democracies there has been a strong (although seemingly waning) emphasis on party membership and other party organs such as party media that have further strengthened these bonds between parties and the electorate. The strong bonds mean that voters will forgive their parties for poor performance and consequently volatility remains low, new parties do not enter the electoral arena, and the party system remains stable and well institutionalised.

In those countries that democratised in later periods, after 1974, but particularly after 1990, parties have often played a very different role in society and are not held in the same esteem by the electorate. Unlike parties in old democracies that represent specific social groups in society, parties in new democracies often emerge through close integration with the state itself (Katz and Mair 2009 p.755), or are made up of fragments of the former authoritarian elite. Furthermore, there is a distinct lack of trust felt towards parties with party elites often seen as chancers willing to exploit electoral democracy in order to pursue their own ends, the suggestion being that “parties only want the vote of the people, not their opinion” (Mainwaring and Scully 1995 p.386). On the supply-side, due to the weakness of parties, both in terms of support and finance, elites have little reason to remain faithful to party labels (Mainwaring and Zoco 2007 p.169). Consequently, elites have a short time-horizon, moving
between parties whilst new parties appear and established parties disappear – a recipe for high levels of electoral volatility. Furthermore, many parties in the post-1974 democracies are programmatically weak and heterogeneous in terms of social makeup having experienced an “unprecedented degree of social destructuring” (Mair 1997 p.50). Unlike in the early democratising countries, when voters judge parties for perceived failures they possess little programmatic reason to stay faithful.

An additional factor that contributes to the low levels of party system institutionalisation in new democracies is the pervasion of mass media, particularly television, during the period of democratisation. In the older democracies, parties became well rooted in society before the age of mass media. In new democracies on the other hand, candidates are able to spread their messages widely without the need for well-developed party organisations or due-paying members (Sartori 1989 in Mainwaring and Zoco 2007 p.167; Mair 1997 p.176). Consequently the incentives for party building or party fidelity on behalf of the elites diminish dramatically. There are several well-known examples of television playing a key role in launching the careers of political outsiders with virtually no party affiliation. As Mainwaring and Scully argue, in the presidential elections in both Brazil in 1989 and Peru in 1990, previously unknown candidates shot to the top of the polls “thanks in good measure to television exposure” (1995 p.471).

Put simply, the period in which democratisation occurred in a country is a critical variable in explaining levels of party system institutionalisation. In the golden age of party development, parties were inherently tied to social groups, helped shape society and created powerful bonds with voters that continue to be passed on to this day. This is not the case in the post-74 democracies in which democratisation occurred as a result of the collapse or defeat of a previously non-democratic regime (Mair 1997 p.179). In these cases, voters remain cynical of parties whilst party candidates are able to use modern campaigning techniques and the mass
media to depose of the once essential party organisations. It seems fair to say that “parties are not what they once were” (Schmitter 2001 in Mainwaring & Zoco 2007 p. 166), whether this matters for democracy remains open for debate.
5 Case Study
As mentioned above, alongside a quantitative analysis of causes of party system institutionalisation, this paper will also consider a more in depth case study.

In keeping with the literature on nested-analysis, it is possible to utilise the statistical results presented earlier in this paper to better select a divergent country for further examination. If we consider the multivariate models presented above, the Cook’s Distance score in model 1 shows an obvious outlier, observation 196 - Brazil:

Figure 8- Cooks distance for model 1

![Cooks distance](image)

This should come as little surprise for party system scholars given that for many years Brazil has been seen as a textbook case of both party and party system underdevelopment, with several scholars arguing that *ceteris paribus*, it is among the weakest in Latin America (Mainwaring & Torcal 1995 p.391; Jones & Mainwaring 2003 p.147; Epstein 2009 p.341; Hagopian, Gervasoni & Moraes 2008 p.364).

---

5 There were no such overtly identifiable outliers for model 2
Electoral volatility in Brazil is markedly above the average for group 3 (average 38.62 per cent compared to 21.92 per cent); but the most notable figure concerning the party system in Brazil is the level of fragmentation with an average 9.28 (effective) parties sitting in the lower chamber between 1986 and 2006 (making Brazil the most fragmented country in the dataset). Furthermore, the poorly institutionalised party system can be observed by the fact that voters consistently fail to identify with parties. In 2002, for example, respondents to the Brazilian National Election Study cited the following considerations in voting for federal deputies: the candidate’s record (33%), issue positions (32.5%), and personal qualities (17%). Only 7% of respondents mentioned the candidate’s party allegiances (in Hagopian, Gervasoni & Moraes 2008 p.365). As several scholars argue, this inordinately high level of party fragility has created problems for democratic governance, has helped sustain an inegalitarian social order, and has severely limited the quality of democracy in Brazil (Mainwaring and Scully 1995 p.356).

How then can we account for such a poorly institutionalised party system?

In order to answer this question it is firstly it is necessary to provide some historical context to democratic rule, and more specifically, party rule in Brazil.

The democratic history of Brazil is marked by a discontinuous pattern of evolution (Coppedge 1998 p.172) that has had powerful consequences for the sedimentation of the party system. Mainwaring and Scully for example argue that there have been seven distinct party systems between the early 1800s and the present day, with no other country in Latin America having undergone so many radical changes in party system makeup (Mainwaring and Scully 1995 p.355). Although there were formally political parties that competed for government from the 1830s onwards, it was not until 1946 that party competition became the major means of access to power. Previous to this, parties failed to form any sort of programmatic agenda, and
instead were simply poorly organised groups that circled around the elite, constantly susceptible to the anti-party whims of presidents and other political leaders. This situation can be contrasted to other Latin American regimes such as Argentina, Chile and Uruguay who by 1945 had already experienced over a decade of mass party politics (Mainwaring & Scully 1995 pp.356 - 358). During the period between 1945 – 1964 an embryonic multiparty democracy did begin to form, with three parties repeatedly contesting elections (PSD, UDN and PTB), however, by and large, this period was characterised by fly-by-night parties that would emerge at one election and then vanish until the next (D’Alva & Kinzo 1999 p.143).

Following the military coup in 1964, this incipient party system was dissolved and replaced by a “hegemonic two-party system” (Mainwaring and Scully 1995 p.355) made up of the pro-government ARENA and the opposition Movimento Democrático Brasileiro (MDB). As Mainwaring and Scully note, during this period “elections were not free, and contestation did not involve the key decision-making positions within the government, but the military attracted enough support…that it could gain some legitimacy” (1995 p.363). Afraid of the rising anti-regime sentiment, the military government again dissolved the two existing parties in 1979, replacing them with five much smaller organisations.

Mainwaring and Scully (2005) note two key factors of the military regime that have significantly undermined the long term potential for party system institutionalisation in Brazil. Firstly, in abolishing the old parties and allowing for creation of new parties in both 1965 and 1979, the military regime crippled any development of party identities, a prerequisite of well-institutionalised party systems. Secondly, in allowing parties to even exist and Congress to function whilst simultaneously, “reducing their [parties] legislative powers, expanding executive authority, and largely restricting the electoral arena to legislative posts” (Mainwaring and Scully 1995 p.368), the main function of parties and politicians became simply obtaining patronage for their constituencies. The result of these two factors being that
in Brazil unlike in other Latin American countries that had survived authoritarian rule in one form or another, none of the pre-1964 parties existed in the New Republic. In the newly democratised Brazil, therefore, party organisations were required to start afresh, creating new party labels and attempting to recruit suitable candidates. Additionally, parties were required to convince the electorate that they could provide more than mere patronage and in fact were the best means for engendering societal change – an incredibly difficult task given the country’s experience with political parties at this point. Equally, on the demand side, unlike in other countries in the region, Brazilian citizens had no reference points on which to draw and therefore were required to completely reassess their electoral options.

As we can see, the legacy of poorly institutionalised party systems in earlier stages of democratic rule has had a powerful influence on the ability of citizens to form lasting bonds with parties in the contemporary era, particularly when compared with other Latin American countries.

Although there is a powerful argument that the inchoate party system in Brazil can be attributed to historical legacy, there are several other factors that also must be considered.

One of the most salient causes of such ineffectual parties is a result of the institutional arrangement in Brazil, specifically the electoral system in place for the Chamber of Deputies (the lower house of the National Congress) which has come under severe criticism, particularly from party scholars (Hagopian et al. 2009 p.363; Samuels 1999; Samuels 2000 p.488; Epstein 2009 p.335), who argue that its mechanics inherently promote political individualism and weak allegiances to party organisations. To understand why this is the case, it is worth explaining the particular system employed in elections to the Chamber of Deputies – Open List Proportional Representation (OLPR). Under OLPR Brazilian voters can vote directly for a candidate, or for a party’s entire label. As Samuels argues, from a candidate’s
perspective, “the incentives for individualism are clear: The party’s total list vote equals the sum of the party’s candidate’s votes plus its party-label votes…Each candidate, therefore, always prefers a vote for himself or herself over a party label vote (Samuels 1999 p.495). Put simply, due to the fact that there are multiple candidates per-party and per district, candidates simply must rely on something other than the party label if they wish to get elected (Samuels 1999 p.419). There is a strong argument that this situation promotes clientelism and patronage – the trading of votes for policy issues (Samuels 1999 p.419), as candidates utilise any means possible to win elections which further undermining parties by “removing policy as a reason to vote for one party over another” (Epstein 2009 p.348). This personalistic nature of politics in Brazil is further strengthened by the role of mass media in electoral competition. As mentioned above, mass media can pose a particularly formidable challenge to political parties, particularly in cases such as Brazil where television established itself as an important electoral vehicle before the parties became well institutionalised (Mainwaring and Scully 1995 p.396). Given that television penetration in Brazil reached 95% in 2010 (Teleco 2012) and political campaigns are among the most expensive in the world with almost no party funding for candidates (Mainwaring and Scully 1995 p.381; D’Alva & Kinzo 1999 p.144), it comes as little surprise that candidates seek other non-party means to connect with potential voters.

An additional way in which the primacy of party democracy is undermined by the institutional arrangement in Brazil is through the negative impact of presidential competition. As D’Alva and Kinzo comment, “the very fact that voters are asked to choose individuals for the presidency…encourages personal campaigns” (1993 p.145). Several successful presidential candidates have run on an open anti-party platform or have created parties specifically for their campaigns indicating a significant dissociation between their ability to garner votes and the strength of their parties (Mainwaring and Scully 1995 p.359; D’Alva and

---

6 Mainwaring and Scully suggest that a successful state deputy in 1986 would need to spend around $200,000 on campaigning costs and a federal deputy $600,000 (Mainwaring and Scully Paulo 1995 p.381)
The 1999 presidential election provides a clear example of this phenomenon and the consequences it can cause for the party system. Although in terms of ideology they were not natural bedfellows, the eventual winner, Fernando Collor de Mello officially represented the Partido da Reconstrucao Nacional (PRN), a young party that had only 22 representatives in the Congress of Deputies (D’Alva and Kinzo 1993 p.146). As we can see in the table below, this success for the PRN did not transfer to the Chamber of Deputies (the lower house) the following year, resulting in a situation where the president of the country had less than 10% safe and stable party support in parliament. In order to govern effectively, Collor de Mello was therefore required to retreat from a number of party positions and solicit support from PRN opponents, creating mass-confusion for the party’s supporters. It is important to note, that this situation in which the President’s party is poorly represented in the Chamber of Deputies is not specific to the Collor de Mello period but continues to be up until 2010 (the most recent elections in Brazil) where the successful presidential candidate, Dilma Rousseff’s Partido dos Trabalhadores received on 16.9% of the seats in the Chamber of Deputies (Election Resources 2012).

*Table.11 Position of the Parties in Executive and Legislative Office (%) (adapted from D’Alva and Kinzo 1993 p.145)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PRN</td>
<td>28.5</td>
<td>0.0</td>
<td>3.7</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Column 1 – Percentage of the election results in the first round presidential election
Column 2- Percentage of state governorships won by each party
Columns 3 – Percentage of seats in the Senate and Chamber of Deputies

The role of the president in Brazil undermines party system institutionalisation in that firstly, presidential candidates are able to campaign on a personalistic platform with little reference to their party’s programmatic agenda. Consequently, citizens are no longer able to clearly
distinguish what it is that a particular party represents and therefore form any sort of party identity. Secondly, due to the fact that the president’s party rarely, if ever, transfers their executive success to legislative seats, presidents have considerable autonomy from their political parties due to their need to interact and win the support of a wide range of other parties in order to successfully govern (D’Alva and Kinzo 1993 p.145).

As mentioned above, the level of fragmentation in Brazil is among the most severe in the world and certainly the highest of any countries in the dataset – as Samuels puts it, “almost so high, comparatively speaking, as to almost put Brazil off the map” (2000 p.241). Bohn and Paiva note that in 1986, twenty-nine parties took part in the national elections (across all levels of government), in 1990 this number had jumped to thirty-three (Nicolau 1998 in Bohn & Paiva 2006 p.5). The table below shows the party shares for the Rio de Janeiro delegation to the Chamber of Deputies between 1982 and 2002.

*Figure 9* - Party shares Rio de Janeiro delegation to Chamber of Deputies 1982 – 2002
(adapted from Epstein 2009 p.340)

---

Figure 4. Party shares Rio de Janeiro delegation to Chamber of Deputies, 1982–2002

*Source:* Instituto Universitário de Pesquisas de Rio de Janeiro website
(http://www.iuperj.br/deb/ing/Cap3/Cap3_tab1.htm)
As we can see, delegates of seventeen parties were elected to the lower chamber during this period – an astonishing figure. Although some parties consistently receive some votes election on election, others come and go making it impossible both for citizens to form any sort of relationships with these parties and also to hold them to account for their actions.

Finally, a particular factor that has contributed to the fragility of the party system in Brazil is elite manoeuvrings and the complete lack party fidelity on the part of party representatives. As Samuels reports, the level of floor-crossing is almost unprecedented in Brazil. In the 1991-1994 legislature for instance, 207 of the 504 incumbents (41%) changed parties. In the 1995-1998 legislature, 137 of the 513 incumbents (27%) crossed the floor, many more than once and even to ideological non-contiguous parties (Hagopian et al. 2008 p.364; Samuels 2000 p.419). This is both a sign of the weakness of parties – elites do not feel they have to remain faithful to a party for electoral success, and also a cause of the very same weakness due to the fact that citizens form relationships with personalities as opposed to parties. Similarly, there is an enormous problem with legislative turnover in Brazil; that is, a huge number of incumbents in the Chamber of Deputies choose not to contest the subsequent election. On average, only 74.4% of incumbents have run for re-election in Brazil with the remaining 25.6% seeking positions outside the Chamber such as in the much more powerful state or municipal governments, despite the fact that a ‘birth right candidate law’ (candidato nato) places incumbents names on the subsequent ballot automatically (Samuels 2000 pp.482 -484).

This results in a situation in which citizens are left unable to, or at least reluctant to form lasting bonds, with their representatives who are liable to leave office at any point for another post.

In conclusion, we can see that there are a wide variety of factors that have contributed to the extremely poor levels of party system institutionalisation in Brazil. Undoubtedly, the historical legacy of authoritarianism and the repeated destruction of any developing party
system meant that citizens were unable to form the long-term relationships with parties seen in other Latin American countries. Similarly, stabilisation has been undermined by the mechanical structure of electoral politics in Brazil, particularly the emphasis on personality-driven politics (often channelled through the mass media), and the role the role of a president who is essentially forced to engage in ‘wheeler dealer’ or scheming tactics in order to govern successfully. Finally, it is important to note that it is not only voters in Brazil who do not seem to value party government, but party elites themselves who are willing to jump between one party label and another at an alarming rate. It is this fact that I find most striking in the Brazilian case and also most worrying for the future – if those who are meant to represent political parties on a day-to-day basis cannot even commit to them never mind the electorate they are trying to woo, there seems to be little hope for a well institutionalised party system emerging in the near future.


6 Conclusions

In conclusion, this study has achieved its broad aim of expanding the frontiers of the comparative understanding of those factors which contribute to party system institutionalisation. In extending the analysis to a wider range of cases than has ever been considered before, the findings presented above would appear to be both robust and analytically rigorous.

Interestingly, some of my findings contradict what has previously been concluded by the literature, thereby opening up avenues for further exploration. Whilst up until now, scholars had suggested that both level of education and GDP had a determining effect on levels of party system institutionalisation, I found that they have at best negligible effects, and more likely none at all. Of the two variables, arguably levels of education would provide the more fruitful area for future research given that there is a distinct chance that there are two effects cancelling each other out here. Similarly, contrary to much of the literature that has gone before it, the results presented above suggest that it is not the age of a democracy or the number of elections contested that contributes to levels of party system institutionalisation, but rather the period in which democratisation took place. This finding substantiates the ‘period effect’ thesis (Mainwaring & Zoco 2007 p.166) by including a fourth wave of democratisation within the analysis. This suggests that those democracies that inaugurated in earlier periods experience a significantly lower level of electoral volatility than those regimes inaugurated more recently, and is particularly notable as it extends the conclusions of Mainwaring and Zoco (2007) across all four waves of democracy.

Unsurprisingly, levels of fragmentation were consistently found to play a key role in determining levels of party system institutionalisation. In party systems with a high degree of fragmentation, voters are unable to differentiate between party programmes and are therefore more likely to switch between parties who fail to bed any kind of significant roots in society.
Finally, arguably the most unique finding of the analysis is that unlike parliamentary or presidential regimes, semi-presidential regimes directly contribute to higher levels of electoral volatility. Although there have been a handful of studies on similar topics that have found somewhat comparable results, as far as I am aware, this is the first paper to note the seemingly direct link between semi-presidential systems and electoral volatility. This is particularly notable due to the fact that it remained both statistically and substantively significant across all three models. Although my explanation of this phenomenon remains tentative, the most plausible account of this increase in volatility in these countries lies in the seemingly inevitable complications associated with ‘intra-executive’ coexistence (Protsyk 2006 p.219) and the resulting confusion between accountability, responsibility and patterns of hierarchical control (Protysk 2006; Cheibub & Chernykh 2009).

The case study of Brazil provided a deeper level of analysis and emphasised the benefits of qualitative analysis. Although the statistical models seem to provide a robust explanation of the factors that can contribute to party system institutionalisation, as the Brazil case shows they have difficulty tapping into the potentially decisive effects of historical legacy. Additionally, I would argue that the key aspect to emerge from the study of Brazil is that those factors that influence party system institutionalisation are not restricted to the demand side, that is, the actions of voters; we must also consider the actions of party elites. In Brazil, citizens have failed to form strong relationships with parties, resulting in high levels of electoral volatility and enormous levels of fragmentation; but arguably more importantly, party elites have by and large not formed strong relationships with parties either.

In brief, the findings of this study not only go some way to substantiate (or weaken) those theories that have gone before it, but also open up new opportunities for further research. In order to ensure thorough analysis, future studies into causes of party system institutionalisation should consider more prominently supply-side factors such as the role
elites can play in strengthening or undermining party system stability. Furthermore, given the strength of the relationship shown in the statistical analyses, the influence of semi-presidentialism on electoral volatility would surely warrant more in depth study. Finally, a natural extension of this thesis would be to consider the causes of party system institutionalisation in a wider range of electoral contests such as those at a local or state level.

To conclude, party systems remain an important area of democratic scholarship. This study has attempted to contribute to the field by opening up new avenues for research that can continue to provide fruitful results and help future scholars pin down what remains a particularly fascinating but enigmatic element in the study of contemporary democracy.
References


Party Politics, 8 (1), 5-29.


## Appendix 1

### Countries included in dataset and volatility scores

<table>
<thead>
<tr>
<th>Country</th>
<th>Period considered</th>
<th>Average volatility (%)</th>
<th>No. of elections considered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td>1991 - 2009</td>
<td>48.30333333</td>
<td>6</td>
</tr>
<tr>
<td>Armenia</td>
<td>1991 - 2007</td>
<td>55.61</td>
<td>3</td>
</tr>
<tr>
<td>Bosnia-Herzegovina</td>
<td>1998 - 2006</td>
<td>34.21333333</td>
<td>3</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1990 - 2009</td>
<td>38.86333333</td>
<td>6</td>
</tr>
<tr>
<td>Croatia</td>
<td>1990 - 2007</td>
<td>30.198</td>
<td>5</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>1990 - 2006</td>
<td>26.728</td>
<td>5</td>
</tr>
<tr>
<td>Czech Republic 2</td>
<td>1992 - 2007</td>
<td>46.925</td>
<td>4</td>
</tr>
<tr>
<td>Estonia</td>
<td>1992 - 2008</td>
<td>45.25333333</td>
<td>3</td>
</tr>
<tr>
<td>Georgia</td>
<td>1992 - 2008</td>
<td>10.3275</td>
<td>4</td>
</tr>
<tr>
<td>Hungary</td>
<td>1990 - 2006</td>
<td>26.425</td>
<td>4</td>
</tr>
<tr>
<td>Iceland</td>
<td>1987 - 2009</td>
<td>17.28833333</td>
<td>6</td>
</tr>
<tr>
<td>Latvia</td>
<td>1993 - 2006</td>
<td>50.4675</td>
<td>4</td>
</tr>
<tr>
<td>Lithuania</td>
<td>1992 - 2008</td>
<td>69.2675</td>
<td>4</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>1989 - 2004</td>
<td>9.713333333</td>
<td>3</td>
</tr>
<tr>
<td>Macedonia</td>
<td>1990 - 2008</td>
<td>56.644</td>
<td>5</td>
</tr>
<tr>
<td>Malta</td>
<td>1987 - 2008</td>
<td>2.346</td>
<td>5</td>
</tr>
<tr>
<td>Moldova</td>
<td>1994 - 2009</td>
<td>45.718</td>
<td>5</td>
</tr>
<tr>
<td>Montenegro</td>
<td>1990 - 2009</td>
<td>30.9975</td>
<td>4</td>
</tr>
<tr>
<td>Poland</td>
<td>1991 - 2007</td>
<td>46.034</td>
<td>5</td>
</tr>
<tr>
<td>Romania</td>
<td>1992 - 2008</td>
<td>45.5625</td>
<td>4</td>
</tr>
<tr>
<td>Russia</td>
<td>1993 - 2007</td>
<td>47.2725</td>
<td>4</td>
</tr>
<tr>
<td>Serbia 2</td>
<td>1990 - 2007</td>
<td>42.115</td>
<td>4</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>1990 - 2006</td>
<td>58.35</td>
<td>5</td>
</tr>
<tr>
<td>Slovenia</td>
<td>1990 - 2008</td>
<td>49.296</td>
<td>5</td>
</tr>
<tr>
<td>Ukraine</td>
<td>1994 - 2007</td>
<td>36.405</td>
<td>4</td>
</tr>
<tr>
<td>Argentina</td>
<td>1983 - 2003</td>
<td>22.484</td>
<td>10</td>
</tr>
<tr>
<td>Australia</td>
<td>1946 - 2004</td>
<td>6.865217391</td>
<td>23</td>
</tr>
<tr>
<td>Austria</td>
<td>1946 - 2002</td>
<td>6.635294118</td>
<td>17</td>
</tr>
<tr>
<td>Belgium</td>
<td>1946 - 2003</td>
<td>11.665</td>
<td>18</td>
</tr>
<tr>
<td>Bolivia</td>
<td>1985 - 2005</td>
<td>39.452</td>
<td>5</td>
</tr>
<tr>
<td>Botswana</td>
<td>1966 - 2004</td>
<td>10.62875</td>
<td>8</td>
</tr>
<tr>
<td>Brazil</td>
<td>1986 - 2006</td>
<td>19.622</td>
<td>5</td>
</tr>
<tr>
<td>Canada</td>
<td>1945 - 2006</td>
<td>11.62368421</td>
<td>19</td>
</tr>
<tr>
<td>Chile</td>
<td>1989 - 2005</td>
<td>13.8775</td>
<td>4</td>
</tr>
<tr>
<td>Colombia</td>
<td>1958 - 2006</td>
<td>15.930625</td>
<td>16</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>1946 - 2006</td>
<td>29.85533333</td>
<td>15</td>
</tr>
<tr>
<td>Denmark</td>
<td>1945 - 2005</td>
<td>10.96086957</td>
<td>23</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>1978 - 2006</td>
<td>33.20714286</td>
<td>7</td>
</tr>
<tr>
<td>Ecuador</td>
<td>1979 - 2002</td>
<td>31.92888889</td>
<td>9</td>
</tr>
<tr>
<td>Country</td>
<td>Period</td>
<td>Value</td>
<td>Count</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------</td>
<td>---------</td>
<td>-------</td>
</tr>
<tr>
<td>El Salvador</td>
<td>1985 - 2006</td>
<td>17.84142857</td>
<td>7</td>
</tr>
<tr>
<td>Finland</td>
<td>1945 - 2003</td>
<td>8.03125</td>
<td>16</td>
</tr>
<tr>
<td>France</td>
<td>1946 - 2002</td>
<td>18.72857143</td>
<td>14</td>
</tr>
<tr>
<td>Germany</td>
<td>1949 - 2005</td>
<td>8.043333333</td>
<td>15</td>
</tr>
<tr>
<td>Greece</td>
<td>1974 - 2004</td>
<td>10.833</td>
<td>10</td>
</tr>
<tr>
<td>Honduras</td>
<td>1981 - 2005</td>
<td>6.788333333</td>
<td>6</td>
</tr>
<tr>
<td>India</td>
<td>1951 - 2004</td>
<td>26.74307692</td>
<td>13</td>
</tr>
<tr>
<td>Ireland</td>
<td>1948 - 2002</td>
<td>9.4625</td>
<td>16</td>
</tr>
<tr>
<td>Israel</td>
<td>1949 - 2003</td>
<td>20.112</td>
<td>15</td>
</tr>
<tr>
<td>Italy</td>
<td>1948 - 2001</td>
<td>15.35846154</td>
<td>13</td>
</tr>
<tr>
<td>Jamaica</td>
<td>1959 - 2002</td>
<td>14.695</td>
<td>10</td>
</tr>
<tr>
<td>Japan</td>
<td>1952 - 2005</td>
<td>14.11578947</td>
<td>19</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1974 - 2004</td>
<td>13.27142857</td>
<td>7</td>
</tr>
<tr>
<td>Mexico</td>
<td>1994 - 2006</td>
<td>20.5625</td>
<td>4</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1946 - 2003</td>
<td>12.51</td>
<td>17</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1946 - 2005</td>
<td>11.087</td>
<td>20</td>
</tr>
<tr>
<td>Norway</td>
<td>1945 - 2005</td>
<td>11.27133333</td>
<td>15</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>1977 - 1997</td>
<td>27.75</td>
<td>4</td>
</tr>
<tr>
<td>Portugal</td>
<td>1976 - 2005</td>
<td>16.14454545</td>
<td>11</td>
</tr>
<tr>
<td>Spain</td>
<td>1977 - 2004</td>
<td>17.59375</td>
<td>8</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1952 - 2004</td>
<td>16.72727273</td>
<td>11</td>
</tr>
<tr>
<td>Sweden</td>
<td>1948 - 2002</td>
<td>7.929411765</td>
<td>17</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1947 - 2003</td>
<td>7.439285714</td>
<td>14</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>1966 - 2002</td>
<td>27.34444444</td>
<td>9</td>
</tr>
<tr>
<td>Turkey</td>
<td>1983 - 2002</td>
<td>32.694</td>
<td>5</td>
</tr>
<tr>
<td>Uruguay</td>
<td>1984 - 2004</td>
<td>15.595</td>
<td>4</td>
</tr>
<tr>
<td>USA</td>
<td>1946 - 2004</td>
<td>3.419310345</td>
<td>29</td>
</tr>
<tr>
<td>Venezuela</td>
<td>1958 - 2005</td>
<td>32.936</td>
<td>10</td>
</tr>
</tbody>
</table>