The origins of electoral systems: A configurational research analysis

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Abstract
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The origins of electoral systems
A configurational research analysis

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Introduction

“Why do advanced democratic countries have different electoral systems?” (Cusack, Iversen, and Soskice 2007: p.373).

The study of the origins of electoral systems has been the focus of notable comparative research in recent years. In its simplest form, an electoral system may be conceived of as a means to translate votes into seats (Blais and Massicotte 1996, 1997). Specifically, an electoral system may be defined as “the process by which electoral preferences are articulated as votes and by which these votes are translated into distributions of government authority (typically parliamentary seats) among the competing political parties” (Rae 1971: p.14). Apart from their proximal impact in determining the outcomes of elections, that is, who governs, electoral systems seemingly exert a remarkable and profound impact on politics, the economy, and social regulation. A swathe of literature identifies strong correlations between majoritarian and proportional electoral systems and party systems and voting behaviour (Duverger 1954; Rae 1971; Taagapera and Shugart 1989), the organisation of the political economy (Rogowski 1987; Gourevitch 2003; Gourevitch and Shinn 2005), government expenditure (Persson and Tabellini 2004; Bawn and Rosenbluth 2006), and redistribution and social policies (Austen-Smith 2000; Alesina and Glaeser 2004; Iversen and Soskice 2006). Accordingly, the literature suggests that electoral systems are not neutral institutions but rather an inherently skewed set of rules which may include (or exclude) certain groups from policy-making processes, bias the representation of certain groups and interests, or lead to consistently distinct policies (Rodden 2007; Kreuzer 2010). Hence, the single decision of selecting and institutionalizing a particular type of electoral system over another may be regarded as one of the most important choices of a democratic society.

Yet, institutions are neither created as a random product of coincidental events nor are they reformed in a political or social vacuum; rather, they are the end result of ideas and interests, negotiations and debate, conflict and compromise. Electoral system reform, as with the reform of any other political institution, is a rather rare phenomenon, characterised by periods of significant change and uncertainty (Cox 1997; Caramani 2000; Andrews and Jackman 2005). Logically, and inevitably, the aforementioned correlations face the thorny question of institutional endogeneity: are the historical origins of electoral systems also the causes of the aforementioned policy outcomes that are seemingly attributed solely to electoral systems.
Indeed, little is known “about the processes by which history assigns countries to institutional categories” (Rodden 2007: p.4). Consequently, contemporary comparative studies are quantitatively and qualitatively examining the historical origins of electoral institutions and the various conditions which have given rise to cross-national variation in electoral systems (Rogowski 1987; Boix 1999, 2010; Andrews and Jackman 2005; Alesina and Glaeser 2004; Blais, et. al. 2005; Colomer 2005; Cusack, et. al. 2007, 2010a; Penadés 2008; Rodden 2008; Calvo 2009; Kreuzer 2010).

Consistent with Penadés the thesis acknowledges that “early representative regimes turned democratic when competitive elections were held with universal-manhood suffrage and when the government was accountable to an elected assembly” (2008: p.210). Up until the early twentieth century representatives in all early established democracies were elected by a severely limited franchise using either simple plurality or majority electoral rules. Coupled with plural voting and various capacity and financial requirements, these majoritarian systems induced a strong level of disproportionality in electoral results (Carstairs 1980; Bartolini 2000; Caramani 2000, 2004). Proportional rules first made their advent at the local and regional levels as in the cases of the local assemblies in Schleswig, or a number of cantons and states in Switzerland, Germany, and Austria; they were chiefly proposed by academics and scholars in a variety of countries as a means to generate “majorities that would reflect the collective preference (…) and avoid cynical majorities” (Caramani 2000: p.59). As scholars, societies, and reformist associations developed and debated various methods of allocation of seats, proportional methods gained support as the fairest rules by which minorities could gain representation and each vote could be made to count equally (Bartolini 2000; Caramani 2000). Moreover, the extension of the franchise towards universal manhood and universal suffrage was accompanied by population growth, industrialisation, the steady rise of a distinct working class, and urban migration; as the franchise extended, capacity and financial requirements were subsequently abolished, and new parties arose to represent the newly enfranchised masses in direct competitive elections (Bartolini 2000; Caramani 2000, 2002, 2004). Concomitant with these trends many countries reformed their electoral systems to varying extents, and by the end of the First World War a majority of European democracies had adopted a variant of the proportionally representative system. Nevertheless, at the same time majoritarian institutions continued to endure in the predominantly Anglo-Saxon group of democracies (Carstairs 1980; Bartolini 2000; Colomer
Why did a majority of early democracies in Western Europe adopt proportionally representative electoral systems by the end of the First World War? Conversely, why did the Anglo-Saxon democracies steadfastly maintain majoritarian electoral systems? More importantly, why did politicians engage in reforming the very rules and institutions which brought them into power?

The current body of research traces its origins to the writings of Karl Braunias (1932) and Stein Rokkan (1970). The traditional political explanation stresses a “convergence of pressures from below and from above. The rising working class wanted to gain access to the legislatures, and the most threatened of the old-established parties demanded PR to protect their position against the new waves of mobilized voters created by universal suffrage” (Rokkan 1970: p.157). Why though would established right parties reform the political system and implement rules in favour of their political rivals (Boix 1999; Cusack, et. al. 2007; Rodden 2008; Calvo 2009)? In response, contemporary studies have increasingly turned towards examining the effects of the various incentives and constraints facing political parties and legislators. Various approaches have underscored the relative importance of a particular set of political, social, geographical, or economic conditions; each in turn generating a chain of causal hypotheses and tacit assumptions.

In a formalised version of Rokkan’s (1970) traditional theory Boix (1999, 2010) specifies the conditions under which established right parties reformed the electoral system: “as the electoral arena changes (due to the entry of new voters or a change in voters’ preferences), the ruling parties modify the electoral system, depending on the emergence of new parties and the coordinating capacities of the old parties. When the new parties are strong, the old parties shift from plurality/majority to proportional representation if no old party enjoys a dominant position, but they do not do this if there is a dominant old party. When new entrants are weak, a system of non-proportional representation is maintained, regardless of the structure of the old party system” (1999: p.609). Hence, the expansion of the franchise and the subsequent rise of socialist parties prompted the established right parties, fearing imminent electoral losses, to pre-emptively implement proportional rules, provided that they could not coordinate amongst themselves under the existing majoritarian rules (Boix 1999, 2010).

An alternate account of the preference of political parties has been advanced by Andrews and Jackman (2005), Calvo (2009) and Rodden (2008), who primarily criticise the traditional literature for assuming uniform conditions across all districts. The authors emphasise “the
importance of uncertainty, seat-vote distortions, and redistricting problems in the elimination of majoritarian electoral rules in the early twentieth century (...) The increase in competition in the late nineteenth century crowded out well-established old parties in favor of territorially concentrated newcomers. Electoral reforms provided a mechanism to moderate the partisan biases brought about by increasing competition and to restore the pre-enfranchisement seat-vote properties of the electoral system” (Calvo 2009: p.255-256). The authors argue that even in the absence of a strong socialist threat the increase in competition adversely affected established parties, which in turn supported the implementation of proportional rules as a corrective mechanism to mitigate their electoral losses.

In a substantially different approach Cusack, et. al. contend that “the choice of electoral systems is endogenous to the structure of economic interests” (2007: p.388). The authors argue that the effective exploitation of co-specific assets, or skills jointly controlled by employers and employees, required a cooperative coordination framework; moreover, the nature of firm-labour coordination was critical to the development of firm- or industry-specific skills, vocational training, industrial policy, and social welfare (Cusack, et. al. 2007, 2010a). “The right adopted proportional representation when their support for consensual regulatory frameworks, especially (...) where co-specific investments were important, outweighed their opposition to the redistributive consequences (...) In countries with adversarial industrial relations, and weak coordination of business and unions, keeping majoritarian institutions helped contain the left” (Cusack, et. al. 2007: p.373). Hence, the authors hypothesise that where investments in co-specific assets were high and firm-labour relations were cooperative, political parties and legislators faced stronger incentives to embrace proportional rules; conversely, where these conditions were absent actors preferred the retention of majoritarian rules (Cusack, et. al. 2007, 2010a).

The three aforementioned theories are not the only ones to offer viable explanations of electoral reform; other notable approaches focus on the organisation of the left labour movement and its success in overcoming conservative resistance (Alesina and Glaeser 2004), the role of trade unions and their effects on the political strategies of socialist parties (Penadés 2008), a country’s dependence on trade (Rogowski 1987), and the diffusion of democratic ideas and successive rounds of voting in elections (Blais, et. al. 2005). However, notwithstanding the copious literature on the subject, there is a persistent empirical deficit due to the “rapid
proliferation of explanations and the limited dialogue between them” (Kreuzer 2010: p.384) and the translation of “proper names into variables and words into numbers” (Kreuzer 2010: p.369).

The myriad theoretical perspectives limit themselves to examining the role of certain explanatory variables without a true consideration of competing perspectives. Consequently, the numerous studies paint an uncertain panorama of implicit assumptions, complementary and competing variables and hypotheses, and pathways of causation. Moreover, the various studies limit themselves to examining a relatively restrictive population of approximately twelve to twenty cases. As a result, qualitative analyses provide rich contextual and historical information but limited and nuanced generalizable explanations (Rokkan 1970; Carstairs 1980; Alesina and Glaeser 2004). On the other hand, quantitative studies have yielded significantly different results during replication due to the modifications in theoretical assumptions, the measurement and operationalization of variables, and the methods used (Boix 1999, 2010; Andrews and Jackman 2005; Blais, et. al. 2005; Cusack, et. al. 2007, 2010a; Kreuzer 2010).

While quantitative analyses build upon historical case studies and examine the potential effects of multiple causes, they consider the relation between explanatory factors as mutually independent in order to avoid problems of multi-collinearity. Moreover, quantitative models assume the additivity of independent variables, implying that they are equally causally relevant in all cases irrespective of the constellation of other influential factors (Ragin 1987, 2008). Hence, each study develops a unique causal explanation and disregards any conjunctural relation between factors and accordingly, any alternate causal paths. As a result, empirical analyses have not yet broached the question of electoral reform in a comprehensive manner and have overlooked the potentially complex interactions between explanatory factors.

As evident, the reform of political institutions, is a particularly complex event; explanations of social phenomena are rarely linear or straightforward (Ragin 1987, 2003). Therefore, it is reasonable and intuitively valid to assume that political and economic interests, partisan and electoral calculations, formal and informal institutions, might have each impacted the process of electoral reform to varying extents; however, as their interaction is underspecified, and the methods and results are fiercely contested, the various chains of causality put forth by

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1 Even most recently, Kreuzer’s (2010) replication of Boix’ (1999) and Cusack, et. al.’s (2007) studies has not engaged in examining a potential interaction of effects between different theories. While Leemann and Mares (2013) have comparatively examined the hypotheses of Boix (1999), Cusack, et. al. (2007), and Calvo (2009), they have however limited their analysis to the German parliament, and do not provide readily generalizable conclusions.
each theory merit further scrutiny and validation. Therefore, the present thesis aims to contribute to the existing body of theoretical and case-oriented literature by approaching the question of electoral system reform in a holistic manner. Specifically, the thesis examines the circumstances in which actors succeeded in reforming electoral systems from majoritarian to proportional rules. Second, and conversely, the thesis examines the circumstances in which actors succeeded in retaining majoritarian electoral rules.

Consistent with the studies reviewed, the present research question does not seek to elaborate an overarching framework nor explain each instance of electoral reform, but specifically limits itself towards examining the effects of factors facilitating the adoption of proportional rules and the retention of majoritarian rules in early European and Anglo-Saxon democracies during the turn of the late nineteenth and early twentieth centuries. As electoral rules have largely remained stable over time and only a minority of countries have repeatedly reformed their electoral system it is beyond the scope of the thesis to examine the conditions which may have contributed to such repeated instances of reform. The temporal limits of the research extend roughly from the penultimate decade of the nineteenth century until the inter-war period. As countries do not democratise, industrialise, or reform their electoral systems simultaneously, care is taken to explicitly define temporal limits for the cases and conditions studied. Arguably, it is irrelevant to examine conditions once the choice of electoral systems had been made and hence 1925 may be considered as a reasonable temporal limit.

In order to respond to the research question the thesis argues for the use of a configurational research method, namely, crisp-set Qualitative Comparative Analysis (QCA) as developed by Charles Ragin (1987, 2003, 2008). The QCA approach serves both as a research method as well as a formal tool for analysis and strives to “integrate the best features of the case-oriented approach with the best features of the variable-oriented approach” (Ragin 1987: p.84). In essence, the QCA approach serves as a platform for the analysis of a small to an intermediate number of cases and attempts to capture the particularly complex nature of causal relations as well as generate modest generalisations (Ragin 1987, 2003). As a synthetic research strategy QCA combines a qualitative case-oriented research method with formal logical analysis grounded in Boolean algebra. The research approach consists of the iterative process of theory

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2 Crisp-set QCA is one variant of the three principal QCA techniques and relies on a binary dichotomization of values (1 or 0). The other two QCA techniques include Multi-value QCA, which allows for the ordinal ranking of values (0, 1, 2,…), and Fuzzy-set QCA, which allows for the assignment of intermediate values between 0 and 1.
building, conceptualisation of models, case-selection, data collection and the operationalization of outcomes and causal conditions, and engenders a continuous dialogue between cases and theories. The analytical strength of QCA resides in its power to identify patterns of conditions within and across cases, indicated by the presence of logical relations between causal conditions and the outcome.

As a synthetic configurational research method QCA offers a novel perspective of causation by incorporating certain key assumptions, which stand in stark contrast to conventional qualitative and quantitative methods, and which, in turn, make the method particularly apt for the present thesis. Specifically, the QCA paradigm rejects the conventional assumptions of quantitative analyses such as the additivity and linearity of variables, the independent nature of relations amongst causal factors, or the homogeneity of causal effects; due to its focus on explaining complexity when diversity is limited the approach refrains from relegating cases to statistical errors or outliers. Instead, the QCA approach demands that social phenomena be conceived of in terms of multiple conjunctural causation and causal asymmetry. The concept of multiple conjunctural causation comprises the notions of multiple causation, conjunctural causation, as well as hetero-causality or equi-finality. While multiple causation is a trait shared by both quantitative and configurational approaches, QCA emphasises conjunctural causation, which posits that certain outcomes are produced only in the presence of particular combinations of conditions (Ragin 1987, 2003). Hence, different causal factors exert varying influences on the presence or absence of the outcome depending on the context of the case and the constellation of other causally relevant conditions. Moreover QCA incorporates the notion of hetero-causality or equi-finality, suggesting that there may be multiple pathways leading to the presence and absence of the outcome, each comprising similar or different combinations of causal conditions. Closely related, the concept of causal asymmetry posits that the absence of a causally relevant condition leading to the presence of the outcome may not be equally relevant for the absence of the outcome (Ragin 1987, 2003). Hence, it may well be the case that certain theoretical perspectives are more relevant in explaining the adoption of proportional rules rather than the retention of majoritarian rules, and vice-versa. Finally, QCA permits the integration of various ontological issues during the development of the research design and demands explicit

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3 According to the QCA approach the dependent and independent variables are specifically referred to as the outcome and causal conditions, respectively (Ragin 1987; Schneider and Wagemann 2007).
justifications for all assumptions, as well as the calibration and coding of data, it is an appropriate method for the deductive validation of theoretical perspectives on one hand, as well as the inductive identification of potential causal ingredients and recipes on the other.

In addition to responding to the research question, the thesis specifically seeks to contribute to the existing literature by examining the question of electoral system choice for the first time by means of configurational research method. The salient features of the QCA approach render it particularly appropriate for an active discussion between various theoretically informed causal conditions and empirically observed cases. Hence, the thesis explicitly anticipates the question of electoral system choice to defy the generalised and deterministic theoretical perspectives developed thus far, and strives to identify the extent to which different theories, or combinations of theories, are pertinent to the adoption of proportional rules and the retention of majoritarian rules.

The thesis is structured in three main chapters. The first chapter presents the literature review, the second chapter is dedicated to the development of a research design, and the third chapter concludes with the presentation and discussion of the results. The detailed literature review presents all relevant theoretical perspectives and identifies the explicit and implicit assumptions and links in the chain of causality. Consequently, empirically testable hypotheses are generated and a prospective research design is outlined. Due to the number of differing perspectives and hypotheses the research design re-groups causal conditions wherever possible. The research design subsequently details the various step of the QCA method, and explicitly defines and operationalizes the outcome and the causal conditions; validity and reliability issues are also addressed. The third chapter places particular emphasis on the review and interpretation of results in terms of combinations of conditions and logical relationships; simultaneously, the discussion retraces the various configurations with the corresponding country cases. Following the discussion, various limitations and potential biases are addressed and further avenues of reflection are identified.
1. Theoretical framework

1.1 Electoral systems

Prior to reviewing the diverse theoretical perspectives it is essential to conceive of electoral systems in functional terms. Electoral systems may produce relatively different results according to the electoral formula in use, the district magnitude, and the level of apportionment (Lijphart 1994; 2012); further non-negligible variation in electoral results may be induced by the structure of choices offered on ballots, the size of the legislature, the influence of presidential elections, and interparty links (Rae 1971; Blais 1988; Blais and Massicote 1996; Lijphart 2012). Nevertheless, in general, electoral systems may be classified into two broad families according to the electoral formulae used: majoritarian systems (including simple plurality and two-round majority ballots), and proportional systems (including mixed systems if they tend to generate proportional results).

Electoral formulae determine how many votes are required for the allocation of a seat to a candidate or party via the use of various principles and mathematical formulae. Simple plurality electoral systems espouse the concept of first-past-the-post and the candidate with the most number of votes is elected. Majority electoral systems are akin to their plural homologues with the distinction of an increased threshold of selection, which covers at least fifty per cent of the electorate; a candidate must thus secure more than fifty per cent of the votes to be elected. Majority systems may make use of subsequent rounds of voting where there are more than two candidates or where no clear majority exists in the first round. The top two candidates, or all those surpassing a certain threshold, compete in a second round, which is decided by a run-off or simple plurality (Blais and Massicote 1996; Lijphart 1994, 2012). On the other hand, proportionally representative electoral systems aspire to reflect the diverse interests of the population as accurately as possible in the legislature; thus, seats are allocated according to the share of votes secured by a party. Mixed systems combine elements of majoritarian as well as proportional rules with the aim of increasing proportionality by combining features of both systems. Thus, certain candidates are elected using simple plurality-majority rules while others are elected using proportional rules (Blais and Massicote 1996; Lijphart 1994, 2012).

The district magnitude refers to the number of candidates elected from a district to the same legislative body (not the geographical size of the district or electorate); thus, single-member districts have only one representative while multi-member districts elect more than one
representative (Lijphart 1994, 2012). Plurality and majority electoral formulae may be implemented in both single- and multi-member districts, whereas proportional electoral formulae require multi-member districts by definition to function (Lijphart 1994, 2012). District magnitude is a critical feature of both majoritarian and proportional types of electoral systems and affects them in relatively different manners; an increase in district magnitude in majoritarian systems reduces proportionality by providing increased gains to larger established parties, whereas an increase in district magnitude in proportionally representative systems increases proportionality by accommodating smaller parties (Lijphart 1994, 2012). In proportionally representative systems district magnitude regulates the degree of proportionality of results, with nation-wide districts providing the optimal level of proportionality and smaller districts providing lower levels of proportionality (Lijphart 1994, 2012). However, as districts district magnitude increases, usually so does the geographic size of the constituency. In proportional systems large constituencies significantly amplify proportional effects and prevent gerrymandering of districts. In general, diverse societies are typically characterised by a large number of districts while fewer districts are found in homogenous societies (Blais and Massicotte 1996, 1997; Carter and Farrell 2010).

The electoral threshold is an explicit barrier to entry that stipulates the minimum percentage of votes or number of seats a candidate or party must gather in order to win representation in parliament. “District magnitudes and electoral thresholds can be seen as two sides of the same coin: the explicit [Sic] barrier (...) imposed by a threshold has essentially the same function as the barrier implied by district magnitude” (Lijphart 2012: p.140). Electoral thresholds may be used in both majoritarian as well as proportional electoral systems in order to ensure that only parties with a certain minimum level of support may be represented in parliament. More importantly, an additional and implicit effective electoral threshold forms a natural barrier to entry and is intrinsically linked to the mechanics of electoral systems (Lijphart 1994). The effective electoral threshold is the level required to secure parliamentary representation with a probability of fifty per cent (Lijphart 1994; Taagapera and Shugart 1989). In majoritarian systems the effective threshold usually ranges from thirty to forty per cent while in proportional systems the threshold is usually lower than twenty per cent (Lijphart 1994; 2012; Boix 1999, Cusack, et. al. 2007).
In addition to the formulae in use, and the district magnitude, apportionment affects the proportionality of electoral results to an important degree by distorting the vote to seat ratio. In a perfectly apportioned system a party receives as many seats as votes; however, due to the incommensurate nature of population and constituency size, or the over-representation of certain geographic areas, malapportionment results in parties receiving a far lower share of seats than their share of votes (Lijphart 1994, 2012). Malapportionment has historically been due to rural over-representation and is “especially hard to avoid in plurality and majority systems with single-member districts, because equal apportionment requires that relatively many small districts be drawn with exactly equal electorates or populations” (Lijphart 2012: p.143).

The ballot structure also plays an important role by framing the range and nature of choices available to voters. Voters may cast one vote for one candidate or transfer preferences as typically done in majoritarian systems or with the alternative vote. In proportional systems voters may be offered closed or open party lists which enable either the party organization or voters to nominate and rank candidates, respectively, as well as transfer votes, as in the single-transferrable vote. Closed lists concentrate relatively more power at the level of the party whereas open lists enable voters to rank their preferred order of election of candidates of a particular party (Lijphart, 1994; Blais and Massicotte 1996, 1997; Carter and Farrell 2010).

As small parties may face notable barriers to entry, apparentement, or the ability to link party votes in a formal cartel, serves as a corrective mechanism and contributes towards the overall proportionality of electoral results. Party interlinking enables parties to connect ballot lists, advocate for a candidate from another party as a second or alternate preference, or negotiate withdrawal or competitive strategies and trade crucial districts (Lijphart 1994, 2012). The number of seats available also tends to affect the proportionality of results. Since it is increasingly difficult to accurately allocate a small number of seats amongst different percentages a lower number of available seats tend to diminish the overall proportionality of the results (Lijphart 1994, 2012). Thus, in proportional systems with legislatures with more than one hundred seats the effect of the number of available seats is negligible, while it is significant for smaller legislatures (Lijphart 1994, 2012). Certain legislatures also include additional tiers of seats at either the national, district, or regional level, which may be allocated by majoritarian or proportional formulae (Lijphart 1994). Finally, presidential elections also tend to display a significant effect on parliamentary election results “because the presidency is the biggest
political prize to be won and because only the largest parties have a chance to win it, these large parties have a considerable advantage over smaller parties that tends to carry over into legislative elections” (Lijphart 2012: p.142).

Although all electoral systems tend to produce disproportional results by tending to favour larger established parties there is a stark divide separating the proportional nature of results of typically majoritarian and proportionally representative systems (Lijphart 1994, 2012). According to Gallagher’s index of disproportionality, which aggregates the vote-to-seat share deviations of all parties in a particular election, proportionally representative systems tend to display disproportionalities between one and five per cent while majoritarian systems generate disproportionalities between ten and twenty per cent, or over (Lijphart 1994, 2012). Thus, in spite of the various determinants of proportionality inter alia district magnitude, legal thresholds, and apparentement, electoral formulae in themselves tend to generate distinct clusters of disproportional or proportional electoral results.

1.2 Theoretical perspectives

The following section outlines the various theoretical approaches, key propositions and arguments, and the methods used to validate empirical findings by the contemporary studies examining the origins of electoral systems. The literature review elaborates on the causal chains proposed by each theory in order to elucidate any implicit causal links, weighs critical and contradictory claims of different approaches, and strives to identify gaps in the research agenda. Although three principal approaches have been outlined in the introduction the literature review presents the central claims and arguments of all relevant theories. Subsequently, the most pertinent causal conditions are specified in terms of sufficiency and necessity and causal hypotheses are developed.

1.2.1 Socialist challengers and divided incumbents

Boix (1999) specifies the conditions under which countries shift from majoritarian to proportional systems by elaborating on the traditional political perspective and replacing Rokkan’s (1970) concept of cleavages and hostility amongst established right parties with notions of party competition and electoral success. Boix contends that since electoral institutions “encourage the strategic behaviour of both elites and voters and hence force their coordination
around a set of viable candidates”, a new, and often left-wing, party could enter the electoral arena in such a manner so as to force a coordination problem for the right incumbent parties (1999: p.609). In these circumstances, risk-averse incumbent parties would support proportional representation in order to maintain their parliamentary representation (Boix 1999). However, Boix (1999, 2010) specifies that countries do not shift if there is one dominant incumbent right party which expects to become the rallying force against the left parties. For this reason, “the plurality/majority system survived under two circumstances. First, it remained in place in those countries in which the new entrant (a socialist party) was weak and, itself the victim of strategic voting, could not challenge any of the established parties. Second, it was maintained in those countries in which, although the new entrant became strong, one of the established or nonsocialist parties retained a dominant position in the nonsocialist camp (…) By contrast, proportional representation was adopted in those countries in which the socialist party was strong and nonsocialist parties controlled roughly similar shares of the electorate.” (1999: p.609).

In response to Kreuzer’s (2010) critical commentary Boix (2010) vaguely specifies that party preferences towards a particular set of electoral rules may also be conditioned by the segmented (territorially concentrated) or competitive (territorially dispersed) nature of the electoral market, implicitly acknowledging the validity of the political geography perspective as developed by Rodden (2008) and Calvo (2009). Boix (2010) specifies that as socialist parties grew, for the most part, in segmented urban and industrial electoral markets, the urban-based right parties faced stronger incentives to embrace proportional rules while rural parties preferred the status quo. However, in competitive markets the dominant or non-dominant nature of right parties is an important factor, as the dominant right party would prefer to retain majoritarian rules in order to squeeze out its right party rival (Boix 2010).

Boix (1999, 2010) supports his theory by measuring the influence of the variables of an electorally strong left party (measured by their proportion of national votes), and the fragmentation of right parties (measured by the effective number of parties), on the evolution of electoral systems (measured by the change in the effective electoral threshold). Boix (1999, 2010) concludes that it is principally the interaction of the joint effects of the threat posed by rising socialist parties and the fragmentation of the right which led to the adoption of proportional rules.
Boix’ (1999; 2010) explanation focuses on the problems of coordination (or the lack thereof) to the incumbent right parties and applies primarily to plurality elections in single-member districts. The explanation is intuitively appealing as it embodies a rather straightforward rational and deterministic logic. The stated preferences of right-wing parties are congruent with the assumption that political actors are risk-averse, and will strive to minimise competition and maximise their representation. Hence, it is logical that the greater the number of parties competing in the arena, the more likely are old parties to implement proportional rules. Nevertheless, Boix (1999, 2010) reasons that if one right party is dominant and expects to absorb the support of its right-wing rival, majoritarian institutions are maintained.

Although Boix (1999, 2010) supports his quantitative empirical analysis with limited case-oriented details the studies have been criticised for a number of reasons. First, the logic underlying potential problems of coordination has been called into question for the reason that prior to the adoption of proportional rules most countries used two-round majority systems and not simple plurality systems; hence, once all parties, save those which qualified for the second round, had been eliminated voters necessarily knew which remaining right party to support (Blais, et. al. 2005; Cusack, et. al. 2007). However, Leemann and Mares (2013) exercise caution and present several historical examples where right parties eliminated from the first round explicitly urged their electorate to eschew voting for the remaining right party, thus handing victories to socialist parties. Specifically, Leemann and Mares argue that “runoffs are themselves an indicator of coordination difficulties for parties on the right” (2013: p.12). Accordingly, the critique of Boix’ (1999) perspective of coordination may be nuanced by reasoning that while the two-round majority system did offer a viable solution to coordination problems it did not completely alleviate their negative effects on incumbent right parties in each instance.

Second, and more importantly, Boix’ (1999; 2010) use of Laakso and Taagapera’s (1979) effective number of parties to measure the dominant or non-dominant structure of right parties has been criticised for lacking in validity. Indeed, the indicator does capture the overall level of fragmentation of right parties but underestimates or fails to differentiate cases with two evenly balanced right parties from those with a clearly dominant right party (Cusack, et. al. 2007; Kreuzer 2010). However, neither Cusack, et. al. (2007) nor Kreuzer (2010) propose an alternate measure for their replication of Boix’ (1999) study. Hence, the present thesis seeks to establish a
suitable measurement of the dominant or non-dominant nature of right parties for the evaluation of its relevance in affecting electoral reform.

The causal chain developed by Boix (1999, 2010) is relatively short and identifies important causal factors affecting the decision of electoral reform. First, coordination problems arise from the inevitable expansion of the franchise or an increase in party competition (Boix 1999). Hence, the first link in the causal chain is a significant shift in the electorate or an extension of the franchise, which subsequently results in support for a rising socialist party and coordination problems for parties of the right. Reasoning counterfactually, it may be assumed that if the extension of the franchise or rise in competition is slow and gradual, incumbents may face a relatively weaker threat from rising socialist parties as they have more time to resolve potential coordination issues by re-alignment, party fusion, or electoral cartels. Second, and as acknowledged by Boix (1999), it is chiefly the incumbent right parties who hold a monopoly over legislation, and hence any potential electoral reform; therefore, it is reasonable to assume that wherever possible proportional representation is introduced and implemented by divided incumbent right parties rather than by a rising socialist party. Third, and logically, the adoption of proportional representation should be supported by most, if not all, right parties (Kreuzer 2010). Thus, in addition to the conditions of a socialist threat and a fragmented right, the nature of the extension of the franchise, the implementation of reform by incumbents, and all incumbent support for reform may also contribute towards the adoption of proportional rules. Hence, it may be specified that proportional rules are more likely to be adopted when there is a significant shift in the electorate, a strong socialist threat and no dominant right party (Boix 1999, 2010). Additionally, proportional electoral reform is more likely to be implemented if it is proposed by divided right parties and has the support of all right parties (Kreuzer 2010). Conversely, majoritarian rules are more likely to be maintained when there is no significant shift in the electorate or challenge to the incumbents. Majoritarian rules are also more likely to be maintained when there is a strong socialist threat as well as a dominant right party, or when the socialist threat is weak, irrespective of the structure of the right parties (Boix 1999, 2010).

1.2.2 The social mobilisation of the labour movement

While elaborating significantly on the preferences of parties to the right of the political spectrum, Boix (1999, 2010) is relatively silent as to the preferences of left-wing parties
concerning electoral reform. In turn, Alesina and Glaeser (2004) give relatively more credence to Rokkan’s (1970) perspective of a rising working class seeking enfranchisement and access to parliament and government. The authors underscore that proportional representation has been the predominant policy preference of left parties and make the case that “suffrage and proportional representation were generally accompanied by a breakdown in law and order (...) and often a breakdown in the willingness of the military to defend the status quo (...) As such, the political power of socialist and labour groups in the early part of the century are the primary cause of proportional representation in Europe” (Alesina and Glaeser 2004: p.106-107). The authors note that proportional representation was only one of many policies championed by the left during the turn of the century and highlight the fact that even when proportional representation was implemented by incumbent right parties it was done so in direct response to the implicit threat posed by the socialists and the mobilised labour movement (Alesina and Glaeser 2004). Thus, proportional systems were implemented when the socialist movement succeeded in obtaining its demands; it failed when the socialist movement failed.

Alesina and Glaeser (2004) support their generalisations by providing a qualitative tour of the rise of labour movements across Anglo-Saxon and European countries, underscoring the importance of the capacity of labour movements to effectively organise and demand reform on one hand, and overcome resistance on the other. Specifically, the authors stress the importance of geographic and social density, ethnic and racial heterogeneity, and the willingness of the military to defend the status quo as key conditions influencing the success or failure of the labour movement (Alesina and Glaeser 2004). However, while the authors highlight the conditions of density, homogeneity, and military opposition as causally relevant, they fail to explicitly specify any chain of causality leading to the adoption of proportional rules or the retention of majoritarian rules.

Alesina and Glaeser (2004) engage the question of endogeneity of electoral institutions and contemporary public policy by outlining the importance of the labour movement within the larger historical context of democratisation and industrialisation. Although the argument developed is relatively simplified and perhaps hyperbolic, the authors underscore the importance of the social mobilisation of the left as a causal factor as opposed solely to electoral success of left parties. In effect, the authors imply that the importance of the electoral strength of left parties is only appropriate within the wider context of the mobilisation of the labour movement.
For Alesina and Glaeser (2004), as for Boix (1999), a strong left movement is a necessary development for proportional systems. Consequently, the authors implicitly acknowledge that Boix’ (1999) predictions may very well hold true for certain cases; the disagreement then relates to whether incumbent parties implemented proportional representation in order to pre-empt the left threat or whether they acquiesced to socialist demands. Similarly, both approaches consider that majoritarian institutions are likely to be retained when the socialist threat or labour movement is relatively weak. In effect both Boix (1999) and Alesina and Glaeser (2004) sketch a picture of proportional representation as dependent upon the interactions between a strong left movement and the opposing level of conservative resistance. However, in contrast to Boix (1999), Alesina and Glaeser (2004) argue that the adoption of proportional representation is primarily dependent upon the conditions affecting the ability of left parties and labour groups to mobilise and extract their desired reform; specifically, favourable geographic concentration and urban density, ethnic and religious homogeneity, and the likelihood that the military is too disorganised to defend the status quo (Alesina and Glaeser 2004).

Although the demand for proportional representation was only one amongst many larger reforms of the period Alesina and Glaeser (2004) succeed in highlighting the role of the social mobilisation of the labour movement in impacting the choice of electoral rules. Indeed, the number of strikes, protests, and riots which preceded proportional electoral reform in a number of countries may serve as an appropriate indicator of the level of social mobilisation organised by the left. Moreover, Alesina and Glaeser (2004) enlarge the traditional political perspective by considering entire social groups with collective and long-term interests as primary actors and implicitly assume that all left parties uniformly preferred proportionally representative rules. In turn, they place relatively little importance on the influence of strategically-calculating politicians with short term political horizons. Nevertheless, the different views of actors as social and as rational individuals may be reconciled to some extent. Since Alesina and Glaeser (2004) do not distinguish between the net influence of left movements and the influence of left parliamentary parties it is reasonable to consider the combination of strong left parliamentary parties and high levels of left social mobilisation as substitutable aspects of the same condition, specifically, the threat posed by a socially and politically mobilised left. Hence, it is reasonable to assume that an electorally strong socialist party may be indicative of a general labour movement and social mobilisation, or the potential to mobilise the left electorate. In turn, a
strong electoral left party may obviate the need for protests by providing an electoral channel to the left (Alesina and Glaeser 2004).

Alesina and Glaeser (2004) similarly concur with Boix (1999) that in cases where the incumbent right was strong majoritarian intuitions were maintained. Assuming that in order to command the effective support of the military an incumbent right government must also hold some measure of parliamentary support it is reasonable to nuance the division of the right with the levels of State repression, and as such outline the capacity of the State to repress movements and their use of the means available to do so. Therefore, the dominant or fragmented nature of the right may serve as a rough substitute of general levels of State repression, and may be hence be used to nuance results instead of as a separate and distinct causal conditions.

1.2.3 Left party and trade-union relations

While Alesina and Glaeser (2004) present a picture of a unified socialist push for proportional representation, Penadés (2008) cautions against assuming support by socialists for proportional representation as uniform and invariant across countries. Instead, Penadés (2008) explains the preference of socialist parties towards proportional institutions as a function of their pre-determined political participation strategy, their close or fragmented relations with unions, and their willingness to take on the reins of government; thus, left “parties with a close relationship with trade unions resisted proportional representation, whereas parties weakly related to trade unions, and often weak themselves, endorsed it” (Penadés 2008: p.223). Subsequently, Penadés suggests that socialist parties in favour of proportional rules should be “relatively more divided, more politically isolated, more stagnated in their electoral growth, and more reluctant to take office. The contrary should be expected of parties that resisted, or tried to resist, proportional rule” (2008: p.208).

The division of socialist parties into ‘proportionalists’ and ‘nonproportionalists’ is dependent upon the relationship between the party and unions, and the subsequent effects it may entail “on the pattern of coalitions and alliances (...) on party centralization; and (...) on the variability in policy influence, including the rules of access to government” (Penadés 2008: p.223). In effect, “unions provided the very same benefits PR [Sic] offered and thus obviated the need for those parties to support it” (Kreuzer 2010: p.383). Strong party-union relations provide incentives to socialist parties to implement their ideal policy by directly controlling a majority in
government rather than in coalition with partners; hence, they are also more likely to be less risk-averse to the variability of representation. Thus, strong socialist parties in solidarity with organised unions advocated for the retention of majoritarian rules, while weak socialist parties with fragmented relations with unions advocated for proportional rules (Penadés 2008).

Penadés acknowledges that socialist mobilisation is a close sufficient condition for reform; “proportional reform processes were related to the rise of socialist parties (...) In nearly every country where a significant socialist party appeared, proportional representation was at least considered by some political forces” (2008: p.214-215). Hence, Penadés (2008) asserts that socialists for the large part were leading advocates for proportional representation; however, where they enjoyed strong union support they either opposed or were internally divided concerning proportional rules. Hence, Penadés (2008) further contributes to the theoretical perspectives outlining the role of left parties by emphasising the condition of trade union-left party relations.

In regards to the corresponding preferences of right parties Penadés underscores that “every catholic party was instrumental in the introduction of PR [Sic], (...) an empirical regularity that cannot be found in any other party family” (2012: p.18). Considering catholic parties as religious parties and not merely part of the political or economic right is reasonable, especially if the catholic party strategy is to participate predominantly as an independent party and not as a minor party in a coalition (Penadés 2012). Implicitly, Penadés (2012) acknowledges that the mobilisation of catholic parties may have contributed to the fragmentation of the right parties and electorate.

Hence, Penadés (2008) specifies that proportional rules are more likely to be implemented when socialist parties (proportionists) have weak relations to unions, experience weak electoral growth or internal schisms; proportional rules are also more likely to be adopted where catholic parties mobilised independently of other conservatives. Conversely, majoritarian institutions are more likely to be retained when socialist parties (nonproportionists) have strong relations to unions, experience rapid electoral growth and a cohesive organisation (Penadés 2008).

Penadés (2008) supports his theory by comparing the ratio of socialist voters and unionised workers, measured around 1919, with the stated preferences of left parties towards electoral rules, the size of parties, and the participation of socialist parties in government.
However, the measurement of the ratio of socialist voters to unionised workers in 1919 may be critically evaluated for its validity. Penadés contends that as the ratio of socialist voters to unionised workers is an approximate measure of the strength of unions within the socialist movement, the date of measurement of 1919 is appropriate as it is prior to the entry of communist parties and concomitant or following the large-scale mobilisation of the electorate in the majority of countries; furthermore, it “is the time slice closer to electoral reform in most cases” (2008: p.237). However, it may be argued that 1919 is also the year closest to which socialist parties in all countries had become socially and politically strong and when there was significant pressure for democratic reform following the end of the First World War (Bartolini 2000). In certain countries such as Belgium, Finland, or Sweden, electoral reform was implemented well before the First World War, in 1899, 1906, and 1909, respectively. In turn, the measure of union strength may be severely overestimated and a time-ordering problem is presented.

It is problematic to consider the influence of trade unions as a causal condition in its own right. It may be argued, consistent with Alesina and Glaeser (2004), that trade union support is endogenous to the success of the labour movement; however, the critique may be nuanced by noting that while both trade unions and socialist parties aimed to represent the interests of the left and the labour class, they did so via different arrangements and in distinct sectors, namely, the corporate and the electoral channels (Bartolini 2000; Penadés 2008). Hence, the influence of party-union relations may well be considered exogenous to the strategies of political parties and unions (Bartolini 2000; Penadés 2008). Nevertheless, as the condition determines the preference of socialist parties towards electoral rules and does not imply a specific chain of causality towards their adoption, the role of trade unions is not considered as an independent condition but may be used instead to nuance the results of the analysis, particularly for cases where proportional rules were implemented by socialist parties.

Since Penadés (2008) argues that catholic parties were instrumental in implementing proportional rules as they contributed towards the fragmentation of the structure of right parties it would be spurious to include their mobilisation as a distinct casual condition in addition to dominant or non-dominant structure of the right. Furthermore, in countries without catholic parties it is difficult to identify adequate functional equivalents save for a divided right. Hence,
the condition of Catholic party mobilisation may be considered as substitutable with that of a divided right.

1.2.4 Majoritarian and partisan biases

The political geography approach primarily criticises the traditional political explanations for assuming nearly perfect information and a uniform socialist threat as a homogenous development across all districts (Andrews and Jackman 2005; Rodden 2008; Calvo 2009). Andrews and Jackman (2005) argue that it is illogical to assume that parties and legislators had perfect information; the authors instead posit that political actors more often than not used their vote-seat share ratios as an informative indicator to gauge their electoral and parliamentary success. Hence, “any strategic behavior was short-term at best, reflecting the largest party’s most recent experience in the preceding election” (Andrews and Jackman 2005: p.65).

Rodden (2008) advances historical evidence highlighting the concentration of the socialist threat in space. Rodden (2008) argues that right parties did indeed face a socialist threat as left parties expanded and diversified support, but this was limited to certain districts. Thus, due to the asymmetric concentration of support coordination problems were mostly experienced by parties of the left, and hence often, to the advantage of the dominant incumbent party (Rodden 2008). Similarly, Calvo argues that “the expansion of the franchise resulted in a substantial increase in the number of parties and, consequently, in significant partisan biases that adversely affected well-established political elites” (2009: p.256). The authors formulate an overarching hypothesis that proportional representation was adopted in countries where parties were being squeezed out of electoral markets by increasing competition and an unfavourable territorial distribution of the vote, all under conditions of severe uncertainty.

Specifically, the authors allude to two types of biases which adversely affected political parties and subsequently influenced their preference for particular electoral rules: majoritarian biases and partisan biases. Majoritarian biases arise from an increase in party competition; hence “if two parties are competing under majoritarian electoral rules (...) a new entrant that draws votes more heavily from one of the old parties would have a dramatic effect on the expected seat shares of all parties. By contrast, under relatively proportional rules, each new entrant would mildly increase the majoritarian representation parameter. The more the effective number of parties, the more majoritarian the allocation of seats.” (Calvo 2009: p.265). Partisan biases in
turn arise from the heterogeneous distribution of support: “an increase in competition generates a districting problem where there was none before (...) A minority party with a territorially concentrated constituency (...) will suffer fewer seat losses than a party with a similar vote share whose constituency is territorially dispersed” (Calvo 2009: p.265-268). Thus, out of the alternatives available to the established parties – accept larger majoritarian and partisan biases, or change the electoral system to reflect a proportional allocation of seats – the latter would be the most rational choice (Rodden 2008; Calvo 2009).

The authors assume that under limited franchise, socialist entry would prove be difficult and hence, socialist parties would tend to exhibit preferences for proportional rules; even under a broad franchise if socialist support was widely dispersed the party would face difficulty in gaining representation (Rodden 2008; Calvo 2009). If the franchise was already sufficiently large and socialists gained significant support across a majority of districts, it may well be theorized that they would have an incentive in retaining majoritarian rules in order to completely dominate the left and hedge the liberal party out (Rodden 2008). Correspondingly, in cases where the socialists gained entry in former strongholds of the extreme right party, the liberal party would benefit from the conservative squeeze, and thus lead instead to conservative right parties championing the shift towards proportional rules (Rodden 2008). Hence, party preferences are influences by the effects of electoral biases, which are revealed by the differences in vote and seat shares.

Concerning the retention of majoritarian systems Andrews and Jackman (2005), Calvo (2009), and Rodden (2008) advance largely case-by-case explanations of party preferences that eventually lead to maintenance of plurality or majority rules. Contrasting failed attempts at reform the authors outline two general arguments which specify the endurance of majoritarian rules: first, liberals either mistakenly believed that they could recapture their support against the rising left parties, and only advocated for proportional rules once it was too late, and second, socialist parties were already well established in the political arena and occupied the left spectrum before the expansion of the suffrage; they therefore believed that they could effectively compete against conservatives under existing majoritarian rules once suffrage was extended and the liberal party eliminated; however, this depends, evidently, on the effects of electoral bias which affected socialist parties differently in different countries.
Uncertainty and coordination is an equally central feature of the political geography explanation and arises due to the asymmetric extension of the franchise and heterogeneous distribution of support. As the electorate expanded new coordination problems arose on the right and the left, and this determined party preferences towards proportional or majoritarian rules. The level of electoral bias advanced by Calvo (2009) depends upon the number of parties contesting majoritarian elections and thus, the intensity of increasing competition, as well as the territorial concentration of support in space. Similarly, Rodden’s (2008) framework underscores the magnitude of the extent of the franchise and the location of support as determining conditions and Andrews and Jackman (2005) point to the difference in vote and seat shares as key to influencing party preferences. Therefore, it is reasonable to hypothesise that proportional rules are more likely to be adopted when the seat-vote distortions under the existing rules affect the incumbent parties adversely (Andrews and Jackman 2005; Rodden 2008; Calvo 2009). Majoritarian rules are more likely to be maintained when seat-vote distortions do not affect incumbent parties adversely or if they benefit an already established left party to the detriment of one of the incumbent parties (Rodden 2008).

1.2.5 Co-specific assets and economic relations

For Cusack, et. al. (2007, 2010a) the political choice of electoral rules is contingent upon the structure and organisation of the economy; more precisely, the levels of investment in assets jointly controlled by business and labour, and the cooperative or adversarial nature of industrial relations. Thus, proportionally representative systems were adopted in countries where economic relations were cooperative and various actors had a significant long-term interest in the establishment of consensus-based regulatory frameworks. Cusack, et. al. (2007, 2010a) derive their analytical insight by correlating the couples of coordinated economies and proportional systems on one hand, and uncoordinated or liberal economies and majoritarian systems on the other. They identify two general and distinct patterns of business-labour relations in the late nineteenth and early twentieth centuries that consequently correlate with proportional and majoritarian systems.

The first characterises economies where business-labour relations were governed by cooperative arrangements, necessary for the regulation of co-specific assets. For example, a firm engaged in providing niche products or services has to invest in training labour with firm-
industry-specific skills and requires assurances that unions will not restrict the supply of labour. In turn employees need to invest in acquiring a specific non-tradable skill set and thus require assurances that their investment will not be wasted either. The regulation of co-specific assets inherently requires cooperative frameworks, which also permit a variety of interests to be represented (Cusack, et. al. 2007, 2010a). The correlation with proportional systems arises naturally, the authors argue, as proportional systems provide a consensus-based form of decision making and are characterized by strong, inclusive legislative committees which allow the representation of diverse interests.

The authors then highlight that the alternate pattern of business-labour relations typical of countries where majoritarian institutions continue to endure; “in countries where craft unions were unprepared to cooperate with employers, demanding control of both jobs and the supply of skills, business and the right had no incentive to support a consensus-based politics of regulation. In this case the choice of a majoritarian system as a bulwark against the threat of the left was clear, especially in a setting of high-income inequality” (2007: p.378). In effect the authors argue that where relations followed the latter pattern there was no incentive for employers or unions to coordinate regulation at the national level. With higher perceived distributive and re-distributive threats incumbent parties had stronger incentives to maintain majoritarian systems with weak legislative committees than to embrace consensus based proportional systems (Cusack, et. al. 2007, 2010a).

Indeed, the authors note that prior to large-scale industrialisation majoritarian systems employing single-member districts were functionally equivalent to proportional representation as the geographical concentration of interests permitted parties to represent interests at a district level while being a minority at the national level. However, the effects of widespread industrialisation, democratisation, and migration, created severe imbalances and uncertainties in the existing electoral systems as majoritarian rules began distorting results and hence also the representation of interests. Thus, proportional representative systems provided the means for business and labour to revert to consensus policy-making, ensure credible long term commitments and cooperative arrangements, and also enable a variety of interests to be represented in the political arena at the national level (Cusack, et. al. 2007, 2010a). They outline the evolution of the effective electoral threshold amongst adopters of proportional representation
and retainers of majoritarian rules, demonstrating that majoritarian rules served as a functional equivalent to proportional rules in pre-industrial periods.

In regards to the preferences of actors Cusack, *et. al.* (2007, 2010a) note that proportional representation was chiefly supported by left parties and socialists for it afforded them an effective entry into the decision and regulation processes and assured them of representation. Indeed, their argument implicitly assumes that socialist and left parties would always advocate for proportional representation and thus their interests should be relatively stable in the long-run and clearly identifiable (Kreuzer 2010). Since the adoption of proportional representation is more contingent on the interests of the parties of the right it is also reasonable to assume that incumbent right parties express similar preferences towards the reforms; either all incumbent parties would support the status quo when investments in co-specific assets are low threat of redistribution is high or they would all embrace proportional rules.

Hence, it may be specified that proportional rules are more likely to be implemented where investments in co-specific assets are high and business-labour relations espouse consensus-based regulatory frameworks (Cusack, *et. al.* 2007). Majoritarian rules are more likely to be maintained where investments in co-specific assets are low and business-labour relations rely are adversarial (Cusack, *et. al.* 2007). Additionally, proportional rules are more likely to be implemented when they are supported by all parties, whereas majoritarian rules are more likely to be retained when the incumbent parties prefer the status quo (Cusack, *et. al.* 2007, 2010a; Kreuzer 2010)

### 1.2.6 Economic trade and size

In a similar vein to Cusack, *et. al.* (2007, 2010a), Rogowski (1987)) argues that proportional representation is more likely to be adopted in small countries with open trade-dependent economies as it provides insulation to the government from various interests groups, guarantees sufficient autonomy, and credibly assures stable long-term engagements conducive to industry and trade. “*Given society's dependence on international trade (...) the more an economically advanced state relies on external trade, the more it will be drawn to the use of PR [Sic], a parliamentary system, and large districts, with (presumably) all that that combination entails*” (Rogowski 1987: p.206).
By outlining the different requirements of trade-dependent and autarkic or self-sufficient economies Rogowski (1987) contends that the former will be naturally drawn towards the use of proportional rules for three reasons, namely, the ability of proportional rules to insulate the State from particular interest groups, to inhibit rent-seeking, and to guarantee relatively stable policy. Logically, large electoral districts contribute to a dilution of pressures emanating from specialised interests, while centralised party systems also mitigate the adverse effects of rent-seeking and enable the assimilation of diverse interests (Rogowski 1987). However, in contrast to Hermens (1941) and Downs (1957) who outline the role of proportional rules in the breakdown of policy, Rogowski (1987) argues that proportional systems generate relatively more stable policies than majoritarian systems as they offer stronger guarantees for long term commitments by denying any one minority from gaining power over policy. Hence, trade-dependent economies, which must include a variety of interests in policy, will naturally be drawn to the use of proportional rules (Rogowski 1987).

Similarly to Cusack, et. al. (2007) Rogowski also hints at the role of business, industry, banks, political parties, as well as academics, in instigating reform. The explanations of both Cusack, et. al. (2007) and Rogowski (1987) are grounded in an economic perspective and emphasise the roles of businesses, labour, and industry, in explaining variation in electoral rules. While for Cusack, et. al. (2007) the different preferences of actors are influenced by the nature of coordination of coordinated or liberal economies, for Rogowski (1987), it is the economy’s reliance on trade and hence, the consequent requirements of insulation, autonomy, and stability, which influence the choice of electoral system. They are also more likely to be implemented if the country is small and its economy dependent on trade (Rogowski 1987). Majoritarian rules are more likely to be retained if the country is large and its economy is self-sufficient (Rogowski 1987).

Although Rogowski (1987) does not specifically seek to explain the historical adoption of proportional rules and offers no indication as to party preferences, he does evaluate the strong level of correlation between trade-dependent economies and types of regimes, finding that trade-dependent economies consistently prefer proportional parliamentary systems with few large constituencies and centralised parties. Thus far, the causal relation between the district magnitude, trade, and type of electoral system is rather underspecified. There is little specification as to how trade, geographical size, and district magnitudes, are linked in a manner.
so as to influence the preferences of actors; as the correlation may well be epiphenomenal geographical size and trade are not considered as causal conditions.

1.2.7 Democratic ideas and majority systems

Alluding to the normative appeal of proportional systems Blais et. al. argue that “the spread of democratic ideas and the presence of a majority (usually two-round) system and, as a consequence, a multi-party system” facilitated the shift to proportional representation (2005: p.182). The authors posit that when faced with a choice in electoral reform “governing parties in majority systems had weaker incentives to resist the pressure for adopting proportional representation (…) than governing parties in plurality systems” (Blais, et. al 2005: p.185). Therefore, the overall tendency to move towards proportional rules was fairly uncontroversial and catalysed by the diffusion of democratic ideas, contingent upon the different effects of majority and plurality systems on incumbents and parties (Blais, et. al. 2005).

The authors argue that plurality and majority systems provide different incentives to vote strategically: in plurality systems a voter requires simple information and must decide between the parties with the most support, while under majority rules a voter requires more complex information to evaluate and effectively coordinate resources (Blais, et. al. 2005). Specifically, since plurality systems tend towards a two-party equilibrium the top two parties are certain to be represented in parliament and thus more likely to defend the status quo; on the contrary, in majority systems with more than two parties and coalition governments the relative uncertainty of the outcome is higher and thus parties are faced with weaker incentives to defend the status quo.

Blais, et. al. (2005) place greater emphasis on the incentives and constraints generated by the existing electoral system rather than on political ideologies or class interests but do not attribute any preference to a political party and assume uniform acceptance for electoral reform. The authors’ emphasis on the normative appeal of proportional representation may be viewed as a functional equivalent of a mobilising labour movement, increasing suffrage and competition, and a general result of the process of democratisation. The authors stress that it is in response to the growing demand for proportional rules that incumbent actors were forced to decide between proportional or majoritarian systems.
Implicit in the authors’ argument are conditions such as increasing uncertainty, electoral disadvantages for incumbent parties, and two or multi-party equilibriums. However, the causal chain is rather under-specified, over-simplified, and tends towards conflating causation with correlation. The reasoning advanced by Blais, *et. al.* (2005) appears to be rather deterministic and structural, and as such, rather than generate explicit causal conditions the theory merely reinforces the assumption of actors as rational strategically calculating individuals. The overarching hypothesis that proportional rules are more likely to be adopted when democratic pressure for reform is higher and if elections are contested by multiple parties with experience in coalition governments, and that majoritarian institutions are more likely to endure when the democratic pressure for reform is lower and if elections are contested by two parties with little tradition of coalition governments, is relatively weak.

Since the authors view widespread support for proportional representation as fairly uniform across different political parties, the condition of diffusion of democratic ideas may be viewed as substitutable with the idea of a rising working class seeking universal suffrage and equal rules of access to the legislature. The level of uncertainty characteristic of plurality and majority systems may also be considered as representative of the effects of increasing competition and heterogeneous dispersion of partisan support. Consequently, the inclusion of a two-round majority or simple plurality system offers no further parsimony in results; the weak theoretical underpinnings of the approach also risks conflating correlation with causation and does not further the understanding of electoral reform beyond basic assumptions of the behaviour of actors. Hence, is not incorporated for empirical validation but may be called upon to nuance results.

The tables on the following pages provide a brief summary of the explicit and implicit causal conditions advanced by each theory, as well as their predictions as to the preferences of actors.
<table>
<thead>
<tr>
<th>Theoretical perspective</th>
<th>Explicit causal conditions</th>
<th>Implicit causal conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boix</td>
<td>-Strong socialist threat and no dominant right party.</td>
<td>-Franchise extension closely preceding or concomitant with the adoption of proportional representation. -Right incumbent party initiates reform. -All right incumbent parties support reform if there is no dominant party.</td>
</tr>
<tr>
<td>Alesina &amp; Glaeser</td>
<td>-Successful labour movements with homogenous organisation, high geographical density, and weak military/conservative opposition.</td>
<td></td>
</tr>
<tr>
<td>Penadés</td>
<td>-Proportionist left parties with weak relations with unions, slow electoral growth, internal divisions, and a strategy for coalition rule.</td>
<td>-Centralised organisation strategy. -Mobilised catholic parties. -Ability of proportionist parties to implement reform.</td>
</tr>
<tr>
<td>Blais, et. al.</td>
<td>-Strong public pressure for proportional rules and a two-round majority system.</td>
<td>-Higher relative uncertainty. -Increase in party competition. -Tradition of coalition governments.</td>
</tr>
<tr>
<td>Andrews, Jackman; Rodden; Calvo</td>
<td>-Incumbents adversely affected by majoritarian and/or partisan biases.</td>
<td>-Incumbents ability to implement reform.</td>
</tr>
<tr>
<td>Cusack, et. al.</td>
<td>-High investments in co-specific assets and cooperative industrial relations.</td>
<td>-All incumbents support reform.</td>
</tr>
<tr>
<td>Rogowski</td>
<td>-Economy dependent on trade -Small size (population and territory)</td>
<td>-Need for State insulation, autonomy, and stable policies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Theoretical perspective</th>
<th>Explicit causal conditions</th>
<th>Implicit causal conditions</th>
</tr>
</thead>
</table>
| Boix                    | -Strong socialist threat and one dominant right party.  
                           -Or, a weak socialist threat. | -Slow franchise extension well before electoral reform.  
                           -Incumbent right party/parties oppose reform. |
| Alesina & Glaeser       | -Unsuccessful labour movements with heterogeneous organisation, low geographical density, and strong military/conservative opposition. |  |
| Penadés                 | -Nonproportionist left parties with strong relations with unions, internal cohesion, and a strategy for majority rule. | -De-centralised organisation strategy.  
                           -Ability of nonproportionist parties to restrict reform. |
| Blais, et. al.          | -Weak public pressure for proportional rules and a simple plurality system. | -Lower relative uncertainty.  
                           -Relatively stable (two-party) competition.  
                           -Tradition of majority governments. |
| Andrews & Jackman; Rodden; Calvo | -Incumbents unaffected by majoritarian and/or partisan biases.  
                                -An incumbent and new entrant benefit to the detriment of another party. | -Incumbents ability to restrict reform. |
| Cusack, et. al.         | -Low investments in co-specific assets and adversarial industrial relations. | -All incumbents oppose reform. |
| Rogowski                | -Economy largely self-sufficient.  
                           -Large size (population and territory). | |

*Sources: Compiled with information from Rogowski (1987), Boix (1999, 2010), Alesina and Glaeser (2004), Andrews and Jackman (2005), Blais, et. al. (2005), Cusack, et. al. (2007), Penadés (2008, 2013); Rodden (2008), Calvo (2009), Kreuzer (2010), and the present study.*
### Table 3: Theoretical perspectives and predictions to party preferences

<table>
<thead>
<tr>
<th>Theoretical perspective</th>
<th>Socialist</th>
<th>Liberal</th>
<th>Conservative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boix</td>
<td>Unspecified</td>
<td>Dependent upon strength of socialist threat and dominance vis-à-vis conservatives</td>
<td>Dependent upon strength of socialist threat and dominance vis-à-vis liberals</td>
</tr>
<tr>
<td>Alesina &amp; Glaeser</td>
<td>Proportional representation</td>
<td>Unspecified</td>
<td>Mostly majoritarian</td>
</tr>
<tr>
<td>Penadés</td>
<td>Subject to party political strategy</td>
<td>Subject to party political strategy</td>
<td>Subject to party political strategy</td>
</tr>
<tr>
<td>Blais, et. al.</td>
<td>Unspecified</td>
<td>Unspecified</td>
<td>Unspecified</td>
</tr>
<tr>
<td>Andrews &amp; Jackman; Rodden; Calvo</td>
<td>Mostly proportional representation</td>
<td>Dependent upon seat-vote distortions vis-à-vis other parties</td>
<td>Dependent upon seat-vote distortions vis-à-vis other parties</td>
</tr>
<tr>
<td>Cusack, et. al.</td>
<td>Proportional representation</td>
<td>Subject to presence or absence of co-specific assets and the nature of industrial relations</td>
<td>Subject to presence or absence of co-specific assets and the nature of industrial relations</td>
</tr>
<tr>
<td>Rogowski</td>
<td>Unspecified</td>
<td>Unspecified</td>
<td>Unspecified</td>
</tr>
</tbody>
</table>


### 1.3 Necessary and sufficient conditions

The conditions influencing the trajectories of electoral reform are numerous and their effects are diverse and fiercely contested. Explanations of causal pathways in social science research are facilitated by the comparison of both parsimonious and complex results (Ragin 1987); however, it is impossible to test all conditions generated by the hypotheses of each theory simultaneously. Any attempt to do so would generate an overwhelmingly disproportionate ratio of conditions to cases, conflate real and random results, and lend little validity to the findings.

All the hypotheses specified by the theories espouse a rational choice logic; however, the *loci* of decision-making are situated at different levels and are influenced by a variety of conditions. In particular, democratisation, industrialisation, the mobilisation of the labour
movement, increasing electoral competition and the rise of a socialist party feature prominently in the majority of works reviewed. In turn, each theory traces the influence of socialist strength to different causes and effects, and subsequently, provides various explanations for the corresponding strategies of conservative and liberal parties. Hence, a comparison of the similarities and differences across theories facilitates the streamlining of hypotheses and causal conditions.

Moreover, thus far, all the hypotheses developed by the theoretical frameworks are specified in probabilistic language. However, one of the specific advantages of QCA is its focus on the configurations of conditions and the identification of patterns of causation; hence, the hypotheses are re-formulated according to their causal relevance, their necessity, and sufficiency. Such a formulation of hypotheses obliges the research to privilege the examination of causally relevant components of causal recipes and thus also inhibits the examination of the net effects of conditions in a probabilistic manner. Subsequently the different hypotheses are reformulated in terms of sufficient and necessary conditions. A condition is necessary when its presence is required to explain the presence of the outcome; this may be done in conjunction with other conditions which may also be either necessary or sufficient (Ragin 1987, 2003; Schneider and Wagemann 2007). A condition is sufficient if it may explain the presence of the outcome by itself and without the need for other conditions; its presence is sufficient in itself to explain the outcome (Ragin 1987, 2003; Schneider and Wagemann 2007). A condition may be both necessary and sufficient if it is the only causal factor to lead to the presence of the outcome, and does so without combination with other conditions (Ragin 1987, 2003; Schneider and Wagemann 2007).

The implicit conditions specified by the literature review refer to hypotheses within hypotheses and as such are not included as specific causal conditions. Instead, conditions such as ethnic and cultural fractionalisation, population and geographic size, and levels of enfranchisement and industrialisation, may be used to sort cases and nuance the interpretation of results according to the different theoretical perspectives. Similarly, cases may also be sorted according to known historical facts, such as whether electoral reform was implemented by conservative incumbent parties, in coalition with socialist parties, or under the umbrella of an all-party assembly. Given the predictions of the theories as to the preferences of left and right political parties such regrouping of cases may be justified. The reduction of complexity by the
consolidation of common causal conditions, and the sorting of cases according to historical evidence helps examine the various incentives shaping the decisions of actors and the causal chains as developed by the different theoretical perspectives.

Democratisation, industrialisation, and the increasing extension of the franchise towards the left electorate are implicit conditions in Boix (1999; 2010), Andrews and Jackman (2005) Rodden (2008), and Calvo’s (2009) studies as the factors subsequently lead to increasing support for rising socialist parties, uncertainty for incumbent parties, and distortions in electoral gains. However, for Alesina and Glaeser (2004), the extension of the franchise results as a direct consequence of the mobilisation of the left movement which in turn is conditioned by industrialisation. Bartolini helps nuance that “the status of enfranchisement is…complex…because it cannot be considered a potential explanation of the vote but rather a necessary precondition: Voters did not choose socialist parties because [Sic] they were allowed to vote but rather when they were allowed to vote. It is more complex because enfranchisement cannot be regarded as totally independent of the left vote, nor can it be considered an exogenous variable with regard to social mobilisation” (2000: p.209). The extension of the franchise may be considered as endogenous, exogenous, and reciprocally causal; influenced by levels of mobilisation, conditioning the degree of mobilisation, or by being both a cause and effect of mobilisation, respectively (Bartolini 2000). Hence, instead of considering the level of enfranchisement or industrialisation as sufficient or necessary cause, cases may instead be sorted according to their pre-electoral reform levels of enfranchisement and industrialisation in order to nuance eventual results; thus far, democratisation and industrialisation may be included as causally relevant.

The rise of social democracy appears *a priori* to be a sufficient condition for electoral reform (Boix 1999). An electorally strong left party and a divided right may also be considered as necessary conditions for reform. However, the condition of a strong left party itself is only a necessary component of a necessary combination; in order to imply the presence of the outcome a strong left party and a divided right are both necessary. Conversely, a weak left party is both a sufficient and necessary condition for the absence of the outcome as it is argued that proportional rules are maintained when the left is weak, irrespective of the structure of the right parties. Coupled with a strong left the presence of a dominant right party is a necessary condition for the absence of the outcome.
For Boix (1999, 2010) the dominant or non-dominant nature of right parties is a crucial condition influencing reform. Kreuzer (2010) nuances the concept of the structure of right parties by highlighting the differences between domination and fragmentation: “the more dominant the largest nonsocialist party is, the less likely PR [Sic] will be introduced. And, the more fragmented nonsocialist parties are, the more likely PR will be adopted. So, ideally, any measure should reflect both dominance and fragmentation” (Kreuzer 2010: p.388). In light of this statement, the divided or non-divided structure of right parties may be based upon the conditions of dominance as well as fragmentation.

The causal conditions of increasing majoritarian biases, brought about by the increase in electoral competition, and partisan biases, caused by the heterogeneous dispersion of vote across districts, may be considered in combination as their overall effects tend to produce similar incentives. Moreover, as outlined previously, electoral competition was on the rise prior to the First World War and hence little variation is to be expected by the measurement of majoritarian biases brought about by increasing competition. Instead, the overall level of distortion between vote and seat shares on left and right parties may serve as a more robust indicator of both biases. As the distortion of seats and votes affects parties differently, consistent with the authors, the presence of majoritarian and partisan biases may be viewed as necessary conditions for the presence of the outcome. A significant presence of such biases affecting parties on the right is thus expected to lead to the presence of the outcome under the assumption that electoral reform is initiated by incumbent right parties. Conversely, significant biases affecting left parties are expected to lead to the presence of the outcome when electoral reform is initiated or co-supported by left parties or in an alliance where the left is particularly strong. However, the absence of the conditions does not logically imply the absence of the outcome. Rather, the theoretical perspective implies the presence of positive representation for one incumbent and for the left party as causally relevant conditions for the absence of the outcome.

The economic explanations developed by Rogowski (1987) and Cusack, et. al. (2007) require a congruency in the interests of the various actors in order to contribute to the adoption of proportional rules, and the causal chain is relatively longer than those developed by the political explanations. The incentives of the actors are primarily shaped by the presence of investments in co-specific assets and cooperative relations which may be expressed as necessary conditions. Since the effective management of co-specific assets requires cooperative corporate-labour
relations it may reasonably be expected that where co-specific assets are relatively more present corporate-labour relations will also tend to be more cooperative and thus, both conditions are necessary for the presence of the outcome. Nevertheless, as adversarial relations may effectively inhibit the valorisation of co-specific assets, they constitute a necessary condition for the absence of the outcome. Logically, the absence of co-specific assets is a sufficient condition for the absence of the outcome.

Hence, the following hypotheses for the adoption of proportional rules are specified:

H1: States which are characterised by both electorally strong left parties and non-dominant or divided, right parties, are expected to adopt proportional electoral rules.

H2a: States which are characterised by a misrepresented right or left party are expected to adopt proportional electoral rules when the adversely affected party is in a position to implement electoral reform.

H2b: States which are characterised by misrepresented left and right parties are expected to adopt proportional electoral rules when the left party is able to implement reform alone or in an alliance with other parties.

H3: States which are characterised by high levels of investments in co-specific assets and cooperative employer-labour relations are expected to adopt proportional electoral rules.

The following hypotheses for the retention of majoritarian rules are specified:

H4a: States which are characterised by electorally weak left parties are expected to maintain majoritarian electoral rules.

H4b: States which are characterised by electorally strong left parties and a dominant right party are expected to maintain majoritarian rules.

H5: States which are characterised by an over-represented left party and an over-represented right party to the detriment of a second right party are expected to maintain majoritarian rules.

H6a: States which are characterised by low levels of investment in co-specific assets are expected to maintain majoritarian rules.

H6b: States which are characterised by high levels of investment in co-specific assets and adversarial employer-labour relations are expected to maintain majoritarian rules.

As the thesis aims to address the adoption of proportional rules and the retention of majoritarian rules by means of a configurational analysis, emphasis is placed on the multiple
manners in which conditions may combine to lead to the presence or absence of the outcome. Hence, while the thesis uses the aforementioned hypotheses as logical statements amenable to falsification, it nevertheless considers the potential influence of the myriad causal conditions developed by the other theories in order to refine the interpretation of results.

The following table provides an overview of the sufficient and necessary conditions as developed by the various theoretical perspectives previously presented.
Table 4: Overview of causally relevant conditions

<table>
<thead>
<tr>
<th>Theoretical perspective</th>
<th>Conditions</th>
<th>Presence of outcome</th>
<th>Absence of outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alesina and Glaeser</strong></td>
<td>Extension of the franchise</td>
<td>Causally relevant</td>
<td>Unspecified</td>
</tr>
<tr>
<td></td>
<td>Ethnic and cultural homogeneity</td>
<td>Conducive to left social mobilisation</td>
<td>Unfavourable to left social mobilisation</td>
</tr>
<tr>
<td></td>
<td>Urbanisation and industrialisation</td>
<td>Conducive to left social mobilisation</td>
<td>Unfavourable to left social mobilisation</td>
</tr>
<tr>
<td></td>
<td>Conservative and military opposition</td>
<td>Unfavourable to left social mobilisation</td>
<td>Conducive to maintaining majority rules</td>
</tr>
<tr>
<td><strong>Boix</strong></td>
<td>Strong electoral left party</td>
<td>Presence necessary</td>
<td>Absence sufficient when strong electoral left parties are present</td>
</tr>
<tr>
<td></td>
<td>Divided right parties</td>
<td>Congruent with socialist preferences; part of a larger configuration of factors</td>
<td>Congruent with socialist preferences; part of a larger configuration of factors</td>
</tr>
<tr>
<td><strong>Penadés</strong></td>
<td>Weak union-party relations</td>
<td>Presence sufficient</td>
<td>Functional equivalents apply</td>
</tr>
<tr>
<td></td>
<td>Mobilised catholic parties</td>
<td>Presence necessary and sufficient</td>
<td>Absence necessary</td>
</tr>
<tr>
<td><strong>Andrews and Jackman; Rodden; Calvo</strong></td>
<td>Misrepresentation of incumbents</td>
<td>Presence necessary and sufficient</td>
<td>Absence necessary</td>
</tr>
<tr>
<td></td>
<td>Misrepresentation of socialists</td>
<td>Causally unspecified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>High co-specific assets</td>
<td>Presence necessary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooperative industrial relations</td>
<td>Causally relevant</td>
<td></td>
</tr>
<tr>
<td><strong>Rogowski</strong></td>
<td>Dependence on trade</td>
<td>Causally unspecified</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Size (geographic)</td>
<td>Causally unspecified</td>
<td></td>
</tr>
</tbody>
</table>

2. Research design

2.1 Qualitative Comparative Analysis

As the aim of the present study is to examine the different combinations of conditions which lead to the presence and the absence of the outcome the thesis will call upon the method of crisp-set Qualitative Comparative Analysis as developed by Ragin (1987). Empirical studies thus far have either relied on quantitative econometric analyses or qualitative case studies in the examination of a small universe of cases. Therefore, they either provide conclusions which are difficult to generalise across cases, or results which may be significantly altered pursuant to slight modifications in the research design. The principal advantages of using QCA in this instance are its suitability to examine precisely such an intermediate number of cases and its appropriateness in identifying instances of multiple and conjunctural causation (Ragin 1987, 2003). Moreover, the implicit assumption that complex social phenomenon may be caused by multiple pathways, influenced, in turn, by different conditions is intuitively valid, and tends to generate explanations in structural terms of conditions rather than a linear or static logical sequence (Ragin 1987, 2003). Specifically, QCA is characterised by four features that make it a desirable research method for examining the adoption of proportional rules and the preservation of majoritarian rules: complex causation, conjunctural causation, hetero-causality, and causal asymmetry (Ragin 1987).

Operationally, QCA uses Boolean logic and mathematical expressions to describe causal conditions and outcomes, and the relations between them. In crisp-set QCA outcomes and conditions are dichotomous and are indicated by their presence (coded 1) and their absence (coded 0); similarly, the presence or absence of outcomes or causal conditions is denoted by capital or miniscule letters, respectively (Ragin 2003; Schneider and Wagemann 2007). Conditions are coded in such a manner that values of 1 are consistent with the presence of the outcome, and vice-versa. The relations between conditions may be denoted as a logical condition in terms of Boolean operators, namely, ‘and’ (expressed mathematically by multiplication, A*B), and ‘or’ (expressed mathematically as addition, A+B) (Ragin 1987, 2003; Schneider and Wagemann 2007). The relations between conditions and outcomes are logical relationships and not causal links; the chain of causality is subsequently compared against empirical observations to yield reliable interpretations of results (Ragin 1987, 2003).
The construction of a population is the first step of any QCA analysis (Ragin 2003). In a preliminary step all positive cases, exhibiting the outcome, are grouped together; correspondingly, negative cases are identified. Once the population sample has been constructed and causal conditions coded, the data is presented in the form of a raw data matrix. The data is subsequently presented in the form of a truth table, which provides an initial overview of all causal conditions and outcomes and facilitates the identification of general trends if any (Ragin 1987, 2003). All identical configurations of conditions may subsequently be fused and cases regrouped; a subsequent truth table presents the different causal pathways towards the outcome. Contradictions manifest themselves when two identical configurations of conditions produce opposite outcomes; they require addressing via a re-coding of data, a review of empirical or theoretical evidence, or omission, all with due justification (Ragin 1987, 2003). Once the simplified truth table has been validated and contradictions have been resolved QCA implements Boolean logic to simplify the truth table by comparing similar configurations and eliminating those conditions which do not contribute towards the outcome. The bottom-up minimisation of the truth table depends on the logic that if two combinations produce the same outcome but only differ in one condition, then that condition is not determinant, and hence, not causally relevant to the outcome (Ragin 1987, 2003).

As QCA explores all potential configurations of causal conditions it generates certain configurations for which no corresponding empirical evidence exists. The treatment of these remainder cases or empty combinations may be addressed in three principal manners; however, each affects the results significantly (Ragin 1987, 2003). The first method is to exclude all remainders and minimise the truth table only by the configurations for which a corresponding empirical case exists. The direct advantage of excluding remainders is a strong corresponding link between the solutions generated and the cases under observation; however, the difficulty lies in the interpretation of such complex solutions (Ragin 1987, 2003). The second alternative is to include all the remainders in the process of minimisation as if they represented observable cases. The advantage of inclusion is the generation of parsimonious solutions which are intuitively logical and which emphasise the relative importance of certain conditions; however, the disadvantage is that such parsimonious solutions may be rather detached from the reality of the empirical facts (Ragin 1987, 2003). The final alternative is to generate intermediate results by
selecting groups of prime implicants, or conditions which survive counterfactual analysis, for the minimisation of the truth table (Ragin 1987, 2003).

A subsequent step of a QCA analysis is the identification of necessary and sufficient conditions which may be contained in isolation or in combination, or may be absent, across different causal configurations (Ragin 1987, 2003). As mentioned previously, a condition is necessary when it is present across all the causal configurations generated by the minimisation of the truth table; without its presence the outcome is absent (Ragin 1987, 2003; Schneider and Wagemann 2007). If a factor or condition is present in isolation, and not in conjunction with others, it may be viewed as a sufficient cause for the presence of the outcome; its presence is sufficient in itself to explain the outcome (Ragin 1987, 2003; Schneider and Wagemann 2007). The evaluation of sufficiency and necessity permits the examination of conditions according to the different theoretical perspectives.

Sufficiency and necessity analysis may be supplanted by an examination of the occurrence and consistency or likelihood of each configuration of causal conditions (Ragin 2003). Following the minimisation of the truth table certain combinations or configurations may contain more cases than others. Occurrence or coverage thus scores each configuration according to the number of cases it explains; logically, higher occurrence scores suggest a greater significance of the particular combination of conditions (Ragin 2003). The consistency score on the other hand provides an indicator of the probability that the combination leads to the outcome and is determined pursuant to the ratio of included and eliminated cases (Ragin 2003).

There are also however, various limitations of QCA that need to be acknowledged. First, and central to the implementation of QCA, is the ratio of cases to causal conditions (Ragin 1987; 2003). A large number of causal conditions exponentially increase the number of rows of potential combinations generated, to the magnitude of $2^k$, where $k$ represents the number of causal conditions. As such, with ten causal conditions, one thousand and twenty-four combinations are generated. Therefore, wherever possible, causal conditions are streamlined and re-grouped in order to reduce spurious conditions. Moreover, QCA is not well suited for truly longitudinal analyses, and thus careful attention is required when situating the cases in time. Finally, the binary dichotomisation, while parsimonious, fails to incorporate a significant level of complexity in the exploration of complex causal phenomena; nevertheless, an inherent requirement of QCA is a certain familiarity with cases and theoretical knowledge in order to
explicitly justify the dichotomous coding of conditions and outcomes (Ragin 1987, 2003). While multi-value QCA and fuzzy-set QCA techniques do indeed allow for the ordinal ranking of conditions or the calibration of causal conditions according to intervals and the grouping of cases according to full or partial inclusion or exclusion, the thesis opts for the use of crisp-set QCA. The use of the binary crisp-set QCA over other techniques is appropriate as the thesis privileges the examination of patterns of conditions across and within cases rather than a fine-grained analysis of the intensity of each causal factor.

2.2 Data-set design

Designing the data-set for a QCA analysis requires particular attention to the constitution of the sample population, the subsequent dichotomous coding of the outcome, and the similar operationalization and coding of causal conditions. Having constructed the sample population, the dichotomisation of the outcome is subsequently used to confirm the selection of negative cases. Consistent with Goertz and Mahoney (2004), negative cases are identified as those cases which have the potential to possibly demonstrate the presence of the outcome. Such negative cases are hence both relevant and informative in comparison with the sample of positive cases. The inclusion of negative cases which, from the out-set, have no potential of generating the outcome may lead to significantly biased results and skewed causal inferences (Goertz and Mahoney 2005).

2.2.1 Population and sample

Consistent with the works reviewed the research design explicitly restricts itself to the same universe of early democratic countries, namely, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom of Great Britain and Northern Ireland, and the United States of America. However, the population of cases is subsequently narrowed according to two criteria: first, the stability of electoral rules; second, the prior development of political parties at the national level. The research design assumes that causal conditions exert relatively significant pressures if the decision of electoral system reform was made in a decisive manner and not subject to repeated reforms. Moreover, as the theoretical perspectives accord central importance to the strategies and preferences of actors,
the establishment of political parties at the national level is also relevant. Hence, the sample population is constituted of cases of countries which reformed their electoral systems in a decisive manner, and which did so after the formation and establishment of national political parties. Therefore, the cases of Finland, France, Greece, Ireland, Luxembourg, Portugal, and Spain have been excluded. Iceland and Japan are omitted due to the difficulty in obtaining the appropriate data for all causal conditions and theories.

Due to the “addiction of French governments to (...) electoral engineering” electoral systems have often oscillated between majoritarian and proportional rules in France (Carstairs 1980: p.176); however, overall it has largely retained the use of majoritarian rules (Caramani 2000; Alesina and Glaeser 2004). Two-round majority ballot elections were held consistently from 1889 up to 1914; the 1919 and 1924 elections were contested under a mixed majority system which allocated seats on a relatively proportional basis upon the proposition of the radical and socialist parties (Carstairs 1980; Kreuzer 2010). In 1928 France returned to the two-round majority system again upon the proposition of the radical and socialist parties facing increasing competition from the communist party (Carstairs 1980; Kreuzer 2010). Hence, it may be reasonable to consider France as both a positive case in 1918 and a negative case in 1928. However, Carstairs notes that “France did not, either before or soon after the First World War, establish a system of proportional representation, and it was only in 1945 that a true form of PR [Sic] was introduced for the first time” (1980: p.179). Therefore, in light of the repeated instances of electoral reform and the rather disproportional mixed system adopted in 1918 the case of France may be excluded from the sample, without significantly engendering a bias in the expected results.

Greece has an equally chequered electoral history, with proportional rules in force in 1926, 1932, 1936, 1946, 1950-51, and 1958 onwards; simple plurality was used in 1928, 1933, 1952, and 1956 (Mackie and Rose 1991; Caramani 2000; Colomer 2004c). These reversions in electoral rules are also accompanied by radical shifts in power, military coups, weak governments, and dictatorships. Spain used majoritarian rules until 1920 where a mixed system was implemented; however, it entered a dictatorship in 1923. Plurality elections were held in 1931 prior to the Franco dictatorship (Mackie and Rose 1991; Caramani 2000; Colomer 2004c). In Portugal, the two-round majority system was the norm, save for the 1911 elections conducted under proportional rules. In 1915 the proportional aspects of the system were abolished, and
similarly to Spain, proportional rules were only re-instated after the fall of the dictatorships in the 1970s (Mackie and Rose 1991; Caramani 2000; Colomer 2004c). While Germany, Italy, and Austria did also experience years of dictatorship the move towards proportional rules was decisive since the beginning; none of the countries reverted to majoritarian rules and pre-war electoral rules were re-instated after 1945 (Mackie and Rose 1991; Caramani 2000; Colomer 2004c).

Japan has been specifically excluded from the present population sample. Arguably, it is the one case which is largely missing from certain studies (Alesina and Glaeser 2004; Blais, et al. 2005; Rodden 2008; Calvo 2009); moreover, it does not fit in either European or Anglo-Saxon clusters. Moreover, due to the specificities of the Japanese political party system and the use of the single-non-transferable vote, which employs majority rule while allowing for some proportional representation, the case does not clearly fit either cluster of majoritarian or proportional institutions (Mackie and Rose 1991; Lijphart 1994).

In a critique of Boix’ (1999) article, Cusack, et al. (2007) contend that the appropriate data relevant to the causal conditions prior to the adoption of proportional rules is missing for the cases of Finland and Luxembourg. By the same logic, Ireland should also be excluded from the sample (Kreuzer 2010). Finland, Ireland, and Luxembourg held their first elections under universal suffrage and proportional rules (Mackie and Rose 1991; Caramani 2000). It may be justified that information available after the adoption of proportional rules was available to other actors prior to electoral reform and thus, the data for the first elections under proportional rules may suffice as a proxy (Kreuzer 2010). However, in all three cases the question of electoral reform was not made within the context of changing electorates and increasing party competition but rather within the context of the creation of an independent and sovereign State. Carstairs (1980) notes that proportional rules were accepted without much discussion in Ireland following the Government of Ireland 1920 Act and that the formation and consolidation of political parties only took place after the adoption of proportional rules. A similar trend characterises Finland, which was a semi-autonomous territory under Russia until 1917. Although proportional representation was adopted in 1906 no significant political parties held any sort of majority; the largest movements were Finnish and Swedish cultural movements (Carstairs 1980). It was only with the adoption of proportional representation that the social democrats became a party of importance (Carstairs 1980). Hence, it may be reasoned that the inclusion of Finland, Ireland,
and Luxembourg does not lend considerable added-value to the empirical evidence, and thus, the cases may be excluded from the sample.

Given that the present paper seeks to identify patterns across clusters as well as within specific cases it may be reasonably assumed that the exclusion of the cases will have a negligible impact on the overall validity of the results. Indeed, as the cases are largely untreated by the different theories and rarely mentioned in qualitative analyses they are not considered as examples of a robustly testable case for any one particular theory. It may be also be argued that the exclusion of Spain, Portugal, and Greece is important in itself since the modifications in electoral rules are largely accompanied by nationalist and radical parties, dictatorships, civil strife and may therefore constitute an independent cluster in their own right where class interests, spatial distribution of votes, and economic investments may operate as secondary conditions. The exclusion of Finland, France, Iceland, Ireland, and Luxembourg is unfortunate; however, due to the insufficiency of appropriate data and the particular context of the formation of national parties in Finland and Ireland it is reasonable to exclude the cases. Nevertheless, the final sample population retains hard cases in the form of Scandinavian, continental European, and Anglo-Saxon clusters of countries.

2.2.2 Coding the outcome

The majority of the studies reviewed have used the effective electoral threshold as a continuous measure of the dependent variable (Boix 1999, 2010; Blais, et. al. 2005; Cusack, et. al. 2007; Kreuzer 2010); however, as crisp-set QCA requires the outcome to be dichotomised in binary form the thesis uses the electoral formula, district magnitude, number of seats, and the ballot structure in order to facilitate the operationalization of the outcome.

Boix raises an important critique concerning such a dichotomous operationalization; “the (rather extended) classification of electoral systems according to allocation formulas is highly arbitrary and excludes fundamental determinants (district size and legal thresholds) of proportionality...a dichotomous classification based on electoral formulas as well as district magnitude and legal thresholds suppresses variance and does not capture differences that occur within PR [Sic] systems” (1999: p.614, n20). It may be noted however, that since the sample population effectively groups cases into two distinct clusters according to the proportional or disproportional nature of the electoral formula used there is not much ambiguity as to their
classification into proportional or majoritarian families. While the nature of results may very well vary within a family of electoral systems the stark divide between majoritarian and proportional systems, as indicated by the electoral formula, district magnitude, and ballot structure provide reasonable reference points for the appropriate dichotomisation of the outcome.

The cases are assigned the value of 1 if the electoral formula is changed from plurality or majority to proportional quotas, if the district magnitude increases from one to greater than one, if the size of the legislature increases, and if the ballot shifts from offering a single vote to the possibility of indicating preferences.

The following table provides an overview of the sample population and the outcome. As all cases in the sample have been chosen according to the durable nature of their electoral systems the shift towards proportional rules, or the commitment towards majoritarian rules, is more or less permanent. Out of the total population considered nine are readily identifiable positive cases, namely, Austria, Belgium, Denmark, Germany, Italy, the Netherlands, Norway, Sweden, and Switzerland. The five negative cases are those which failed to adopt proportional representation, namely, Australia, Canada, New Zealand, the United Kingdom, and the United States. Australia’s adoption of the alternative vote, and retention of single-member districts, preserves the system’s majoritarian tendencies and is thus included amongst the group of negative cases (Mackie and Rose 1991; Hickens 2004).

With regards to the selection of negative cases Andrews and Jackman argue that as proportional representation was never a significant item on the political agenda in any Anglo-Saxon country apart from the United Kingdom, the cases of Australia, Canada, New Zealand, and the United States should be excluded from the analysis as they tend to exaggerate “the number of instances in which a single member district system was actively chosen by party elites” (2005: p.72). However, a key consideration of any analysis is a fair proportion of variation in cases and conditions. Indeed, a case for the inclusion of the Anglo-Saxon countries may be made on the proposition that the countries maximise variation for nearly all the causal conditions previously identified. Although the cases may perhaps exaggerate instances of non-reform in Boix’ (1999) theory, their inclusion is critical to the examination of the other theoretical perspectives and in underlining the relative influence of the different causal conditions. Indeed, electoral competition, urbanization, and industrialization, are trends which are also characteristic of the potential negative cases; moreover, their inclusion is also necessary
for the comparison of the patterns of economic organization on electoral reform. Therefore, with an acknowledgment of the validity of the critique raised by Andrews and Jackman (2005) and the subsequent limits posed upon causal inferences, the aforementioned negative cases may be reasonably included in the analysis.

Table 5: Overview of sample population and the outcome

<table>
<thead>
<tr>
<th>Case</th>
<th>Law years</th>
<th>Electoral formula</th>
<th>District magnitude</th>
<th>Ballot structure</th>
<th>OUT</th>
<th>Law years</th>
<th>Electoral formula</th>
<th>District magnitude</th>
<th>Ballot structure</th>
<th>OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>1918</td>
<td>Plurality</td>
<td>Majority</td>
<td>1</td>
<td>1</td>
<td>Single</td>
<td>AV</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUT</td>
<td>1918</td>
<td>Majority</td>
<td>Proportional</td>
<td>5 curia</td>
<td>7</td>
<td>Majority lists</td>
<td>Open list</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BEL</td>
<td>1899, 1919</td>
<td>Majority</td>
<td>Proportional</td>
<td>32-37</td>
<td>51-62</td>
<td>Multiple</td>
<td>Closed list</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAN</td>
<td>1874</td>
<td>Plurality</td>
<td>x</td>
<td>1, &gt;1</td>
<td>x</td>
<td>Single, block</td>
<td>x</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DNK</td>
<td>1915, 1920</td>
<td>Plurality</td>
<td>Proportional</td>
<td>1</td>
<td>5-31</td>
<td>Single</td>
<td>Open list</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEU</td>
<td>1919, 1920</td>
<td>Majority</td>
<td>Proportional</td>
<td>1</td>
<td>12</td>
<td>Single</td>
<td>Closed list</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITA</td>
<td>1919</td>
<td>Majority</td>
<td>Proportional</td>
<td>1</td>
<td>1-28</td>
<td>Single</td>
<td>Closed list</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NLD</td>
<td>1918</td>
<td>Majority</td>
<td>Proportional</td>
<td>1</td>
<td>100-150</td>
<td>Single</td>
<td>Open list</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NZL</td>
<td>1908, 1914</td>
<td>Plurality</td>
<td>Plurality</td>
<td>1</td>
<td>x</td>
<td>Single</td>
<td>x</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NOR</td>
<td>1919</td>
<td>Majority</td>
<td>Proportional</td>
<td>1</td>
<td>6</td>
<td>Single</td>
<td>Open list</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SWE</td>
<td>1909</td>
<td>Plurality</td>
<td>Proportional</td>
<td>1</td>
<td>4</td>
<td>Single</td>
<td>Closed list</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHE</td>
<td>1918</td>
<td>Majority</td>
<td>Proportional</td>
<td>&gt;1</td>
<td>1-34</td>
<td>Single, multiple</td>
<td>Multiple, cumulative</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GBR</td>
<td>1885</td>
<td>Plurality</td>
<td>x</td>
<td>1</td>
<td>x</td>
<td>Single, multiple</td>
<td>x</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td>1789</td>
<td>Plurality</td>
<td>x</td>
<td>1</td>
<td>x</td>
<td>Single</td>
<td>x</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Sources: Compiled with information from Caramani (2000), Mackie and Rose (1991), and Colomer (2004b; 2004c), Hickens (2004)
2.2.3 Causal conditions

Of the various causal conditions identified, the thesis operationalizes the electoral strength of socialist parties and the division of right parties as specified by Boix (1999, 2010), the presence of majoritarian and partisan biases as outlined by Calvo (2009), and the presence of co-specific assets and cooperative corporate-labour relations as developed by Cusack, et. al. (2007, 2010a).

2.2.3.1 Socialist strength

The electoral strength of socialist parties is measured by the average percentage of votes gained by left parties and is consistent with the studies of Boix (1999; 2010) and Kreuzer (2010). Kreuzer (2010) equally provides a historical assessment of the electoral strength of socialist parties in a dichotomised ‘yes-no’ format; however, fails to explicitly specify the threshold used to distinguish a socialist party as strong or weak. Since the indicator should measure the presence of a strong socialist contender the proportion of votes for socialist parties are taken as averages and are calculated for a period covering approximately twenty years. For negative cases the average socialist vote is considered for equal periods of time leading up to universal manhood suffrage or majoritarian electoral reform. In general, this provides around five elections for measuring the strength of the left parties per country. Moreover, as it is also equally important to capture the rate of growth of the socialist parties the average proportion of the left vote for the last three elections leading up to electoral reform are compared with the average for the entire period. If the averages for the last three elections are greater than the mean and median proportion of votes the party may be considered as a rising contender.

The data is subsequently dichotomised according to whether the socialist party has an overall average percentage of votes of fifteen per cent or higher, with 1 indicating a strong party and 0 a weak party. The threshold is naturally arbitrary but any boundary between ten and twenty per cent would seem sufficient to indicate the presence of a serious political contender; the paper would prefer to err on the side of caution and hence adopts a moderate threshold. Furthermore, if the percentage of votes gained in the last three elections is also significantly higher than the total mean and median, the party may also be considered strong in terms of electoral growth. The resulting dichotomisation is compared with the dichotomisation outlined by Kreuzer (2000) and
all cases coded in contradiction to those by Boix (1999, 2010) and Kreuzer (2010) are addressed in the following section.

The data for all countries is collected from Mackie and Rose (1991), and is cross-referenced for European cases with Bartolini (2000).

2.2.3.2 Divided right parties

The measurement of the fragmented or dominant structure of the right parties has aroused much debate amongst the different studies. Boix’ (1999; 2010) use of Laakso and Taagapera’s (1979) effective number of parties captures the level of fragmentation of parties on the right but underestimates or fails to distinguish clear cases of dominance from non-dominance (Cusack, et. al. 2007; Kreuzer 2010). In turn, Cusack, et. al. (2007) use the difference in percentages of votes between the largest right party and the second largest right party; however, their measure overestimates fragmentation in cases of more than two right parties (Kreuzer 2010). Kreuzer (2010) provides a ready dichotomisation of the division of right parties following Boix’ (1999) use of the effective number of parties yet does not specify any threshold following which the presence or absence of a dominant non-socialist party is dichotomised.

Consequently, the paper measures the degree of division on the right of the political spectrum by attempting to capture both levels of fragmentation and dominance. The level of fragmentation is measured by counting the number of right parties consistently gaining more than five per cent of the total votes during the same period as the rise of the socialist contender. Hence, a score of 1 indicates the presence of more than two right parties for the same duration that the condition of left electoral strength is measured; two or fewer parties receive a fragmentation score of 0. The intuitive assumption underlying the logic is that the right will tend to be more divided if there are more right parties and the electoral market is fragmented. However, as fragmentation does not automatically imply dominance, the average difference in percentage points between the electorally strongest and second strongest non-socialist right parties for the last two elections immediately preceding electoral reform is measured. The advantage of measuring dominance closer to the period of electoral reform is the implicit allowance for right party fusions and re-alignments. Furthermore, as the shorter temporal duration allows for a refined observation of a party’s dominance it is reliable in indicating whether a party would feel threatened if they faced a strong left challenger. A party is
considered dominant if it holds an average lead of more than fifteen percentage points over the second strongest right party during the last two elections before reform. Subsequently, if the difference in percentage points between the second and third strongest party is less than ten percentage points the dominance of the strongest party may be further justified as it holds a considerable advantage over both second and third ranked parties. However, if the distance in percentage points between the second and third strongest parties is greater than ten percentage points then the right may be considered as divided as the top two right parties occupy a fair spread of support from the right electorate.

In sum, the condition of a divided right is measured by conducting a logical addition of fragmentation and dominance, and by comparison with the effective number of parties. Hence, the right is considered divided when it is fragmented and there is no dominant right party. If the right is not fragmented, that is, there are no more than two right parties, and there is no dominant party then it is still considered as divided. The right is considered non-divided when there is a dominant party present, irrespective of the nature of fragmentation. As a consequence, the paper privileges the measure of dominance over fragmentation as it is relatively more pertinent in the causal chain as developed by Boix (1999, 2010).

The results are compared with the dichotomisation outlined by Kreuzer (2010) and contradictions are addressed in the following section. The data for all countries is collected from Mackie and Rose (1991).

2.2.3.3 Electoral biases

Majoritarian and partisan biases result from increasing competition and the heterogeneous distribution of support for parties, respectively (Calvo 2009). Bartolini (2000) provides data on the mean misrepresentation for European left parties in majoritarian systems for the period of 1880 to 1917; however, as the data spans a considerable duration and covers numerous elections it is worthwhile to compute the difference in vote and seat shares separately for right and left parties for the last three elections preceding electoral reform. A similar advantage in limiting the measurement of the data to the last three years preceding electoral reform is that it allows for a finer measurement of the severity of electoral biases. It may be assumed that a party which experiences rapid electoral gains or losses over the course of three elections may indeed face a stronger incentive to reform the electoral system. The disadvantage,
however, is that the average misrepresentation score of any party may be subject to large increase or decreases; thus outliers are treated with caution. For negative cases misrepresentation for both parties is measured during the period immediately preceding majoritarian reform or concomitant with the significant expansion of the franchise.

The measurement of biases using the difference in votes and seats does not accurately distinguish between majoritarian and partisan types of biases but only indicates the overall tendency towards positive or negative misrepresentation for left and right parties. However, the indicator is sufficient in demonstrating whether a right or left party suffered adversely from the effects of increasing competition or territorial dispersion of support. Consistent with the theoretical perspectives, the positive misrepresentation of left parties may also be indicative of whether one conservative party was experiencing adverse partisan biases.

Majoritarian and partisan biases are deemed present if the left and right parties have mean misrepresentation scores greater than zero. As the indicator is calculated by measuring the difference in votes and seats positive scores imply negative misrepresentation for the parties.

The data for all countries is collected from Mackie and Rose (1991).

2.2.3.4 Co-specific assets and corporate-labour coordination

In outlining how the presence of co-specific assets and the cooperative or adversarial nature of firm-labour relations led to the adoption of proportional rules Cusack, et. al. (2007, 2010a) identify five key indicators of the structure of the economy: guild tradition and strong local economies, widespread rural cooperatives, high employer coordination, centralised versus fragmented unions, and a large skill-based export sector. The authors outline that a strong guild tradition and strong local economy is indicative of organised producers and suppliers; rural cooperatives indicate the closeness of links between the agrarian, industrial and financial sectors; high employer coordination reveals the capacity of employers to organise and pursue common strategies; a comparison of the industrial/national or craft/fragmented nature of unions indicates the coordinating capacity of labour markets; and last, a large skill-based export sector as indicative of “the necessity for compromises over wages and training” (Cusack, et. al. 2007: p.385). The authors present a dichotomised table of the data, marking the presence or absence of the indicators, and construct a coordination index, as an aggregate measure of their individual scores.
The thesis does not adopt a single composite measure as an indicator as little variation in results is expected and because the presence of co-specific assets does not preclude adversarial employer-labour relations. Such a distinction is consistent with the argument of Leemann and Mares (2013) who attempt to measure both the presence of co-specific assets, and the nature of industrial relations. Hence, the present paper equally argues for measuring the presence of co-specific assets and the nature of firm-labour relations as distinct conditions. Consistent with Cusack, et. al. (2007) it may be assumed that where co-specific assets are higher industrial relations will also tend to be more cooperative; however, such a distinction between the presence of co-specific assets, and the manner in which they are managed and exploited, is fairly justified.

There is some disagreement as to the validity of three indicators developed by Cusack, et. al. (2007). Kreuzer (2010) argues that the use of guilds and strong local economy is underspecified and could pertain to both agrarian and non-agrarian economies. Furthermore, the use of fragmented unions is valid to measure the “organizational capacity of unions (...) Yet, their operationalization makes less sense if the goal is to measure co-specific labor assets. The members of craft unions tended to have nontradable, firm-specific, formation intensive skills that are characteristic of coordinated labor markets. After all, craft unions evolved historically from guilds, suggesting continuities in co-specific skill assets. Given this historical continuity, it makes little sense to use craft unions to measure absence of coordination/skill formation while using strength of guilds to do the opposite” (Kreuzer 2010: p.373). Kreuzer (2010) and Leemann and Mares (2013) also argue against the use of the indicator of employer associations to measure corporate coordination; they contend that in several instances prior to 1914 many employer associations “were established with the explicit goal to repress labor movements” and hence does not validly serve to capture firm-labour coordination (2013: p.8). Last but not least, Kreuzer (2010) challenges the reliability of the dichotomization of the indicators as presented by Cusack, et. al. (2007), and presents contrary evidence for certain cases which justifies their re-coding.

In order to specify the presence of co-specific assets, the paper will rely on the use of the indicators of a strong local economy and guild tradition, and a large skill-based export sector. Although it is desirable to include additional measures such as the ratio of skilled to unskilled workers, or of skilled workers to the total population, as proposed by Leemann and Mares (2013), due to the insufficiency of historical data, the measurement of co-specific assets is limited to the two indicators. Correspondingly, co-specific assets are coded positively for cases
which have both large skill-based export sectors as well as strong local economies. The presence of widespread rural cooperatives and the centralised or fragmented nature of labour unions are used as indicators of the nature of corporate-labour coordination. As rural cooperatives serve as a useful platform for industry, labour, and agriculture, it may be reasonably justified to assume their presence as a pre-requisite for cooperative relations. Correspondingly, the presence of centralised or fragmented trade unions indicates the potential for labour groups to coordinate with business.

According to the presence or absence of the indicators each country is given an overall score ranging from zero to two for the conditions of co-specific assets, and cooperative firm-labour relations, respectively. Subsequently, countries receiving a score of two are coded positively while a score of zero provides a negative coding. The dichotomisation is compared with the coordination index score as reported by both Cusack, et. al. (2007, 2010a) and Kreuzer (2010). The coding of countries receiving a score of 1 is discussed in the following section.

Hence, the paper avoids the use of the indicator employer coordination due to the reason as outlined by Leemann and Mares (2013); the use of centralised or fragmented trade unions to measure the potential for cooperation is also consistent with Kreuzer’s (2010) critique of Cusack, et. al. (2007) as it is not used simultaneously to measure the presence of co-specific assets.

Nonetheless, as the indicators have been coded differently by both Cusack, et. al. (2007, 2010b) and Kreuzer (2010), both sets of data are presented and the dichotomisation is discussed.

2.3 Validity, reliability, and measurement issues

The first validity issue pertains to the timing of the measurement of the conditions. The election years differ with those used by the authors for a number of cases. Boix (1999) stipulates that the data for cases should be measured during the election years reflecting an increasing electorate and under majoritarian rules; however, Boix (1999, 2010) uses the years 1921 for Sweden, 1918 for the Netherlands, 1919 for New Zealand, and 1921 for Canada. It may well be argued that these years are incorrect for measurement (Kreuzer 2010). It may be justified that since suffrage was nearly universal during the turn of the century in the Anglo-Saxon group of countries the first elections in the twentieth century should be used instead (Kreuzer 2010). However, even though Kreuzer (2010) argues for the first elections to be considered for cases such as Australia, it may be reasonable to further extend the temporal limits for the Anglo-Saxon
cases for a few reasons. First, although suffrage was quasi-universal by the turn of the century, capacity and financial requirements were only eliminated following the extension of the suffrage (Caramani 2000, 2004). As a result, national electorates only became fairly competitive after the significant extension of the franchise. Finally, the cases of Australia and New Zealand did implement majority electoral reform during the first two decades of the twentieth century.

In essence, since the negative cases have the potential to adopt proportional rules but failed to do so, it may be reasoned that using only the first election year of the century may distort results and fail to account for changes during the first two decades of the twentieth century. Hence, for all positive and negative cases the temporal duration of the measurements is limited to the years preceding electoral reform wherever possible. When no electoral reform has taken place the temporal limits are adjusted so as to coincide with the period of universal suffrage or subsequent to a significant expansion of the electorate. Hence, contrary to Boix (1999, 2010), and Kreuzer (2010), the thesis relies on averages for the dichotomization of each condition and does not measure the level of the indicator for only any one particular election year.

In measuring the electoral strength of the left parties the thesis highlights certain differences in measurement with the dichotomisation proposed by Boix (2010) and Kreuzer (2010). The first difference in coding refers to Australia which both authors classify as having an electorally weak left party. However, data from Mackie and Rose (1991) demonstrate that the labour party garnered an average of forty per cent of total votes cast from 1901 to 1917; although electorally weak in the first year the labour party grew from strength to strength over the years. Hence, contrary to the authors, Australia is classified as having a strong electoral left party. The measurement of Sweden as reported by the data is likely to lead to its dichotomisation as having a weak socialist party; however, Carstairs (1980) and Kreuzer (2010) point out that the last elections held under majoritarian rules were highly restrictive and hence underestimate the real strength of the left in Sweden. Moreover, the rate of growth of the left party during the last election before electoral reform in Sweden lends support to its classification as a strong socialist party. Similarly, although the socialist party in the Netherlands fails to have an average proportion of votes greater than fifteen per cent, its performance in the last three elections leading to electoral reform suggest otherwise; if the measurement is limited to the last three
elections the left party does indeed garner approximately fifteen per cent of the votes and thus, may be considered as a relatively strong party.

The measurement of the division of non-socialist parties also raises contradictions vis-à-vis the measurements of Boix (1999, 2010) and Kreuzer (2010). The division of right parties is measured by the level of fragmentation and dominance of the top two non-socialist parties by Boix (1999, 2010). Fragmented right electorates tend to indicate a higher number of right parties and hence lower levels of dominance; yet, as correctly noted by Cusack, *et. al.* (2007) and Kreuzer (2010), this fails to distinguish between cases of dominance and cases where parties are equally balanced in strength. The first difference in measurement refers to Austria. The Austrian right party system was highly fragmented and characterised by numerous nationalist parties (Carstairs 1980); however, the Christian Social Party was clearly dominant and maintained a lead of over forty percentage points over the next right party and hence, Austria may be considered as having a non-divided right (Mackie and Rose 1991). Belgium is a similar case; although having only two prominent right parties, the Catholic party firmly established itself as more dominant over the Liberal party during the course of the last two elections prior to electoral reform with an average lead of thirty percentage points (Mackie and Rose 1991). The Anglo-Saxon cases of Canada, New Zealand, and the United States are also in contradiction with Boix (1999, 2010) and Kreuzer’s (2010) dichotomization. In all three cases the two right parties differed in percentage points by a very narrow margin and no single party dominated elections. In effect, the thesis argues that the consideration of the right as non-divided in such cases is incorrect as in each case both right parties controlled similar shares of the electorate. The election years considered for the United Kingdom differ from those used by Boix (1999) and Kreuzer (2010); the data from Mackie and Rose (1991) reveal the conservative party in a position of dominance over the liberals, which in turn held only a slight lead over the break-away party of Lloyd George in 1918 (Mackie and Rose 1991). As the 1918 and 1922 elections witnessed break-away parties and alliances, as well as the consequent disappearance of the Irish parliamentary parties, the data for the United Kingdom is also calculated for the two elections held in 1910, which consequently reveal two right parties of nearly equal strength. Hence, consistent with Boix (1999, 2010) and Kreuzer (2010) the United Kingdom is classified as having a divided right.

The measurement of misrepresentation of right and left parties is calculated by the difference between vote and seat shares of each party. The indicator is measured for three
election years preceding proportional or majority electoral reform. The indicator may be criticised as it fails to take into account the overall trend of misrepresentation and displacement of parties from the political arena but rather presents a snapshot of the structure of parties prior to reform. Moreover, a large difference in seat-vote distortions for any one election may indeed bias the over-all mean score of a party; hence, the coding is treated with caution and interpretations of the influence of the condition are cross-referenced with a more qualitative reading of sources.

The measurement of co-specific assets and employer-labour coordination is problematic as neither Cusack, *et. al.* (2007, 2010a) or Kreuzer (2010) explicitly specify the dichotomization of their data, and since both authors use five indicators to construct one single variable. In regards to the condition of co-specific assets the coding of Cusack, *et. al.* (2007) and Kreuzer (2010) differs for the cases of Austria, Denmark, Italy, and the United Kingdom. Kreuzer (2010) finds evidence to justify coding Austria and Denmark as not having a large skill-based export sector. Kreuzer (2010) argues that the Austro-Hungarian Empire had a relatively low gross domestic product per capita and relatively high protectionist tariff barriers in place and hence should be coded negatively for the presence of co-specific assets. Denmark was characterised by a largely agrarian economy and relatively modest industrial sector (Kreuzer 2010). The United Kingdom, in contrast, was highly industrialised and had relatively low trade barriers, resulting in a high level of manufacture based exports (Kreuzer 2010). However, Cusack, *et. al.* (2010a, 2010b) retort that Austria did indeed have a relatively high share of exports in proportion to its gross domestic product, as well as a high gross domestic product per capita. Indeed, a comparison of the data in Kreuzer’s (2010) appendix reveals that Austria had similar levels of economic growth to other industrialised nations. Cusack, *et. al.*’s (2010a, 2010b) defence of Denmark is less consistent and fails to address the fact that Danish exports and industrialisation was relatively low until the 1930s. The authors also fail to justify why the United Kingdom should not be coded positively for co-specific assets as they conflate the question of skills and coordination; indeed, they criticise the quality of training but do not deny Kreuzer’s central critique. Hence, consistent with Kreuzer (2010) Denmark is coded as having low co-specific assets and the United Kingdom is coded as having a high level of co-specific assets. Austria is coded positively following Cusack, *et. al.* (2010a, 2010b).

In regards to the condition of employer-labour coordination the coding of the two authors differs for the cases of Italy, the Netherlands, and Switzerland. For the Netherlands and
Switzerland the differences arise as Kreuzer (2010) justifies re-coding centralised industrial unions to de-centralised craft unions based on the relatively low numbers of membership and high level of fractionalisation. In their response, Cusack, *et. al.* (2010a, 2010b) point out that Kreuzer (2010) uses the wrong time period and hence incorrectly captures the strength of unionisation in the Netherlands. In effect, industrialisation and unionisation began relatively late in both the Netherlands and Switzerland, however, accelerated rapidly at the beginning of the twentieth century and reached its peak at the end of the First World War (Cusack, *et. al.* 2010b; Bartolini 2000). However, Cusack, *et. al.* (2010) also acknowledge the de-centralised nature of Swiss politics and institutions and concede that employer associations strongly rejected bargaining attempts by labour until the 1930s. Hence, the Netherlands is coded positively for coordination, while Switzerland is coded negatively. Italy presents an anomalous case at first glance as it does not have high levels of co-specific assets or cooperative coordination mechanisms. It must be noted that Kreuzer (2010) incorrectly reports Cusack, *et. al.*’s (2007) coding of the presence of widespread rural cooperatives for Italy in his table; nevertheless due to the absence of employer coordination or centralised unions, and consistent in comparison with the coordination index constructed by both authors, Italy is coded negatively for employer-labour coordination.
3. Results and Analysis

3.1 Raw data matrices and construction of truth tables

Having coded the outcome and the causal conditions a raw data matrix is constructed and is used as the input for the QCA software programme “fs/QCA v2.5” developed by Ragin, et. al. (2009). The columns indicate the coding assigned to the causal conditions and the outcome; the last two columns indicate whether electoral reform was initiated by right parties and whether it enjoyed the backing and support of all right parties, respectively. The presentation of a raw data matrix facilitates both a summary of the data as well as its coherence.

As a preliminary check, each condition is reviewed for sufficient variation. As a guide the thesis uses one-third of the number of conditions to indicate adequate variation. The conditions of an electorally strong left and the misrepresented nature of the left party stand out as conditions with relatively low variation across cases. Indeed, there are only three countries with electorally weak left parties, namely, Canada, New Zealand, and the United States, which are all negative cases. The condition of left misrepresentation is only absent for the cases of Belgium and the United Kingdom. The conditions are nevertheless maintained for analysis; however, the lack of variation suggests that alternate theoretical models of causation may also be developed which exclude cases with electorally weak left parties and focus instead on the configuration of other causal conditions.

The raw data matrix is subsequently presented in the form of a truth table with all possible configurations of causal conditions. The presentation of the raw data matrix in the form of a truth table regroups similar cases according to the presence and absence of conditions and of the outcome. The truth table allows for the verification of coherence by indicating the existence of any contradictory configurations, namely, cases which are described by identical causal conditions but which differ in the outcome. As a final step, a preliminary analysis of the truth table underlines the relative importance of the theoretical perspectives by comparing the distribution of cases and conditions.
Table 6: Raw data matrix

<table>
<thead>
<tr>
<th>#</th>
<th>Case</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>OUT</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
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</tbody>
</table>


Sources: See Appendix 1 for a list of data sources and justifications for dichotomisation for the six causal conditions and the outcome. The data for the last two columns is compiled from Carstairs (1980) and Kreuzer (2010).
3.1.1 Resolution of contradictions

The formal presentation of the data in the form of a truth table reveals one contradiction. The cases of Australia and Italy share similar scores for all causal conditions, yet display different outcomes. Subsequently, a number of alternatives are considered. The first possibility is to include an additional causal condition with the aim of increasing diversity; however, due to the multiplicity of causal conditions and hypotheses developed it is difficult to determine which additional condition to include on robust theoretical grounds. Moreover, such a modification would result in a significant increase in the number of possible configurations and remainder cases which lack empirical correspondence. The alternative of removing a causal condition is less appealing as the analysis is already limited to the essential conditions put forth by the theoretical perspectives; re-coding the outcome is impossible. It may be argued, consistent with Andrews and Jackman (2005) for the exclusion of Australia; however, as one of the principal features of QCA is attention to causal conditions as well as cases this strategy is avoided.

Hence, the research returns to the coding of causal conditions for both cases. There is little evidence in favour of re-coding the value of any condition for the case of Italy; the dichotomisation of the case for each condition is largely within the reference points. Kreuzer (2010) makes his measurement for Australia for the year 1901-1902 and hence severely underestimates the strength of the left. Although universal manhood franchise was instituted in 1901, the labour party significantly grew in strength over the years and was electorally dominant by the time the Australian parliament implemented majority reform (Mackie and Rose 1991). Hence, the strength of the socialist party is not re-coded. There is also little evidence to justify a re-coding of the division of right parties as once party fusion and re-alignment had taken place at the turn of the century, the only right and dominant party was the Liberal party (Mackie and Rose 1991).

There is however some justified support for re-coding the value of the misrepresentation of the Australian Labor party. Indeed, electoral evidence from Mackie and Rose (1991) shows that the Labour party did not suffer from significant misrepresentation as is purported by the coding of the data. The party suffered adversely during the last election prior to reform due to the merger of parts of the Liberal and Labour parties into a new Nationalist party; hence, the score of the last election for the left party may be considered as an outlier, and the condition of left party misrepresentation is re-coded for the case of Australia. A second review of the coding is carried
out for all other cases and there is no evidence for a similar re-coding for any other case. Hence, the contradiction is resolved and a revised truth table is presented.

<table>
<thead>
<tr>
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<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>OUT</th>
<th>Cases</th>
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Table 8: Final truth table of configurations

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<th>C</th>
<th>D</th>
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<td>0</td>
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</tr>
<tr>
<td>...64</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Truth table compiled using the software “fs/QCA” (Ragin, et. al. 2009) and “Kirq” (Reichert and Rubinson 2013).
3.1.2 Preliminary analysis of the truth table

Having resolved all contradictions in the truth table the spread of cases and conditions is examined and all counter-intuitive values are assessed. The truth table is subsequently analysed in light of the different causal configurations, as well as corresponding supporting and contradictory cases for the different theories. The truth table reveals the presence of six causal pathways leading to the adoption of proportional representation and covers all nine positive cases; there are four causal pathways describing the retention of majoritarian institutions and cover all five negative cases. However, the causal pathways leading to positive and negative outcomes contain distinct causal conditions. A cursory overview of the truth table reveals that electoral reform is a relatively complex phenomenon, characterised by hetero-causality, or the existence of multiple pathways leading to the same outcome. The various causal paths are considered for the conditions which lend the most support or contradict the theoretical perspectives reviewed.

The first causal pathway covers the cases of Germany, Norway, the Netherlands, and Sweden. Indeed, the first causal configuration seems to provide the clearest support for all theoretical perspectives considered, suggesting that proportional rules were adopted when all three sets of conditions were present. Each case is characterised by a strong socialist party and divided right parties; they are also equally characterised by increasing electoral competition leading to biases adversely affecting both left and right parties, and high levels of investments in co-specific assets and cooperative industrial relations.

Notwithstanding the first configuration, the truth table reveals two additional configurations which lend support to Boix’ (1999) explanation for a positive outcome. The configurations refer to the cases of Denmark and Switzerland. The cases suggest that a strong left and a divided right were conducive to the adoption of proportional rules. However, the unique configurations covering Austria, Belgium, and Italy are characterised by a strong left and a dominant right party, thus hinting at the influence of other conditions acting in conjunction to lead to the outcome. In respect to the retention of majoritarian rules the cases of the Canada and the United States lend support to Boix’ (1999) theory as they are both characterised by weak lefts, regardless of the structure of right parties. The configuration describing Australia also lends support as, although characterised by a strong left party, one right party was sufficiently strong and came to represent the entire right electorate. The configuration covering the United Kingdom
is characterised by both conditions which are necessary for the adoption of proportional rules, yet, has a negative outcome, also suggesting that other conditions may perhaps provide more sturdy explanations.

Similarly, apart from the first causal pathway, the configuration describing Belgium lends particular support to the theoretical approach of Andrews and Jackman (2005), Rodden (2008), and Calvo (2009), as it is characterised by a severely misrepresented right party. Four configurations lend particular support for Rodden’s (2008) contention that more often than not it was the socialist parties which were misrepresented to the advantage of right parties as exemplified by the cases of Austria, Denmark, Italy, and Switzerland. By and large there are no positive cases which seem to contradict the theoretical perspective. In each case where proportional rules were adopted a left or right party suffered adversely from majoritarian or partisan biases. Hence, further examination of the positive cases pays particular attention to whether misrepresentation was on the left, right, or both. In regards to the retention of majoritarian rules all negative cases are described by different combinations of left and right party misrepresentation. In particular, the United Kingdom merits further examination as it had a left party which was not particularly adversely affected, as well as one right party which was affected by electoral biases. The case supports the hypothesis that majoritarian rules are maintained when biases are in favour of one new comer and one incumbent to the detriment of a third party with dispersed support. However, the same exact conditions characterise Belgium which adopted proportional rules. Hence, the United Kingdom presents itself as a case worthy of further qualitative examination. Canada, New Zealand, and the United States are all equally characterised by an adversely affected left party; however, this must be placed within the overall context of an extremely electorally weak left party which never gained significant support to begin with. Hence, the cases do not seem to support or contradict the theoretical perspective. The case of Australia is interesting as the configuration is characterised by an absence of electoral biases; the question then is what incentive prompted majority electoral reform? A closer look at empirical electoral data reveals that the right parties in Australia experienced re-alignment and fusions from 1906 to 1914 (Mackie and Rose 1991). Indeed, the left party remained and grew in strength and was hence not misrepresented overall. However, the structure of right parties changed from two equally balanced right parties to one strong liberal right party (Mackie and
Rose 1991). Thus, it may be reasonably surmised, that party mergers and fusions be incorporated as a causal condition for consideration in future analyses.

There appears to be nuanced support in favour of the hypothesis that cooperative industrial relations are crucial in the adoption of proportional rules. Of all positive cases, the configurations of Denmark, Italy and Switzerland are problematic in comparison with the theoretical framework of Cusack, et. al.(2007). Denmark and Italy are both countries marked by an absence of high investments in co-specific assets, while Italy and Switzerland lack institutions facilitating employer-labour coordination. With respect to the absence of the outcome none of the cases are characterised by the presence of either of the two economic conditions, save for the presence of co-specific assets in the United Kingdom, and thus provide relatively greater support for the relevance of the conditions in leading to the absence, rather than the presence, of the outcome. The potential asymmetry suggests that while political and geographical factors may have primarily influenced the adoption of proportional rules, the retention of majoritarian rules may have been influenced to a relatively greater extent by the absence of co-specific assets and cooperative relations.

The preliminary exploration of the truth table has already provided certain results amenable to limited interpretation and highlighted the importance of qualitatively examining particular cases under the light of more than one theoretical perspective. The data reveal that there are in effect approximately six unique causal pathways which potentially explain the adoption of proportional rules and underscore the equi-final nature of causality. Moreover, the distribution of conditions across cases seems to suggest that in certain instances the outcome may be explained only by particular combinations of causal conditions, and therefore do not conform to any particular theoretical perspective. Equally, with regards to the absence of the outcome, the truth table reveals negative cases which prove difficult to justify by the use of any single theoretical perspective.

3.2 Analysis of necessary and sufficient conditions

The analysis of necessary and sufficient conditions is first carried out for the presence of the outcome. The measures of consistency and coverage for each causal condition provide suitable reference marks for assessing the necessity and sufficiency of a condition, respectively. The consistency score of a condition is calculated by dividing the number of cases which have
both the condition and the outcome present by the total number of cases with the outcome present (Ragin 2008). The coverage score of a condition indicates the proportion of cases explained by the causal condition and is calculated by dividing the number of equi-final causal pathways by the total number of positive outcomes; hence a coverage score of 1 indicates that a condition is sufficient in explaining the presence of the outcome (Ragin 2008). A potential trade-off between consistency and coverage scores may also be anticipated as necessary conditions may not be present in all cases (Ragin 2008); hence, coverage is only assessed where a condition is consistent with the theoretical perspective and the observed outcome.

In view of the moderate number of conditions but relatively low number of cases the paper argues for conservative thresholds of measurement. With a relatively small number of cases a threshold of eighty per cent is recommended (Ragin 2008); a score below the threshold makes any theoretical inference of necessity or sufficiency difficult. Correspondingly, due to a small universe of cases, even scores of a hundred per cent are treated with caution; they are subsequently compared with their relative importance as outlined by the theories in order to confirm or reject their validity. In sum, the paper opts for the rather conservative consistency and coverage thresholds of 0.90 or ninety per cent. Nevertheless, according to the distribution of scores, the paper also examines conditions with scores between 0.8 and 0.9. The following tables report the consistency and coverage scores for each causal condition for the presence of the outcome. The data is computed using the fs/QCA programme developed by Ragin, et. al. (2009).

Prior to presenting the results of the analysis the hypotheses developed by the different theoretical perspectives with regards to the necessity and sufficiency of conditions are recalled in Boolean form in order to facilitate the interpretation of the results.
<table>
<thead>
<tr>
<th>Presence of the outcome</th>
<th>Conditions</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1</strong> States which are characterised by both electorally strong left parties and non-dominant or divided, right parties, are expected to adopt proportional electoral rules</td>
<td>A*B</td>
<td>Both necessary</td>
</tr>
<tr>
<td><strong>H2a</strong> States which are characterised by a misrepresented right or left party are expected to adopt proportional electoral rules when the adversely affected party is in a position to implement electoral reform</td>
<td>C+D</td>
<td>Necessary and sufficient</td>
</tr>
<tr>
<td><strong>H2b</strong> States which are characterised by misrepresented left and right parties are expected to adopt proportional electoral rules when the left party is able to implement reform alone or in an alliance with other parties</td>
<td>C*D</td>
<td>Necessary and sufficient</td>
</tr>
<tr>
<td><strong>H3</strong> States which are characterised by high levels of investments in co-specific assets and cooperative employer-labour relations are expected to adopt proportional electoral rules</td>
<td>E*F</td>
<td>Both necessary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Absence of the outcome</th>
<th>Conditions</th>
<th>Relevance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H4a</strong> States which are characterised by electorally weak left parties are expected to maintain majoritarian electoral rules</td>
<td>a</td>
<td>Sufficient</td>
</tr>
<tr>
<td>States which are characterised by electorally strong left parties and a dominant right party are expected to maintain majoritarian rules</td>
<td>A*b</td>
<td>b is necessary</td>
</tr>
<tr>
<td><strong>H5</strong> States which are characterised by an over-represented left party and an over-represented right party to the detriment of a second right party are expected to maintain majoritarian rules</td>
<td>c*d</td>
<td>Both are necessary</td>
</tr>
<tr>
<td><strong>H6a</strong> States which are characterised by low levels of investment in co-specific assets are expected to maintain majoritarian rules</td>
<td>e</td>
<td>Sufficient</td>
</tr>
<tr>
<td><strong>H6b</strong> States which are characterised by high levels of investment in co-specific assets and adversarial employer-labour relations are expected to maintain majoritarian rules</td>
<td>E*f</td>
<td>f is necessary</td>
</tr>
</tbody>
</table>

Legend: A: left electoral strength, B: divided right parties, C: misrepresented left party, D: misrepresented right party, E: high presence of co-specific assets, F: cooperative employer-labour relations, capital letters indicate the presence of the condition while the absence of the condition is indicated by a miniscule letter case.

Source: Present study.
Table 10: Test results for necessary conditions for the presence of the outcome

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</tbody>
</table>

Table 11: Test results for necessary conditions for the absence of the outcome

<table>
<thead>
<tr>
<th>Conditions tested</th>
<th>Consistency</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>0.40</td>
<td>0.18</td>
</tr>
<tr>
<td>a</td>
<td>0.60</td>
<td>1.00</td>
</tr>
<tr>
<td>B</td>
<td>0.80</td>
<td>0.40</td>
</tr>
<tr>
<td>b</td>
<td>0.20</td>
<td>0.25</td>
</tr>
<tr>
<td>C</td>
<td>0.60</td>
<td>0.27</td>
</tr>
<tr>
<td>c</td>
<td>0.40</td>
<td>0.67</td>
</tr>
<tr>
<td>D</td>
<td>0.40</td>
<td>0.29</td>
</tr>
<tr>
<td>d</td>
<td>0.60</td>
<td>0.43</td>
</tr>
<tr>
<td>E</td>
<td>0.20</td>
<td>0.13</td>
</tr>
<tr>
<td>e</td>
<td>0.80</td>
<td>0.67</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>f</td>
<td>1.00</td>
<td>0.71</td>
</tr>
</tbody>
</table>

Legend: A: left electoral strength, B: divided right parties, C: misrepresented left party, D: misrepresented right party, E: high presence of co-specific assets, F: cooperative employer-labour relations, capital letters indicate the presence of the condition while the absence of the condition is indicated by a miniscule letter case.
Table of consistency and coverage scores compiled using the software “fs/QCA” (Ragin, et. al. 2009).
3.2.1 Analysis of necessary and sufficient conditions for the presence of the outcome

With respect to explaining the presence of the outcome the table reveals consistency scores for conditions ranging from 0.00 to 1.00.

Of all conditions tested, a strong socialist party receives the highest consistency score of 1.00, implying that it is a necessary condition for the presence of the outcome. However, it is recalled that, to an extent, the relatively high score is anticipated due to the lack of variation in the condition of an electorally strong left party. The coverage score for the condition is moderately high at 0.82, indicating that a strong socialist party is close to, but not fully, a sufficient condition for electoral reform. Hence, it may be stated that an electorally strong left party is necessary to explaining the positive outcome in each case; nevertheless, it does not lead to the presence of the outcome by itself, but only in conjunction with other conditions.

The consistency and coverage scores reported for the division of right parties do not lend support to the first hypothesis regarding the joint interactive effect of a strong socialist party and divided right parties. Indeed, the condition of a dominant or non-dominant right is not indicated as either necessary or sufficient in explaining the presence of the outcome and provides the most evidence in favour of rejecting the first hypothesis.

Nevertheless, the consistency score of an electorally strong left party lends partial confirmation to the first hypothesis; hence, States which are characterised by electorally strong parties are likely to adopt proportional rules.

The condition of left party misrepresentation is just shy of the consistency threshold of 0.90 with a score of 0.89. Moreover, the coverage score for the condition suggests that it is pertinent in explaining the presence of the outcome in roughly seventy per cent of the instances. If the thresholds of consistency and coverage are eased to permit the inclusion of conditions slightly below the value of 0.90, a misrepresented left party may be considered as a potentially necessary condition. The relatively high consistency score suggests that in the majority of cases a misrepresented left is necessarily associated with the outcome. Nevertheless, as with the condition of an electorally strong left, the reduced coverage score implies that the condition of left misrepresentation is causally relevant in conjunction with other conditions.

The misrepresentation of incumbent parties has a moderate consistency score of 0.56 and is therefore not considered as a necessary condition. The coverage score indicates that misrepresented incumbents were characteristic in seventy per cent of the cases; however, due to
the level of inconsistency the moderate coverage score does not permit the validation of the
claim that incumbent misrepresentation is a necessary or sufficient condition for the adoption of
proportional rules. Although the scores do not even meet the threshold of 0.8, they are not
discounted as causally relevant and do not serve to reject either versions of the second
hypothesis. Indeed, the condition may be relevant in combination with other conditions, for
example, an electorally strong or misrepresented left party.

Nevertheless, as the condition of a misrepresented left is a near necessary condition for
the presence of the outcome, both variants of the second hypothesis are partially confirmed;
hence, States which are characterised by misrepresented left parties are likely to adopt
proportional rules.

The conditions of co-specific assets and cooperative employer-labour relations have
relatively moderate consistency scores of 0.77 and do not meet the thresholds of the thesis.
However, the conditions co-specific assets and cooperative employer-labour relations are
assigned high coverage scores of 0.87 and 1.00, respectively. Although the coverage scores
suggest that the conditions are largely sufficient in explaining the outcome, the interpretation
may be nuanced as the low consistency scores suggest that the presence of the conditions may
well be spurious and not causally influential. It is counter-intuitive to the theoretical framework
to assume that the economic conditions are sufficient in themselves to explain the presence of the
outcome without being causally necessary.

As neither of the conditions is necessary, the hypothesis that the presence of co-specific
assets as well as cooperative industrial relations leads to the adoption of proportional rules is not
supported. Nevertheless, given the sufficient nature of employer-labour relations, it is interesting
for future research to investigate its causal relevance in generating the presence of the outcome
in conjunction with other conditions such as the relative speed of the extension of the franchise
or social and economic conditions such as industrialisation, urbanisation and geographical size.

In summary, of the hypotheses specified, the analysis of necessity and sufficiency lends
strong support to the role of an electorally strong and misrepresented left party, and relatively
nuanced support for the causal relevance of the misrepresentation of incumbent right parties and
cooperative industrial relations.
3.2.2 Analysis of necessary and sufficient conditions for the absence of the outcome

Similarly, an examination of the table for the absence of the outcome reveals consistency scores ranging from 0.00 to 1.00.

Consistent with Boix (1999), the consistency and coverage scores of 0.00 assigned to the absence of an electorally strong left in the previous section for the presence of the outcome suggest that the absence of a strong socialist party may also be causally relevant in the retention of majoritarian rules. However, as the absence of an electorally strong left is scored at 0.60 and does not meet the threshold of necessity, it contradicts the expectation that the condition is equally relevant to the absence of the outcome. The high coverage score of 1.00 may be interpreted as providing the strongest support in favour of the fourth hypothesis confirming the absence of an electorally strong left as a sufficient condition. However, once again the coverage score is nuanced in light of the low consistency score and the small number of negative cases.

Surprisingly, the examination of the condition of a dominant or non-dominant right party seems to suggest that the presence of a divided right is potentially necessary for the absence of the outcome with a consistency score of 0.80. However, as the score does not meet the threshold and the assumption is in stark contradiction to the theoretical framework the result may be understood as random rather than pertinent since the causal relevance of the condition is not specified in combination with other conditions such as a strong or weak left party. Hence, neither variant of the fourth hypothesis is supported by the analysis of necessity for the conditions of a weak left party or a dominant right party.

The consistency and coverage scores of the misrepresentation of left and right parties are not reliable enough to make any causal inference as to their relevance for the absence of the outcome since they do not meet the specified thresholds; thus, they do not permit any validation or rejection of the fifth hypothesis.

The absence of high levels of investment in co-specific assets and of cooperative labour-employee relations are assigned relatively high consistency scores of 0.80 and 1.00 respectively, suggesting that cooperative economic relations are causally more necessary for the retention of majoritarian rules rather than the adoption of proportional rules. The coverage scores for both conditions are moderate and range from sixty to seventy per cent and do not meet the thresholds of consideration for sufficiency. While the hypothesis that the absence of co-specific assets is sufficient for the absence of the outcome is not validated the results support the second variant of
the sixth hypothesis which contends that the absence of cooperative industrial relations is necessary for the absence of the outcome.

In summary, the analysis of the conditions for the retention of majoritarian rules reveals that a weak left party is not a necessary condition for the absence of the outcome; its causal relevance requires further scrutiny before its sufficiency can be affirmed. The analysis also highlights the influential role of adversarial industrial relations in the retention of majoritarian rules as a necessary condition and strongly hints towards a certain causal asymmetry explaining the question of electoral system choice.

3.2.3 Solutions and interpretation of results for the presence of the outcome

The next step in the QCA analysis is to minimise the truth table in order to produce solutions comprising of one or more combinations of conditions explaining the presence of the outcome.

The first type of solution result derived by the fs/QCA programme is the primitive or complex solution result. The complex solution excludes all remainder cases and minimises the truth table only according to the configurations for which empirically observable cases exist; the resulting formula is relatively descriptive in that it refers directly and only to cases in the population sample. The complex solution facilitates a review of multiple causation, multiple conjunctural causation, as well as the overall diversity of the constellations of causal conditions influencing the presence of the outcome. Each combination of conditions is discussed with regards to its theoretical pertinence and is linked back to the corresponding case. However, complex results risk remaining descriptive and provide little conclusive evidence if no effort is made towards more parsimonious results.

Hence, in light of the complex nature of the descriptive solutions, a more parsimonious solution is derived by enabling the fs/QCA programme to include all remainder cases in the minimisation of the truth table. The inclusion of remainder cases hinges upon counterfactual analysis; therefore, if the remainder and empirical cases differ only by one condition which is likely to lead to the presence of the outcome, the condition is eliminated. In doing so, the fs/QCA programme provides parsimonious results which facilitate an examination of the key conditions causally relevant to the presence of the outcome. Nevertheless, as simplified results may sometimes be too parsimonious to generate valid inferences which may confirm or reject a
hypothesis or theoretical perspective, a third set of intermediate solutions may also be derived by
the fs/QCA programme. The generation of the intermediate solution is also based on
counterfactual reasoning and requires an explicit selection of conditions by the researcher which
may theoretically contribute towards the outcome. The conditions are assigned according to
whether their presence, absence, or both, is causally relevant to the outcome.

The first column reports the different terms or expressions of the complex solution. Each
expression signifies a specific and distinct causal pathway. The raw coverage score indicates the
proportion of cases described by the combination of causal conditions while the unique coverage
score specifies the proportion of cases that are exclusively described by the terms. A moderate
coverage threshold of twenty per cent is used to distinguish the relevant importance of each set
of terms. The last column reports the corresponding cases.

<table>
<thead>
<tr>
<th>#</th>
<th>Expression</th>
<th>Raw coverage</th>
<th>Unique coverage</th>
<th>Consistency</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A<em>B</em>C<em>D</em>E*F+</td>
<td>0.44</td>
<td>0.44</td>
<td>1.00</td>
<td>DEU, NLD, NOR, SWE</td>
</tr>
<tr>
<td>2</td>
<td>A<em>b</em>C<em>d</em>e*f+</td>
<td>0.11</td>
<td>0.11</td>
<td>1.00</td>
<td>ITA</td>
</tr>
<tr>
<td>3</td>
<td>A<em>B</em>C<em>d</em>e*f+</td>
<td>0.11</td>
<td>0.11</td>
<td>1.00</td>
<td>DNK</td>
</tr>
<tr>
<td>4</td>
<td>A<em>B</em>C<em>d</em>E*f+</td>
<td>0.11</td>
<td>0.11</td>
<td>1.00</td>
<td>CHE</td>
</tr>
<tr>
<td>5</td>
<td>A<em>b</em>C<em>d</em>E*F+</td>
<td>0.11</td>
<td>0.11</td>
<td>1.00</td>
<td>AUT</td>
</tr>
<tr>
<td>6</td>
<td>A<em>b</em>c<em>D</em>E*F</td>
<td>0.11</td>
<td>0.11</td>
<td>1.00</td>
<td>BEL</td>
</tr>
</tbody>
</table>

The complex solution reported for the presence of the outcome is constituted by six sets
of causal configurations, each comprising all six terms. It is unsurprising that the complex
solution contains a number of sets of terms, providing support for the assertion that the adoption
of proportional rules is characterised by multiple conjunctural causation. Moreover, the fact that
each configuration comprises all six terms lends support to the view that while the conditions
developed by the theoretical frameworks are all causally relevant to an important degree, they
only exercise their effects when combined with other conditions.
The first configuration is described by the presence of all the conditions and covers forty-four per cent of all positive cases, corresponding to the four empirical observations of Germany, the Netherlands, Norway, and Sweden. The configuration suggests that in the four cases the joint effects of an electorally strong left and divided right, a misrepresented left and right party, as well as investments in co-specific assets and cooperative industrial relations, are all causally relevant for the outcome. The raw and unique coverage scores of the other five sets of terms are substantially low, as each expression describes the adoption of proportional representation in the particular cases of Italy, Denmark, Switzerland, Austria, and Belgium. The relatively raw and unique coverage scores do not imply that the causal paths are less important than the first path but rather that different causal conditions exercise varying levels of influence in combination with other conditions and are unique to particular cases.

The different expressions generated by the complex solution may be compared against the specified hypotheses in order to examine the relative importance of the theoretical frameworks in explaining the adoption of proportional rules.

The following table presents the hypotheses in Boolean form along with the supporting expressions and cases.

<table>
<thead>
<tr>
<th>H #</th>
<th>Boolean</th>
<th>EX#</th>
<th>Confirming expressions</th>
<th>Confirming cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>A*B</td>
<td>1</td>
<td>A<em>B</em>C<em>D</em>E*F</td>
<td>DEU, NLD, NOR, SWE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>A<em>B</em>C<em>d</em>e*f</td>
<td>DNK</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>A<em>B</em>C<em>d</em>E*f</td>
<td>CHE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>H2a</td>
<td>C+D</td>
<td>1</td>
<td>All configurations</td>
<td>DEU, NLD, NOR, SWE, ITA, DNK, CHE, AUT, BEL</td>
</tr>
<tr>
<td></td>
<td>C*D</td>
<td>5</td>
<td>A<em>b</em>C<em>D</em>E*F</td>
<td>DEU, NLD, NOR, SWE</td>
</tr>
<tr>
<td>H3</td>
<td>E*F</td>
<td>5</td>
<td>A<em>b</em>C<em>d</em>E*F</td>
<td>AUT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
<td>A<em>b</em>c<em>D</em>E*F</td>
<td>BEL</td>
</tr>
</tbody>
</table>

As expected, the first configuration confirms the relevance of all hypotheses. In addition, the configurations comprising the cases of Denmark and Switzerland also lend support to the claim that proportional rules are adopted in the presence of a strong left and divided right. The first variant of the second hypothesis is confirmed by all configurations and cases; in effect, the results suggest that if either left or right parties suffer from electoral biases then proportional
rules are likely to be adopted. The second variant is only supported by the first configuration and implies that where both parties suffer from electoral biases, proportional electoral reform is likely. Taken together both versions of the second hypothesis support the contention that proportional rules are likely to be implemented due to the adverse effects of electoral biases. In addition to the first causal path, the third hypothesis is supported by the fifth and sixth expressions unique to the cases of Austria and Belgium.

It may be argued that the first version of the second hypothesis is the most relevant to the analysis of proportional reform; nevertheless, any validation of the hypotheses requires determining whether proportional rules were implemented specifically by the party adversely affected by electoral biases. Moreover, as it is against the spirit of the QCA approach to engage in specifying the net influence of particular causal conditions, the thesis turns to examining the combination of conditions leading to the adoption of proportional rules.

The complex expressions may be treated as logical statements and factored as such in order to generate further parsimony. The factoring of conditions obeys conventional algebraic practices and identifies common conditions across configurations. The complex solution thus yields the condition of a strong socialist party as common to all expressions. The condition of left misrepresentation is the second most prevalent and covers five out of the six causal paths.

Hence, the complex solution may be reformulated as follows:

\[
A \cdot C \left[ (B \cdot D \cdot E \cdot F) + (b \cdot d \cdot e \cdot f) + (B \cdot d \cdot e \cdot f) + (B \cdot d \cdot E \cdot f) + (b \cdot d \cdot E \cdot F) \right] + A \cdot (b \cdot c \cdot D \cdot E \cdot F)
\]

<table>
<thead>
<tr>
<th>DEU, NLD</th>
<th>ITA</th>
<th>DNK</th>
<th>CHE</th>
<th>AUT</th>
<th>BEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOR, SWE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The factoring of the complex solution indicates that proportional rules are adopted when the left party is electorally strong and misrepresented in all cases, save for Belgium, where the left party was favourably represented. However, the electoral strength and level of disproportionality experienced by the left are only causally relevant in conjunction with other groups of conditions, each unique to a particular case, save for the first configuration which regroups four cases. A theoretically informed comparison of the influence of other conditions is hence always considered in conjunction with an electorally strong and misrepresented left party.

Alternate arrangements may also be factored. Out of the remaining configurations, the most common term is the over-representation of a right party, in most cases in combination with
a misrepresented left party; however, such an operation provides no further analytical leverage since the absence of right party misrepresentation is not considered by the theories as vital for the presence of the outcome.

The first configuration covering the cases of Germany, the Netherlands, Norway, and Sweden conforms to the theoretical perspectives advanced by Boix (1999, 2010), Cusack, et. al.(2007), and Calvo (2009).

In the Netherlands, Norway, and Sweden, electoral reform was initiated by right parties, whereas in Germany electoral reform was initiated by an all-party constituent assembly (Carstairs 1980). Moreover, all right parties supported the adoption of proportional rules in Germany, the Netherlands, and Norway (Carstairs 1980). Hence, in light of the congruent interests of all right parties it is difficult to ascertain whether the conditions of right party division and misrepresentation are causally more relevant than the presence of co-specific assets and cooperative relations, in influencing the decisions of right party incumbents. As the three countries implemented proportional rules at the close of the First World War, it may also be surmised that other factors may have influenced the strategy of actors, such as competitiveness and the saturation of the of the electoral market (Caramani 2002, 2004), the strengthening of democratic institutions (Carstairs 1980, Blais, et. al. 2005), as well as the organisation and resurrection of the political economy (Cusack, et. al.2007, 2010a).

In Germany, the Netherlands, and Norway socialist parties was clearly in favour of proportional rules (Carstairs 1980); suggesting in turn that the party preferences towards proportional rules were influenced by the adverse nature of electoral biases which stymied their relative electoral successes. Similarly, it may be reasoned that the preferences of the top two right parties were influenced by the adverse effects of electoral biases and the aim of constraining the success of the left party. In Germany the right parties suffered under majoritarian biases to the advantage of the small but numerous parties catering to different nationalities, whereas in the Netherlands and Norway, while one right party suffered adversely from electoral biases the other right party did not enjoy considerable countervailing advantages (Carstairs 1980). Moreover, due to the fact that the incumbent right parties initiated and implemented proportional reform in the Netherlands and Norway, it may also be reasonable to consider that right parties had both an interest in containing the success of the left as well as correcting the adverse effects of electoral biases.
Sweden is unique in that the Social Democrats preferred the retention of majority rules, while the Conservatives favoured proportional rules and the relatively stronger liberal party remained divided (Carstairs 1980). Due to the incongruent nature of right party preferences it is difficult to claim that the strategies of right parties were influenced by the presence of co-specific assets and cooperative relations. Hence, Sweden does not lend considerable support to the causal relevance of the economic conditions. Moreover, the case of Sweden raises the question of why would a strong socialist and under-represented socialist party prefer the retention of majoritarian rules? A plausible contention refers back to the role of trade-unions and their relations with left parties as developed by Penadés (2008) but fails to address the question of why the socialist party failed to defend their preference. Carstairs (1980) notes that the question of electoral reform in Sweden also differs to the other three cases in that the adoption of proportional rules was considered in the wider context of negotiations between all three parties concerning the specific powers of both chambers of parliament and the abolition of voting requirements. Hence, although Sweden does conform to the other cases in the causal configuration, the empirical evidence underscores its uniqueness in regards to the preferences and strategies of actors.

It is difficult to reconcile the perspective that right parties were simultaneously interested in containing a rising left threat or correcting electoral biases with the view of cross-party congruent interests in the effective exploitation of co-specific assets. Therefore, no reliable claim may be made with regards to the conjunctural causation of the economic conditions and the political conditions.

The second causal path describing Italy is characterised by a strong and misrepresented left, a dominant and over-represented right, and a lack of co-specific assets. Apart from the conditions of a strong and misrepresented left, the configuration of the remaining conditions stands in stark contrast to all hypotheses specified in line with the theoretical perspectives. There is no apparent theoretical relevance in the combination of a dominant and over-represented right and the absence of the economic conditions of co-specific assets and industrial relations. The causal configuration supports the claim that proportional rules were instituted as a result of an electorally strong but misrepresented socialist party; however, Italy is a case where electoral reform was initiated by right parties and with the support of all right parties. The causal interaction between an electorally strong and misrepresented left party and a dominant and relatively well represented right is underspecified.
Carstairs (1980) provides a description of the political landscape in Italy which permits clarification of the intuitively puzzling configuration of conditions. Prior to the extension of the franchise in 1912 Italy had a largely party-less political system, “certainly not a two-party system of government and opposition, and not even a system of changing coalitions, but only factions organised behind leading politicians” (Carstairs 1980: p.153-154). Thus, the right was constituted by a largely dominant liberal alliance while the Catholic Popular Party only contested elections after 1918. Proportional reform was only proposed after the First World War and was favourably received by all parties (Carstairs 1980). This is in accordance with the finding that although the left was electorally strong it was misrepresented and hence, favoured proportional reform. However, according to Boix’ (1999) perspective the position of a dominant liberal right party should have inhibited the move to proportional rules. The contention may be nuanced by recalling Penadés’ (2008) assertion regarding the mobilisation of catholic parties; Kreuzer (2010) equally underscores that right parties only began to favour proportional rules when the catholic party began attracting right-wing voters. The adoption of proportional rules in Italy may then be attributed to the relative influence of a strong and misrepresented left, and the threat of increasing majoritarian biases to parties on the right.

The third and fourth causal configurations covering the cases of Denmark and Switzerland indicate that proportional rules are adopted when the conditions of a strong and misrepresented left are combined with that of a divided right party structure. In both cases although there is no dominant right party, the right parties do not suffer significantly from the adverse effects of electoral biases and are somewhat over-represented. Furthermore, both Denmark and Switzerland are countries where electoral reform was not initiated solely by right parties and did not have the full support of all right parties. The finding suggests that in both cases proportional rules were adopted when neither an electorally strong yet misrepresented left nor the divided but over-represented right parties commanded a position of relative dominance in government. As with the configuration covering Italy, there is no apparent link in the combination of the absence of the economic conditions and the structure of right parties or electoral biases in either case of Denmark or Switzerland. Although Switzerland is characterised by high investments in co-specific assets it lacks the institutions to facilitate effective industrial cooperation.
Denmark is characterised by a highly fragmented right party system with no clear dominant party. However, Carstairs (1980) points out that the Radical Venstre, or radical liberals, which broke away from the electorally dominant Venstre, or liberals, governed in coalition with the Social Democrats during the period when electoral reform was implemented. Under majoritarian rules “neither party could hope to gain representation corresponding to their electoral strength unless they entered into an electoral agreement with each other. The existing system was favourable to the numerically largest party, the Venstre...The Conservative right wing were now the chief sufferers under this system” (Carstairs 1980: p.78-79). It must be acknowledged that the thesis did not measure the misrepresentation of the Conservative party but only the top two parties, which were the Venstre and the Radical Venstre. Hence, the data may not accurately capture the misrepresentation of the right. Although both factions of the Liberal party were favourably misrepresented, the radical party could only achieve representation with the Social Democrats. Hence, although characterised by a strong left and divided right, the case of Denmark is more consistent with the view that even when the right was favourably represented, the high level of division or fragmentation prevented any right party from controlling government.

Switzerland is a unique case for comparative research in many respects. The specific organisation of politics at the federal and cantonal levels, the institutions of direct democracy and the threat of referenda oblige any comparative investigation to pay close attention to functionally equivalent institutions. Swiss parties were largely cantonal based and thus espoused different policy preferences on a cantonal level (Carstairs 1980). Moreover, certain cantons had gained notable experience with majoritarian and proportional rules; hence, the relative preferences of parties and the question of electoral reform at the national level should be nuanced in light of the fact that in many instances political actors embraced different policies at the cantonal and national level and on the whole had many instances in which to gauge and learn from the experiences of proportional rules. Carstairs (1980) confirms that for the most part, all right parties experienced a favourable translation of vote shares to seat shares, save for the marginal right parties and consistently disadvantaged Social Democrats. Thus, proportional rules were nevertheless introduced even in the absence of misrepresentation of right parties. While it may be argued that the case conforms the theoretical expectations of an electorally strong left and a divided right, the interpretation may be nuanced in light of the evidence that proportional rules
were finally adopted not as a result of a parliamentary bill but a popular referendum initiated by the Social Democrats and supported to a large extent by the Catholic party (Carstairs 1980; Kreuzer 2010). The evidence suggests furthermore that although the Catholic party was not significantly adversely affected by electoral biases it did not retain a position of dominance over other right parties. The finding is yet again consistent with Penadés’ (2013) claim regarding a politically mobilised catholic party.

The fifth configuration is unique to Austria and indicates that proportional rules are implemented in the presence of an electorally strong but misrepresented left and a dominant and favourably represented right. The fact that proportional rules were advocated and supported by the social democrats is consistent with the conditions of strong but misrepresented socialist party (Carstairs 1980). However, the strongest evidence in support for the combination of a strong but misrepresented left and a divided right is the fact that proportional rules were adopted following the end of the Austro-Hungarian empire and the formation of a republic by an all-party parliamentary committee. Carstairs notes that “the adoption of proportional representation aroused little debate or opposition, or even, it seems, much interest” (1980: p.127-128). Austria is also a case characterised by both high investments in co-specific assets as well as institutions facilitating cooperative employer-labour bargaining. However, the causal relevance of the economic conditions is nuanced in light of the competing claims regarding the validity of the measurement of co-specific assets and institutions facilitating cooperative relations (Kreuzer 2010; Cusack, et. al. 2007, 2010b). However, given the fact that electoral reform was conducted by an all-party assembly in the context of the formation of a new republic, it may also be reasonably assumed that the congruent interests of right parties are reflective of their interests for cooperative regulatory frameworks.

The final causal configuration is unique to Belgium, where although the left is electorally strong it is not adversely affected by electoral biases but rather favourably positioned due to its concentrated base of support. The results indicate that proportional rules are adopted when the left is electorally strong even though there is one dominant right party. Moreover, the severe misrepresentation of the second right party is indeed causally relevant in combination with the other conditions. Indeed, the condition of a misrepresented right is only present in Belgium, apart from the four cases re-grouped by the first causal path. Carstairs (1980) notes that electoral reform closely followed the considerable expansion of the franchise which resulted in the
Catholic Party securing a dominant position vis-à-vis the right Liberal Party. The rising and favourably represented Worker’s Party gained votes at the expense of the Liberal party by contesting elections in the primarily urban liberal strongholds (Carstairs 1980). Thus, although characterised by the presence of one clearly dominant right party, the configuration describing Belgium underscores the causal relevance of partisan biases in determining the preferences of actors. Given that the left party was favourably represented, some sources indicate the preference of the socialists towards majoritarian systems (Penadés 2008), while others underscore their mobilisation in favour of proportional rules (Carstairs 1980). Given the ambiguity surrounding the preferences of socialist parties, it is rather pertinent to evaluate the preferences of both right parties. The dominant Catholic Party which was internally divided in regards to proportional rules and only conceded to the demands of the liberals for proportional rules when the demands of the political parties were supplanted by large-scale general strikes, agitations in parliament, and support movements organised by associations (Carstairs 1980).

The case of Belgium is unique to an extent as it was the first country in the population sample to implement proportional rules on the national level. It is also a case characterised by both co-specific assets and institutions facilitating cooperative industrial relations. Nevertheless, given the background of violent strikes, protests, and the larger context of suffrage extension (Carstairs 1980; Alesina and Glaeser 2004); the evidence calls into question the conjunctural causal relevance of the economic conditions.

The complex solution is relatively descriptive as it corresponds directly to the cases in the sample population. Nevertheless, the factoring of the solution has indicated the relevant importance of multiple conjunctural causation. There exist six different causal pathways leading to the adoption of proportional rules, five of which are unique to particular cases. The results indicate that apart from the conditions of an electorally strong left, the misrepresentation of the left party is causally relevant in five of six configurations and eight of nine cases. The review of the configurations and the empirical evidence corresponding to the cases described has not been able to adequately link the conjunctural effects related to the economic conditions of co-specific assets and cooperative relations with the presence or absence of the other conditions. The examination of the joint effects of left and right misrepresentation and the dominant or divided nature of right parties has revealed that, contrary to the hypotheses developed by the theoretical perspectives, the effects of misrepresentation and dominance vary from case to case.
In order to generate parsimonious results the fs/QCA programme minimises the truth table a second time with the inclusion of all remainder cases. The generation of parsimonious results help distinguish the principal causally relevant factors. The following table presents the most parsimonious solution:

### Table 13: Parsimonious solution results for the presence of the outcome

<table>
<thead>
<tr>
<th>#</th>
<th>Expression</th>
<th>Raw coverage</th>
<th>Unique coverage</th>
<th>Consistency</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A*C+</td>
<td>0.89</td>
<td>0.22</td>
<td>1.00</td>
<td>AUT, CHE, DEU, DNK, ITA, NLD, NOR, SWE</td>
</tr>
<tr>
<td>2</td>
<td>F</td>
<td>0.78</td>
<td>0.11</td>
<td>1.00</td>
<td>AUT, BEL, DEU, DNK, NLD, NOR, SWE</td>
</tr>
</tbody>
</table>

**Solution coverage: 1.00**  
**Solution consistency: 1.00**

The parsimonious causal recipe consists of two distinct expressions; the first embraces the two conditions of an electorally strong and misrepresented left party, while the second expression only holds the condition of cooperative employer-labour relations. Thus, the results suggest that proportional rules are by and large adopted either when a strong socialist party suffers significantly under the adverse effects of electoral bias, or when relations between firms and labour groups are cooperative in nature. The results outline two equally distinct pathways describing the adoption of proportional rules; the expressions have a relatively high raw coverage score, implying that they are sufficient in explaining approximately eighty per cent of the cases. However, the low unique coverage scores for both expressions indicate that they are exclusively relevant in a negligible proportion of cases.

The first expression covers eight cases: Austria, Switzerland, Germany, Denmark, Italy, the Netherlands, Norway, and Sweden. The second expression covers seven cases: Austria, Belgium, Germany, Denmark, the Netherlands, Norway, and Sweden. The cases of Italy and Switzerland are unique to first expression, while Belgium is unique to the second and are indicated by the unique coverage scores of 0.22 and 0.11, respectively.

Notwithstanding the specificities of each case and the combinations of other conditions as outlined by the complex results, the first causal configuration suggests that proportional rules are
likely to be adopted when a socialist party is electorally strong yet suffers from an unfavourable translation of votes to seats at the national level due to its concentration of support in specific constituencies or due to increasing competition, and is consistent with the findings of both the necessity analysis and the complex solution results. The second expression contains only one term, namely, cooperative industrial relations. It lends support to the assertion that when the institutions which facilitate industrial cooperation are already well established prior to electoral reform, they may indeed be causally relevant. On one hand the two expressions of terms indicate that they are causally the most relevant in explaining the presence of the outcome across the common cases; however, it is difficult to ascertain whether one path is logically more valid than the other. The inclusion of the unique cases for each expression indicates that the conditions are causally relevant, but only in conjunction with other factors.

The theoretical frameworks do not describe any specific causal relation between a strong and misrepresented left party and cooperative economic bargaining structures. Moreover, the conditions of a strong and misrepresented left are based on a short-term perspective of politicians as risk-averse actors while the economic conditions assume a long-term perspective of class and economic interests. However, the absence of the condition of co-specific assets from the second expression indicates that perhaps the presence of cooperative relations is logically less relevant, and thus, the second expression may in fact be less reliable. The finding also suggests that the effective exploitation of co-specific assets by cooperative frameworks may not have been an explicit choice of actors but rather the result of an accrued process that may in turn be attributed to the adoption of proportional rules.

Similarly, the absence of a divided or misrepresented right directly nuances the hypotheses of the joint effects of a strong left and divided or misrepresented right leading to the adoption of proportional rules across a majority of cases. Instead, the results hint towards the claim that as the left grew stronger it suffered adversely under the existing majoritarian rules, and hence championed for electoral reform. Indeed, Alesina and Glaeser (2004) may well be right in asserting that electoral reform is a direct consequence of the mobilisation of the left. However, the instances of conjunctural causation revealed by the complex results necessitate a relatively nuanced acceptance of the assertion.

As the parsimonious solution is indeed quite parsimonious a third and intermediate solution is derived. The intermediate solution is generally the most interpretable according to the
theoretical perspectives as the choice of prime implicants in the minimisation of the truth table is based upon the explicit choices of the researcher. Consistent with the theoretical perspectives and the hypotheses specified the following conditions have been selected for their causal relevance by asking whether the conditions should contribute to the presence of the outcome by their presence, absence, or both.

The conditions of an electorally strong left party, a divided right party system, a misrepresented right party, and the presence of institutions facilitating cooperative industrial relations, are considered to contribute by their presence towards the generation of the outcome. The conditions considered causally relevant to the positive outcome by their presence are limited to the bare minimum of necessary conditions as outlined by the theories. An electorally strong left party is considered necessary for the presence of the outcome and is supported by the necessity analysis conducted above. The conditions of a divided right and a misrepresented right are also considered causally relevant as the two conditions form the crux of the traditional and political geographical explanations. It is counterfactually intuitive and consistent with the assumptions outlined in the conceptual framework to reason that proportional rules are more likely to be adopted when the right parties are both divided and misrepresented as no single party is able to control government.

The condition of cooperative industrial relations has been privileged over the condition of co-specific assets for inclusion as a prime implicant. First, the condition of cooperative relations is closest to the concept of coordinated and liberal markets and the cooperative structure of the economy, as developed in the varieties of capitalism approach and by Cusack, et. al. (2007, 2010). Second, it is acknowledged that measurement of the presence of co-specific assets leaves more to be desired as the indicators of a large skill-based export sector and strong local economy or guild tradition may not adequately capture the presence of the condition; hence, by assuming that co-specific assets may contribute to the outcome by their presence or absence, the research shifts its focus to examining how the cooperative or adversarial nature of industrial relations acts in conjunction with the other conditions.

Similarly, the presence or absence of the condition of a misrepresented left party is assumed to be causally relevant to the outcome. By examining cases where the left was both over- and under-represented, the analysis places more emphasis on the misrepresentation of incumbents in leading to the presence of the outcome. Hence, due to the lack of theoretical
specification of causality the conditions of co-specific assets and left misrepresentation are assumed to contribute towards the outcome whether they are present or absent.

The intermediate results report a causal recipe composed of four sets of terms, and imply four potential causally relevant pathways towards the adoption of proportional representation. Similarly, the condition of a strong left party may be factored out as common to all expressions; a misrepresented left is also common to three of the four configurations. Hence the focus of the following section is on identifying how other causal conditions combine with a strong and misrepresented left party in a theoretically informed manner.

Notwithstanding the strength and misrepresentation of the socialist party, the first configuration highlights the conjunctural relevance of cooperative industrial relations. It is difficult to specify a causal link between the conditions a strong and misrepresented left party on one hand and cooperative economic relations on the other. Of the six cases, only Austria is uniquely explained by the expression. With identical raw and unique coverage scores the second
configuration suggests that proportional rules are likely to be adopted in the presence of an electorally strong but misrepresented left party and divided right parties.

In effect the second configuration largely regroups the same cases as under the first configuration, with the exclusion of Austria and the additional inclusion of Switzerland. Noting that the conditions of left electoral strength and left misrepresentation are common to both configurations, the second causal path may be justified as being causally more relevant consistent with the perspective of politicians and parties as short-term calculating, rational and risk-averse actors. Moreover, the combination of a strong and misrepresented left and a divided right suggests that the causal relationships specified by Boix (1999), Andrews and Jackman (2005), Rodden (2008), and Calvo (2009) are theoretically more relevant. However, the empirical evidence reviewed along with the complex solutions indicates that a divided right is not the only condition which leads to the adoption of proportional rules.

Indeed, a third causal combination of conditions once again highlights the interplay of a strong and misrepresented left party; however, the causal conjunction with the lack of co-specific assets is difficult to justify on theoretical grounds. Instead, the results suggest that where investments in co-specific assets were relatively low, it was the combination of a strong and misrepresented left party which led to the adoption of proportional rules.

The final configuration of conditions suggests conjunctural causation between a strong left and a misrepresented right party, as well as both the economic conditions of co-specific assets and cooperative industrial relations. In addition to Belgium, the recurring cases of Germany, the Netherlands, Norway, and Sweden are covered by the expression. The expression suggests that in addition to an electorally strong left, a misrepresented right is causally relevant to the outcome. The conjunction of the two political conditions with the presence of co-specific assets and cooperative economic relations is difficult to justify on theoretical grounds as the interaction between the conditions is underspecified. Nevertheless, a case for the relevance of the combination of the conditions of co-specific assets and cooperative relations may be made on the grounds that the majority of the countries covered by the expressions reformed their electoral systems after the First World War, where questions regarding the strengthening of democratic institutions, distribution and redistribution, and the future form of government, were brought to a head.
Remarkably, none of the theoretical perspectives has conjured about the potential effects brought by the wake of the First World War on electoral systems; Alesina and Glaeser (2004) only go so far as to consider the effects of military defeat and attrition on conservative resistance. However, in Austria as in Germany, proportional rules were implemented by an all-party assembly. The strong position of socialist parties in parliament and their recent losses due to misrepresentation are consistent with the view that proportional rules were adopted in their favour, as are the conditions of a divided or misrepresented right. However, the question of electoral reform was made within the larger context of the construction of a new republic, the reform of institutions, and the organisation of the political economy. Hence, the presence of the condition of cooperative frameworks strongly suggests that other conditions may have very well influenced the preferences of actors, notably, questions over distribution and redistribution, as well as overcoming the economic effects of the war.

In summary, the intermediate results have provided a relatively more nuanced view of the relevance of causal conditions and the theoretical perspectives than the parsimonious results. They confirm the centrality of the condition of an electorally strong and misrepresented left party as well as the necessity for its conjunction with other conditions. Of the conditions which combine with a strong left party, the conditions of a divided right and a misrepresented right lend greatest support to the theoretical perspectives of Boix (1999) and Calvo (2009). The combination of an electorally strong yet misrepresented left confirms Rodden’s (2008) claim about the problems of coordination posed to the left parties. The combination of a misrepresented and strong left party and cooperative relations is causally relevant yet difficult to justify. Nevertheless, the relatively high raw coverage scores permit the assertion that political and economic causal conditions exercised varying degrees of influence at different levels across the cases common to all configurations.

### 3.2.4 Solutions and interpretation of results for the absence of the outcome

Due to the asymmetrical nature of causal relationships the fs/QCA programme is run a second time to provide results describing the absence of the outcome. The following table reports the complex solution.
Table 15: Complex solution results for the absence of the outcome

<table>
<thead>
<tr>
<th>#</th>
<th>Expression</th>
<th>Raw coverage</th>
<th>Unique coverage</th>
<th>Consistency</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a<em>B</em>C<em>e</em>f+</td>
<td>0.60</td>
<td>0.60</td>
<td>1.00</td>
<td>CAN, NZL, USA</td>
</tr>
<tr>
<td>2</td>
<td>A<em>b</em>c<em>d</em>e*f+</td>
<td>0.20</td>
<td>0.20</td>
<td>1.00</td>
<td>AUS</td>
</tr>
<tr>
<td>3</td>
<td>A<em>B</em>c<em>D</em>E*f</td>
<td>0.20</td>
<td>0.20</td>
<td>1.00</td>
<td>GBR</td>
</tr>
</tbody>
</table>

Solution coverage: 1.00
Solution consistency: 1.00

The complex solution is constituted of three constellations of conditions, each comprising several terms. The first expression covers three of the five negative cases, namely, Canada, New Zealand, and the United States and thus features a relatively high raw and unique coverage score, indicating that the expression is exclusively relevant in the absence of the outcome in each of the three cases. The second and third expressions are unique to Australia and the United Kingdom, respectively.

The different expressions generated by the complex solution may be compared against the specified hypotheses in order to examine the relative importance of the theoretical frameworks in explaining the retention of majoritarian rules.

The following table presents the hypotheses in Boolean form along with the supporting expressions and cases.

<table>
<thead>
<tr>
<th>H#</th>
<th>Boolean</th>
<th>EX#</th>
<th>Confirming expressions</th>
<th>Confirming cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4a</td>
<td>a</td>
<td>1</td>
<td>a<em>B</em>C<em>e</em>f+</td>
<td>CAN, NZL, USA</td>
</tr>
<tr>
<td>H4b</td>
<td>A*b</td>
<td>2</td>
<td>A<em>b</em>c<em>d</em>e*f</td>
<td>AUS</td>
</tr>
<tr>
<td>H5</td>
<td>c*d</td>
<td>2</td>
<td>A<em>b</em>c<em>d</em>e*f</td>
<td>AUS</td>
</tr>
<tr>
<td>H6a</td>
<td>e</td>
<td>2</td>
<td>a<em>B</em>C<em>e</em>f+</td>
<td>CAN, NZL, USA</td>
</tr>
<tr>
<td>H6b</td>
<td>E*f</td>
<td>3</td>
<td>A<em>B</em>c<em>D</em>E*f</td>
<td>GBR</td>
</tr>
</tbody>
</table>

The two versions of the fourth hypothesis are supported by the first two configurations covering the cases of Canada, New Zealand, the United States, and Australia, respectively. The first three cases lend strongest support to the claim that majoritarian rules are likely to be retained when the left is electorally weak, while the case of Australia is unique in supporting the contention that majoritarian rules are likely to be maintained when the right is non-divided in
face of a strong left party. The case of Australia also supports the fifth hypothesis which contends that majoritarian rules are likely to be maintained when neither left or right party suffer adversely from the negative effects of electoral biases. All negative cases provide a measure of support for both variants of the sixth hypothesis. In effect, the first two configurations support the contention that the absence of co-specific assets is causally relevant to the absence of the outcome; the third configuration, unique to the United Kingdom, suggests that even in the presence of high investment in co-specific assets, the absence of cooperative institutions makes the retention of majoritarian rules more likely.

Similarly, the complex results may be factored to yield further parsimony. The absence of cooperative industrial relations is common to all expressions; while both the absence of co-specific assets and cooperative relations are common to the first two configurations. Thus the expressions may be reformulated as follows:

\[
e^{*} f \cdot \left[ (a^{*} B^{*} C) + (A^{*} b^{*} c^{*} d) \right] + f^{*} (A^{*} B^{*} c^{*} D^{*} E)
\]

| CAN, NZL, USA | AUS | GBR |

The first expression indicates that majoritarian rules are maintained where cooperative relations and co-specific assets are absent, when the left party is electorally weak and misrepresented, and when the right is divided. The fact that adversarial industrial relations are coupled with an absence of investment in co-specific assets across the first two expressions, covering four of five cases, lends support to the hypotheses of Cusack, et. al. (2007) and underscores the relevant importance of the economic perspective in explaining the retention of majoritarian rules rather than the adoption of proportional rules.

Canada, New Zealand, and the United States are all countries characterised by extremely weak left parties which were barely, if ever, favourably represented, as well as divided right parties. The absence of a socialist threat confirms the hypothesis that incumbent parties, divided or not, do not adopt proportional rules when there is no significant socialist threat (Boix 1999). Hence, the condition of a divided right may be justifiably considered as irrelevant in face of a weak socialist threat and to the retention of majoritarian rules. Hence, it may be asserted that the absence of a strong left party is a sufficient cause for the retention of majoritarian rules in the three cases of Canada, New Zealand, and the United States.
Moreover, the absence of a socialist threat brings into question Cusack, et. al. ’s (2007) contention that majoritarian rules were retained in order to contain the left threat, especially one posed by an under-represented left to two evenly divided right parties. Nevertheless, as there is no measure of any social mobilisation of the labour movement in the three cases the absence of both co-specific assets and cooperative relations may also be considered as causally relevant.

The second expression equally supports the claim that majoritarian rules are maintained when there are no co-specific assets or cooperative relations present. Moreover, the expression also highlights the combination of an electorally strong and favourably represented left and right party, and thus also provides support for the hypotheses that majoritarian rules are maintained when there is both a strong left and a dominant right party, as well as when there are no significant electoral biases affecting any major party.

Australia is characterised by electorally and favourable left and right parties; however, electoral evidence from Mackie and Rose (1991) reveals that since competitive elections were conducted under universal franchise there were in effect two equally balanced right parties and a steadily growing labour party. The right-based Free Trade Party and Protectionists merged in 1909 to form the only dominant right Liberal party. There is no evidence of increasing competition to justify any adverse electoral biases (Mackie and Rose 1991); as the data is not measured at the district level the distribution of support and consequent partisan biases is unknown. The only evidence in favour of increasing competition is the establishment of the Country Party in 1920, after majoritarian electoral reform. The choice of the alternative vote for electoral reform may be viewed as an explicit confirmation of the majority system as it serves as a functional equivalent to a second ballot. The evidence strongly supports the hypotheses that majoritarian rules are maintained when the left is strong but there is also one dominant right party, as well as when no party suffers from significant biases. The absence of the economic conditions in conjunction with a strong left party also supports the claim by Cusack, et. al. (2007) that majoritarian rules were retained in order to constrain the left threat. Nevertheless, it may also be reasoned, consistent with Penadés (2008) that the left party preferred the existing majoritarian rules as they permitted it to implement policy directly, rather than in coalition with other parties. If the argument is permitted then the absence of co-specific assets and cooperative relations may be considered as relevant, for the role of trade unions is inherently linked with cooperative industrial relations.
The third expression describes the United Kingdom and is common to the second causal path in that it also describes a case with an electorally strong and favourably represented left party. However, in contrast, with Australia, the United Kingdom is characterised by a divided and misrepresented right party as well as high levels of investments in co-specific assets. The presence of co-specific assets in combination with the absence of institutions facilitating cooperative industrial relations logically supports the hypothesis that when investments in co-specific assets are present, the absence of cooperative institutions is necessary for the absence of the outcome. The expression equally highlights the causal influence of a favourably represented and strong left party coupled with a divided and misrepresented right and hence calls into question the claim that proportional rules are implemented by divided and misrepresented right parties.

The question of electoral reform was broached several times in the United Kingdom, beginning with the works of academics and interest in political reforms in neighbouring countries and continuing well after the First World War (Carstairs 1980). However, each time all three major political parties, the Conservatives, Liberals, and Labour, were divided as to the choice between the single-transferable vote and the alternative vote; it was only in 1922 that the Liberal party officially advocated proportional reform (Carstairs 1980). The data for the misrepresentation of right parties reveals that in effect, in the United Kingdom, only one right party was adversely affected; both the Labour and the Conservative party were positively impacted by electoral biases to the detriment of the Liberal party and lends significant support to the hypothesis that majoritarian rules are retained even when electoral biases and party divisions are present, as long as they favour one party on the left as well as one party on the right. The preferences of left parties may in turn also be explained by their relations with trade-unions. The combination of high investments in co-specific assets and adversarial relations confirms the contention that although co-specific assets may contribute to the choice of electoral rules they only do so in combination with cooperative industrial relations. However, once again, due to the adversarial nature of industrial relations the influence of trade-unions on the preferences of the left party may also be considered as relevant.

In order to distinguish between the primary influential conditions the most parsimonious solution is subsequently derived.
The parsimonious solution is constituted of three expressions. The first expression contains only one term and corresponds to the cases of Canada, New Zealand, and the United States. The expression indicates that an electorally weak left party is a sufficient condition in explaining the retention of majoritarian rules in the three cases. A second causal path common to the same three cases indicates that a divided right and the absence of investments in co-specific assets and adversarial relations are equally pertinent to the retention of majoritarian rules. The second expression lends strongest support to the contention that majoritarian rules are maintained when the conditions of co-specific assets and cooperative relations are absent. However, the unique coverage score of 0.00 in both expressions indicates that the conditions do not exclusively explain the outcome in any of the cases, and thus, only do so in conjunction with other factors. The presence of a divided right in contributing to the retention of majoritarian rules disagrees logically with the theoretical frameworks. Hence, the results lend strong support to the claim that majoritarian rules are maintained when the left is electorally weak, especially when a weak left is combined with the absence of co-specific assets and cooperative relations.

The third expression indicates that majoritarian rules are maintained when the condition of a favourably represented left party is combined with a lack of institutions facilitating cooperative industrial relations. The third expression hints at a potential interplay between strong and well represented left parties and the absence of cooperative institutions in the cases of Australia and the United Kingdom. A potential link between the theories of Cusack, *et al.* (2007) and Penadés (2008) is hinted at by the conjunction of strong left parties and adversarial industrial relations; however, it is difficult to specify the causal relations between the two conditions thus far. As the indicator of centralised and fragmented unions has been used to code the condition of cooperative industrial relations, the results are not fine enough to distinguish
between the net influence of unions and institutions facilitating cooperative relations. Nevertheless, as the third parsimonious expression is unique to two countries characterised by a strong left, the configuration hints at the predominant pertinence of a well-represented left party and adversarial industrial relations.

The hypothesis that majoritarian rules are maintained when the left is weak is in conformity with the theoretical perspectives of Boix (1999) as well as Alesina and Glaeser (2004) and serves to explain the three cases of Canada, New Zealand, and the United States. Crucially, however, it fails to explain the case of the United Kingdom, where proportional reform was a more pressing question than in the other Anglo-Saxon countries (Andrews and Jackman 2005). Hence, the results imply that in the particular case of the United Kingdom, the misrepresentation of a left party and one incumbent right party is causally relevant to the retention of majoritarian rules. In the case of Australia the positive representation of an electorally strong left acted in conjunction with an equally strong and undivided right to influence the retention of majoritarian rules.

Although the causal relevance of the absence of co-specific assets and cooperative relations cannot be fully discounted it cannot be ascertained with a relative deal of certainty either. The absence of co-specific assets in conjunction with the absence of cooperative relations is indeed in conformity with the theoretical perspective. Moreover, the absence of cooperative relations in the presence of co-specific assets, as characterised by the case of the United Kingdom, highlights, to an extent, the relative importance of the absence of cooperative relations in leading to the absence of the outcome.

Similarly, an intermediate solution is derived as a third step. Consistent with the causal relevance of the conditions as identified by the theoretical perspectives the absence of cooperative industrial relations is assumed to contribute to the absence of the outcome. Furthermore, an absence of right party misrepresentation, and the presence of a dominant party, or a non-divided right, are also considered as particularly relevant.

The conditions of co-specific assets, an electorally strong left, and a misrepresented left party are deemed relevant to the outcome by both their presence and absence. Although different results may be procured by assigning the conditions of co-specific assets and a strong left as causally relevant by their absence they are purposefully left to vary in order to avoid generating contradictory assumptions with the intermediate analysis for the presence of the outcome.
Table 17: Intermediate solution results for the absence of the outcome

<table>
<thead>
<tr>
<th>#</th>
<th>Expression</th>
<th>Raw coverage</th>
<th>Unique coverage</th>
<th>Consistency</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>a<em>C</em>e*f +</td>
<td>0.60</td>
<td>0.60</td>
<td>1.00</td>
<td>CAN, NZL, USA</td>
</tr>
<tr>
<td>2</td>
<td>A<em>c</em>E*f+</td>
<td>0.20</td>
<td>0.20</td>
<td>1.00</td>
<td>GBR</td>
</tr>
<tr>
<td>3</td>
<td>A<em>b</em>c<em>d</em>f</td>
<td>0.20</td>
<td>0.20</td>
<td>1.00</td>
<td>AUS</td>
</tr>
</tbody>
</table>

Solution coverage: 1.00
Solution consistency: 1.00

The intermediate solution is constituted of three sets of terms. Further parsimony is evident as the absence of the condition of cooperative relations is common to all expressions and may be factored out. The expressions are reformulated as follows:

\[
f \left( (a*C*e) + (A*c*E) \right) + f*(A*b*c*d)\]

The first expression indicates that majoritarian rules are retained when both economic conditions of co-specific assets and cooperative relations are absent, in conjunction with a misrepresented and electorally weak left. The configuration exclusively explains all three cases covered by the first expression of the complex solution. The condition of a divided right is absent from the expression in the intermediate result, suggesting in effect, that it is causally less relevant than a misrepresented left or the absence of economic conditions. The result further strengthens the claim that it is the absence of a strong left party in combination with the absence of co-specific assets and adversarial relations which influences the retention of majoritarian rules.

The second expression indicates that although investments in co-specific assets may be high, the absence of cooperative relations, coupled with a favourable representation for a strong left party is relevant to the retention of majoritarian rules. The expression brings into question the emphasis placed on the conjunction of favourable representation for a left and right party and a second misrepresented right party, as the condition of a misrepresented right is absent from the expression. In turn, the expression suggests that a strong electoral left may well entertain preferences for majoritarian rules as long as it is favourably represented in parliament and does not have the means to make use of institutions facilitating cooperative relations.
Such a finding is equally consistent with the third expression, and is consistent with the broad theoretical outline developed by Penadés (2008) with respect to the political strategies of left parties and the role of unions. In effect, the third expression is identical to the complex expression describing Australia. It indicates that the absence of co-specific assets is not particularly relevant; hence it is of little pertinence to consider the effect of adversarial industrial relations as relevant in the configuration. Rather, the expression reinforces the finding that majoritarian rules are maintained when both left and right parties are electorally strong and largely unaffected by electoral biases.

3.3 Discussion of principal findings and limits

Why did a majority of democracies in Western Europe adopt proportionally representative electoral systems while Anglo-Saxon democracies steadfastly maintained majoritarian electoral systems? Why did politicians engage in reforming the very rules and institutions which brought them into power? More generally, which conditions influence the preferences of actors towards proportional or majoritarian electoral systems? These are the questions the following section attempts to answer. A summary of the principal findings is presented and their implications concerning the adoption of proportional rules and the retention of majoritarian rules are highlighted. The discussion makes an attempt at a modest generalisation of the results in order to highlight the constellation of conditions impacting the choice of electoral rules. The results are nuanced by raising critical questions and by addressing the principal limitations and potential sources of bias.

The results of the analysis of necessary conditions report that the presence of an electorally strong left party is necessary for the adoption of proportional representation. However, the condition is not sufficient by itself but contributes to the presence of the outcome only in conjunction with other causal conditions. In most cases, an electorally strong left party is equally associated with a misrepresented left party. Moreover, the conjunction of electoral strength and misrepresentation underscores the relevance of the contention that proportional rules were adopted directly in response to the demands of a strong and misrepresented socialist party. Finally, the two conditions justify the assertion that coordination problems primarily affected left parties and reinforce the notion that socialist preferences for proportional rules emanated from overcoming coordination problems and the adverse effects of electoral biases.
The analysis concurs with the view that in a majority of cases, socialist preferences were inclined towards proportional rules. Nevertheless, the results do not preclude any competing contention that socialist party preferences may have also been rooted in a sense of electoral fairness and equality. Indeed, it is acknowledged that the efforts of academics and reform organisations advocating for proportional reform has been largely overlooked by the present thesis. Finally, two prominent questions remain: how did socialist parties succeed in implementing or coercing incumbent parties to implement proportional electoral rules? What about cases where strong socialist parties preferred majoritarian systems or were divided with regards to proportional rules, such as Belgium, and Sweden (Carstairs 1980; Penadés 2008; Kreuzer 2010)?

In turn, the discussion focuses on the influence of conditions on the preferences of incumbent right parties. No other conditions are reported as either causally necessary or sufficient. While institutions facilitating cooperative industrial relations appear to be sufficient the low consistency score makes it difficult specify a causal link between the widespread presence of cooperative relations and the adoption of proportional rules. The absence of the necessity and sufficiency of the conditions influencing the preferences of right parties does not signify that the conditions are not causally relevant; however, the necessity analysis calls into question the sweeping generalisations made by the theoretical perspectives with respect to the strategies of right parties, and the subsequent adoption of proportional rules or retention of majoritarian rules.

The complex, parsimonious, and intermediate solutions results for the presence of the outcome shed further light on the conjunction between the causally relevant conditions influencing the preferences of left and right parties. The existence of several pathways leading to the presence of the outcome provides strong empirical support for the assertion that electoral reform is characterised by complex chains of multiple conjunctural causation. The first configuration of the complex solution for the presence of the outcome is characterised by the presence of all conditions and supports the claims of all theoretical perspectives; however, as all conditions are equally present across the four cases, the configuration lends little analytical advantage by way of a generalised statement supporting any one particular perspective. Rather, the configuration suggests that the implementation of proportional rules was made all the more likely due to the conjunction of all the causal conditions identified.
As a causal link between the presence of the economic conditions and the presence of the political conditions is difficult to justify, a limited generalisation may be reasonably advanced in support of the conjunction of the political conditions of a strong and misrepresented left as well as a divided and misrepresented right. The generalisation concurs with the theoretical perspectives of Boix (1999, 2010), Alesina and Glaeser (2004), Andrews and Jackman (2005), Rodden (2008), and Calvo (2009), and is limited specifically to the four cases described by the first pathway. Hence, the results support the conclusion that, in conjunction with a strong and misrepresented left, the preferences of incumbent right parties were in large part influenced by the combination of the division of the right electorate and the misrepresentation of one or more right parties.

The existence of five additional and distinct causal paths reveal the difficulties faced by the theoretical perspectives in explaining the adoption of proportional rules in the cases of Austria, Belgium, Denmark, Italy, and Switzerland by means of single independent causal factors. The complex configurations describing the cases of Denmark and Switzerland justify the claim that proportional rules were implemented when the preferences of an electorally strong and misrepresented left coincided with those of a divided but favourably represented right. The finding concurs with the results of the analysis conducted by Leemann and Mares (2013) who find that the division of right parties as well as their levels of misrepresentation jointly affect their preferences towards proportional or majoritarian rules. In addition to the four cases exhibiting the presence of all conditions, the cases of Denmark, Switzerland, Austria, and Belgium are supportive of the statement.

Italy is a particularly thorny case for the various perspectives as it characterised by the presence and absence of causal factors which, theoretically, should not lead to the adoption of proportional rules. Nevertheless, the configuration reveals that in spite of a dominant and favourably represented right party and low incentives for cooperative cross-class relations proportional reform was implemented by the incumbent right party. The historical evidence points to the potential threat of electoral losses for the dominant Liberal party due to the mobilisation of the catholic party and permits the explanation of the adoption of proportional rules.

The parsimonious results further underscore the hetero-causal nature of electoral system reform by outlining two pathways of relative importance. The conjunction of the conditions of a
strong and misrepresented left party further validates their importance and the conclusions drawn from the necessity analysis and the complex solution. The alternate causal pathway accentuates the importance of institutions facilitating cooperative employer-labour relations. The presence of two alternate pathways of political conditions on one hand, and economic conditions on the other, suggests that explanations regarding the adoption of proportional rules should focus on both the short-term political considerations of legislators as well as the long-term influence of business, unions and labour groups on the preferences of political parties. However, as noted, there is no explicitly specified causal link between the two perspectives, and hence, the second path is considered as less pertinent to the explanation of proportional electoral reform. The intermediate results demonstrate the pertinence of each theoretical perspective as they reveal that the proportional rules are adopted in the presence of an electorally strong and misrepresented left party in conjunction with a divided right party structure, a misrepresented right party, or the presence of cooperative industrial relations. The results confidently support the conclusion that the electoral mobilisation of the left party is necessary for the adoption of proportional rules in conjunction with the division or misrepresentation of right parties across the majority of cases.

Although the presence of cooperative industrial relations figures as a potentially pertinent condition across the complex, parsimonious, and intermediate solutions, it is difficult to reconcile the perspective advanced by Cusack, et. al. (2007, 2010) with the theoretical perspectives emphasising the effects of comparatively short-term political conditions; hence, no generalisation is forthcoming with respect to the conjunctural influence of co-specific assets or cooperative industrial relations in leading to the adoption of proportional rules. As such, the conditions of co-specific assets and cooperative industrial relations are deemed to be less relevant in terms of conjunctural causation.

The analysis of necessary conditions for the absence of the outcome reveals that the absence of cooperative industrial relations is necessary for the retention of majoritarian rules. The relatively high consistency and coverage scores assigned to the absence of co-specific assets and cooperative relations suggest that the absence of both economic conditions is conducive to the preservation of majoritarian rules. Moreover, two of the five negative cases are characterised by electorally strong left parties, indicating that the condition of an electorally weak left party is not a necessary condition for the retention of majoritarian rules. The results do not provide any evidence of the necessity or sufficiency of the dominant structure or the favourable
representation of right parties. The results highlight different constellations of conditions leading
to the absence of the outcome than the presence and hence, support the view that majoritarian
rules are not adopted as a direct consequence of the absence of conditions leading to the adoption
of proportional rules.

Indeed, the results suggest that majoritarian rules are likely to be retained when
cooperative institutions are absent as all negative cases are characterised by both the absence of
co-specific assets as well as adversarial industrial relations, save for the United Kingdom which
is characterised by the presence of co-specific assets. The absence of cooperative relations
despite the presence of co-specific assets supports the contention that the absence of cooperative
relations is a necessary condition for the preservation of majoritarian rules. Hence, the results
affirm that of the two economic conditions, the absence of cooperative relations is causally more
relevant than the absence of co-specific assets. As such, the evidence points in support of the
theoretical framework developed by Cusack, *et. al.* (2007, 2010a) in explaining the retention of
majoritarian rules. However, the results raise significant questions: why is the adoption of
proportional representation relatively better described by the presence of the political conditions
while the retention of majoritarian rules is relatively better described by the absence of the
economic conditions? How may the short-term perspectives leading to the adoption of
proportional rules be reconciled with the longer-term perspectives conditioning the retention of
majoritarian rules?

The complex, parsimonious, and intermediate solution results help offer a relatively
nuanced answer by presenting the retention of majoritarian rules in terms of conjunctural
causation and multiple pathways. Overall, the results posit logical causal links between the
strength of the left party, favourable levels of left party representation, and the general absence
of institutions facilitating cooperative relations. The first configuration, covering the three cases
of Canada, New Zealand, and the United States across all three sets of solutions, reveals that an
electorally weak left is causally relevant for the retention of majoritarian rules. Indeed, the
parsimonious solution suggests that the absence of a strong left is sufficient to explain
majoritarian rules in Canada, New Zealand, and the United States and lend the strongest support
to the generalisation that majoritarian rules are retained when the left is electorally weak. The
theoretical perspective of Cusack, *et. al.* (2007) argues that adversarial industrial relations
influenced the choice of majoritarian rules in order to contain the left threat. However, the results
have called into question the generalisation that the economic conditions are particularly relevant in conjunction with an electorally weak left.

Where the left was electorally strong, as in Australia and the United Kingdom, majoritarian rules were nevertheless retained. Hence, the results identify the causal relevance of a strong left party in conjunction with the positive representation of the left party and the absence of cooperative relations. The conjunction of an electorally strong left with favourable levels of representation lends strong support to the theory that majoritarian rules are maintained when the left is strong but favourably represented and when the right is not misrepresented, as in the case of Australia. The conjunction is equally characteristic of the United Kingdom, where both one left and one right party benefited from electoral biases to the detriment of a third party. The link between an electorally weak left and favourable left representation is supported by the theoretical perspectives of Andrews and Jackman (2005), Rodden (2008) and Calvo (2009) and supported by the cases of Australia and the United Kingdom.

Although the interpretation of the results has speculated about the causal link between an electorally strong left party and the absence of cooperative relations by calling upon the theoretical perspective of Penadés (2008) and the role of trade-unions, the results do not permit any generalisation based on the limited evidence.

In summary, the discussion offers no insight or generalisation as to why proportional or majoritarian rules are characteristic of the two clusters of Western European and Anglo-Saxon democracies; the correlation may well be epiphenomenal. Nevertheless, the discussion outlines that the preferences and strategies of actors were influenced by the combination of diverse conditions, each of which exerted varying levels of influence with respect to the presence and absence of other factors. The discussion highlights the predominant view of politicians and legislators as rationally calculating individuals subject to diverse incentives and constraints operating at different levels, and thus underscores the relevance of political conditions in leading to the adoption of proportional rules. With respect to the retention of majoritarian institutions the interpretation of the results and the discussion have highlighted the fact that the diverse theoretical perspectives do not suffice by themselves; indeed, the constellations of conditions describing the retention of majoritarian rules require the consideration of the joint effects of the strength of the left, levels of electoral bias, and the absence of institutions facilitating cooperative relations.
The analysis also acknowledges its limitations in explaining the presence or absence of the outcome. An obvious limitation of the analysis is the consideration of causal conditions which exert incentives on actors in the short term versus the long term. Due to the incongruity of the approaches vis-à-vis the rationale governing the preferences and strategies of actors the analysis has not been able to identify any causal relation between the two sets of conditions. Future research may do well to incorporate the role of unions in relation to the question of electoral system choice or construct two distinct models of political and economic conditions in order to evaluate their relative importance.

Furthermore, the analysis fails to account for any potential influence of the First World War. It is notable that the majority of cases under consideration reformed their electoral systems just prior to or after the war, and hence, the causal conditions considered may fail to relate to the wider political, social, and economic context of the period. However, the analysis fails to account for the potential influence of the First World War. Italy, Austria, and Germany, are all cases which reformed their electoral system pursuant to the First World War. There is strong evidence to suggest that proportional rules were likely to be adopted within the larger context of the close of the war, the instauration of a republic, and the explicit efforts of the left to strengthen democratic institutions (Carstairs 1980). The implementation of proportional representation then is intuitively supportive of the efforts of the left parties and labour movements towards a more inclusive form of government which would prevent the elites from precipitating crises, by allowing the representation of a diversity of interests.

Most significantly, the thesis has not been able to take into account Galton’s problem of auto-correlation brought about by the experience of learning. Although, there is evidence to suggest that countries closely followed the experiences of their neighbours with different electoral rules, the research has not been able to account for effects that such institutional learning may entail. Finally, the research acknowledges the limitation of excluding causal conditions which may be endogenous, exogenous, or causally reciprocal to the question of electoral system choice. Notably, future research may identify more robust causal links between the extension of the franchise, the levels of urbanization and industrialization, ethnic, religious, and linguistic fractionalisation, and the social mobilisation of the labour movement.
Conclusion

“Clarifying the precise nature of these multiple causes is important because electoral systems in many early democracies were chosen during the closing days of World War I and, in many countries, were accompanied by tremendous political instability (...) It therefore becomes important to more fully understand the role contingent factors play. If it turns out that contingent and, by implication, unique factors explain a large number of electoral system choices, then this multiplicity of causes corresponds to causal complexity or equifinality that cannot be captured by regression analysis” (Kreuzer 2010: p.384).

Inspired to a large extent by Kreuzer’s (2010) methodological plea for a more thorough and comprehensive understanding of the historical origins of electoral systems, the numerous competing theoretical perspectives, and the limited consideration accorded by empirical studies to competing viewpoints, the present thesis has discriminated in favour of a configurational research strategy. The holistic qualitative research process and logical analytical analysis embraced by QCA has permitted the study to convincingly conclude that electoral reform is indeed a complex process, characterised by instances of multiple conjunctural causality as well as causal asymmetry. The qualified findings reveal that the phenomenon of electoral reform is not only characterised by a multitude of potentially explanatory factors which may exert an influence on the preferences, strategies, and decisions of actors in diverse manners, but also by their conjunctural presence in different contexts. While Kreuzer (2010) petitions researchers to sagaciously apply historical knowledge and fine-grained quantitative analyses, his plea is limited to the examination of multiple causation. By contrast, the present study has demonstrated that comparative research may do well to set its standards higher by privileging multiple conjunctural causation, hetero-causality, and causal asymmetry over the assumptions ingrained in quantitative analyses, *inter alia* multiple independent causation, uniformity of causal effects, and causal symmetry. The manifold use of the crisp-set QCA technique has enabled the present study to examine the existing typologies and categorisations of electoral system reform, engage in a discussion on potential links across diverse theoretical perspectives, lend qualified support to guiding hypotheses, assess the validity and coherence of historical data, and raise further intriguing questions. Most importantly, the use of a QCA approach has revealed that, contrary to quantitative analyses, synthetic research strategies may very well explore both clusters of cases as well as individual cases characterised by unique causal recipes.
By examining the configurations of factors both for the presence and the absence of the outcome, the QCA analysis has indeed revealed that while the theoretical perspectives outlined may be particularly useful for explaining the presence or absence of the outcome in certain cases, they are each ultimately limited by their disregard for the conjunctural effects revealed by contradictory cases. The results of the QCA analysis do not permit a firm validation or rejection of any particular hypothesis; a number of cases affirm and infirm the various postulates. In general, the analysis has fallen short of its goal of responding to the specific question of why some democratic countries adopted proportional electoral rules while others maintained majoritarian electoral rules. Although the results do not support one theoretical perspective over another due to the limitations raised previously, they do support the assertion that the use of a configurational research method is relatively better suited for the explanation of complex causal mechanisms, especially those following a rationalist or structuralist logic. In view of the causal conditions and empirical cases selected, the results have identified six causal configurations describing the adoption of proportional rules and three configurations describing the maintenance of majoritarian rules. In addition, two configurations relative to the presence and absence of the outcome comprise more than one case, while the remaining configurations are unique and reveal the level of complexity underpinning electoral reform, even when diversity is severely limited.

Moreover, the results highlighting the conjunctural effects of an electorally strong yet misrepresented left party suggest that the problematic question of institutional endogeneity will continue to puzzle and challenge comparative social scientists. The strength of the left and their explicit preference for proportional rules in many cases tends to support the claim of endogeneity advanced by Alesina and Glaeser (2004). However, the conjunction of the levels of misrepresentation suffered by the left with their corresponding level of electoral strength, suggests that left preferences for proportional electoral reform may also be conditioned to a significant extent by short-term political considerations. With respect to the causal conditions influencing the preferences of right parties, the results tend to affirm the perspectives highlighting the impact of short-term political conditions and hence, infirm the claim of institutional endogeneity. On the other hand, the lack of empirical validation for the conditions of co-specific assets and cooperative industrial relations also tends to infirm the economic endogeneity claim. However, the prevalence of the economic conditions across configurations
describing the absence of the outcome suggests that endogenous factors may very well exert long-term effects.

While the present study has been limited in its assessment of the validity of the competing hypotheses, its use of the QCA approach has revealed marked differences in the manner in which comparative social scientists rely on historical data. The study concurs with Kreuzer (2010) with respect to the invaluable use of qualitative historical knowledge in political science and quantitative analyses. Moreover, the thesis argues that the use of a QCA approach, including the explicit justification of data measurement and operationalization, enables researchers to focus on the fundamental differences in the nature of the conditions measured as opposed to differences in the degree of the conditions measured. Hence, in contrast to contemporary empirical studies, the present thesis has engaged in a lengthy discussion concerning the binary dichotomization of the conditions, and has in turn revealed significant differences, notably, the strength of the left in Australia, the divided or dominant nature of right parties, and the presence of co-specific assets and cooperative industrial relations.

The final point of the conclusion contends that there is significant room for the refinement of theoretical perspectives, which may be assisted, to a substantial extent, by the use of a configurational research approach. Nevertheless, future research may provide more robust supporting or contradictory results by enlarging the number of cases, constructing new typologies and theoretical frameworks based on theoretically and substantively defined causal conditions, and applying more refined configurational research strategies such as multi-value and fuzzy-set QCA techniques.
Appendix 1: Data
Appendix 1A: The outcome

Legend:
RPG: representative government; UMS: universal manhood suffrage; US: universal suffrage; ELR: electoral reform law years; ELF: electoral formula; NOS: number of seats; DM: district magnitude; BAL: ballot structure; OUT: outcome (0/1)

Sources: Compiled with information from Caramani (2000), Mackie and Rose (1991), Colomer (2004b; 2004c), and Hickens (2004)

Dichotomisation:
The outcome is assigned the value 1 when all of the following conditions are met; otherwise 0:
- The electoral formula changes from majoritarian to proportional rules
- The number of seats in the legislature increases
- The district magnitude increases from 1 to more than 1
- The ballot structure changes from offering a single choice to multiple preferences

Notes on dichotomization:
Australia’s use of the AV is a functional equivalent of the second round of majority rules (Mackie and Rose 1991; Lijphart 1994). Austria’s transition from estate rule and from an empire to a territorially smaller republic reduced the total number of seats as in use in the curia system (Mackie and Rose 1991; Caramani 2000); hence, this is not considered as a reduction in the number of seats.

*Indigenous population not enfranchised until 1960; **Although enfranchised, many African-Americans were effectively prevented from exercising their vote in certain states until 1965; ***New Zealand held two-round majority elections in 1908 and 1911.
<table>
<thead>
<tr>
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<th>US</th>
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<th>ELF</th>
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<td>PR: Hare</td>
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Appendix 1B: Left electoral strength

Legend:
ELR: electoral reform law years; Years: years considered for measurement; N.: number of elections; N1-N9: election number 1-9; Med: median; Mean 3N: mean of last three elections before reform; Str. left: dichotomisation as reported by Kreuzer (2010: p.381); Mean 1914: average socialist electoral strength 1914 as reported by Bartolini (2000: p.61, 119); A: left electoral strength (0/1)

Sources: Compiled with information from Mackie and Rose (1991), Bartolini (2000), and Kreuzer (2010)

Dichotomisation:
Left electoral strength is assigned the value 1 when the following conditions are met; otherwise 0:
- Total mean is greater than 15 %
- Mean of the last three elections is greater than the median and/or total mean
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<th>N</th>
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<th>Total mean</th>
<th>Med.</th>
<th>Mean 3n</th>
<th>Str. Left</th>
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Appendix 1C: Right party division

Legend:
ELR: electoral reform law years; Years: years considered for measurement; N.: number of elections; N1-N9: election number 1-9; RP>5%: mean number of right parties polling above five per cent; Frag: fragmentation score; Last 2N: last two elections before reform; Dist. P1-P2: distance in percentage points between leading non-left party and second non-left party; Dist. P2-P3: distance in percentage points between second non-left party and third non-left party; Dom: dominance score; Div. Rgt.: dichotomisation of right party division as reported by Kreuzer (2010: p.381); B: right party division (0/1)

Sources: Compiled with information from Mackie and Rose (1991) and Kreuzer (2010: p.381)

Dichotomisation:
- A fragmentation score of 1 is assigned when there are more than 2 parties present; otherwise 0
- A dominance score of 1 is assigned when the mean distance between the top two right parties is greater than 15 percentage points and when the mean distance between the second and third right parties is less than 10 percentage points
- The right is considered divided and assigned the value 1 if there is no dominant right party
- The right is considered as non-divided and assigned the value 0 if there is a dominant party irrespective of the fragmentation score
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Appendix 1D: Electoral biases

Legend:
ELR: electoral reform law years; Years: years considered for measurement; N3-N1: last three election years prior to reform; misrepresentation (Left, Right 1, Right 2): difference of vote shares and seat shares for the socialist party, first strongest right party, and second strongest right party respectively; C: left misrepresentation (0/1); D: right misrepresentation (0/1)

Sources: Compiled with information from Mackie and Rose (1991)

Dichotomisation:
Left parties are considered adversely affected and assigned the value of 1 if:
- Mean misrepresentation is greater than 0
- Otherwise 0
Right parties are considered adversely affected and assigned the value of 1 if:
- Mean misrepresentation is greater than 0
- Otherwise 0
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**Notes:**
- ELR: Early Liberalism
- Years: Period of analysis
- Left misrepresentation: Degree of left misrepresentation
- C: Confidence level
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Appendix 1E: Co-specific assets and employer-labour coordination

Legend:
CIS: Data from Cusack, et. al. (2007, 2010), KRE: Data from Kreuzer (2010); CSA /2: Co-specific asset score on 2; ELC /2: Employer-labour coordination score on 2; CI /5: Coordination index score on 5; E: co-specific assets (0/1); F: employer-labour coordination (0/1)

Sources: Reproduced from Cusack, et. al. (2007: p.385; 2010a, 2010b) and Kreuzer (2010: p.372)

Dichotomisation:
Co-specific assets are deemed present and assigned the value of 1 when:
- the total score on the indicators of guilds and strong local economy, and a large skill-based export sector is two
Coordination is cooperative and assigned the value of 1 when:
- the total score on the indicators of widespread rural cooperatives and industrial and centralised unions is two
When the scores on both indicators are zero the conditions are assigned the value of 0
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Appendix 2: Output reports of fs/QCA programme

Appendix 2A: Analysis of Necessary Conditions

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<th>Consistency</th>
<th>Coverage</th>
</tr>
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<tr>
<td>A</td>
<td>0.400000</td>
<td>0.181818</td>
</tr>
<tr>
<td>a</td>
<td>0.600000</td>
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</tr>
<tr>
<td>B</td>
<td>0.800000</td>
<td>0.400000</td>
</tr>
<tr>
<td>b</td>
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<td>0.250000</td>
</tr>
<tr>
<td>C</td>
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</tr>
<tr>
<td>c</td>
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</tr>
<tr>
<td>D</td>
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</tr>
<tr>
<td>d</td>
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<td>0.428571</td>
</tr>
<tr>
<td>E</td>
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<td>0.125000</td>
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<tr>
<td>e</td>
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<td>0.666667</td>
</tr>
<tr>
<td>F</td>
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<td>0.000000</td>
</tr>
<tr>
<td>f</td>
<td>1.000000</td>
<td>0.714286</td>
</tr>
</tbody>
</table>

Source: Computer programme “fs/QCA” developed by Ragin, et. al. (2009)
Appendix 2B: Solution formulae

Outcome variable: Present

### Complex Solution

<table>
<thead>
<tr>
<th>#</th>
<th>Expression</th>
<th>Raw coverage</th>
<th>Unique coverage</th>
<th>Consistency</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A<em>B</em>C<em>D</em>E*F+</td>
<td>0.444444</td>
<td>0.444444</td>
<td>1.000000</td>
<td>DEU, NLD, NOR, SWE</td>
</tr>
<tr>
<td>2</td>
<td>A<em>b</em>C<em>d</em>e*f+</td>
<td>0.111111</td>
<td>0.111111</td>
<td>1.000000</td>
<td>ITA</td>
</tr>
<tr>
<td>3</td>
<td>A<em>B</em>C<em>d</em>e*f+</td>
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<td>0.111111</td>
<td>1.000000</td>
<td>DNK</td>
</tr>
<tr>
<td>4</td>
<td>A<em>B</em>C<em>d</em>E*f+</td>
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<td>0.111111</td>
<td>1.000000</td>
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<tr>
<td>5</td>
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<tr>
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</tbody>
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Solution coverage: 1.00000
Solution consistency: 1.00000

### Parsimonious Solution

<table>
<thead>
<tr>
<th>#</th>
<th>Expression</th>
<th>Raw coverage</th>
<th>Unique coverage</th>
<th>Consistency</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1.000000</td>
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<tr>
<td>2</td>
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<td>0.111111</td>
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<td>AUT, BEL, DEU, DNK, NLD, NOR, SWE</td>
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</table>

Solution coverage: 1.00000
Solution consistency: 1.00000

### Intermediate Solution

<table>
<thead>
<tr>
<th>#</th>
<th>Expression</th>
<th>Raw coverage</th>
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<th>Consistency</th>
<th>Cases</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>2</td>
<td>A<em>B</em>C+</td>
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<td>0.111111</td>
<td>1.000000</td>
<td>CHE, DEU, DNK, NLD, NOR, SWE</td>
</tr>
<tr>
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<td>BEL, DEU, NLD, NOR, SWE</td>
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<tr>
<td>4</td>
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<td>DNK, ITA</td>
</tr>
</tbody>
</table>

Solution coverage: 1.00000
Solution consistency: 1.00000
Outcome variable: Absent

### Complex Solution

<table>
<thead>
<tr>
<th>#</th>
<th>Expression</th>
<th>Raw coverage</th>
<th>Unique coverage</th>
<th>Consistency</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
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<td>1.000000</td>
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</tr>
<tr>
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<td>3</td>
<td>A<em>B</em>c<em>D</em>E*f</td>
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<td>0.200000</td>
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</table>

Solution coverage: 1.00000  
Solution consistency: 1.00000

### Parsimonious Solution

<table>
<thead>
<tr>
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<th>Expression</th>
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<th>Unique coverage</th>
<th>Consistency</th>
<th>Cases</th>
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</thead>
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<td>1.000000</td>
<td>CAN, NZL, USA</td>
</tr>
<tr>
<td>2</td>
<td>B<em>e</em>f+</td>
<td>0.600000</td>
<td>0.000000</td>
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<td>CAN, NZL, USA</td>
</tr>
<tr>
<td>3</td>
<td>c*f</td>
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<td>0.400000</td>
<td>1.000000</td>
<td>AUS, GBR</td>
</tr>
</tbody>
</table>

Solution coverage: 1.00000  
Solution consistency: 1.00000

### Intermediate Solution

<table>
<thead>
<tr>
<th>#</th>
<th>Expression</th>
<th>Raw coverage</th>
<th>Unique coverage</th>
<th>Consistency</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>0.600000</td>
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<td>CAN, NZL, USA</td>
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<tr>
<td>2</td>
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<td>3</td>
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Solution coverage: 1.00000  
Solution consistency: 1.00000
Appendix 2C: List of simplifying assumptions

Outcome variable: Present

\[ A(0)B(0)C(0)D(0)E(0)F(1) + \]
\[ A(0)B(0)C(0)D(0)E(1)F(1) + \]
\[ A(0)B(0)C(0)D(1)E(0)F(1) + \]
\[ A(0)B(0)C(1)D(0)E(0)F(1) + \]
\[ A(0)B(0)C(1)D(1)E(0)F(1) + \]
\[ A(0)B(1)C(0)D(0)E(0)F(1) + \]
\[ A(0)B(1)C(0)D(0)E(1)F(1) + \]
\[ A(0)B(1)C(0)D(0)E(0)F(0) + \]
\[ A(0)B(1)C(0)D(0)E(1)F(0) + \]
\[ A(0)B(1)C(1)D(0)E(0)F(1) + \]
\[ A(0)B(1)C(1)D(1)E(0)F(1) + \]
\[ A(0)B(1)C(1)D(1)E(1)F(1) + \]
\[ A(0)B(1)C(1)D(1)E(0)F(0) + \]
\[ A(0)B(1)C(1)D(1)E(1)F(0) + \]
\[ A(1)B(0)C(0)D(0)E(0)F(1) + \]
\[ A(1)B(0)C(0)D(0)E(0)F(0) + \]
\[ A(1)B(0)C(1)D(0)E(0)F(0) + \]
\[ A(1)B(0)C(1)D(0)E(1)F(0) + \]
\[ A(1)B(0)C(1)D(0)E(1)F(1) + \]
\[ A(1)B(1)C(0)D(0)E(0)F(1) + \]
\[ A(1)B(1)C(0)D(0)E(1)F(1) + \]
\[ A(1)B(1)C(1)D(0)E(0)F(1) + \]
\[ A(1)B(1)C(1)D(1)E(0)F(1) + \]
\[ A(1)B(1)C(1)D(1)E(1)F(1) + \]
\[ A(1)B(1)C(1)D(1)E(0)F(0) + \]
\[ A(1)B(1)C(1)D(1)E(1)F(0) + \]
\[ A(1)B(1)C(1)D(1)E(1)F(1) + \]
\[ A(1)B(1)C(1)D(1)E(1)F(0) + \]

Number of Simplifying Assumptions: 34
Outcome variable: Absent

A[0]B[0]C[0]D[0]E[0]F[0] +

Number of Simplifying Assumptions: 36
Bibliography


