Economy, corruption or promiscuous voters?
Explaining the emergence of Anti-Establishment Reform Parties in Central and Eastern Europe

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Abstract: We discuss an emerging group of successful parties in Central and Eastern Europe (CEE) that combine anti-establishment appeals with support for moderate policies of political and social reform, which we term anti-establishment reform parties (AERPs). Examples include the Simeon II National Movement (Bulgaria), Res Publica (Estonia), New Era (Latvia), Freedom and Solidarity (Slovakia), TOP09 and Public Affairs (Czech Republic) and Positive Slovenia. We carry out a comparative analysis using the Fuzzy Set Qualitative Comparative Analysis (fsQCA) technique to identify the conditions under which AERPs made electoral breakthroughs in the period 1997-2013. We identify five sufficient paths for AERP breakthrough representing distinct combinations of several causal conditions: high corruption, rising corruption, rising unemployment, previous success of new parties and the previous success of new parties. We conclude by reviewing the implications of our findings for further research.

In recent years fears have been expressed that the falling away of the EU accession conditionalities and the impact of the global recession is the leading rise of radical-right and illiberal populist parties in Central and Eastern Europe (CEE) (Rupnik 2007, Bohle & Greskovits 2009). Electoral breakthroughs by groupings such as Jobbik in Hungary in 2010 are often taken as exemplars of this trend (Jordan 2010, Wolin 2011). However, without denying the importance of the growth on the radical right for European politics the nature of many new anti-establishment parties has in the region been incompletely understood.

A number of new parties in CEE – at least in their initial stages – have combined classically populist characteristics such as anti-elite, anti-establishment rhetoric, espousal of direct democracy, a stress on moral renewal or technocratic expertise (Schedler 1997) with *moderate* pro-market policies and a liberal (or relatively neutral) stance on socio-cultural questions. Certain such parties such as, Simeon II National Movement in Bulgaria in 2001 (Barany 2002) or Res Publica in Estonia in 2003 (Taagepera 2006) enjoyed landslide electoral success and immediately became central players in new governing coalitions. Others achieved more modest success such as Public Affairs (VV) in the Czech Republic or Freedom and Solidarity (SaS) in Slovakia – which entered their respective parliaments in 2010 – but entered government coalitions with little difficulty. In other cases in CEE such parties have been conspicuous by their electoral marginality or absence.

The rise of such parties has potentially far-reaching consequences for party systems and democracy in CEE, as unlike more radical populist groupings, such parties can achieve spectacular overnight electoral breakthrough and, even when they do not, usually have

high coalition potential. In this article we analyse the conditions under which the electoral breakthroughs of such parties, which we term *parties of anti-establishment reform* (AERPs), can occur using Fuzzy Set Qualitative Comparative Analysis (fsQCA).

We proceed as follows. We first define our concept of the *anti-establishment reform party* (AERP) relating it to relevant literatures on new and outsider parties, and discussing parties we classify as AERPs. We then present the fuzzy-set Qualitative Comparative Analysis (fsQCA) method and briefly review its earlier use as a technique for analysing the emergence of new parties. Following that, we present our QCA analysis of conditions of breakthrough for AERPs in contemporary CEE party systems and report our findings. Finally, we reflect upon the implications of our findings and discuss how the concept of AERPs and the analytical strategy used might be extended to West European cases, where AERP-type parties have begun to break through in some states, such as Peppe Grillio's Five Star Movement (M5S) in Italy and Team Stronach in Austria.

ANTI-ESTABLISHMENT REFORM PARTIES

As Kevin Deegan-Krause (2010) has observed, despite their diversity, there are clear commonalties between new parties that have broken through in recent elections in CEE making it possible to speak of

> … not exactly a new party family (though in their cultural liberalism and anti-corruption emphases they share significant elements) and not exactly a new party type … but with strong and intersecting elements of both. Nor is it unique to Central Europe alone but elements of it have emerged also in the West.

Many authors who have noted the phenomenon have viewed such parties as expressing a sub-type of populism, speaking of 'new/centrist populism' (Pop-Eleches 2010), 'centrist populism' (Učeň et al 2005; Učeň 2007) or 'liberal populism' (Mudde 2007). Others have defined them more narrowly as based on a distinct (anti-)political appeal or issue dimension: Bågenholm & Heinö (2010), for example, term them 'anti-corruption parties, while Demker (2008) speaks of 'virtue parties' and Hartlieb (2013), stressing organisational as well as programmatic aspects, speaks of 'anti-elite cyberparties'.

We conceptualize these parties somewhat differently as *anti-establishment reform parties* (AERPs) that exhibit – to different extents – three core features: (1) a politics of *mainstream reformism* (2) usually framed in terms *anti-establishment* of appeal to voters; and (3) *genuine organizational newness* as a party.

By 'mainstream reformism' we understand two things: firstly, that programmatically a party is committed to mainstream models of liberal democracy and the market economy does not share either the inclination of radical right forces to 'illiberal democracy', illiberal ethnocentrism or social conservatism (Mudde 2007) nor the anti-capitalism of the radical left (March & Mudde 2005).[1] AERPs have an active commitment to *political reform* seeking to make major changes to the political institutions or to the way politics is conducted or to improve, modernize or unblock the working of liberal democracy or the liberal market economy. Such themes might, depending on context, take the form of appeals to fight corruption, replace corrupt or inefficient elites with energetic and competent personnel; tackle overlooked policy areas; or create new democratic structures

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[1] Unlike Pop-Eleches (2010) in his characterisation of 'centrist populists' we do not regard euroscepticism as a non-mainstream position, although most AERPs are not eurosceptic.

linking citizens and politicians (sometimes extending into anti-partyism); or novelty of political style or a 'project of newness' (Sikk 2012).

We also understand such parties as *anti-establishment* parties.[2] We derive this term from Abedi's work (2004) on 'anti-political establishment parties', that is parties that perceive themselves as challengers to establishment parties and see a fundamental divide between the people and the political establishment (Abedi 2004: 12).[3]

The third element of our definition is that in organizational terms parties should be 'genuinely new'. In this article we apply Sikk's (2005: 399) definition of new parties as those successful in elections for the first time that are "not successor to any previous parliamentary parties, have a novel name and structure, and do not have any important figures from past democratic politics among their major members" (Sikk 2005: 399; see also Sikk 2012). We thus exclude alliances and mergers between established parties, as well as parties which are products of breakaways from established parties.[4]

In defining AERPs a group of parties in this way we are *not* asserting the existence of a coherent new party type or distinct sub-type, still less suggesting the emergence of a new party family.[5] Rather we advance the term as a broad working category, whose validity will be tested by the search for common causation patterns and which may be revised in the light of empirical findings.[6] Rather we have formulated the category of *anti-establishment reform party* as an *ideal type* in the full expectation that the membership for some parties will be quite fuzzy.[7] We thus advance the term as a broad working category, which may be revised in the light of empirical findings.[8]

To identify AERPs empirically we first identified genuinely new parties and eliminated those regarded in the literature as on the radical-right or radical-left (Mudde 2007, March 2010) or whose programmes or declarations clearly placed them on the radical right or left. We then examined party programmes and statements and used our case knowledge to distinguish those new parties making anti-establishment reformist appeals from more

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[2] We avoid the term 'populist' because we feel it is imprecise: even minimal definitions such as that of Mudde (2004:542) tend conflate anti-establishment appeal and (moralistic) anti-political appeals, which while often empirically associated are, we contend, conceptually distinct. Although for the simplicity we AERPs in this paper in a conventional dichotomous way, we are sympathetic to the view that categories such as party families and party types should be viewed configuratively as 'fuzzy sets'

[3] In our use of the term we focus on the first part of Abedi's definition: on how AERPs frame themselves in relation to established parties Many AERPs do, however, use the 'populist' construction of People vs Establishment Abedi refers to. Abedi's definition also includes a third element: that a party challenge the status quo on major policy and political system issues. For our cases parties' political reformism challenges the status quo on a major 'political system issue'. We avoid label 'anti-political establishment party' because we find it ambiguous.

[4] We take this to be to be parties formed where a majority of parliamentary deputies have come from a single established party. This is slightly different from Sikk (2005: 399), where the last condition excludes 'participation by prime ministers and significant portions of cabinet ministers and members of parliament'.

[5] This is one of the reasons why we remain wary of the 'centrist populist' label – efforts to clarify the once ambiguous label of 'populism' have rendered it a rigid conceptual category (Sikk 2009).

[6] The different pathways to electoral success which, we anticipate, QCA will highlight may,for example, enable us to clarify both the nature and membership of this group of parties – and, indeed, to explore the extent to which it is a coherent group.

[7] We are sympathetic to the view that many categories such as party families and party types should be viewed as 'fuzzy sets' whose different elements need not logically imply one another. However, our approach to classification is this papter close to the 'family resemblance' approach discussed by Sikk (2009), which argues that not classifying criteria need necessarily be present for a positive classification decision to be made

[8] Indeed the validity of the category will to an extent be tested by the search for shared causation patterns The different pathways to electoral success which, we anticipate, QCA will highlight may, for example, enable us to clarify both the nature and membership of this group of parties – and, indeed, to explore the extent to which it is a coherent group.

conventional political groups. We thus excluded some successful new parties, predominantly or radical right groupings (Poland 2001, Bulgaria 2005 Hungary 2010) or Green parties (Estonia 2007, Czech Republic 2006) In all instances, the unit of analysis and scorings refer to a party *at the particular time* when a parliamentary election took place: CEE parties, both new and established, can experience considerable fluctuation and evolution in their identity and programmatic appeals .[9]

In parliamentary elections in CEE since 1994, we believe 21 parties can be identified as successful AERPs.[10] Strikingly, as Pop-Eleches (2010) notes in relation to 'unconventional parties' more broadly defined, AERPs as a phenomenon of CEE is mostly confined to the last 10-15 years:[11] Pop-Eleches (2010) plausibly explains this in terms of the dynamics of 'third generation' post-communist elections, when, having elected and been disappointed with the government performance of conventional parties of left and right, voters turn to unconventional new parties.[12]

We therefore investigate AERPs' performance focusing on 'third generation' elections (Pop-Eleches, 2010) to the lower house of CEE parliaments that took place between September 1997 and December 2012. We list the AERPs included in our analysis below in table 1.[13] We have excluded from our analysis Romania–where no AERPs have materialized. We contend that this may be related to the markedly low level of democratic freedoms in that country compared to other EU states (as indicated by *Freedom House* political rights and press freedom scores); for the sake of analytical clarity excluded this country from our analysis.

QCA AS A TOOL FOR UNDERSTANDING PARTY EMERGENCE

To examine the emergence of AERPs we employ Fuzzy Set form of Qualitative Comparative Analysis (fsQCA), a comparative technique which seeks to formalize the logic of qualitative case-based comparison by identifying relevant configurations of causes (conditions) and effects (outcomes) using fuzzy algebra and sets (Ragin 1987, 2000; Rihoux and Ragin 2009). Rather than coding the presence or absence of conditions

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[9] Some parties such as Smer in Slovakia or Law and Justice (PiS) in Poland combine AERP features with clear conventional ideological appeals, often using the latter as subsequent consolidation and party-building strategy to transform themselves into more mainstream parties of left or right..

[10] Slovakia's 1998 election would classify as a positive case because of the success of the Party of Civic Understanding (SOP) (8.0 per cent). However, we do not classify this as a 'third generation' election as in marked the first time that centre-right liberal/Christian Democrat opposition gained office.

[11] Only three AERPs were successful before the 'third generation' election: the Bulgarian Business Bloc in 1994 and the Party of Civic Understanding (SOP) and Alliance of the New Citizen (ANO) (both in Slovakia in 1998).

[12] More simply, it might be that parties and party systems in new democracies require a certain interval to become 'established' –organizationally, electorally and in the public mind – implying a certain delay before anti-establishment parties can become meaningful challengers. Other authors make broadly the same point about timing Deegan-Krause & Haughton (2009), for example, posit the gradual erosion of parties which formed and established themselves in the immediate post-transitional period, because of accumulative effect of the post-communist environment (low levels of party identification with parties; weak party organizations; high (perceived) levels of corruption).

[13] It may be objected that outset set of AERPs overlaps heavily with that of new parties and that our analysis is thus, in effect, a study of successful new parties. This is a valid empirical observation. However, as a category AERPs are a conceptually distinct subset of 'new parties' which, we contend, while relevant as measure of change and (in)stability in party systems, but lacks meaning in itself. The fact that most successful new parties in CEE have been AERPs and that – contrary to the fears of some observers - that only a small minority have emerged on radical right or radical left is striking – and we believe, underlines the importance of our research. In other regions (for example, Western Europe) we would anticipate a more diverse set of new parties.

and outcomes dichotomously as in the original Crisp Set version of QCA (csQCA) (Ragin 1987), fsQCA codes cases in terms of their degree of set membership in outcome and causal conditions. Degree of membership in outcomes and conditions are expressed as values ranging from 1.0 (full membership) to 0.0 (full non-membership) with a 'crossover value' of maximum ambiguity set at 0.5.

QCA is well suited to the cross-national comparison of the varying success of new types of party, where a relatively high number of cases and high levels of casual complexity. By causal complexity we understand the fact variables can work in distinct configurations rather than individually and the fact that there may be several causal paths producing the same outcome (equifinality). QCA is able to capture a mix both of causes common to instances of a phenomenon and those distinct to specific paths, which conventional quantitative multivariate analysis can struggle with, while allows analysis of a large number of cases, which would overwhelm conventional qualitative case study methods. It has thus been used as an analytical tool to examine the comparative success of new emerging party types across Europe, for which such causal complexity – usually the configuration of multitude of social and institutional factors – is the norm (Redding & Viterna 1999; Veughlers & Magnan 2005; Hanley 2011; Gherghina & Jiglau 2011).

SELECTING AND OPERATIONALIZING QCA CONDITIONS

In accordance with standard fsQCA practice (Schneider and Wagemann 2010), we first define the outcome condition and potential causal conditions and expressing them in fuzzy set terms. However, as discussed below, in contrast to most QCA-based studies of new party emergence, we use elections rather than countries as our unit of analysis. Each election is assigned a degree of membership in each condition ranging from 1.0 (full membership) to 0.0 (full non-membership) with a 'crossover value' of maximum ambiguity set at 0.5. Although expressed numerically, the degrees of set membership are anchored in researchers' theoretically-based judgments, with at least three key anchor points (0, 0.5 and 1), each corresponding to a verbal description. Where raw data for conditions is continuous, set memberships are calculated following the direct calibration technique proposed by Ragin (2008: 85-105).[14]

Outcome: AERP electoral breakthrough (BREAKTHRU)

In this article, we focus on the *initial breakthrough* of AERPs. These breakthroughs are clearly identifiable events with immediate consequences for democratic governance and longer term patterns of party system change. This focus also reflects our understanding of AERPs more as a political strategy, than a party family *manqué*: unless they disintegrate, AERPs may transform themselves after initial breakthrough into more conventional programmatic parties of varying ideological hues, downplaying or dropping their anti-establishment appeals (Deegan-Krause and Haughton 2009). Such processes of transformation and consolidation are, however, beyond the scope of this article.

Accordingly, we use single *elections* as our units of analysis. In crisp set analysis, the coding of breakthrough would be straightforward – whether an AERP had achieved a certain level of electoral support (1) or not (0). For fuzzy set QCA analysis, the coding is

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[14] The calibration was conducted in R using the 'QCA' package (version 1.0-5, Dușa & Thiem 2012) .

more nuanced. We first defined the outcome set as *AERP breakthrough* and specified thresholds of full membership, full non-membership and maximum ambiguity (0.5 membership) (see Table 1), above which the case is more in than out of the set and below which it is more out than in. Based on these anchors, we then used the method of direct calibration suggested by Ragin (2008: 71-108) to transform the raw data (AERPs' electoral support in an election) and calculate individual cases' membership in the outcome set.[15]

Table 1. Electoral support for AERPs 1997-2012

Election	Successful AERP	Votes %	Set membership in BREAKTHRU
BGR 2001	Simenon II Movement (NDSV)	42.7	1.00
BGR 2005	–	0.0	0.00
BGR 2009	Movement for the European Development of Bulgaria (GERB)	39.7	1.00
CZE 2002	–	0.0	0.00
CZE 2006	–	0.0	0.00
CZE 2010	TOP09, Public Affairs (VV)	27.6	1.00
EST 1999	–	0.0	0.00
EST 2003	Res Publica	24.6	0.99
EST 2007	–	0.0	0.00
EST 2011	–	0.0	0.00
HUN 1998	–	0.0	0.00
HUN 2002	–	0.0	0.00
HUN 2006	–	0.0	0.00
HUN 2010	Politics Can Be Different (LMP)	7.5	0.54
LTU 2000	New Union (SL)	19.6	0.98
LTU 2004	Labor Party (DP)	28.4	1.00
LTU 2008	National Resurrection Party (TPP)	15.1	0.92
LTU 2012	Way of Courage (DK)	9.8	0.70
LVA 1998	New Party (JP)	7.3	0.53
LVA 2002	New Era (JL)	24.0	0.99
LVA 2006	–	0.0	0.00
LVA 2010	–	0.0	0.00
LVA 2011	Zalters Reform Party (ZRP)	21.3	0.99
POL 1997	–	0.0	0.00
POL 2001	Law and Justice (PiS)	9.5	0.68
POL 2005	–	0.0	0.00
POL 2007	–	0.0	0.00
POL 2011	Palikot Movement (RP)	10.5	0.74
SVK 2002	SMER, Alliance of the New Citizen (ANO)	21.5	0.99
SVK 2006	–	0.0	0.00
SVK 2010	Freedom and Solidarity (SaS)	12.2	0.82
SVK 2012	Ordinary People (OLaNO)	11.4	0.79
SVN 2008	–	0.0	0.00
SVN 2011	Positive Slovenia (PS-LZJ), Virant List (DLGV)	36.9	1.00

Source: European Elections Database and websites of national electoral authorities.
Scores for parties with less than 4% were not used, resulting in formal raw score of 0.0.

How should 'electoral breakthrough' of an AERP be understood? AERPs have considerably greater vote winning potential than niche or radical parties that have been the focus of most earlier QCA studies of new party emergence (Redding & Viterna 1999; Veughlers & Magnan 2005; Hanley 2011; Gherghina & Jiglau 2011). In the elections we

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[15] Where two AERPs were successful – a very rare occurrence – we took their combined scores as our point of departure for coding. Empirically, there was only three such instance (Slovakia 2002, Czech Republic 2010 and Slovenia 2012) where we judged that the combining the electoral support of the two AERPs was meaningful.

study, there have been two cases – Bulgaria 2001 and 2009 – where a single AERP was supported by more than a third of the electorate and one (Slovenia 2011) where the combined vote for AERPs was above this level. We set the threshold of *fully in* the set at a level of massive electoral support (30 per cent of votes or more), when the AERP becomes the first or second biggest party and hence a major party in a coalition government or a major opposition party. We set the crossover point (0.5 set membership) at 7 per cent of the vote, which is sufficient to win parliamentary representation safely and to gain a share of seats relatively proportional to the party's vote share, with the AERP becoming a minor governing or opposition party. We deem any election where there is no AERP vote to be fully out of the set (0). Because of data limitations, we have only coded support for AERPs in cases where they entered the parliament. However, we noted empirically in all elections under study here the presence of small or tiny AERP-like parties that failed to enter the parliament. However, such parties are fairly marginal and highly ephemeral it is often hard to find reliable data on their political orientation.

Causal conditions

The study of AERPs in CEE is a new area and unlike previous QCA studies of the emergence of new parties (Redding & Viterna 1999, Veugelers & Magnan 2005, Gherghina & Jiglau 2011) we cannot draw on a well-established literature to identify and operationalize favourable conditions for AERP breakthrough. Instead we are quite explicitly engaging in an exercise in theory building. In picking out such conditions we draw on a thin body of work which has so far addressed AERP-like parties directly, as well as on the literatures on the emergence of new parties and new party types, populism, and on our own specialist knowledge of key cases supplemented by secondary literature on CEE parties and elections. [16]

Although QCA is most commonly applied to *test* theories - drawing on well established literatures for its causal conditions it can serve as equally effective tool for *build* theory (Amenta & Poulsen, 1994; Rihoux & Ragin 2009; Ragin & Schneider 2011). The most important distinction between the two types of application is that researchers engaged in theory building should at the outset draw a clear distinction between analytical strategies focusing on *causal sufficiency* and strategies focusing on *causal necessity* (Ragin & Schneider 2011).

As we are dealing with diverse group of parties whose electoral success is unlikely to be covered by one or more necessary conditions in this paper we adopt 'sufficiency-centred strategy'. As Ragin & Schneider (2011) argue, if there is a conflict, a sufficiency-centred approach to theory-building will typically prefer a more detailed but more consistent solution which establishes clear connection between cause and effect for some cases to a more encompassing but less consistent solution.[17]

Crisis and economic hard times

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[16] In terms of six approaches to selecting conditions outlined by Rihoux & Ragin (2008: 124-130), our work falls between the inductive approach drawing on case knowledge and the perspective approach where a set of causal conditions representing two or three different models are tested in the same model.

[17] As Ragin & Schneider (2011) put it sufficiency-centred theory-building approaches will focus on 'emptying box 4' (eliminating cases where causes are strong, but outcome weak).

One of the most prevalent explanations for the rise of new anti-establishment parties across Europe in recently elections among commentators is to view them as a response to the pressures exerted by the global economic downturn that began 2008-9 and the broader climate of austerity that resulted from it and parallel developments such as the Eurozone crisis (Bartels 2013; Cramme 2013; Krastev 2013; Van Biezen & Wallace H 2013: 294-7). Such expectations echo the political science literature, where the inability of established political actors to deliver reasonable economic conditions is widely understood as a potential driver of (anti-incumbent or anti-establishment) protest voting for new parties (see, for example Roberts 2009). This pattern has been more marked in CEE where party identification is weaker than in Western Europe and voter dealignment much higher (Whitefield and Rohrschneider 2012). We look therefore at two economic conditions that might be expected to enhance the chances of AERP breakthrough: *economic contraction* (NOGRO) and *rising unemployment* (INCUNEMP)

The global economic downturn of 2008-9 affected all states in the region, but to markedly different degrees. Some had reduced growth rates, while other experienced sharp economic contraction. There were also national variations in rates reflecting local economic experiences and the varying success of different trajectories of post-communist reform.

Economic contraction (NOGRO) has both direct effects on consumption and levels of public provision and broader socio-political effects in stoking public discontent with incumbents. Extreme levels of economic contraction also create a sense of social crisis which also serves voters to look for political alternatives. Such effects may be especially marked in CEE where governments have been expected to deliver economic growth at the levels offering a realistic perspective of catching up with richer West European members of the European Union.

To operationalise this condition, we set the threshold for full membership (being "fully in") at a 5 per cent decline in a country's GDP. The minimum threshold ("fully out") is set at economic growth of 5 per cent under because of very fast economic growth, a phenomenon empirically observed in CEE states at various points since 1989. We set the cross-over point at 0 per cent annual change in GDP, corresponding to a stagnant economy.

We argue that it is more meaningful to look at economic growth level over two previous years, as the effects of economic growth might become visible with a slight delay. We expect that a period of economic downturn, especially if very marked, may have socio-psychological impact which is felt even if the economy subsequently picks up. As with rising unemployment, we would see it as generating a wider sense of economic insecurity underlining the vulnerability of small and often weak CEE economies.

A second consequence of economic downturn is *increasing unemployment* (INCUNEMP). This directly and immediately impacts those made redundant and their families, but arguably also a far wider groups of voters who may begin to fear for their own job security.[18] Even at relatively low levels, sharply increasing levels of unemployment represent a favourable condition for a turn to non-establishment politics and thus perhaps an AERP breakthrough.

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[18] We do not include the level of unemployment per se as a condition. Levels of background unemployment can vary quite significantly between states and, while having undeniable social and political impacts, can quickly become socially and politically 'normalised'.

Hence, we incorporate a condition of *sharply increasing unemployment (INCUNEMP)* which we operationalise as the change in unemployment rates over the two years before the election. We set the maximum threshold, corresponding to full membership in the set at an increase of 3 percentage points and the lower threshold ("fully out of set") at a 3 percentage point decrease in unemployment levels. The crossover point is set at a near zero decrease of 0.5 percentage points.[19]

As illustrated in table 2, these two, somewhat different conditions relating to the economy enable us to identify four distinct socio-economic conjunctures: *economic contraction* where GDP is falling and unemployment increasing; *economic boom* where GDP is increasing and unemployment falling; *restructuring* or *reform* where the economy is growth but shedding jobs; and *recession with a social safety valve* where unemployment is falling but the economy contracting. The final scenario is empirically unlikely and would correspond to a situation where there was a mass withdrawal from the labour market due to emigration or social policies promoting early retirement (Vanhyusse 2006).

Table 2: Possible configurations of economic conditions

	Rising unemployment (INCUNEMP)	**Falling unemployment (~INCUNEMP)**
Economic contraction (NOGRO)	Recession (NOGRO*INCUNEMP)	Recession with safety valve (NOGRO*~INCUNEMP)
Economic growth (~NOGRO)	Reform and restructuring (*~NOGRO*INCUNEMP*)	Economic boom (*~NOGRO*~INCUNEMP*)

Perceived corruption and distrust

In contrast to explanations which foreground economic recession and the associated impacts of growing unemployment, some authors the rise of anti-establishment parties and movements as a *crisis of confidence in conventional democratic politics* and the honesty and competence of established elites and parties (Kaldor & Selchow 2013; Žižek 2013). In particular, the rise of AERP-like parties has been linked to levels of perceived corruption and the politicization of corruption (Deegan-Krause 2010; Bågenholm & Heinö 2010). This may be understood both in terms of direct concern about corruption and a focus for a more inchoate sense that political elites are self-serving, untrustworthy and unrepresentative.

To operationalise levels of perceived corruption we use Transparency International's annual Corruption Perception Index (CPI), which although often criticized as poorly reflecting "real" levels of corruption, is arguably a meaningful measure for the type of public concerns we wish to highlight. We thus define two corruption-related conditions

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[19] Some of the countries did not see any changes in unemployment levels in the election year. It is good QCA practice to avoid calibration at 0.5 set membership. We therefore set the cross-over point at a marginal improvement of unemployment situation, as it could be argued that unemployment needs to drop by more than 0.5 percentage points in order to be perceived as an improvement.

which we expect will have a positive effect on AERP breakthrough:[20] the social *perception* of *high corruption* (HICORR) or the *substantial increase in perceived levels of corruption* (INCORR).

We hypothesize that an election is a full member of this set of *high levels of perceived corruption* (HICORR) if the CPI score for the year the election was held[21] falls below 3.5, around the worst empirically achieved levels in the region since 1999 (Romania and Bulgaria). A case is fully out of this set if CPI reaches 5.5 – a benchmark level based on the lowest levels of perceived corruption in the region since that date (achieved only by Slovenia and Estonia). The crossover point of maximum ambiguity (0.5) is 4.6 reflecting a figure close to the median corruption rating for CEE across the period.

We deem a case to be fully in the set of elections where there has been s*ubstantial increase in the level of perceived corruption (INCCORR)* if CPI score decreases by 0.4 points – indicating a substantial perceived deterioration in corruption. A case is a fully out of the condition if a country's CPI score increases by 0.4 points over the preceding two years – i.e. there is a substantial improvement in the corruption situation. We set the cross-over point at a decrease in the CPI score just over zero (0.01) where there is neither improvement nor deterioration.[22]

Political conditions

In earlier iterations of this work we included a number of conditions relating to the party-electoral context: the presence of pro-market incumbents; levels of turnout the strength of radical-right or radical-left; and the previous levels of voting for new parties. In this paper we retain just one such condition: *previous levels of voting for genuinely new parties* (HGENP).

We did so largely for theoretical reasons. We have amended our conception of AERPs, which we no longer view as defined by liberal economic and social politics, but simply as having non-extreme mainstream positions on social and economic issues. The presence of discredited pro-market incumbents was thus no longer relevant to our analysis. While increased turnout is often associated with the success of new parties such as AERPs, we do not believe it is satisfactorily possible to distinguish cause and effect. Careful examination of cases also let us to reconsider our early hypothesis regarding the role radical parties as competitors AERPs.

Most electorally significant radical parties in CEE, we noted, are on the radical right, with radical left groups tending to be wholly marginal.[23] However, more significantly we

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[20] Data from the Quality of Government dataset. For three elections in 1997 and 1998, change in corruption could not be calculated as CPI scores were not available in previous years. There is evidence from World Bank global governance indicators that at the time, Poland and Hungary were experiencing substantial reductions in corruption levels (~INCCORR = 0.01) while Latvia was undergoing a modest decline in perceived corruption (0.33).

[21] Data in CPI reports is usually gathered in the year preceding the headline year it is reported (e.g. the data reported in the CPI 2010 report was predominantly gathered in 2009). We have therefore applied the CPI score for the year preceding the headline year.

[22] As in a number of cases the CPI score did not change, we follow the same logic as with unemployment change earlier. We argue that the CPI score needs to be decrease slightly before an actual improvement in corruption levels is registered among voters.

[23] The one significant exception is the Communist Party of Bohemia and Moravia (KSČM) in elections in the Czech Republic, whose support is in the 15-20per cent range.

observed that – contrary to the some media coverage – most radical right parties in CEE appear to be essentially niche groupings with a limited ability to expand their electoral support, whose political and electoral heyday was in 1990s.[24]

The existence of a *history of support for genuinely new parties (HGENP)* – is relevant to all party systems across the CEE region. Voters in many states with more fluid, less consolidated party systems such as have acquired a greater habit of voting for new parties as a result of weak or absent bonds with established parties or weaker expectation that established parties will remain established. However, there are uneven levels of party and party system consolidation and stability and electoral volatility across the CEE region (Powell & Tucker 2013). Therefore, we hypothesize that where there is a history of support for genuinely new parties, it reflects a presence of a significant pool of voters "available" to new parties, many of whom will perceive an emerging AERP as a credible challenger.[25]

To operationalize this condition we took the maximum support for genuinely new parties in the previous two elections.[26] A case is a full member of this condition (set membership = 1.0) if the combined support for genuinely new parties was 30 per cent or more in an election – enough to generate one new major party or a number of more minor breakthroughs. A case is fully out of this set only if no genuinely new party won votes in this period. The crossover point is set at 19 per cent –substantial support for one genuinely new parties or more modest support for a range of less successful new parties.

EMPIRICAL ANALYSIS

We analysed the outcome BREAKTHRU in terms of five socio-political conditions experienced by voters assumed to be relevant to an electoral breakthrough by an anti-establishment reform party: level and growth of perceived corruption (HICORR and INCCORR); growth in unemployment (INCUNEMP); economic contraction (NOGRO)and the previous success of new parties (HGENP).[27]

In line with good practice in fsQCA (Schneider & Wagemann 2010), we first tested all conditions to see if any of them (or any combination of them) could be regarded as a necessary cause, which would be required for any as BREAKTHRU to occur. In line with expectations, we found that none of the conditions could be regarded as such. The two conditions which came closest to being necessary were rising corruption (INCORR) and rising unemployment (INCUNEMP). However, their consistency scores of 0.721 and 0.622 respectively place them far below what is required for causal necessity.[28]

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[24] The cases where radical right parties or social populists did appear as dynamic competitors – Self-Defence and the League of Polish Families in 2001; Jobbik in Hungary in 2010; the radical nationalist bloc in Latvia in 2011 and the party of former Lithuanian president Paksas – were too few in number to justify the retention of this condition. Unlike many (Western European) studies of comparative party success, we also omit any condition relating to electoral systems. There is limited electoral system variation across CEE: most states in the region use list based PR with formal national thresholds of 4-5 per cent or mixed electoral systems with a list PR element.

[25] Our measure of support for new parties broadly corresponds to what others term Type B or Extra-System volatility (Mainwaring et al 2009; Powell and Tucker 2013).

[26] We use the definition of genuinely new parties proposed by Sikk (2005). We were able to collect sufficient data to count all genuinely new parties with at least 0.5 per cent of electoral support.

[27] For all QCA analysis we used the R module QCA (Dusa & Thiem, A. 2012).

[28] Schneider & Wagemann (2012: 330) define a condition as causally necessary if across all cases set membership in it is greater than or equal to each case's membership in the outcome. A consistency score of 0.9 is widely seen as minimum level at which a condition might plausibly be regarded as necessary.

This highlights that none of the (implicitly) mono-causal explanations advanced by commentators for the breakthroughs of AERP-type parties are satisfactory. Even when look simply for causal *necessity* rather than causal *sufficiency* – that is we allow that some additional factors are required for such breakthroughs – such blanket explanations are weak. AERPs thus cannot be adequately accounted by encompassing narratives typically used to frame them: popular reactions to economic hard times or the bubbling up of anti-political, anti-corruption sentiments and the crisis of democratic governance.

Seeking sufficient paths to AERP breakthrough

We then generated a 'truth table' which shows the extent to which cases of AERPs breakthrough are consistent with each of 32 possible combinations of conditions (see Appendix). Cases are listed in the causal combination with which they are most consistent. Rows where no empirical cases are listed are 'logical remainders': counter-factual cases which can be partially incorporated into some fsQCA solutions (see discussion below).

As is clear from visual examination of the truth table, there is a large natural gap between cases of breakthrough - the least consistent of which has a consistency score of 0.707 - and cases where there was no AERP breakthrough.[29] None of these negative cases had a set membership of more than 0.444 in any of the possible causal combinations (Czech Republic 2006).[30]

These set memberships in causal combinations were logically minimized using the R QCA package to produce a reduced number of causal pathway. In line with normal fsQCA practice we generated three variant solutions: a *conservative (complex) solution* produced using only empirically-occurring cases; a *parsimonious solution* incorporating all logical remainders; and an *intermediate solution*, which incorporates some but not all logical remainders into the analysis, choosing only 'easy counterfactuals' on the basis of clearly assumptions about the directional effects that conditions would have in counter-factual cases.

To determine which causal configurations should be classified as leading to BREAKTHRU we set a consistency cut-off at 0.78 to reflecting the natural gap in the distribution of cases. This is slightly below the widely used cut-off of 0.8, but comfortably above the 0.75 minimum recommended in the literature (Rihoux & Ragin 2009: 87-112; Schneider & Wagemann 2012: 279)

Minimising only the empirically existing cases of AERP breakthrough and non-breakthrough we generated a conservative solution with a high level of consistency (0.85) with a relatively broad coverage (0.79). This solution identified five sufficient causal paths for AERP breakthrough. Expressed in fsQCA notation, the paths and the cases they cover appear as follows:

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[29] The PRI (proportional reduction of inconsistency) is additional measure intended to address the issue of rows that might be consistent with both the outcome *and* its negation (Schneider & Wagemann (2012: 242-44). There is no agreed approach for addressing this issue in fsQCA. However, our calculation of the so-called PRODUCT using PRI and consistency score suggest that given the consistency cut-offs we have used none of the outcomes was mis-specified.

[30] There is poorly fitting cases AERP breakthrough (Poland 2011) has a low consistency. We discuss this case more fully in our discussion of the logically minimized solutions.

~NOGRO*INCCORR*HGENP +	C1: BGR09 LTU04 LTU08 LTU12 LVA02 SVK10 SVK12
~NOGRO* INCCORR *~INCUNEMP*~HICORR +	C2 : EST03, LTU04, LTU12
~NOGRO*INCUNEMP*HICORR*~HGENP +	C3 : BGR01 LTU00 POL01 SVK02
NOGRO* INCCORR * ~HGENP * INCUNEMP* ~HICORR	C4 : CZE10, HUN10, SLN11
NOGRO *INCCORR * ~HGENP *~INCUNEMP *HICORR +	C5 : LVA11
→ BREAKTHRU	

As often occurs in fsQCA some cases have membership in more than one path, suggesting that in these elections overlapping causal processes were at work.

Expressed in more natural language, the paths state that AERP breakthrough takes place in five sets of circumstances, three of which (paths C1-C3) [31] entail relatively good economic times (~*NOGRO*),two of which occur during periods of economic contraction (*NOGRO*).

In untroubled economic times, AERP breakthroughs occur when there is increasing corruption and a relatively unstable party system (path C1); when there low but increasing corruption and declining unemployment (path C2); or when unemployment rises in the context of high corruption (path C3).

In periods of economic contraction, AERPs will break through when there is a *stable* party system combined with low but increasing corruption and increasing unemployment (path C4) or high and increasing corruption, but falling unemployment (path C5).

Conservative solutions are often quite complex and difficult to interpret. However, a number of patterns are immediately striking: first, contrary to the view of AERPs as 'crisis parties' in CEE *AERPs are not purely – or even mainly – products of economic contraction*. Three of the five paths to AERP breakthrough, covering 12 cases (combined unique coverage 0.362), take place in a context of economic growth. Conversely, paths C4 and C5 which feature elections taking place against a backdrop of economic contraction –cover only four cases (combined unique coverage 0.19).

Second, there to be at least *one distinct sub-regional path*. Path C4 features only elections in three recession-hit Visegrad states with previously stable party systems: Hungary in 2010, the Czech Republic in 2010 and Slovenia in 2011. Paths C1-C3, by contrast, cover the Baltic states, Slovakia and Bulgaria where AERP-type parties were first identified (Účen 2007; Sikk 2006).

Path 5 covers only in 2011 in *Latvia, which appears to a special case* given its unusual combination of economic conditions: falling unemployment against a backdrop of economic contraction   (NOGRO*~INCUNEMP). This reflects Latvia's distinct experience of an exceptionally deep and sudden recession followed by rapid recovery[32] and a very high level of exit from the labour force, mainly due to emigration.[33]

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[31] Letter "C" in path numbers indicates that these are paths from the conservative solution. Below we use the same notation for intermediate (I) and parsimonious (P) solutions as well as the parsimonious solution for negation (PN). The full outputs for all solutions can be found in the appendix to this paper.

[32] At the time of the election, growth had resumed

[33] Paul Krugman 'Latvia and the Romney Record', New York Times, 11 June 2012. http://krugman.blogs.nytimes.com/ 2012/06/11/latvia-and-the-romney-record/ (accessed 11 July 2013).

Third, it appears that *both party system stability and party system instability can contribute to AERP breakthrough* in different economic and social contexts. This runs contrary to much literature on party and party system, which usually suggest in a somewhat undifferentiated way that, once established, stability tends to endure 'locking in' through processes of institutionalisation (Mainwaring and Torcal 2006).

Crafting an intermediate solution

Before attempting to draw firmer specific conclusions, however, it is necessary to refine our solution by, if we can, identifying simpler consistent paths sufficient for AERP breakthrough. fsQCA allows us to do this by incorporating counter-factual cases (logically possible combinations of conditions with no matching real life case) into our analysis. We can do so either by including all such 'logical remainders' in the minimisation process (creating a highly parsimonious solution) or by incorporating only 'logical remainders' which appear to be 'good counterfactuals' that are (a) empirically possible, (b) do not contradict assumptions made elsewhere in the process of analysis and (c) are theoretically justified (Schneider & Wagemann 2012: 168-175,199).[34] Such 'intermediate solutions' are often the preferred focus for fsQCA researchers as they are typically simpler and more elegant than conservative solutions without being reliant on large numbers of counterfactuals.

We argue that no combination of conditions included in the analysis is impossible; recession coupled with decreasing unemployment is perhaps unlikely, but we contend that it can occur (see discussion on *recession with a social safety valve*) does not qualify as the proverbial "pregnant man" situation (Schneider & Wagemann 2012: 207-9).

Finally, contradictions between conditions of necessity and sufficiency are also not possible as we did not previously detect any necessary conditions. We identified three 'contradictory assumptions' – combinations of conditions which in standard analysis would have produced both the positive outcome (BREAKTHRU) and its negation (~BREAKTRHU). Thereafter, we explicitly specified whether they should lead to BREAKTHRU or ~BREAKTHRU.[35]

Researchers' decisions about the 'directionality' are often guided by findings in the established literature. However, for theory-building in the absence of a large literature, such expectations must be derived from case knowledge and close examination of the conservative solutions.

Examining the conservative solution, we were struck by the fact that only one condition, increasing corruption (INCORR), was present in only positive form. All the others appear in different paths in both positive and negative form – that is they appear to work differently in different context. Were these simply artefacts resulting from the limited number of cases examined in the conservative solution or could they plausibly be explained in theoretical terms?

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[34] The first two are relevant for both intermediate and parsimonious solutions, theoretically justified directional expectations are only used for intermediate solutions.

[35] Using the technique proposed by Duşa & Thiem (2013: 77-78) in R, we found three CSAs: ~NOGRO*INCUNEMP*HICORR*~INCCORR*HGENP (truth table row 14), NOGRO*~INCUNEMP*~HICORR*~INCCORR*~HGENP (row 17), NOGRO*INCUNEMP*~HICORR*~INCCORR*~HGENP (row 25). All solutions reported here are calculated with CSAs eliminated (outcome manually recoded in the truth table in R), based on expectation that the first combination leads to an AERP breakthrough the last two no breakthrough.

After reflection we concluded that all four conditions other than INCORR could plausibly be interpreted as contributing to AERP breakthroughs in either positive or negative form depending on the wider configuration of causes. Thus while unstable party systems might provide opportunities to for new parties, stable party systems might in some contexts do the same so if they had become rigid, unresponsive or oligarchical.

Rising unemployment and economic contraction might, as we initially anticipated, drive electoral discontent with establishment parties. However, turning to the cases in path C2 (Estonia 2003, Lithuania 2004, Lithuania 2008, Lithuania 2012) we judged that it might be plausible in some contexts that falling unemployment and a buoyant economy could provide a cue for voters to turn away from economic issues and focus on questions of corruption or governance – thus opening up opportunities for AERPs.

High corruption might understandably favour new anti-establishment parties in many contexts. However, low corruption too we concluded could plausibly be interpreted as sometimes combining to create circumstances favour AERP breakthrough. Rapidly increasing perceived corruption in a relatively low corruption environment – a configuration (INCCORR *~HICORR) which appears in two of our paths (C2, C4) - might have an especially shocking and mobilisatory effect.

The intermediate solution generated produced five sufficient paths.

~NOGRO*INCUNEMP*HICORR	I1: BGR01, BGR09,LTU00, POL01, SVK02, SVK10, SVK12
~NOGRO*INCCORR*HGENP	I2: BGR09,LTU04, LTU08, LTU12,LVA02, SVK10, SVK12
~NOGRO*~INCUNEMP*~HICORR*INCCORR	I3 : EST03, LTU04, LTU12
NOGRO*INCUNEMP*INCCORR*~HGENP	I4 : CZE10, HUN10, SVN11
NOGRO*HICORR*INCCORR*~HGENP	I5 : LVA11

→ BREAKTHRU

These broadly resemble those of the conservative solution above confirming the validity of the general insights noted above.[36] However, examined more closely they also enable us to identify five distinct contexts favourable to AERP breakthrough:

*I1. Corrupt socially painful growth (~NOGRO*INCUNEMP*HICORR)*

This scenario sees rising unemployment (INCUNEMP) combine with economic growth (~NOGRO) and a background of high perceived corruption (HICORR). This corresponds to a context of apparently successful economic reform or restructuring, whose costs and benefits are, nevertheless, perceived as unjustly distributed both because of the (inevitably) disproportionate impact of unemployment and high levels of perceived corruption. It an experience largely characteristic of phase of post-communist reform for some states shortly before the EU accession in 2000-2 (Lithuania 2000, Poland 2001, Slovakia 2002) as well as of Slovakia in 2010 and 2012 as it recovered from 2008-9 recession.

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[36] Running an analysis which set positive directional expectations for all conditions - in line with our initial expectations - produced two intermediate solutions. As can be seen in the appendix, one was identical to intermediate solution reported over and the second was very similar. The main difference was that it grouped most Central European cases together in a row containing the INCUNEMP condition.

I2. Growth but increasing corruption in an unstable party system
(~NOGRO*INCCORR*HGENP)

This path shows that a context of economic growth (~NOGRO) increasing corruption combined with an unstable party system (a history of successful new parties) (INCCORR*HGENP) will favour AERP breakthrough. The configuration suggests that even where the economy is growing if corruption is also increasing voters will turn to AERPs in large numbers when there is already a tradition voting for new parties – or, as it may also be interpreted, where previously established parties have been weakened by earlier episodes of new party success.

I3. Low and rising corruption in economic good times
(~NOGRO*~INCUNEMP*~HICORR*INCCORR)

Like the first intermediate path (I1), the third intermediate path, which covers three elections in Baltic states (Estonia 2003, Lithuania 2004, Lithuania 2012) also highlights the way in which corruption can interact with a seemingly benign socio-economic climate. In these cases a favourable context for AERP breakthrough is created by rising levels of corruption in the context of low overall corruption and a buoyant economy with both growth and falling unemployment (~NOGRO*~INCUNEMP). Increases in perceived corruption in a relatively low corruption environment have a galvanising effect, while improvement in the economy allows (some) voters to refocus on issues of corruption and governance.

I4. Recession and rising corruption in rigid party systems
(NOGRO*INCUNEMP*INCCORR*~HGENP)

The stable Czech, Hungarian and Slovene party systems were generally resistant to AERP breakthroughs until the first elections following the 2008-9 recession. At this point, a configuration of recession (NOGRO*INCUNEMP), rising perceived corruption (INCCORR) and the previous stability of the established party system (~HGENP) combined to create favourably conditions for AERP breakthrough. In all three cases the inability of (some or all) long established parties credibly to respond to economic crisis and their de-legitimation by growing concerns with corruption and dishonesty prepared the ground for an AERP breakthrough.[37] Strikingly, in this configuration in a context of recession it is party *stability* rather than party system fluidity that contributed to AERP breakthrough:[38] long established parties appeared ossified, corrupt, out-of-touch and an obstacle to the solution both of urgent social and economic problems and longer term modernisation (Batory 2010; Haughton, Novotná & Deegan-Krause 2011; Haughton & Krašovec 2011).[39]

I5. Latvia's way? NOGRO*HICORR*INCCORR*~HGENP

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[37] In Hungary 2010 the far-right party Jobbik also made a breakthrough, although we do not classify this grouping as an AERP because of its traditional radical-right politics.
[38] Indeed as our below of analysis of paths leading to the non-occurrence of AERP breakthrough (the negation of the solution) below suggest, stable party systems do little to prevent AERP breakthrough.
[39] In these three elections, Hungary's Fidesz was the only established party to make major gains.

As in our initial, conservative solution the breakthrough of the Zatlers Reform Party in Latvia's 2011 election appears unique case represented by its own a distinct causal path, albeit one close to in some ways to the *recession and rising corruption in rigid party systems* path experienced by some Visegrad states (path I4). Economic contraction (NOGRO) was combined with an increasingly stable, but oligarchical party establishment. In Latvia in 2011, however, the economic context was characterised only a background of economic contraction (NOGRO) without rising unemployment, given an unusually sharp and deep recession and mass emigration. Latvia's path to AERP breakthrough is also characterised by high and increasing perceived corruption (HICORR*INCORR), rather than merely increasing corruption as in path I4.

DISCUSSION

Economics versus corruption?

Overall, however, the solution shows high levels of consistency (0.85) and coverage (0.81) and the paths can be interpreted in ways which plausibly fit with case knowledge. The solution also demonstrates that there are multiple paths to the electoral breakthrough of new anti-establishment reformers in CEE, each of which combines economic, social and party-political conditions in different way. Blanket, mono-causal assumptions about the impacts of economic contraction (or growth); low and high levels of corruption; or previous party system (in)stability therefore need to be set aside.

The solution can – and should - however be interpreted further. In keeping with much recent commentary about the role of austerity in bringing to a head the crisis of European party democracy (Krastev 2013; Van Biezen & Wallace 2013), we have framed our analysis in terms of sets of contrasting socio-economic conditions qualified by different patterns of corruption. This has yielded valuable insights, mostly notably the counter-intuitive finding that more AERPs in CEE broke through in conditions of economic *growth* than of economic contraction.

However, the sufficient five paths of our intermediate solution can be viewed somewhat differently: given that rising corruption (INCORR) is present in four of the five paths, the solution can simplified as:

$$
\text{INCCORR} * \begin{cases} \text{NOGRO} * \sim\text{HGENP} * \begin{cases} \text{HICORR} & (I5) \\ \text{INCUNEMP} & (I4) \end{cases} \\ \sim\text{NOGRO} * \begin{cases} \text{HGENP} & (I2) \\ \sim\text{HICORR} * \sim\text{INCUNEMP} & (I3) \end{cases} \end{cases}
$$

$$
\text{INCUNEMP} * \text{HICORR} * \sim\text{NOGRO} \qquad (I1)
$$

This presents a somewhat different story about the broad and deleterious effects of *rising corruption* as the most common driver of AERP breakthrough, albeit one which is refracted through varying sets of economic and party-political circumstances. This emerges most clearly if we turn to the most minimised *parsimonious* form of the solution:

$$\text{INCCORR} * \begin{cases} \text{NOGRO} * \sim\text{HGENP} \\ \sim\text{NOGRO} * \begin{cases} \text{HGENP} \\ \sim\text{HICORR} \end{cases} \end{cases}$$

$$\text{INCUNEMP} * \text{HICORR} * \sim\text{NOGRO}$$

The importance of INCORR – and the presence in all paths of at least one condition relating to corruption – lends qualified support to perspectives which stress the importance of governance structures and citizen-politician relationships. However it leaves open the question of just how they matter. The pattern uncovered could be interpreted as suggesting that AERP breakthroughs will be confined to regions with weak, corrupt or corruptible institutions such as Eastern or Southern Europe. If, however, we see changes in *perceived* corruption as relatively independent of the performance of institutions and elites – perhaps as an expression of anti-political sentiments rooted in a deeper malaise of representative democracy (Mair 2006) – then AERPs may potentially become a more widespread phenomenon.

The parsimonious solution also sharply poses a number of questions about how we should understand parties and party systems. Stable party systems appear a somewhat mercurial phenomenon that can in certain circumstances 'tip' into contributing to its own demise: when established parties fail to deliver growth *and* perceptions of corruption, many voters who may previously have tolerated their failings turn against them as oligarchical 'dinosaurs'. This should prompt to ask if, and under what circumstances, stable party system help block the emergence of AERPs - a point we return to below in the discussion on negation of the solution.

Spirals of instability? The sequencing of AERP breakthroughs

fsQCA is not highly attuned to temporal patterns (Rihoux & Ragin 2009). However, our use of individual elections as cases allows not only to compare across contexts and countries, but also to look across the paths to detect possible patterns of sequencing. Arguments about the unfolding of party system dynamics across time are coming to play an important role in debates about the development of party-based democracy in CEE (see, for example Pop-Eleches 2010 or Mair & Casal Bértoa 2012).

Kevin Deegan-Krause (2007; see also Deegan Krause & Haughton 2010) has argued that CEE party systems will experience repeated breakthroughs by new anti-establishment parties using anti-corruption issues to mobilise voters. The initial breakthrough of a new party, he suggests, creates favourable conditions for subsequent (bigger) breakthroughs by other, newer anti-establishment parties. Successful (but usually short-lived) new anti-establishment parties not only weaken their establishment competitors, but coalition government weaker and less effective, preparing the ground for new anti-establishment parties to take the field. This raises the prospect that (some) CEE democracies are entering an accelerating spiral of protest, instability and weak governance.

In our work on AERPs we find some confirmation for this thesis, albeit to a very limited degree. Many states in the region do not experience successive or repeated AERP breakthroughs, but some do. The pattern suggested by Deegan-Krause suggested appears

most clear in the case of Lithuania, which experienced AERP breakthroughs in every 'third generation' election in our sample. Latvia (1998, 2002) and Slovakia (2010, 2012) also saw AERP breakthroughs at successive elections, while Bulgaria had two quite closely AERP breakthroughs (2001 and 2009). There is, however, limited evidence of any process of 'increasing returns' of the type envisaged by Deegan-Krause.[40] There are two very major AERP breakthroughs in Bulgaria, which can be linked: the collapse of the Simeon II Movement, which disrupted the established party system by breaking through in 2001, arguably prepared the ground for the emergence of GERB in 2009. However, breakthroughs by AERPs in Lithuania have become more limited over time, while the 2012 breakthrough by Ordinary People (OLaNO) in Slovakia was on a similar small scale to that of Freedom and Solidarity (SaS) in 2010.

Moreover, our (intermediate) solution suggests a potential insight into the sequencing of the *paths* to leading to repeated AERP breakthroughs. Most instances of multiple AERP breakthroughs in the same state are covered by two of the five paths: path I1 and path I2. The two partly overlap, covering Bulgaria 2009, Slovakia 2010 and Slovakia 2012.) - where converging causal processes appear to have been at work. However, *initial* AERP breakthroughs in such states (Lithuania 2000, Bulgaria 2001, Poland 2001, Slovakia 2002) are covered by only one path, I1 *corrupt socially painful growth*.

By contrast, all of the cases covered by path I2 - *growth with increasing corruption in an unstable party system* – are repeat AERP breakthroughs.[41] This suggests that *corrupt socially painful growth* provides a context for initial AERP breakthrough while rising corruption regardless of changes in unemployment in the (now) unstable party system provides the context for further episodes. This pattern is especially marked in Lithuania where initial AERP breakthrough (by the New Union in 2000) is covered only by the first path (1), while all subsequent breakthroughs in Lithuania are covered by path the second (I2).[42] One potential causal mechanism that may be at work in path I2 (and I3) is that, faced with high levels of instability and uncertainty in a context of growth, incumbents may paradoxically have an incentive to pursue unaccountable (corrupt) policies, setting the scene for the emergence of new anti-corruption parties (for a parallel argument see Sikk 2006: 154-55).

As might be expected when the neat social science logic meets noisy empirical data, there are some of unexplained or incompletely explained cases. The cases of AERP breakthrough which appear in the lower half of the top right quadrant of **figure 1** were much more limited than the highly favourable conditions would imply. The cases in question (Poland 2001, Hungary 2010, Slovakia 2012, Lithuania 2012), which are members of thee different causal pathways, will require following up more fully in post-QCA case comparison (Schneider & Wagemann 2012: 305-310). However, as an initial point of departure we would note that both in Poland 2001 and Hungary 2010 the presence of strong new, social populist and/or radical right parties appears to have dampened AERP success.[43]

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[40] Deegan-Krause, it should be stressed, does not hypothesise a direct election-to-election spiral, but suggests that the mean and/or median age of parties (weighed for representation) will tend to decrease over time.

[41] Latvia 2002 appears an exception because, as discussed below, the minor breakthrough of the New Party in Latvia in 1998 is one of two cases that none of our five paths can account for.

[42] Lithuania 2004 and 2012 are also covered by path I3, but have higher membership in path I2.

[43] In Poland 2001 Self-Defence (SO0 (10.2%) and the League of Polish Families (LPR) (7.9%), in Hungary 2010 Jobbik (16.1%). As noted above, in earlier iterations of this analysis, we considered the inclusion of a further condition RADICAL.

Figure 1: Membership in BREAKTRHU plotted against membership of intermediate solution
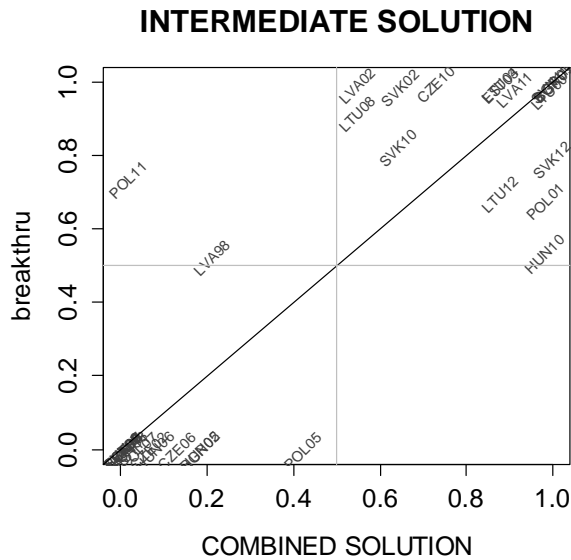
There are two cases of AERP breakthrough that are not explained by our solution set. The most prominent of these is the breakthrough of the Palikot Movement (RP) which polled 10 per cent in Poland's 2011 election. Although clearly an AERP of mainly 'new faces' with an anti-establishment message including a strong agenda for political reform, the configuration of conditions in Poland in 2011 (~HICORR*~INCCORR*~HGENP) – growing unemployment, but economic growth and low and falling corruption – should have relegated the RP to marginality.[44] Indeed, the Polish context 2011 falls squarely into one the distinct paths otherwise leading to the failure of AERP breakthrough: the so-called negation of the solution.

Paths to AERP non-breakthrough - the negation of the solution

It is axiomatic in QCA that the causal paths leading to the *absence* of the outcome condition – in this study the absence of an AERP breakthrough – will almost never be simply the inverse of causal path leading to the outcome. Such causal asymmetry, as it is termed, makes it good practice to run separate analysis of this absence, the negation) of the outcome. In our research there are, moreover, potentially strong normative and/or policy-related reasons for taking an interest in the negation of the solution: the eruption of AERPs is widely seen as negative phenomenon, which threatens the functionality and effectiveness of democratic and risks to creation of a spiral of ungovernability.[45] Asking which socio-economic and political pathways lead AERPs *not* to break through in effect asks under what conditions established parties in CEE can endure (and potentially renew themselves)

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[44] The success of the RP may be attributed to exceptional strength of secular-religious divisions and 'culture wars' in Poland, which were strongly exploited by the anti-clerical, socially liberal RP in its election campaign (Szczerbiak 2011). The (more limited) success of the New Party in Latvia in 1998 cannot be explained by any of the five sufficient causal paths.

[45] We do not ourselves adopt any normative position on the issue, which is beyond the scope of this paper.

Accordingly, we ran fsQCA analyses on the negation of the solution (~BREAKTHRU) producing conservative, intermediate and parsimonious solutions.[46] Unsurprisingly, given the negative nature of the outcome which corresponds empirically to the success of a diverse range of non-AERP parties, the conservative and intermediate solutions for the negation, were complex. Although consistency levels are similar, for the same reason levels of coverage for negative solutions are also lower. In interpreting the paths blocking AERP breakthrough, we therefore focus on the parsimonious solution which offers are limited number of key causal configuration and somewhat higher coverage.[47]

The parsimonious solution generated (based on consistency cut-off of 0.77 in the truth table; solution consistency 0.86, coverage 0.71) can be summarised algebraically as follows:

	~HICORR	PN1	EST99, HU98, HU06, POL97, POL11, SLN08, HUN02, EE07
~INCORR *{			
	~INCUNEMP * HGENP	PN2	BLG05, EST07, LVA06, SLK06
	NOGRO * HGENP	PN3	EST11, LVA10
	→ ~AERP		

Expressed in more naturally language, the solutions state that AERPs fail to breakthrough in three contexts: *low and falling perceived corruption* (P1); or *falling perceived corruption and decreasing unemployment in an unstable party system* (P2); or *economic contraction in an unstable party system* (P3).

PN1 which covers elections in Central European cases and Estonia, confirms the importance of corruption to the AERP phenomenon, suggesting that where corruption is seen as low and reducing established parties often face no strong AERP challenge. PN2 which combines falling corruption (~INCORR) and decreasing unemployment (~INCUNEMP) tells a broadly similar story, but also includes the condition HGENP (a history of new party success). This can be explained as *AERP fatigue*. All four cases on path PN" were preceded by a significant AERP breakthrough in the previous election, which saw the successful assume government office (Res Public in Estonia. New Era in Latvia. the Simeon II Movement in Bulgaria; and the Alliance of the New Citizen in Slovakia). Overall PN2 suggests improving employment and corruption conditions combine with *AERP fatigue* to promote a turn (back) to more established parties.[48]

It is tempting therefore to conclude that established politicians in CEE seeking to counter the rise of AERPs should focus on managing perceptions of corruption- if they can picking their moment to coincide with good employment conditions or the problems successful anti-establishment parties may experience in office. However, it should be noted, many cases of AERP non-breakthrough cannot be consistently explained by our solution for negation. These include elections in Poland in 2005, in the Czech Republic in 2002 and 2006, in Poland in 2007 .

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[46] When crafting the negative intermediate solution, paralleling our assumptions for the positive solutions, we included directional for only condition: that decreasing corruption (~INCORR) would lead to the failure of AERP breakthrough (~BREAKTHRU). Contradictory simplifying assumptions were resolved as outlined above.

[47] Both conservative and intermediate solutions for negation are reproduced in the appendix.

[48] This interpretation holds partially for the election in Slovakia in 2006, where the largest gains were made by SMER. Although we classify SMER as an AERP in 2002, we view it has having transformed into a more conventional centre-left social-democratic party by 2006. The far-right also (re)gained support.

The third path (PN3) *economic contraction in an unstable party system* (NOGRO*HGENP), which covers Latvia in 2010 and Estonia in 2011, presents more difficulties of interpretation. However, it could read as showing that voters in unstable party systems lose a taste for political novelty in or shortly after economic contraction.

Although in fsQCA solutions for the negation should not simply be regarded as the inverse of positive solution, in this instance it is striking that path (PN3) mirrors our earlier findings that one route to AERP breakthrough was characterised by *economic contraction in a stable party system*. Moreover, party system stability (~HGENP) does not appear in any of the pathways of the intermediate or parsimonious solutions for negation.[49] Taken together this raises the possibility that the stability of even apparently more institutionalised, 'closed' party systems in CEE was the product of a conjuncture of economic and governance (corruption) conditions, rather than the self-sustaining process of institutional anchoring sometimes envisaged in literature. Such question, however, fall outside the main empirical issues addressed by this paper.

CONCLUSIONS

Our findings in this study provide a broadly consistent explanation for the political breakthroughs achieved in Central and Eastern Europe since 1999 by a group of parties that we term anti-establishment reform parties and others call 'centrist populist'. This suggests that – at least in broad terms – that *the grouping has a degree of coherence and should be regarded as more than ragbag, residual category of otherwise hard-to-label protest parties*. Our study clearly suggests that further comparative and conceptual work on this group of parties is justified.

At the same time our work suggests that any attempt to find broad mono-causal explanations for the rise of new anti-establishment parties in CEE – and by extension in Europe generally – is misconceived. We identify five sufficient causal paths which, although sometimes overlapping, are generally distinct and suggest some *clear patterns of cross-national and cross-temporal variation*. Our findings also suggest that early debates (implicitly) framing the rise of new anti-establishment parties as reflecting *either* a crisis of politics and dysfunctional/corrupt governance *or* the impact of recession, austerity and hard times are misplaced. We find that paths to AERP breakthrough are invariably characterised by *combinations of conditions relating to corruption, economics and party system dynamics*. Debates we suggest therefore need to be explicitly re-framed in terms of configurations of causes centring on the *relationship(s)* between economics, corruption and governance and party systems.

Finally, our research highlights such relationships can often be counter-intuitive: in CEE anti-establishment reform parties more often *broken through in economic good times* than bad; *party system stability is many circumstances to be more favourable for AERP breakthrough* than party system fluidity; *changes in perceived corruption often matter more than levels* of perceived corruption, with rising corruption in a low corruption environment notably effective in mobilizing voters behind anti-establishment reformers.

Our work in this paper adds to a small but growing body of work on the new phenomenon of reformist anti-establishment parties, rather than parties of the radical right or

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[49] It does, however, appear in one of the four paths of the conservative solution for negation (Bulgaria 2005, Latvia, Slovakia 2006, Estonia 2007) See appendix for details.

radical/libertarian, which have dominated the literature on new parties and 'populist' phenomena in European politics. It represents, we believe, one of the most systematic and robust comparisons of the topic so far undertaken. We would, however, stress that we see our findings as an early contribution to an emerging field with much scope for further development and refinement.[50]

REFERENCES

Abedi, A. (2004). *Anti-Political Establishment Parties: a Comparative analysis*. London: Routledge.

Amenta, E. & Poulsen, J.D., 1994. Where to Begin A Survey of Five Approaches to Selecting Independent Variables for Qualitative Comparative Analysis. Sociological Methods & Research, 23(1), pp.22–53.

Bågenholm, A. & Heinö, A.J. (2010). Do anti-corruption parties matter? Paper presented at the Quality of Government conference, Prague, 13-16 December.

Barany, Z.D. (2002). Bulgaria's Royal Elections. *Journal of Democracy*, 13(2): 141-155.

Bartels, L. (2013) 'Elections in hard times'. Juncture. 16 May Online http://www.ippr.org/juncture/171/9124/elections-in-hard-times (accessed 18 July 2013).

Batory, A. (2010) Europe and the Hungarian Parliamentary Election of April 2010. EPERN Election Briefing No. 51 https://www.sussex.ac.uk/webteam/gateway/file.php?name=epern-election-briefing-no-51.pdf&site=266 (accessed 17 July 2013).

Bohle, D. & Greskovits, B. (2009). East-Central Europe's Quandary. *Journal of Democracy*, 20(4): 50-63.

Cramme. O (2013) *Politics in the Austerity State*. London. Policy Network. Online http://www.policy-network.net/publications/4438/Politics-in-the-Austerity-State (accessed 18 July 2013)

Deegan-Krause, K. (2007). Populism and the Logic of Party Rotation in Postcommunist Europe. In O. Gyárfášová & G. Mesežnikov (eds), Visegrad Elections: Domestic Impact and European Consequences. Bratislava: Institute for Public Affairs (IVO).

Deegan-Krause, K. (2010). Czech Dashboard News: New parties and the big picture. 22 May. Online at http://www.pozorblog.com/2010/06/czech-election-update-time-for-the-bigger-picture/ (accessed 15 September 2011).

Deegan-Krause, K. & Haughton, T. (2009). Toward a More Useful Conceptualization of Populism: Types and Degrees of Populist Appeals in the Case of Slovakia. Politics & Policy 37(4): 821-841.

Demker, M. (2008). A New Era of Party Politics in a Globalised World: The Concept of the 'Virtue Party'. Quality of Government Working Paper No. 2008:20, Quality of Government Institute, Gothenburg. Online at http://www.qog.pol.gu.se/working_papers/2008_20_Demker.pdf (accessed 20 January 2010).

Dușa, A. & Thiem, A. (2012). QCA: Qualitative Comparative Analysis. R Package Version 1.0-5.

Gherghina, S. & Jiglau, G. (2011). Explaining Ethnic Mobilisation in Post-Communist Countries Europe-Asia Studies. Europe-Asia Studies 63(1): 49-76.

Hanley, S. (2011). Explaining the Success of Pensioners' Parties: A Qualitative-Comparative Analysis of 31 European Democracies. In A. Goerres & P. Vanhyusse (eds), *Generational Politics and Policies.* London and New York: Routledge, chapter 2.

Hartleb, F., 2013. Anti-elitist cyber parties? Journal of Public Affairs, electronic pre-publication 13 July.

Haughton, T & Krašovec, A (2011) Europe and the Parliamentary Elections in Slovenia December 2011. EPERN Election Briefing No. 69. https://www.sussex.ac.uk/webteam/gateway/file.php?name=epern-election-briefing-no-69.pdf&site=266 (accessed 17 July 2013).

Haughton, T., Novotná, T. & Deegan-Krause, K. (2011). The 2010 Czech and Slovak Parliamentary Elections: Red Cards to the "Winners". *West European Politics*, 34(2), 394-402

Jordan, M. (2010). The Roots of Hate. World Policy Journal 27(3): 99-111.

Kaldor, M. & Selchow, S., 2013. The 'bubbling up' of subterranean politics in Europe. Journal of civil society, 9(1), pp.78–99.

Krastev, I (2013) 'Bulgaria's Revolt Against Consensus', Project Syndicate, 13 March http://www.project-syndicate.org/commentary/why-bulgarians-are-losing-faith-in-democratic-institutions-by-ivan-krastev (accessed 17 July)

Mair, P., 2006. Ruling the void: The hollowing of western democracy. *New Left Review*, 42, pp.25–51.

Mainwaring, S., España, A. & Gervasoni, C. (2009). Extra System Electoral Volatility and the Vote Share of Young Parties. Paper for the annual meeting of the Canadian Political Science Association, 28 May.

Mainwaring, S. & Torcal, M., (2006). Party system institutionalization and party system theory after the third wave of democratization. In R. S. Katz & W. J. Crotty, eds. *Handbook of Party Politics*. London and Thousands Oaks, CA: Sage Publications, pp. 204–27.

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[50] For example, through post-QCA case study comparison of the type recommended by Schneider and Wagemann (2012:) 305-12

Mannewitz, T. (2011). Two-level theories in QCA: A discussion of Schneider and Wagemann's Two-step approach. Compasss Working Paper WP2011-64. Online at http://www.compasss.org/files/WPfiles/Mannewitz2011.pdf (accessed 1 July 2011).

March, L. (2007). From Vanguard of the Proletariat to Vox Populi: Left-Populism as a 'Shadow' of Contemporary Socialism. SAIS Review 27(1) 63-77.

March, L. & Mudde, C. (2005). What's Left of the Radical Left? The European Radical Left since 1989: Decline and Mutation. Comparative European Politics 3(1): 23-49.

Mudde, C. (2004). The Populist Zeitgeist. Government and Opposition 39(4): 542-63.

Mudde, C. (2007). Populist radical right parties in Europe. Cambridge: Cambridge University Press.

Pop-Eleches, G. (2010). Throwing Out the Bums Protest Voting and Unorthodox Parties after Communism. World Politics 62(2): 221-60.

Powell, E. N. & Tucker, J. A. (2013). ' Revisiting Electoral Volatility in Post-Communist Countries: New Data, New Results and New Approaches', *British Journal of Political Science,* Pre-published electronically.

Ragin, C.C. (1987). *The comparative method: Moving beyond qualitative and quantitative strategies.* Berkeley, CA: University of California Press.

Ragin, C.C. (2008). *Redesigning Social Inquiry: Redesigning Fuzzy Sets and Beyond.* Chicago and London: University of Chicago Press.

Ragin, C.C. & Schneider, G.A., 2011. Case-Oriented Theory Building and Theory Testing. In Williams, Malcom & Vogt, Paul W, eds. The SAGE Handbook of Innovation in Social Research Methods. pp. 150–66.

Redding, K. & Viterna, J. S. (1999). Political Demands, Political Opportunities: Explaining the Differential Success of Left-Libertarian Parties. Social Forces 78(2): 491-510.

Rihoux B. & Ragin, C. C. (eds) (2009). Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques. London: Sage.

Rupnik, J (2007). From Democracy Fatigue to Populist Backlash. Journal of Democracy 18(4): 18-25

Schedler, A. (1997). Antipolitics – Closing or Colonizing the Public Sphere. In Andreas Schedler (ed), The End of Politics? Explorations into Modern Antipolitics. London and New York: Macmillan and St. Martin's Press.

Schneider, C.Q & Wagemann, C. (2010). Standards of Good Practice in Qualitative Comparative Analysis (QCA) and Fuzzy-Sets. Comparative Sociology 9: 397-418.

Schneider, C.Q. & Wagemann, C., 2012. Set-theoretic methods for the social sciences: A guide to qualitative comparative analysis, Cambridge University Press.

Sikk, A. (2005). How unstable? Volatility and the genuinely new parties in Eastern Europe. European Journal of Political Research 44(3): 391-412.

Sikk, A. (2006). Highways to Power: New Party Success in Three Young Democracies. Dissertationes rerum publicarum Universitatis Tartuensis, 1. Tartu: Tartu University Press.

Sikk, A. (2009) 'Parties and Populism', Centre for European Politics, Security and Integration (CEPSI) Working Paper No.1. Online at http://www.ssees.ucl.ac.uk/PartiesandPopulism.pdf (accessed 1 July 2013).

Sikk, A. (2012). Newness as a Winning Formula for New Political Parties. *Party Politics.* 18(4): 465-486.

Szczerbiak, A. (2011) Europe and the October 2011 Polish Parliamentary Election. EPERN Election Briefing No 65. Online at https://www.sussex.ac.uk/webteam/gateway/file.php?name=epern-election-briefing-no-65.pdf&site=266 (accessed 15 July 2013).

Taagepera, R. (2006). Meteoric trajectory: The Res Publica Party in Estonia. Democratization 13(1): 78-94.

Tavits, M. (2008). Party Systems in the Making: The Emergence and Success of New Parties in New Democracies. *British Journal of Political Science* 38(1): 113-133.

Tavits, M. & Letki, N. (2009). When Left is Right: Party Ideology and Policy in Post-Communist Europe. *American Political Science Review* 103(4): 555-569.

Učeň, P. (2007). Parties, Populism, and Anti-Establishment Politics in East Central Europe. SAIS Review 27(1): 49-62.

Van Biezen, I. & Wallace, H., 2013. Old and New Oppositions in Contemporary Europe. *Government and Opposition*, 48(03), pp.289–313

Vanhuysse, P., (2006). Divide and pacify: strategic social policies and political protests in post-communist democracies, Budapest ; New York: Central European University Press.

Veugelers, J. & Magnan, A. (2005). Conditions of far-right strength in contemporary Western Europe: an application of Kitschelt's theory. European Journal of Political Research 44(6): 837-860.

Wolin, R (2011). Ghosts of a Tortured Past: Europe's Right Turn. Dissent 58 (1): 58-65.

Žižek, Slavoj, (2013). The west's crisis is one of democracy as much as finance. *Comment is free /.* Available at: http://www.guardian.co.uk/commentisfree/2013/jan/16/west-crisis-democracy-finance-spirit-dictators [Accessed July 16, 2013].

Appendix: QCA Analysis

Set memberships for the five conditions and outcome (BREAKTHRU)

Election	NOGRO	INCUNEMP	HICORR	INCCORR	HGENP	BREAKTHRU
BGR01	0.005	1.000	1.000	0.000	0.019	1.000
BGR09	0.000	0.688	1.000	0.999	1.000	1.000
SVN11	0.990	0.996	0.000	0.996	0.010	1.000
LTU04	0.000	0.035	0.348	0.875	0.920	0.998
CZE10	0.726	0.999	0.132	0.996	0.021	0.998
EST03	0.000	0.035	0.002	0.875	0.038	0.995
LVA02	0.000	0.201	1.000	0.544	0.666	0.994
SVK02	0.034	0.644	0.999	0.544	0.048	0.987
LVA11	1.000	0.035	0.909	1.000	0.005	0.987
LTU00	0.011	0.995	0.998	0.066	0.258	0.978
LTU08	0.000	0.799	0.222	0.544	0.997	0.919
SVK10	0.362	1.000	0.683	0.999	0.999	0.824
SVK12	0.005	0.549	0.990	1.000	0.996	0.790
POL11	0.022	0.977	0.012	0.000	0.002	0.739
LTU12	0.007	0.000	0.222	0.875	0.997	0.699
POL01	0.002	1.000	0.979	1.000	0.004	0.679
HUN10	0.983	1.000	0.042	0.976	0.002	0.536
LVA98	0.000	0.000	1.000	0.330	0.207	0.526
BGR05	0.000	0.000	0.979	0.180	1.000	0.001
CZE02	0.006	0.059	0.995	1.000	0.010	0.001
CZE06	0.000	0.126	0.909	0.001	0.009	0.001
EST07	0.000	0.001	0.000	0.000	0.979	0.001
EST11	0.999	0.099	0.000	0.875	0.979	0.001
EST99	0.000	0.966	0.001	0.000	0.038	0.001
HUN02	0.004	0.431	0.012	0.180	0.014	0.001
HUN06	0.002	0.977	0.075	0.039	0.007	0.001
HUN98	0.094	0.012	0.026	0.001	0.014	0.001
LVA06	0.000	0.001	0.956	0.001	0.993	0.001
LVA10	1.000	1.000	0.683	0.996	0.993	0.001
POL05	0.002	0.020	1.000	1.000	0.416	0.001
POL07	0.001	0.000	0.999	0.039	0.416	0.001
POL97	0.000	0.012	0.002	0.001	0.003	0.001
SVK06	0.000	0.000	0.909	0.000	0.999	0.001
SVN08	0.000	0.046	0.000	0.000	0.010	0.001

```
Necessity for BREAKTHRU
         Consistency  PRI   cov.r
-------------------------------
1  INCCORR   0.721  0.582  0.667
2  INCUNEMP  0.622  0.516  0.663
-------------------------------

Necessity for ~BREAKTHRU
         Consistency PRI    cov.r
-------------------------------------
1  inccorr         0.693  0.628  0.744
2  incunemp        0.730  0.663  0.693
3  nogro*inccorr   0.680  0.617  0.742
4  nogro*incunemp  0.675  0.610  0.714
-------------------------------------
```

Truth table (outcome: BREAKTHRU)

	NOGRO	INCUNEMP	HICORR	INCCORR	HGENP	OUT	n	incl	PRI	cases
23	**1**	**0**	**1**	**1**	**0**	**1**	**1**	**0.989**	**0.988**	**LVA11**
16	**0**	**1**	**1**	**1**	**1**	**1**	**3**	**0.982**	**0.977**	**BGR09,SVK10,SVK12**
12	**0**	**1**	**0**	**1**	**1**	**1**	**1**	**0.977**	**0.968**	**LTU08**
14	*0*	*1*	*1*	*0*	*1*	*1*	*0*	*0.955*	*0.946*	
31	**1**	**1**	**1**	**1**	**0**	**?**	**0**	**0.940**	**0.910**	
4	**0**	**0**	**0**	**1**	**1**	**1**	**2**	**0.929**	**0.907**	**LTU04,LTU12**
13	**0**	**1**	**1**	**0**	**0**	**1**	**2**	**0.917**	**0.914**	**BGR01,LTU00**
10	**0**	**1**	**0**	**0**	**1**	**?**	**0**	**0.865**	**0.838**	
24	**1**	**0**	**1**	**1**	**1**	**?**	**0**	**0.857**	**0.663**	
29	**1**	**1**	**1**	**0**	**0**	**?**	**0**	**0.838**	**0.604**	
27	**1**	**1**	**0**	**1**	**0**	**1**	**3**	**0.834**	**0.798**	**CZE10,HUN10,SVN11**
3	**0**	**0**	**0**	**1**	**0**	**1**	**1**	**0.827**	**0.822**	**EST03**
19	**1**	**0**	**0**	**1**	**0**	**?**	**0**	**0.801**	**0.741**	
15	**0**	**1**	**1**	**1**	**0**	**1**	**2**	**0.798**	**0.752**	**POL01,SVK02**
8	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**0.781**	**0.707**	**LVA02**
30	1	1	1	0	1	?	0	0.775	0.605	
22	1	0	1	0	1	?	0	0.762	0.554	
21	1	0	1	0	0	?	0	0.676	0.421	
11	0	1	0	1	0	?	0	0.651	0.610	
25	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0.622*	*0.139*	
28	1	1	0	1	1	?	0	0.469	0.288	
5	0	0	1	0	0	0	3	0.444	0.325	CZE06,LVA98,POL07
7	0	0	1	1	0	0	2	0.414	0.320	CZE02,POL05
32	1	1	1	1	1	0	1	0.393	0.246	LVA10
2	0	0	0	0	1	0	1	0.297	0.187	EST07
6	0	0	1	0	1	0	3	0.274	0.189	BGR05,LVA06,SVK06
17	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0.252*	*0.032*	
9	0	1	0	0	0	0	3	0.239	0.168	EST99,HUN06,POL11
26	1	1	0	0	1	?	0	0.163	0.052	
18	1	0	0	0	1	?	0	0.146	0.027	
1	0	0	0	0	0	0	4	0.066	0.053	HUN98,HUN02,POL97,SVN08
20	1	0	0	1	1	0	1	0.037	0.004	EST11

Truth table (outcome: ~BREAKTHRU)

	NOGRO	INCUNEMP	HICORR	INCCORR	HGENP	OUT	n	incl	PRI	cases
20	**1**	**0**	**0**	**1**	**1**	**1**	**1**	**0.996**	**0.996**	**EST11**
18	**1**	**0**	**0**	**0**	**1**	**?**	**0**	**0.976**	**0.973**	
17	*1*	*0*	*0*	*0*	*0*	*1*	*0*	*0.975*	*0.968*	
26	**1**	**1**	**0**	**0**	**1**	**?**	**0**	**0.954**	**0.948**	
1	**0**	**0**	**0**	**0**	**0**	**1**	**4**	**0.947**	**0.947**	**HUN98,HUN02,POL97,SVN08**
25	*1*	*1*	*0*	*0*	*0*	*1*	*0*	*0.939*	*0.861*	
2	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**0.838**	**0.813**	**EST07**
6	**0**	**0**	**1**	**0**	**1**	**1**	**3**	**0.831**	**0.811**	**BGR05,LVA06,SVK06**
32	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**0.802**	**0.754**	**LVA10**
28	**1**	**1**	**0**	**1**	**1**	**?**	**0**	**0.786**	**0.712**	
9	**0**	**1**	**0**	**0**	**0**	**1**	**3**	**0.779**	**0.759**	**EST99,HUN06,POL11**
21	1	0	1	0	0	?	0	0.764	0.579	
29	1	1	1	0	0	?	0	0.752	0.396	
7	0	0	1	1	0	0	2	0.725	0.680	CZE02,POL05
24	1	0	1	1	1	?	0	0.718	0.337	
22	1	0	1	0	1	?	0	0.704	0.446	
5	0	0	1	0	0	0	3	0.684	0.617	CZE06,LVA98,POL07
30	1	1	1	0	1	?	0	0.655	0.395	
8	0	0	1	1	1	0	1	0.471	0.293	LVA02
11	0	1	0	1	0	?	0	0.454	0.390	
19	1	0	0	1	0	?	0	0.429	0.259	
31	1	1	1	1	0	?	0	0.394	0.090	
12	0	1	0	1	1	0	1	0.312	0.032	LTU08
10	0	1	0	0	1	?	0	0.303	0.162	
4	0	0	0	1	1	0	2	0.263	0.033	LTU04,LTU12
15	0	1	1	1	0	0	2	0.249	0.074	POL01,SVK02
16	0	1	1	1	1	0	3	0.227	0.023	BGR09,SVK10,SVK12
14	*0*	*1*	*1*	*0*	*1*	*0*	*0*	*0.211*	*0.054*	
3	0	0	0	1	0	0	1	0.199	0.178	EST03
27	1	1	0	1	0	0	3	0.193	0.015	CZE10,HUN10,SVN11
13	0	1	1	0	0	0	2	0.115	0.086	BGR01,LTU00
23	1	0	1	1	0	0	1	0.059	0.012	LVA11

Notes: bold – rows above consistency cut-off (threshold); italics – rows examined because of contradictory simplifying assumptions.

CONSERVATIVE SOLUTION (BREAKTHRU)

Number of multiple-covered cases: 2
S1: nogro*INCCORR*HGENP + nogro*INCUNEMP*HICORR*hgenp + nogro*incunemp*hicorr*INCCORR +
NOGRO*incunemp*HICORR*INCCORR*hgenp + NOGRO*INCUNEMP*hicorr*INCCORR*hgenp

		incl	PRI	cov.r	cov.u	cases
1	nogro*INCCORR*HGENP	0.841	0.810	0.351	0.225	BGR09 LTU04 LTU08 LTU12 LVA02 SVK10 SVK12
2	nogro*INCUNEMP*HICORR*hgenp	0.852	0.836	0.221	0.188	BGR01 LTU00 POL01 SVK02
3	nogro*incunemp*hicorr*INCCORR	0.889	0.870	0.157	0.053	EST03 LTU04 LTU12
4	NOGRO*incunemp*HICORR*INCCORR*hgenp	0.989	0.988	0.062	0.056	LVA11
5	NOGRO*INCUNEMP*hicorr*INCCORR*hgenp	0.834	0.798	0.147	0.134	CZE10, HUN10, SVN11
	S1	0.849	0.827	0.792		

CONSERVATIVE SOLUTION (~BREAKTHRU)

Number of multiple-covered cases: 0
S1: nogro*hicorr*inccorr*hgenp + nogro*incunemp*inccorr*HGENP +
NOGRO*incunemp*hicorr*INCCORR*HGENP + NOGRO*INCUNEMP*HICORR*INCCORR*HGENP

		incl	PRI	cov.r	cov.u	cases
1	nogro*hicorr*inccorr*hgenp	0.867	0.861	0.328	0.320	HUN98, HUN02, POL97, SVN08; EST99, HUN06, POL11
2	nogro*incunemp*inccorr*HGENP	0.861	0.848	0.259	0.250	EST07; BGR05, LVA06, SVK06
3	NOGRO*incunemp*hicorr*INCCORR*HGENP	0.996	0.996	0.050	0.048	EST11
4	NOGRO*INCUNEMP*HICORR*INCCORR*HGENP	0.802	0.754	0.050	0.047	LVA10
	S1	0.875	0.866	0.675		

PARSIMONIOUS SOLUTION (BREAKTHRU)
Number of multiple-covered cases: 4
S1: nogro*INCCORR*HGENP + NOGRO*INCCORR*hgenp + nogro*INCUNEMP*HICORR +
(hicorr*INCCORR*hgenp)
S2: nogro*INCCORR*HGENP + NOGRO*INCCORR*hgenp + nogro*INCUNEMP*HICORR +
(nogro*hicorr*INCCORR)

		incl	PRI	cov.r	cov.u	(S1)	(S2)	cases
1	nogro*INCCORR*HGENP	0.841	0.810	0.351	0.085	0.186	0.085	BGR09, LTU04, LTU08, LTU12, SVK10, SVK12 BGR09 LTU04 LTU08 LTU12 LVA02 SVK10 SVK12
2	NOGRO*INCCORR*hgenp	0.872	0.851	0.211	0.057	0.057	0.188	CZE10, HUN10, LVA11, SVN11,
3	nogro*INCUNEMP*HICORR	0.905	0.890	0.370	0.203	0.203	0.203	BGR01, BGR09, LTU00, POL01, SVK02, SVK10, SVK12
4	hicorr*INCCORR*hgenp	0.839	0.815	0.222	0.009	0.063		CZE10, EST03, HUN10, SVN11
5	nogro*hicorr*INCCORR	0.914	0.897	0.219	0.000		0.053	EST03, LTU04, LTU08, LTU12
	S1	0.851	0.831	0.822				
	S2	0.850	0.829	0.813				

PARSIMONIOUS SOLUTION (~BREAKTHRU)
Number of multiple-covered cases: 1
S1: hicorr*inccorr + NOGRO*HGENP + incunemp*inccorr*HGENP

		incl	PRI	cov.r	cov.u	cases
1	hicorr*inccorr	0.849	0.840	0.414	0.328	EST99, EST07, HUN98, HUN02, HUN06, POL97, SVN08, POL11
2	NOGRO*HGENP	0.902	0.892	0.121	0.111	EST11; LVA10
3	incunemp*inccorr*HGENP	0.864	0.852	0.266	0.179	BGR05, EST07, LVA06, SVK06
	S1	0.863	0.854	0.706		

INTERMEDIATE SOLUTION (BREAKTHRU)

p.sol: nogro*INCCORR*HGENP + NOGRO*INCCORR*hgenp + nogro*INCUNEMP*HICORR + hicorr*INCCORR*hgenp
S1:   nogro*INCCORR*HGENP + nogro*INCUNEMP*HICORR + NOGRO*HICORR*INCCORR*hgenp +
NOGRO*INCUNEMP*INCCORR*hgenp + nogro*incunemp*hicorr*INCCORR

		incl	PRI	cov.r	cov.u	cases
1	nogro*INCCORR*HGENP	0.841	0.810	0.351	0.105	BGR09, LTU04, LTU08, LTU12, LVA02, SVK10, SVK12
2	nogro*INCUNEMP*HICORR	0.905	0.890	0.370	0.204	BGR01, BGR09, LTU00, POL01, SVK02, SVK10, SVK12
3	NOGRO*HICORR*INCCORR*hgenp	0.985	0.984	0.073	0.056	LVA11
4	nogro*incunemp*hicorr*INCCORR	0.889	0.870	0.157	0.053	EST03, LTU04, LTU12
5	NOGRO*INCUNEMP*INCCORR*hgenp	0.831	0.793	0.150	0.132	CZE10, HUN10, SVN11
	S1	0.850	0.828	0.808		

INTERMEDIATE SOLUTION (~BREAKTHRU)

p.sol: hicorr*inccorr + NOGRO*HGENP + incunemp*inccorr*HGENP

S1:   hicorr*inccorr*hgenp + NOGRO*HICORR*INCCORR*HGENP + nogro*incunemp*inccorr*HGENP +
NOGRO*incunemp*INCCORR*HGENP

|		incl	PRI	cov.r	cov.u	cases
1	hicorr*inccorr*hgenp	0.868	0.862	0.334	0.325	EST99, HUN98, HUN02, HUN06, POL97, POL11, SVN08
2	NOGRO*HICORR*INCCORR*HGENP	0.803	0.754	0.050	0.047	LVA10
3	nogro*incunemp*inccorr*HGENP	0.861	0.848	0.259	0.250	BGR05, EST07, LVA06, SVK06
4	NOGRO*incunemp*INCCORR*HGENP	0.974	0.972	0.051	0.047	EST11
	S1	0.875	0.866	0.679		

PLOTS

CONSERVATIVE SOLUTION
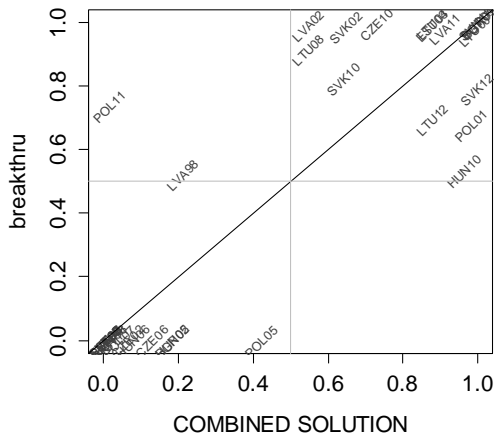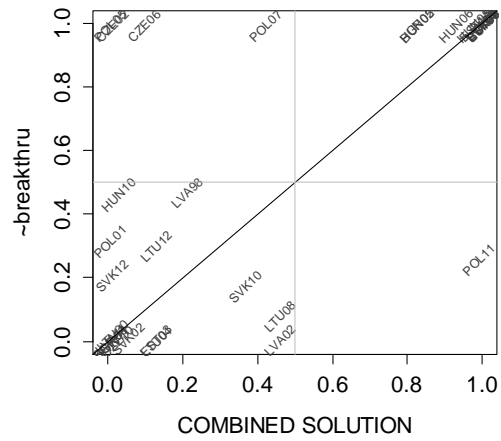

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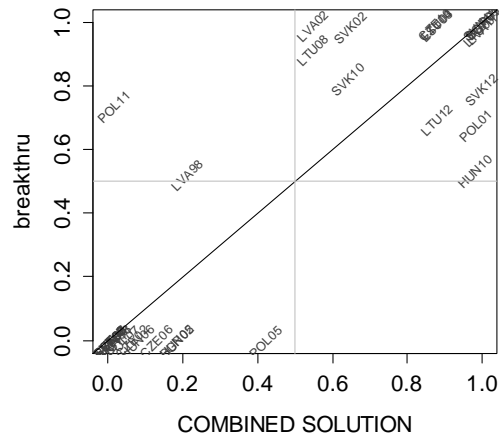
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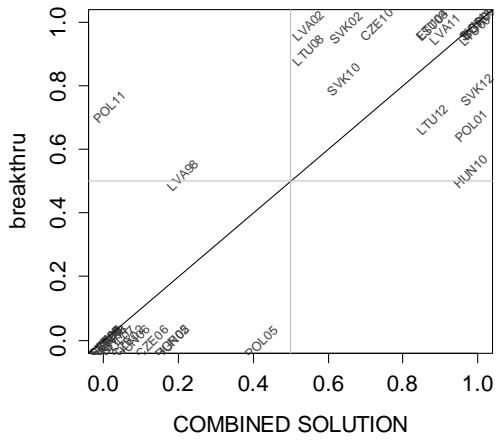
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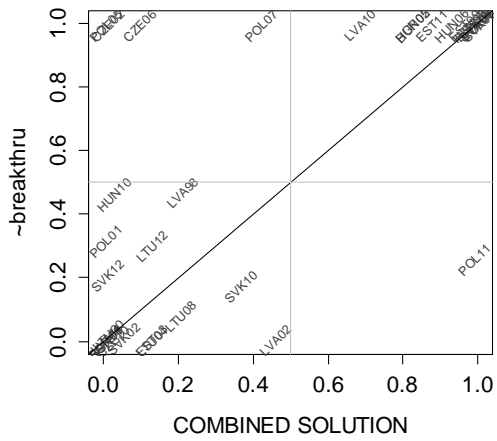
PARSIMONIOUS SOLUTION (NEGATION

INTERMEDIATE SOLUTION (NEGATION