Protest and liberal democratic performance: A panel analysis

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The relationship between protest and democracy has been investigated among countries prior to democratic transition, but seldom after this point. This paper attempts to fill the gap, by first developing a formal model of the interaction between protestors and government under a procedurally democratic regime. This suggests that the level of democratic performance in a new democracy should be negatively related to the level of protest, while the reverse is likely in older countries. This relationship is then tested using a panel dataset of 72 procedural democracies over a 10-year period. Two measures of democracy are employed: the protection of civil liberties and the effective operation of horizontal accountability. Post-transition protest appears to be associated with inferior protection of civil liberties and more delegative executives. These findings run counter to those of studies that have looked at protest's effect on transition. The relationships hold up when the endogeneity of protest is controlled for with instrumental variables estimation. Furthermore, consistent with the model, the negative association is found to be stronger among new (post-1974) democracies, suggesting that protest should be given serious consideration as a possible cause of the poor performance of third-wave democracies.

1. Introduction

Much is known about the relationship between protest and democratic transition. Despite a tendency to emphasise processes of elite bargaining, the mainstream transitions literature has also recognised the positive contributions made by popular protest towards initiating the final stages of third-wave transitions to democracy. O'Donnell and Schmitter (1986) famously claim that a 'resurrection' of civil society was significant in accelerating the later stages of third-wave transitions. The findings of quantitative studies (Foweraker and Landman, 1999) and qualitative studies (Collier and Mahoney, 1997) go further, suggesting that protest may also lay the ground for elite bargaining and political liberalisation rather than merely responding to these processes and propelling them forward. Less theoretical and empirical attention has been devoted to the type of relationship that protest might have with democracy *after* a transition to democracy is

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complete. Given that levels of social mobilisation within new democracies are often high relative to established democracies and the ability of new democracies to go beyond the procedural minimum standard of democracy is observably lower than in established regimes, it is puzzling that this area has not been given more scholarly attention.[1]

This paper seeks to address this omission first by asking the following questions. In a procedurally democratic state, does a relationship exist between levels of popular mobilisation and that state's level of liberal democratic performance? More specifically, to what degree can popular protest account for observed cross-national and intertemporal variation in liberal democratic performance? To do so, a formal model is constructed of the relationship between protesters and government within a democratic state. This model is then tested using a panel of annual observations for 72 countries over a 10-year period (1993-2002). In order to investigate post-transition effects, the sample is restricted to procedurally democratic cases. Two different dependent variables are used are used to reflect different aspects of liberal democratic performance.

While the inquiry is framed by a positivist perspective in that it attempts to test for inferences that are general in their applicability, attention is also given to the possibility of contextually contingent effects. The first part of the analysis looks for general relationships that hold across the whole sample, whereas the second section considers whether the patterns observed are the same for established democracies as they are for newly-democratic regimes.

This paper makes a number of contributions to the literature. Firstly, it extends the study of the relationship between protest and democracy beyond questions of transition. Secondly, it

[1] Researchers such as Foweraker and Krznaric (2002) have observed an empirical trend whereby third-wave democracies have successfully met the requirements of procedural democracy, yet have been less successful in fulfilling additional, explicitly *liberal* democratic criteria, for example in achieving a clear public-private distinction or providing an effective guarantee of civil liberties.

explores non-institutional causes of variation in liberal democratic performance. Thirdly, it provides the first formal model of the strategic interaction between governments and protestors, using a game theoretic framework. While numerous authors have developed rational choice-based accounts of protest activity, to the best of the author's knowledge only Chong (1991) has previously used a formal modelling approach to explain this.[2]

Finally, it exploits the advantages that panel data analysis has over single case study or small analysis for testing theories of protest that are general in their applicability. Until now, empirical studies of protest have tended to be based on evidence from a single country or at most a few countries. Existing cross-national empirical studies that have looked at the effect of protest on state-level variables, such as Foweraker and Landman (1999) and Carey (2002), have been limited by the fact that they have relied upon a collection of individual time series regressions. For both these studies the decision not to pool data stems from a desire to adequately control for the likely endogeneity in such a relationship. However, this is an unsatisfactory solution since it limits the degree to which these authors can generalise their findings. It is however, possible to adopt a panel structure for one's data and still control for endogeneity through the use of instrumental variables (I.V.) estimation. This is the approach taken here.

The paper is organised as follows. The next section discusses the research question in light of existing theoretical and empirical work. In Section 3 a formal model of the relationship between protesters and government within a democratic state is developed. Section 4 goes on to discuss the main concepts and methods used in the study. Section 5 outlines the methodology and the econometric specifications used in the analysis. Section 6 presents the results of the analysis and

[2] Chong's model considers the steady-state level of mobilization in support of some reform and discusses the conditions under which a system will converge to this.

discusses their implications. The final section attempts to draw some tentative conclusions and discusses avenues for future research.

2. Previous research

The primary research question this paper wishes to address is whether protest activity might help account for the wide degree of observed variation in the extent to which *procedural* democracies are successful in meeting the additional criteria necessary for them to be deemed *liberal* democratic states. Such disparities have been particularly pronounced since the so-called 'third wave' of democratic transitions began in 1974. This question is related to three not entirely distinct strands that can be found within the literature on protest/social movement activity and democratisation.

The first is the literature on liberal democratic performance or, as some scholars have referred to it, the quality of democracy. Democracy has long been a key topic of interest within comparative politics. Prior to the early 1990s, two types of question were pre-eminent within the comparative study of democracy. The first set of questions involved asking whether the differences between autocratic and democratic regimes could account for disparate political outcomes across countries, for example in promoting economic growth. The second set of questions involved using cross-national comparisons to identify the relevant factors that might explain or predict the transition from an autocratic to a democratic regime.

However, with the massive expansion in procedurally democratic regimes since 1974 that comprised the 'third wave' of democratic transitions and in the absence of any significant reverse wave of authoritarian regressions, these questions have lost some of their salience.[3] Seminal

[3] According to the Freedom House data presented in Diamond's (2002) article, in 1974 there were only 39 democratic regimes yet by 2001 there were 104 – more than 54% of the world's countries.

articles emerged in the mid-1990s, such as O'Donnell (1994), Zakaria (1997) and Diamond (1996), which pointed to the limited capacity of these new third-wave democracies to fulfil explicitly *liberal* democratic criteria. Building upon the observations of these authors, scholars interested in the comparative study of democracy have begun to turn their attention away from between-regime differences and regime change and towards understanding how it is still possible to have a wide variety of institutional forms within the procedurally democratic universe of cases.[4]

The empirical literature that attempts to identify the causes of this observed cross-national variation in liberal democratic performance has mainly been preoccupied with the search for institutional prerequisites. A number of studies have aimed to operationalise and test competing institutional explanations for liberal democratic underperformance. These have focused on a range of issues such as good governance, accountability, the stability of the party system and constitutional design. Examples include Lijphart (1999), Linz and Valenzuela (1994) and Foweraker and Landman (2002). This paper differs from these authors' work in that it focuses on an extra-institutional explanatory variable, protest. As a form of political participation, protest is rooted firmly within civil society by virtue of the fact that it is an autonomous decision that lies outside the institutional political arena and that it aims to influence the decisions of those who *hold* power rather than those who wish to capture power. However, until now hypotheses about the likely impact of society-level variables upon democratic performance remain for the large part untested. Recent scholarly contributions on the role that civil society may play in democratic performance (Brysk, 2000; Lauth, 2000; and Lagos, 1997) have merely built upon or extended the pre-existing theoretical arguments, rather than attempt to operationalise and test them.

[4] Morlino (2004) outlines this new research agenda as follows: 'Among the countries that meet these minimal criteria, further empirical analysis is still necessary to detect whether they have achieved the two main objectives of an ideal democracy: freedom and equality' (p. 5).

Another strand of the democratisation literature which this paper is related to are the small number of studies that have attempted to draw links between protest and democratic transitions. Quantitative analyses (Foweraker and Landman, 1999) and qualitative comparative analyses (Collier and Mahoney, 1997) of third-wave transitions in Latin America have provided evidence that suggests that protest needs to be considered alongside processes of 'elite bargaining' if one wishes to give a full account of the factors facilitating a democratic transition. The view taken here is that if the findings of existing empirical research on the dynamics of regime change suggest that protest can impact democracy before a democratic transition, it seems reasonable to ask whether such extra-institutional political participation might have a democratising impact *after* a transition is complete. This runs contrary to the popular assumption within the democratisation literature that the capacity of protest actions to influence democracy in a post-transition context is limited or non-existent because extra-institutional forms of participation can only flourish under situations where access to institutional forms of participation is restricted, as in an authoritarian context.[5] Such arguments seem however to be largely based upon the sharp decline in protest activity that can be observed in the immediate aftermath of a transition and ignores the fact that significant levels of protest persist after the immediate post-transition decline.

Finally, this paper is closely related to rational choice studies of protest. With the notable exception of new social movement theory, contemporary theories of protest have tended to adopt the view that protest, like other forms of political activity such as voting, should be considered a rational act. In the words of Lipsky (1968), who was among the first to advance such a view, we should view protest activity as a political resource which can be instrumentally employed for the

[5] See Pickvance (1999) for a more extensive explanation of this hypothesis.

attainment of specific political ends. According to such a view, the decision to participate in protest action is more than just an expression of discontent (as earlier theories of relative deprivation had posited), but is in fact the result of an individual's rational calculation about the costs which he or she is likely to incur from the act of participating relative to the possible gains that he or she might accrue from the act. Olson (1965) famously argued that more often than not the aggregate result of such individual-level calculation will be non-participation since each individual within a latent group will reason that he or she can reap the benefits of engaging in protest activity without the costs, by 'free riding' on the efforts of those who do protest. Two contemporary theories attempt to account for protest in terms of rational calculation. McCarthy and Zald's (1977) resource mobilisation theory (R.M.T.) takes Olson's problem as its starting point and focuses on the individual-level incentives for protest. In contrast, political opportunity structure (P.O.S.) models have focused on macro-level (institutional) incentives in order to explain the emergence of protest.[6] The underlying premise is that changes that take place at the level of the state, such as its capacity for repression, the degree of centralisation or the emergence of sympathetic or non-sympathetic power holders, will in turn change the individual-level incentives to protest.

The concept of political opportunity structure is the preferred framework of analysis among empirical researchers of protest and has frequently been employed to examine the emergence of a single protest movement, for example Costain's (1992) analysis of the women's movement in the United States. In studies such as Tarrow's (1989) analysis of protest in Italy, a P.O.S. framework has been adopted to account for the rise and fall of an entire cycle of protest involving a diverse

[6] McAdam (1996) summarises the core macro-level variables used by researchers operating within the P.O.S. framework as comprising the following: (i) the relative openness of the institutionalised political system, (ii) the stability of alignments among elites, (iii) the presence of elite allies and (iv) the state's capacity and propensity for repression.

range of protest actors. More importantly for this study however it is also the preferred framework of analysis for those who are interested in protest outcomes. Following the example of Gamson (1975), protest outcomes have generally been defined in terms of 'success' or 'failure'. These are normally taken as referring to the legislation related to the protesters' demands and empirical studies of protest success have often looked at the relative importance of different macro-level political factors in explaining the outcome of a particular protest.[7] Some have considered the concept of success and failure to be too restrictive a definition of outcomes and while this study builds upon such work, it looks at broader and possibly unintended consequences of protest mobilisation.

Within the political opportunity literature, a body of research has looked at the relationship between protest and repression. In her review of the use of formal models in the study of collective action, Oliver (1993) notes that the kind of formal models these authors employ differ from those of Olson and his adherents in that, rather than concentrating on the calculations of individual protestors, these models look at 'strategic interactions between collectivities, particularly between movements and their opponents, usually conceived as states or regimes' (p. 277). The bulk of these studies have focused on the relationship between protest and regime repression. Empirical studies, such as Koopmans (1993) and Carey (2006), have tested these models and find that protest may elicit state repression. This study differs from these works in three ways. First, repression or the abuse of civil liberties is not studied in isolation but is

[7] Della Porta and Diani (2006) summarise the current approach as follows: 'Having identified a series of areas in which social movements intervene, quantitative and qualitative analyses attempt to measure the response of parliaments and governments' (p. 231). An example of studies of success that come from a P.O.S. perspective are those in the 1996 collective volume edited by McAdam *et al*. and more recently Giugni's (2004) study of anti-nuclear movements. These researchers have employed comparative research designs to illustrate how variation in the structure of political opportunities can account for the relative success of some protests in achieving legislative demands compared to others. Gamson's (1975) work is a key example of a comparative study that looks at success from an R.M.T.-type perspective. He found that organisational strength was a key variable that accounted for the differential success of American protest movements in attaining their policy-related demands.

considered one of many possible indicators of democratic performance.[8] Second, this study looks at between-democracy differences in repression where previous studies have either focused solely on authoritarian regimes or the differences in levels of repression between democratic and non-democratic regimes. Finally, since the model presented here aims to depict regime and protestor interactions within democratic regimes rather than authoritarian ones it allows for a more nuanced preference structure for the regime than these previous models.

3. A model of protest and democratic performance

Consider a single-period model where a government chooses a level of limitations to democratic performance, *L*, and a representative protestor chooses a level of demonstrations, *D*, simultaneously. The protestor wishes to obtain some type of reform but dislikes protest, which can cause loss of income and the risk of injury or imprisonment. Hence, his utility may be modelled as being positive and concave in some desired reform good, *A*, and negative and linear in the level of demonstrations:[9]

$$U = \phi(A) - \alpha D\,,\ \phi' > 0\,,\ \phi'' < 0\,,\ \alpha > 0\,. \tag{1}$$

The government does not wish to undertake any reform but also does not wish to damage its reputation among the wider electorate or international community. The latter can be viewed as a negative function of the product of *L* and *D*, since reputation will suffer only if democracy is stifled *and* protest takes place to draw attention to this fact.[10] Hence, the government's value

[8] Giugni (1999, 2004) acknowledges that the way in which protest outcomes have been conceptualised by this literature has set limits on the range of protest outcomes that have been investigated empirically. He argues that defining outcomes in terms of 'success' restricts the focus of empirical research to the intentional outcomes of protest.

[9] Appendix 1 considers the case where the government's response to protest includes repressive action against the representative protestor, so that the protestor's utility is a negative function of *DL* rather than *D*.

[10] The government's value function can also be negative in the levels of both *L* and *D* separately, however this does not change the analysis substantively.

function can be modelled as a negative and concave function of the reform good and a negative and linear function of the product of the level of demonstrations and the level of democratic limitations:

$$V = -\gamma(A) - \beta DL\,,\ \gamma' > 0\,,\ \gamma'' > 0\,,\ \beta > 0\,. \tag{2}$$

The level of reform is determined by the degree to which the protestor agitates for it and the degree to which the government attempts to suppress democratic processes:

$$A = \mu D - \theta L\,,\ \mu > 0\,,\ \theta > 0\,. \tag{3}$$

The protestor maximises Equation 1, subject to Equation 3 and taking L as fixed. Solving the resulting first order condition yields the following best response function:

$$D = \frac{1}{\mu}(\phi'^{-1}(\frac{\alpha}{\mu}) + \theta L) \equiv P(L)\,, \tag{4}$$

where $\phi'^{-1}(\cdot)$ is the inverse of the first derivative of $\phi(\cdot)$, which exists and is positive given the restrictions imposed in Equation 1.

Differentiating Equation 4 reveals that the protestor's best response function is linear and positive in L:

$$P'(L) = \frac{\theta}{\mu} > 0\,. \tag{5}$$

This best response function is depicted in (D, L) space as the *P* curve in Figure 1.

The government's corresponding best response function is:

$$L = \frac{1}{\theta}(\mu D - \gamma'^{-1}(\frac{\beta D}{\theta})) \equiv G(D)\,, \tag{6}$$

which has the following derivative with respect to D:[11]

[11] Note that $\frac{\partial \gamma'^{-1}(x)}{\partial x} = \frac{1}{\gamma''(\gamma'^{-1}(x))}$, which follows from the chain rule.

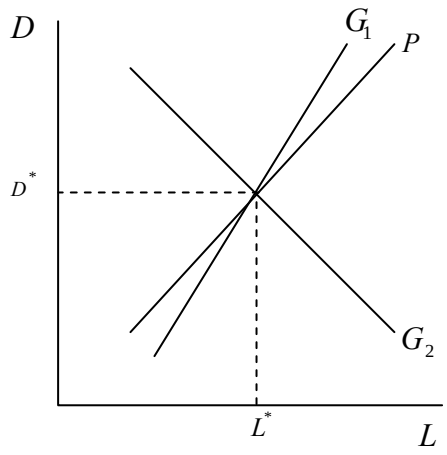

Figure 1
Nash equilibrium between the representative protestor and the government

$$G'(D) = \frac{\mu}{\theta} - \frac{1}{\gamma''(\mu D - \theta L))}\frac{\beta}{\theta^2}. \qquad (7)$$

Since both terms on the right hand side of Equation 7 are positive, the slope of the government's best response function is indeterminate. The first term would be the derivative if the government only cared about reform and not its reputation; the second term would be the term in the opposite case. On balance, in response to an increase in D, the government would want to increase L to reduce the level of reform but to decrease L to repair its reputation. Hence, the slope of the best response function in (D, L) space will be positive if the reform effect dominates the reputational effect and *vice versa*. These cases are illustrated by the G_1 and G_2 curves in Figure 1, respectively. Note that as long as $\beta > 0$ (*i.e.* reputation is important to government), the G curve can never be upward-sloping but flatter than the P curve.

In general, one might reasonably expect governments in young democracies to care more about preventing unwanted reform than about their reputation in the eyes of voters or other countries. In contrast, mature democracies are likely to have well established electoral institutions

and independent media as well as international obligations, suggesting that their governments will care relatively more about their reputations. Given this, one would expect upward-sloping *G* curves to be found predominately in young democracies and for the slope of the curve to steepen and eventually become negative as time passes.

In a Nash equilibrium, both best response functions must hold simultaneously. Hence, the *G* and *P* curves in Figure 1 must intersect, determining the equilibrium level of demonstrations, D^*, and the equilibrium level of democratic limitations, L^*.[12]

4. Concepts and data

Defining liberal democratic performance

The assumption underpinning this research question is that a distinction can be made between procedural and liberal democracy. A failure to do this might lead one to question whether some of the cases included in this study can be considered wholly 'democratic', for example on the grounds that they fail to offer many of their citizens adequate protection of their basic civil liberties or because these states have leaders that govern in an unaccountable fashion. Such observations however do not point to the absence of democracy but to the absence of additional dimensions such as horizontal accountability and an even application of the rule of law that are considered essential features of a liberal democratic regime. The view taken here therefore is that by definition all countries that can be considered procedural democracies are more or less evenly matched in term of their ability to guarantee basic political rights such as free and fair elections. However, procedural democracies vary widely in the degree to which they go beyond these procedural minima and exhibit the features that encompass liberal democracy.

[12] Appendix 1 discusses the stability of the Nash equilibrium under different assumptions about the slopes of the *G* and *P* curves.

No consensus exists over how liberal democracy should be defined. This study follows Foweraker and Krznaric (2000) who suggest that analytical gains can be made by conceptualising liberal democracy according to the 'prescriptions of liberal democratic theory' rather than as an ideal type that embodies the common features of established liberal democracies.[13] Furthermore, at the methodological level, disputes have revolved around whether democracy should be treated as a dichotomous or continuous variable. The research question considered here however precludes such an argument by assuming both to be true.[14]

A focus on liberal democratic performance rather than on democratic transition means many of the existing indicators of democracy are unsuitable for this study.[15] However, Foweraker and Krznaric's (2001) database was created largely with the aim of describing variation in performance within democratic states rather than pinpointing the shift from an authoritarian to a democratic regime. Its measures are based on standards derived from liberal democratic theory rather than from observing the features of established democracies. In terms of construct validity it is therefore more the most appropriate measure with which to test the research question at hand.[16]

For the sake of parsimony, rather than focus on all of the eight dimensions of liberal

[13] It is outside the confines of this article to provide a comprehensive summary of the theories that underlie the conception of liberal democracy. A good overview of the theoretical origins of the concept can be found in Held (2001).

[14] 'Democracy' is assumed to be dichotomous in the sense that it is possible to identify a point along this continuum at which a regime can be classified procedurally democratic, however it is also assumed to be continuous in the sense that meeting the procedural minimal threshold offers no guarantees that the full range of liberal democratic values will be supplied.

[15] Composite indices such as Freedom House conflate measures of the procedural dimensions of democracy with measures of the extent to which governments deliver or respect certain liberal democratic values such as civil rights. Analogously, minimalist definitions such as that of Przeworski *et al.* (2000) can be used as a basis upon which to select democratic cases but offer nothing that can be used as a means of assessing post-transition levels of democratic performance as it will be defined in this study.

[16] Foweraker and Krznaric (2001) provide extensive justification for their measures on both methodological and conceptual grounds.

democratic performance used in the database, this study focuses on just two post-procedural aspects of performance: civil liberties and horizontal accountability. The former is proxied for by the political terror scale of Gibney *et al*. (2008), which is based on Amnesty International reports, *AIPTS*, while the latter is operationalised by the executive constraint component of the Polity IV index, *EXCONST*.[17] It is sensible to limit the analysis to these two aspects of performance since: (i) these are the two areas which the literature has identified as the main source of third wave underperformance, (ii) they are two areas which capture best the nature of the response by government to protest outlined in the theoretical model and (iii) these two measures had the lowest percentage of missing observations for the sample period.

Defining protest

There is no commonly agreed upon definition of protest.[18] Rucht and Ohlemacher (1992) define a protest event as 'a distinctive collective action pursuing an explicit goal by the use of confrontatative, disruptive or even violent means' (p. 7). The definition adopted here follows this but differs in one important respect, namely that 'violent means' is excluded from the range of actions categorised as a protest event, except for those actions which involve the destruction of property but not violence against other persons. The exclusion of violent actions is necessary in order to clearly distinguish protest acts from acts of terrorism, domestic insurgency and civil war

[17] Full details of the construction of these variables are given in Table A1.

[18] A survey of the extant literature on protest reveals a wide variety of ways in which the phenomenon has been defined. There is little consensus over whether protest should encompass both violent and non-violent forms of collective action. Some authors include both violent and non-violent forms of collective action within their definitions of protest, for example Rucht and Ohlemacher (1992), Carey (2002) and Tarrow (1989). Others, following Gamson's (1975) study, have argued for the analytical utility of dividing protest into violent and non-violent forms. Still others regard protest as theoretically distinct from violent forms of collective action, rather than as a subset of non-violent protest forms, for example Schatzman (2005). There is a similar lack of clarity over whether protest should be differentiated from industrial action. Some authors (Lipsky, 1968) put forward a definition of protest that excludes industrial action such as strikes. Tarrow (1989), on the other hand, considers working class and student protest as part of the same 'protest cycle'.

which will most likely have a separate impact upon a country's level of democratic performance.

Sources of data on protest activity are scarcer and less reliable than on similar forms of collective action such as strikes. The most common way in which protest has been operationalised for the purposes of quantitative analysis has been through the use of events-based data. The pitfalls of events-based data in terms of measurement validity have attracted considerable attention in recent years (McCarthy *et al*., 1998; Earl *et al*., 2004).[19] Despite this, events-based data remain the only comparable indicator of protest available for cross-national research. The measure chosen for the following analysis is 'anti-government demonstrations' taken from Banks' Cross-National Time-Series Data Archive, denoted *DEMOS*. This records the number of demonstrations with over 100 participants that occur within a country each year and are reported in the *New York Times*.

Control variables

Additional control variables for inclusion in the following analysis were selected based on evidence from the existing literature. These include real G.D.P. per capita (in 2000 U.S. dollars), *GDPCAP*; the Gini coefficient (a measure of income inequality), *GINI*; population, *POP*; a dummy variable for whether a country was a former British colony, *BRITCOL*; a linguistic fractionalisation index (a measure of linguistic divisions), *LING*; an ethnic fractionalisation index (a measure of ethnic divisions), *ETHNIC*; and a dummy variable indicating the presence of an armed domestic insurgency or civil war, *CIVWAR*. Details of these measures are provided in Table A2. A time trend, *t*, was also included to control for gradual global changes in democratic

[19] The main criticism is that no matter how well designed the coding procedure researchers used to code protest events, researchers have no control over how a newspaper or news agency selects the cases of protest that it decides to report on.

performance.[20]

The Dataset

The following analysis is performed on a pooled cross-section time series (or panel) dataset of 10 years (1993-2002) and 72 countries. Since the question driving the analysis is whether protest within democratic states has an impact on liberal democratic performance, it was necessary to distinguish between procedurally democratic and non-democratic cases. To this end, the Cheibub and Gandhi (2004) classification of countries into democracies and dictatorships was used. A country is coded as a democracy if it satisfies four conditions: (i) its executive is elected, (ii) its legislature is elected, (iii) there is more than one party competing for office and (iv) there is evidence of alternation between parties in power.[21] Cases were only included in the sample if they were democratic (according to this definition) in 1993. The theoretical model outlined above implicitly assumes that while countries exhibit different degrees of liberal democratic performance, once they have passed the threshold of procedural democracy there are no authoritarian regressions. This means that procedural democracy is the lowest feasible level of performance once a transition to democracy is complete. While this assumption is valid for the vast majority of third- and fourth-wave democracies, there are still occasional authoritarian reversals, for example Peru in 1992. Consequently, only cases that were classified as democratic for the entire 1993-2002 period were included in the sample. Some small countries were missing observations for at least one variable for the entire 10-year period and were therefore excluded,

[20] This allows for a more parsimonious specification than the use of individual year dummies, which would result in a large loss in degrees of freedom. Note that the time trend is excluded from the between estimator as it is does not vary across countries.

[21] These minimal requirements are necessary for establishing the vertical accountability and political rights that underlie a procedural definition of democracy.

Table 1
Variable means for the regression sample

Variable	New democracies	Old democracies
Executive constraints	6.033	6.827
	(1.127)	(0.445)
Political terror scale	2.310	1.804
	(0.934)	(1.195)
Gini coefficient	41.004	35.863
	(11.363)	(8.589)
Civil war	0.121	0.119
	(0.326)	(0.325)
Linguistic	0.291	0.237
	(0.253)	(0.221)
Ethnic	0.366	0.301
	(0.224)	(0.215)
Former British colony	0.182	0.231
	(0.386)	(0.422)
Log of GDP/capita	7.499	9.370
	(1.247)	(1.124)
Log of population	16.151	16.426
	(1.405)	(1.589)
Number of demonstrations	0.623	0.646
	(1.240)	(1.332)
Number of observations	440	260

Notes: Standard deviations are presented in parentheses.
The regression sample for executive constraints is used.

leaving 72 cases that were used in at least one specification. These countries are listed in Table A1.

Cheibub and Gandhi's data were also used to create a dummy variable, $NEWD_i$, for those countries ('new democracies') that experienced a transition in or after 1974, the date at which Huntington's 'third wave' of democracy begins. Table 1 reports means and standard deviations for all variables, separately for old and new democracies. As expected, new democracies have lower levels of executive constraints and higher values of the political terror scale. In both cases, the difference in means is significant. New democracies also have significantly more income inequality and linguistic and ethnic divisions and significantly lower levels of G.D.P., however there is no significant difference in the level of protest between old and new democracies.

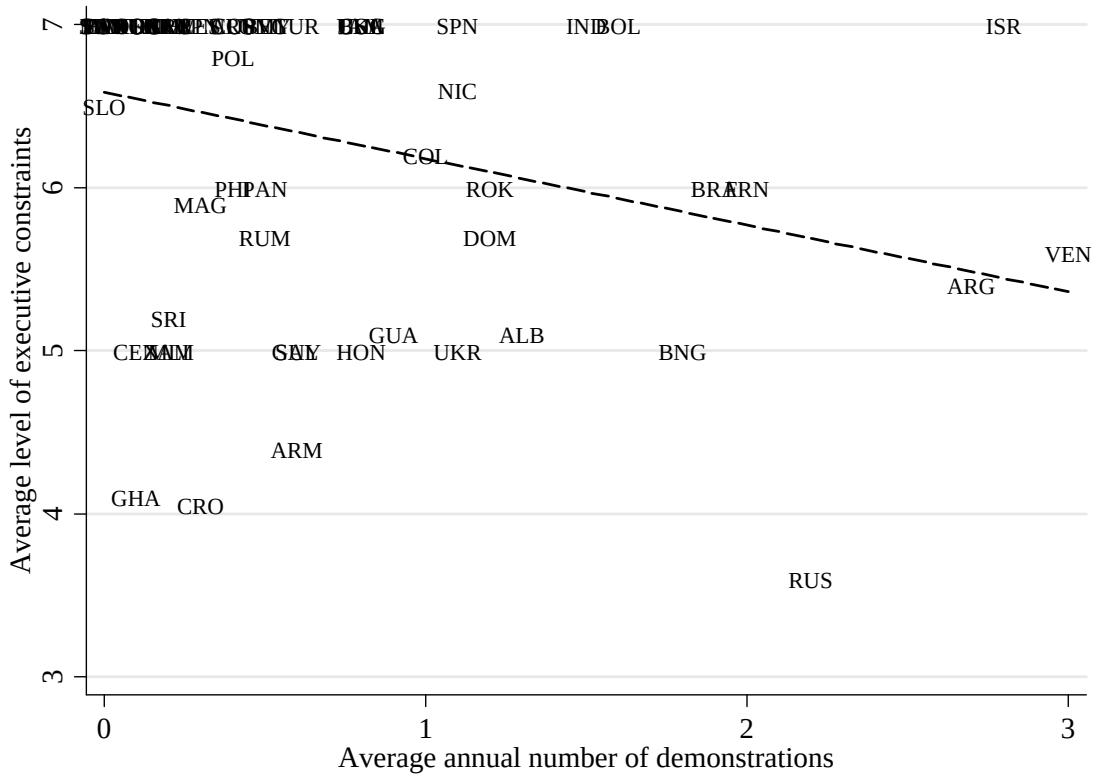

Figure 2
Time-averaged executive constraints and number of demonstrations

Note: Country codes given in Table A1.

The number of demonstrations appears to be negatively related to the level of executive constraints across countries, as seen in Figure 2, which plots average values for the two variables for each country against each other. Similarly, Figure 3 indicates that the number of demonstrations is positively associated with the political terror scale. These observations suggest that protest has a negative relationship with the level of democratic performance. The next two sections examine whether this bivariate finding remains after controlling for the influence of other relevant variables.

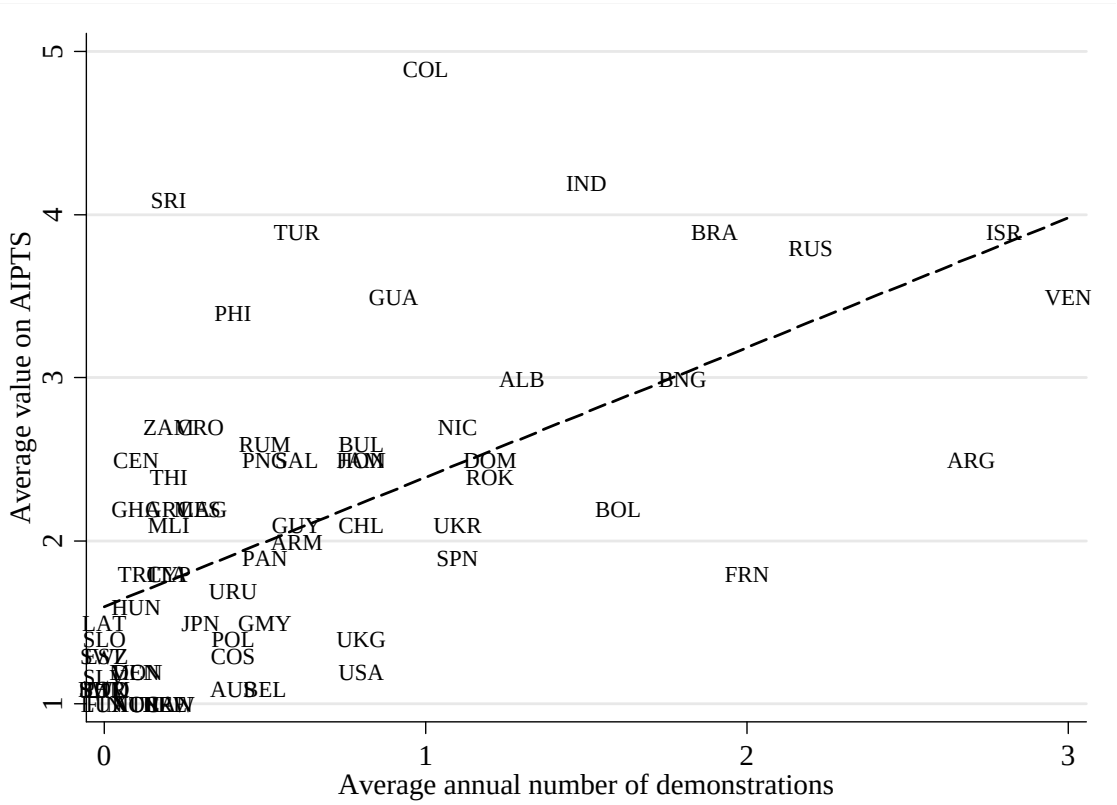

Figure 3
Time-averaged political terror scale and number of demonstrations

Note: Country codes given in Table A1.

5. Methodology

Basic specification

The parameters for the relationship between protest and the two measures of the dependent variable were first estimated using a pooled model. By stacking repeated cross-sectional observations for the 10-year period, each country-year observation is simply treated as a new observation unrelated to observations from the same country in different years. This is appropriate in a situation where there are no observed country-specific effects.

In contrast to the pooled model, the fixed effects, or within, estimator controls for all observed and unobserved country-specific effects by expressing all observations in terms of their

deviation from each country's mean. The model is identified by changes in the independent variables over time *within* countries. A practical disadvantage of this technique is that it is not possible to estimate coefficients for the time-invariant variables (ethnic divisions, linguistic divisions and former British colony).

The estimation equation is:

$$y_{it} = \beta_0 + \beta_1 DEMOS_{it} + \beta_2 GINI_{it} + \beta_3 CIVWAR_{it} + \beta_4 \ln GDPCAP_{it} + \beta_5 \ln POP_{it}$$
$$+ \beta_6 ETHNIC_i + \beta_7 LING_i + \beta_8 BRITCOL_i + \beta_9 t + \theta_i + \varepsilon_{it}, \quad (8)$$

where i denotes country and t denotes year and y_{it} is the measure of liberal democratic performance, either $EXCONST_{it}$ or $AIPTS_{it}$.

In the pooled specification, $\theta_i = 0$, while in the fixed effects (within) specification, θ_i is the coefficient on a country dummy variable. To compare the two specifications, an *F*-test can be performed for the joint significance of the θ_i terms. For both $EXCONST_{it}$ and $AIPTS_{it}$, the pooled model was rejected.[22]

To assess whether cross-national differences in protest activity explain differences in democratic performance, the between estimator is applied, which involves estimating the time-averaged transformation of the above equation:

$$\bar{y}_i = \tilde{\beta}_0 + \beta_1 \overline{DEMOS}_i + \beta_2 \overline{GINI}_i + \beta_3 \overline{CIVWAR}_i + \beta_4 \overline{\ln GDPCAP}_i + \beta_5 \overline{\ln POP}_i$$
$$+ \beta_6 ETHNIC_i + \beta_7 LING_i + \beta_8 BRITCOL_i + \tilde{\varepsilon}_i, \quad (9)$$

where $\tilde{\beta}_0 = \beta_0 + \beta_9 \bar{t}$ and $\tilde{\varepsilon}_i = \theta_i + \bar{\varepsilon}_i$.

In the theoretical model presented in Section 3, the equilibrium level of demonstrations, D^*,

[22] If θ is uncorrelated with the error term, the random effects specification will be more efficient than fixed effects. However, for both dependent variables used here, Hausman tests indicate that random effects estimates will be inconsistent.

is determined jointly with the equilibrium level of democratic limitations, L^*, by the positions of the *G* and *P* curves. This suggests that protest will be endogenous when it is used in the above regressions and indicates the need for an instrumental variables approach to estimation. Any variable that enters only the utility function of the representative protestor (*i.e.* Equation 1) will be a valid instrument for D^*. This includes anything that affects the benefits from reform or the cost of protest. Graphically, an instrument may be thought of as something that shifts only the position of the *P* curve in Figure 1 and thus traces out points along the *G* curve.

One such variable is the presence of protest in a neighbouring country. The protest literature has long recognised the presence of a diffusion of protest cycles across regions. The presence of protest in a neighbouring country is likely to alter the cost-benefit calculation of the protester in one of two ways. Firstly, via the transmission of information, protest (successful or not) by a particular constituency may serve to alert analogous constituencies in neighbouring states to similar grievances. Secondly and perhaps more importantly, if protest is seen to lead to desired reform in one country, similar protest action may be considered more attractive by those in nearby countries. When an individual weighs up the costs relative to the likely benefits of protesting for a particular reform, a successful protest in a neighbouring country will make the likelihood of success in his or her country seem higher than if there had been no prior examples of success in the region. Conversely, if a similar protest was severely repressed in a neighbouring country this may make the perceived costs seem higher. However, the level of protest in a neighbouring country is unlikely to have a *direct* effect on the level of government limitations on democracy since a government will most likely only respond to demands for reform that come from inside their own state.

Therefore, to correct for the potential endogeneity of the demonstrations variable, Equation 8

was also estimated using two-stage least squares, continuing to allow for country fixed effects. The set of instruments that were used for $DEMOS_{it}$ is: the number of demonstrations in each of the previous three years and the average number of demonstrations in all neighbouring countries in the current and previous three years.[23] Details of the construction of the neighbouring country variable are provided in Appendix 2.

Interacted specification

The theory outlined above anticipates that the age of democracy will be a significant contextual factor that mediates the nature of the relationship between protest and liberal democratic performance. For this reason, one might expect the effect of protest to differ between old and new democracies. Therefore, the new democracy dummy variable, $NEWD_i$, was then interacted with protest, giving rise to the following augmented specification:

$$\begin{aligned} y_{it} = \beta_0 &+ \beta_1^N NEWD_i \times DEMOS_{it} + \beta_1^O (1 - NEWD_i) \times DEMOS_{it} + \beta_2 GINI_{it} \\ &+ \beta_3 CIVWAR_{it} + \beta_4 \ln GDPCAP_{it} + \beta_5 \ln POP_{it} + \beta_6 ETHNIC_i + \beta_7 LING_i \\ &+ \beta_8 BRITCOL_i + \beta_9 t + \theta_i + \varepsilon_{it}. \end{aligned} \quad (10)$$

β_1^N is predicted to indicate a higher level of democratic performance, whereas β_1^O is predicted to indicate a higher level. Hence, it is expected that $\beta_1^N < 0 < \beta_1^O$ for $EXCONST_{it}$ and $\beta_1^O < 0 < \beta_1^N$ for $AIPTS_{it}$.

Since both protest interaction terms may suffer from endogeneity bias, I.V. was again used. Separate instruments were constructed for the two protest variables as follows. In the first stage, regressions for protest were estimated separately for old and new democracies. These used all exogenous variables plus the same set of instruments used previously. From these, a single

[23] The lagged values of own country and neighbouring country protest are valid instruments as they are predetermined variables.

predicted variable for protest was created. This variable was then interacted with the new and old democracy dummies, yielding two predicted variables. These were used as the instruments for the two protest interaction terms in Equation 10. As discussed by Wooldridge (2002, pp. 116-117), this strategy is an example of the method of generated instruments and the usual properties for instrumental variables estimation hold as long as lagged protest and protest in neighbouring countries are not correlated with the error term in the equations for executive constraints and political terror.

6. Results

The pooled model results for executive constraints are shown in the first column of Table 2. Coefficients on the control variables mostly have the expected signs, although not all are significant. Former British colonies and richer countries have more constrained executives, whereas more populous countries have fewer constraints. Linguistic fractionalisation also has a positive effect on executive constraints, which may be the result of competing groups in heterogeneous societies being less willing to allow such concentration of power. Turning to the variable of interest, protest is found to be strongly negatively related to the level of executive constraints. An additional demonstration is expected to reduce a country's score on the Polity IV index by 0.115. This suggests that across the full sample protest has a negative effect on horizontal accountability, meaning that the *G* curve in Figure 1 is upward sloping overall.

The second column of Table 2 shows that when the between estimator is used the negative association between protest and executive constraints remains and is larger in magnitude, suggesting that protest is a good predictor of long-run differences in horizontal accountability across countries. When country-specific effects are introduced by using the fixed effects model in

Table 2
Regressions using executive constraints

Variable	(i) Pooled	(ii) Between	(iii) Within	(iv) Within IV
Gini coefficient	0.003	0.007	-0.003	-0.006
	(0.003)	(0.011)	(0.006)	(0.007)
Civil war	-0.152	0.078	-0.664***	-0.662***
	(0.109)	(0.369)	(0.102)	(0.115)
Linguistic	0.304*	-0.006		
	(0.160)	(0.495)		
Ethnic	0.019	0.139		
	(0.185)	(0.550)		
Former British colony	0.209**	0.249		
	(0.087)	(0.258)		
Log of GDP/capita	0.385***	0.390***	0.663***	0.509
	(0.026)	(0.078)	(0.232)	(0.422)
Log of population	-0.049**	-0.005	-0.885*	-1.931**
	(0.024)	(0.077)	(0.523)	(0.858)
Time trend	0.013		0.016	0.026*
	(0.011)		(0.010)	(0.015)
Number of demonstrations	-0.115***	-0.377**	-0.036***	-0.197*
	(0.026)	(0.159)	(0.013)	(0.116)
R-squared	0.336	0.412	0.882	0.854
Number of observations	690	690	700	688

Notes: Standard errors are presented in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.
In the fourth model, demonstrations is instrumented for using its first three lags and the average number of demonstrations in neighbouring countries and its first three lags.

the third column, the relationship between protest and executive constraints is found to be weaker, but still highly significant. These results suggest that an increase in protest from one year to the next within a single state will result in a fall in the level of executive constraints. The final column of the table repeats the fixed effects specification using two-stage least squares, which controls for the presence of any endogenous or feedback effects. The effect of protest is found to be larger in magnitude, although slightly weaker in terms of significance. This suggests that the results for the original fixed effects specification were biased towards zero.

In light of the theoretical model presented in Section 3, the results in Table 2 indicate that one form of democratic limitations used by governments to prevent reform is a concentration of power in the hands of the executive. For example, an executive might respond to protestors'

Table 3
Regressions using the political terror scale

Variable	(i) Pooled	(ii) Between	(iii) Within	(iv) Within IV
Gini coefficient	0.012***	0.009	-0.009	-0.013
	(0.003)	(0.006)	(0.008)	(0.010)
Civil war	1.645***	1.748***	0.842***	0.854***
	(0.087)	(0.192)	(0.136)	(0.159)
Linguistic	-0.859***	-0.599**		
	(0.125)	(0.252)		
Ethnic	0.612***	0.487*		
	(0.147)	(0.285)		
Former British colony	0.207***	0.104		
	(0.068)	(0.133)		
Log of GDP/capita	-0.188***	-0.182***	-0.955***	-0.051
	(0.020)	(0.039)	(0.310)	(0.589)
Log of population	0.139***	0.061	-3.085***	-1.449
	(0.018)	(0.038)	(0.700)	(1.191)
Time trend	0.031***		0.068***	0.040*
	(0.009)		(0.013)	(0.021)
Number of demonstrations	0.113***	0.437***	0.001	0.270*
	(0.021)	(0.082)	(0.018)	(0.163)
R-squared	0.628	0.847	0.811	0.754
Number of observations	696	696	706	694

Notes: Standard errors are presented in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.
In the fourth model, demonstrations is instrumented for using its first three lags and the average number of demonstrations in neighbouring countries and its first three lags.

demands for reform by bypassing the legislature if he or she believes that some legislators may by sympathetic to the protestors.

Table 3 presents the results of the regressions for civil liberties. The coefficient on demonstrations is positive and significant in the pooled model, thus indicating that protest is associated with higher levels of human rights abuses as measured by the political terror scale (*i.e.* poorer levels of performance). The coefficient on protest is stronger when the between estimator is used, however in the fixed effects specification the relationship loses statistical significance. This suggests that the relationship found in the pooled model is largely being driven by cross-national variation rather than variation over time within countries. Consequently, the average level of protest across the 10-year sample period is a good negative predictor of a country's

Table 4
Regressions using executive constraints with interactions for old and new democracies

Variable	(i) Pooled	(ii) Between	(iii) Within	(iv) Within IV
Gini coefficient	0.003	0.008	-0.003	-0.005
	(0.003)	(0.011)	(0.006)	(0.008)
Civil war	-0.183*	-0.038	-0.663***	-0.638***
	(0.109)	(0.375)	(0.102)	(0.131)
Linguistic	0.296*	-0.061		
	(0.160)	(0.492)		
Ethnic	-0.027	0.007		
	(0.186)	(0.553)		
Former British colony	0.184**	0.190		
	(0.087)	(0.259)		
Log of GDP/capita	0.369***	0.340***	0.669***	0.480
	(0.027)	(0.085)	(0.233)	(0.481)
Log of population	-0.048**	0.008	-0.881*	-2.252**
	(0.024)	(0.077)	(0.523)	(1.004)
Time trend	0.012		0.015	0.025
	(0.011)		(0.010)	(0.017)
New democracy × number of	-0.159***	-0.551***	-0.041**	-0.364**
demonstrations	(0.033)	(0.198)	(0.017)	(0.173)
Old democracy × number of	-0.053	-0.232	-0.028	0.008
demonstrations	(0.038)	(0.187)	(0.022)	(0.174)
R-squared	0.341	0.432	0.882	0.811
Number of observations	690	690	700	688

Notes: Standard errors are presented in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.
In the fourth model, demonstrations is instrumented for using its first three lags and the average number of demonstrations in neighbouring countries and its first three lags.

average performance (in terms of preventing violations of civil liberties) across that period, relative to other countries, however protest is a less powerful predictor of year-to-year changes in the level of civil liberties violations that occur within a state. However, when the fixed effects specification is estimated using instrumental variables the coefficient on demonstrations increases significantly and is significant at the 10% level, thus suggesting that in the original fixed effects specification the presence of endogeneity may have obscured this association. These results are therefore consistent with a situation in which governments respond to demands for reform by imposing limitations on civil liberties that are necessary to prevent the reform from taking

Table 5
Regressions using the political terror scale with interactions for old and new democracies

Variable	(i) Pooled	(ii) Between	(iii) Within	(iv) Within IV
Gini coefficient	0.012***	0.009	-0.009	-0.014
	(0.003)	(0.006)	(0.008)	(0.010)
Civil war	1.644***	1.789***	0.840***	0.839***
	(0.087)	(0.196)	(0.136)	(0.165)
Linguistic	-0.860***	-0.584**		
	(0.125)	(0.252)		
Ethnic	0.612***	0.532*		
	(0.147)	(0.288)		
Former British colony	0.206***	0.126		
	(0.069)	(0.134)		
Log of GDP/capita	-0.188***	-0.166***	-0.964***	-0.031
	(0.021)	(0.042)	(0.310)	(0.609)
Log of population	0.139***	0.058	-3.091***	-1.251
	(0.018)	(0.038)	(0.701)	(1.259)
Time trend	0.031***		0.069***	0.040*
	(0.009)		(0.013)	(0.021)
New democracy × number of demonstrations	0.112***	0.501***	0.008	0.375*
	(0.026)	(0.103)	(0.022)	(0.216)
Old democracy × number of demonstrations	0.114***	0.383***	-0.011	0.143
	(0.030)	(0.098)	(0.029)	(0.225)
R-squared	0.628	0.850	0.811	0.739
Number of observations	696	696	706	694

Notes: Standard errors are presented in parentheses. *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.
In the fourth model, demonstrations is instrumented for using its first three lags and the average number of demonstrations in neighbouring countries and its first three lags.

place.[24]

The results in Tables 2 and 3 are suggestive of a situation in which the government responds to a protestor's demands for reform by imposing certain limits on liberal democracy. As discussed in Section 3 however, one would expect such a relationship to be more prevalent among new democracies rather than more mature democracies. Tables 4 and 5 report the results when Equation 10 is estimated. These largely bear out the aforementioned hypothesis. In all but one specification, the coefficient on protest is larger for new democracies than for old democracies (in the pooled model for political terror, the coefficients are essentially identical).

[24] If these restrictions take the form of direct repression of protestors themselves a slight modification of the theoretical model is required, as discussed in Appendix 1.

There is evidence of a negative relationship between protest and executive constraints for new democracies in Table 4, both between countries and across time. In contrast, there is no evidence of a significant relationship among old democracies. This suggests that the *G* curve in Figure 1 is upward sloping for new democracies but vertical for old democracies. A similar pattern is found for civil liberties (as measured by the political terror scale) in Table 5, although the differences between old and new democracies are less pronounced. A positive relationship between protest and the political terror scale is found for both groups of countries, although it is larger among new democracies. A positive relationship is also found in the within estimator for new democracies but not mature democracies, however, as in Table 3, this is only significant once protest is instrumented for.

7. Conclusion

This paper has aimed to shed some new light on the relationship between protestors and democratic regimes. By developing a formal model of this relationship, it has specified the mechanisms through which protest might influence government behaviour and how protest might account for the inferior liberal democratic performance of new (post-1974) democracies. The empirical analysis focused on two liberal dimensions of performance: the effective operation of horizontal accountability (executive constraints) and a country's ability to provide adequate protections of civil liberties. The use of panel data techniques has allowed for the identification of both cross-sectional and intertemporal associations between protest and these variables and, more importantly, has allowed the findings to be generalised to a larger sample of cases than pervious empirical studies.

The findings for the whole sample point to the existence of a negative association between

protest and a country's performance on the two chosen dimensions of democratic performance. Moreover, the use of interaction terms has made it possible to isolate differences in this relationship between pre- and post-1974 democracies. Specifically, it was found that the negative association was stronger for the latter group. Finally, this paper also dealt with the possibility that protest is endogenous through the use of instrumental variables estimation and showed the results to be robust to this specification.

While the measure of protest used in this analysis is far from perfect, the results presented here are nevertheless significant and consistent with the theoretical model that is developed. The fact that governments in old and new democracies adopt qualitatively different responses to protestors has important implications for the study of the relationship between protest and democracy. Previous empirical work has suggested that protest may be one of the driving forces behind the transition to democracy but the results of this study suggest that a quite different state of affairs may exist after transition. These findings are consistent with a situation in which continued protest in young democratic regimes may elicit government responses that are harmful to the functioning of democracy's *liberal* dimensions. It is often taken for granted that grass-roots activity is beneficial for democracy, yet much of the evidence for such claims is derived from well-established democracies.

More work needs to be done to thoroughly test the relationship between protest and liberal democratic performance and future research might seek to complement this global analysis with evidence gathered at a lower level of abstraction, such as a single region or country. At such a level, it would not only be possible to improve upon existing measures of protest by triangulating data sources, but also to get a clearer idea of the interactions between protestors and state agents by using weekly rather than annual data.

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Appendix 1: Extension to the theoretical model and a discussion of stability

Consider an extension to the basic model presented in Section 3, where the representative protestor dislikes protest only if he faces limitations on democracy, *L*, which may take the form of repressive tactics aimed at suppressing demonstrations. In this case the product of *L* and *D* should enter the protestor's utility function, as follows:

$$U = \phi(A) - \alpha DL\ ,\ \phi' > 0\ ,\ \phi'' < 0\ ,\ \alpha > 0\ . \tag{A1}$$

In this case, αL measures the disutility from one unit of protest; it will be higher the greater the level of government repression. The protestor now maximises Equation A1, subject to Equation 3, yielding the following best response function:

$$D = \frac{1}{\mu}(\phi'^{-1}(\frac{\alpha L}{\mu}) + \theta L) \equiv P(L)\ . \tag{A2}$$

The slope of this best response function is:

$$P'(L) = \frac{\alpha}{\mu^2 \phi''(\mu D - \alpha L)} + \frac{\theta}{\mu}\ . \tag{A3}$$

The first term on right-hand side of Equation A3 is negative while the second term is positive, meaning that the direction of the slope of the protestor's best response function is now ambiguous. If α is sufficiently small, meaning that the protestor is not afraid of repressive tactics, the curve will be upward sloping, as in Section 3. On the other hand, if α is large, so that the protestor suffers a large fall in utility with each demonstration, the best response function will be downward sloping, meaning that the protestor will refrain from demonstrating if it thinks the government will retaliate. These two cases will be referred to as a 'courageous' protestor and a 'cowardly' protestor, respectively.

The government's best response function is the same as in Section 3: it may be either downward or upward sloping. These cases will now be referred to an 'insecure' government and

an ‘internationalist’ government, respectively.

The situation of a courageous protestor facing either type of government was discussed in Section 3. The modification made to the protestor’s utility function here ensures that a unique Nash equilibrium exists, even when $\beta = 0$, *i.e.* the government does not care about its reputation. When the government is insecure, the Nash equilibrium is always asymptotically stable, since the protestor’s best response function must be flatter than the government’s.[25] When the government is internationalist, the equilibrium will be asymptotically stable so long as the negative of the slope of its best response function in (D, L) space is less than the slope of the protestor’s function in an open neighbourhood of the Nash equilibrium. Otherwise, the equilibrium will be unstable.

When a cowardly protestor faces an insecure government, the Nash equilibrium will be asymptotically stable only if the slope of the government’s best response function is steeper than the negative of the slope of the protestor’s curve. Finally, when a cowardly protestor faces an internationalist government, both best response functions are downward sloping in (D, L) space. So long as the protestor’s curve is flatter than the government’s curve, the Nash equilibrium will be stable. An unstable equilibrium will occur if both protestor and government are very responsive to the actions of the other.

The general condition for an asymptotically stable equilibrium, regardless of the case, is that the absolute value of the slope of the protestor’s best response function is less than the absolute value of the slope of the government’s best response function in a neighbourhood of the equilibrium point:

$$\left|P'(L)\right\|G'(D)\right| < 1. \qquad \text{(A4)}$$

[25] For a discussion of asymptotic stability, see Fudenberg and Tirole (1991).

Hence, as long as protestors are relatively unresponsive to the government's actions, stability will be ensured.

Appendix 2: Construction of the dataset

A set of countries that were procedural democracies throughout the 1993-2002 sample period was formed, using the definition of Cheibub and Gandhi (2004). These were divided into those countries that became democratic before 1974 and those that became democratic in or after 1974. The countries that were used in the analysis are listed in Table A1, along with a note on the nature of the democratic transition for the pre-1974 democracies.[26] The following countries were excluded from the regression analysis because they had missing values for at least one variable in all 10 sample years: Andorra, Antigua and Barbuda, Barbados, Belize, Benin, Cape Verde, Czech Republic, Dominica, Grenada, Iceland, Kiribati, Liechtenstein, Macedonia, Malta, Marshall Islands, Federated States of Micronesia, Namibia, Nauru, San Marino, Sao Tome, Solomon Islands, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Suriname, Vanuatu. These countries collectively accounted for 0.83% of the world's democratic population in 2002.

For the selected countries, annual data for a range of variables were collected for 1993-2002, as described in Table A2. Linear interpolation was used to complete missing interior values for *GINI* and *EXCONST*, with the earliest and latest non-missing values filled forward or back to fill in missing end values. Where possible, the political terror scale data coded using U.S. State Department information was used to fill in missing values for *AIPTS*. Some missing values remain in the final sample. El Salvador has missing data for *LINGUISTIC* for all years and is thus dropped from the pooled and between estimators. The Bahamas and Luxembourg have missing data for *EXCONST* for all years and are thus dropped from Tables 2 and 4. For *AIPTS*, Mauritius has missing data for all years and Slovenia has missing data for 1993-1996, meaning that these observations are dropped from Tables 3 and 5.

[26] Background information on the democratic transition was taken from the C.I.A. World Factbook.

In addition to the variables listed in Table A2, two sets of instrumental variables were constructed. The first was the average number of demonstrations among a country's nearest neighbours in the current and three previous years. To define 'neighbours', data on country contiguity from the Correlates of War Project (see Stinnett *et al*., 2002) were used. If a country has a land or river border with at least one other country, it/they were taken as the country's neighbours. If a country has no land borders, countries separated by 12 miles of water or less were used instead. Similarly, if a country has no neighbours within 12 miles, the definition was widened to 24 miles, 150 miles and 400 miles, in turn. Alone in the dataset, New Zealand has no neighbouring country within a 400 miles radius, so Australia was assigned as its neighbour, based on geographical proximity and cultural ties. When constructing the lags of this variable, the values for Czechoslovakia, the U.S.S.R. and Yugoslavia are used for each of their constituent countries, prior to the countries' dissolutions.

The second instrument was the number of demonstrations in a country in the previous three years. This meant using data as far back as 1990. When doing this, the recorded number of demonstrations for Czechoslovakia (in 1989-1992), the U.S.S.R. (in 1989-1990) and Yugoslavia (in 1989-1991) are allocated proportionally among their constituent countries, according to these countries' 1993 populations. Neither the U.S.S.R. nor its constituent republics were included in the demonstration data for 1991. This meant that in the I.V. regressions, observations for Armenia, Estonia, Latvia, Lithuania, Russia and Ukraine were lost for 1993 and 1994.

Table A1
Countries used in the analysis

Country	Code	Regime started	Details
New democracies			
Albania	ALB	1992	End of communist rule; free and fair elections
Argentina	ARG	1983	Restoration of democracy after period of authoritarian rule (presidential and legislative elections)
Armenia	ARM	1991	Independence from U.S.S.R.
Bangladesh	BNG	1991	Restoration of democracy after period of authoritarian rule (popular elections)
Bolivia	BOL	1982	Restoration of democracy after period of military rule (1980 election presidential results were upheld)
Brazil	BRA	1989	Popular elections for executive mark end of protracted transition from authoritarian rule which began in 1979 (date coded by ACLP)
Bulgaria	BUL	1990	End of communist rule; free and fair elections
Central African Republic	CEN	1993	Civilian rule established (subsequent coup in 2003 but democratic during 1993-2002 sample period)
Chile	CHL	1990	Restoration of democracy after period of authoritarian rule; freely-elected president installed
Croatia	CRO	1992	Independence from Yugoslavia and first elections
Cyprus	CYP	1983	Secession of Turkish north
El Salvador	SAL	1984	Restoration of democracy after extended period of authoritarian rule (presidential elections)
Estonia	EST	1992	First parliamentary election since independence from U.S.S.R. in 1991
Germany	GMY	1990	Date of reunification (although West Germany democratic since 1949)
Ghana	GHA	1993	Multi-party elections for executive mark end of one-party rule
Greece	GRC	1974	Restoration of democracy after period of military rule (parliamentary elections held)
Guatemala	GUA	1986	Transition from dictatorship to democracy (inauguration of first civilian-elected president since 1966)
Guyana	GUY	1992	First free and fair elections for president since independence
Honduras	HON	1982	Freely-elected government came to power after two decades of military rule
Hungary	HUN	1990	End of communist rule; free and fair elections
Korea, South	ROK	1988	Koreans voted directly for president in free and fair elections at end of 1987 for first time in 16 years
Latvia	LAT	1991	Independence from U.S.S.R. (elections in 1990 and first post-independence elections 1993)
Lesotho	LES	1993	Parliamentary elections in mark the return to civilian rule
Lithuania	LIT	1992	Independence from U.S.S.R. (first post-independence elections)
Madagascar	MAG	1993	17 years of one-party rule comes to end when free and fair legislative and executive elections held in 1992-1993
Mali	MLI	1992	Transition from authoritarian rule (first democratic presidential election)
Mongolia	MON	1992	Adoption of democratic constitution and parliamentary elections
Nicaragua	NIC	1984	Establishment of free and fair elections for executive after prolonged period of authoritarian governments
Panama	PAN	1989	Dictator removed with help of U.S. intervention; replaced with popularly-elected president
Papua New Guinea	PNG	1975	Independence from Australian-administered U.N. trusteeship
Philippines	PHI	1986	Opposition leader replaces dictator as president
Poland	POL	1989	Transfer of power from communist to civilian government, soon followed by elections in 1990

Portugal	POR	1976	Restoration of democracy marked by first presidential elections since authoritarian rule ended in 1974
Romania	RUM	1990	First presidential elections after end of communist rule
Russia	RUS	1991	First presidential elections after collapse of U.S.S.R.
Slovakia	SLO	1993	New state created from former Czechoslovakia
Slovenia	SLV	1991	Independence from Yugoslavia in 1991; elections in 1992
Spain	SPN	1977	First democratic elections after death of dictator
Sri Lanka	SRI	1989	Elections since 1977 but nature of civil-military relations means country fails to meet minimal criteria prior to 1989
Thailand	THI	1992	First elections since 1991 coup (subsequent coup in 2006 but democratic during 1993-2002 sample period)
Turkey	TUR	1983	Re-establishment of elected civilian government after period of military rule
Ukraine	UKR	1991	Independence from U.S.S.R. and presidential elections
Uruguay	URU	1984	First presidential elections after period of authoritarian rule
Zambia	ZAM	1991	One-party rule ended with multi-party elections
Old democracies			
Australia	AUL	1909	
Austria	AUS	1955	
Bahamas	BHM	1973	
Belgium	BEL	1948	
Canada	CAN	1940	
Colombia	COL	1958	
Costa Rica	COS	1949	
Denmark	DEN	1915	
Dominican Republic	DOM	1966	
Finland	FIN	1917	
France	FRN	1944	
India	IND	1947	
Ireland	IRE	1922	
Israel	ISR	1948	
Italy	ITA	1945	
Jamaica	JAM	1962	
Japan	JPN	1947	
Luxembourg	LUX	1919	
Mauritius	MAS	1968	
Netherlands	NTH	1945	
New Zealand	NEW	1893	
Norway	NOR	1945	
Sweden	SWD	1919	
Switzerland	SWZ	1971	
Trinidad and Tobago	TRI	1962	
United Kingdom	UKG	1928	
United States	USA	1920	
Venezuela	VEN	1959	

Table A2
Variable definitions

Variable	Description	Definition	Source
EXCONST	Executive constraints	Extent of institutionalised constraints on the decision-making powers of chief executive, 1-7 scale	Marshall and Jaggers (2002)
AIPTS	Political terror scale	Amnesty International reports of human rights violations on a 1-5 scale; missing values from U.S. State Department	Gibney *et al*. (2008)
DEMOS	Number of demonstrations	Number of peaceful gatherings of at least 100 people for the primary purpose of displaying or voicing their opposition to government policies or authority, excluding demonstrations of a distinctly anti-foreign nature	Banks (2005)
GDPCAP	Real G.D.P. per capita	G.D.P. per capita in 2000 U.S. dollars	World Bank
GINI	Gini coefficient	Gini coefficient: 0 indicates total equality; 1 indicates total inequality	Milanovic (2005)
POP	Population	Total population	World Bank
BRITCOL	Former British colony	Former British-administered territory or Commonwealth country	Institute of Commonwealth Studies
ETHNIC	Ethnic frractionalisation index	Index of ethnic divisions on a 0-1 scale, where 1 indicates maximum division	Alesina *et al*. (2003)
LING	Linguistic fractionalisation index	Index of language-based divisions on a 0-1 scale, where 1 indicates maximum division	Alesina *et al*. (2003)
CIVWAR	Civil war	Dummy variable for whether country experienced a domestic armed insurgency and/or civil war in given year	Gleditsch *et al*. (2002)