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Shall the law set them free? The formal and actual independence of regulatory agencies

Chris Hanretty

Political, Social & International Studies, University of East Anglia, Norwich, UK

Christel Koop

Government, London School of Economics & Political Science, London, UK

Abstract

Regulation by independent agencies, rather than ministries, is believed to result in better policy outcomes. Yet this belief requires one to accept a complex causal chain leading from formal independence to actual independence from politics, to policy decisions and, ultimately, to policy outcomes. In this study, we analyze the link between the formal and actual independence of regulatory agencies in Western Europe. New data on the appointment of chief executives of these agencies is used to create a proxy for the actual independence of agencies from politics. The analysis demonstrates that formal independence is an important determinant of actual independence, but the rule of law and the number of veto players matter as well.

Keywords: independence, regulation, regulatory agency, rule of law, veto players.

1. Introduction

Politicians in Europe have granted considerable independence to regulatory agencies because of the widespread belief that having more independent agencies results in better policy outcomes. Scholars emphasize that independent regulatory agencies (IRAs) resolve problems of time-inconsistent policy preferences which politicians face, thus producing Pareto-improving regulatory decisions (cf. Kydland & Prescott 1977; Majone 1996). Governments themselves indicate that the creation of IRAs has allowed “central ministries to concentrate on policy-making,” resulting in “increased efficiency and innovation” (OECD 2002, p. 21). However, for independence to lead to better policy outcomes, a complex causal chain needs to operate, leading from statutory provisions granting independence to behavioral patterns demonstrating independence, to policy decisions and, ultimately, to policy outcomes.

We know much about the determinants of formal independence – the grant of independence found in statutes (e.g. Gilardi 2002; Elgie & McMenamin 2005; Yesilkagit & Christensen 2010). However, studies on the next link in the chain, connecting regulatory agencies’ formal independence to their actual independence, have been less conclusive.¹

Correspondence: Chris Hanretty, University of East Anglia, Political, Social & International Studies, Arts 3.78, Earlham Road, Norwich, Norfolk NR1 2BU, United Kingdom. Email: c.hanretty@uea.ac.uk

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1 The natural presumption that higher degrees of formal independence also imply higher
2 degrees of actual independence has not yet been demonstrated convincingly. Here we test
3 this presumption, examining the relationship between the formal (de jure) and actual (de
4 facto) political independence of regulatory agencies. By the political independence of an
5 agency, we mean the degree to which the agency takes day-to-day decisions without the
6 interference of politicians – in terms of the offering of inducements or threats – and/or
7 the consideration of political preferences. While formal political independence refers to
8 the degree of independence from politics inherent in the legal instruments, which con-
9 stitute and govern the agency, actual political independence refers to the degree to which
10 the agency operates independently from politics in practice.

11 The study focuses on IRAs operating in seven sectors (competition, financial markets,
12 energy, telecoms, pharmaceuticals, food safety, the environment; Gilardi 2005a), in sev-
13 enteen Western European countries. As these countries are all established democracies,
14 with clear procedures for the delegation of authority to unelected bodies, the question of
15 how politicians deal with independent regulatory agencies is particularly significant. By
16 independent agencies, we mean bodies that possess public authority, but are not hierar-
17 chically subordinate to directly or indirectly elected politicians (cf. Thatcher & Stone
18 Sweet 2002, p. 2). Independent regulatory agencies are preoccupied with the creation of
19 rules, the evaluation and scrutiny of economic behavior, and the application of sanctions
20 for non-compliance.

21 We present two innovations in this study. First, we introduce new data on the
22 appointment of chief executives of Western European IRAs, using these to create a proxy
23 for the actual political independence of agencies. Second, we use a new measure of formal
24 independence which builds upon many of the same items as previous indices, but which
25 is constructed using a different method of aggregation. We then use these measures to
26 assess the impact of formal independence on actual independence, accounting for such
27 factors as the rule of law, political salience, coordination of the economy, and the number
28 of veto players in the polity.

29 The paper proceeds as follows. In the next section, we set out how formal indepen-
30 dence is hypothesized to affect actual independence. Subsequently, we introduce other
31 hypotheses, which have been discussed in prior literature. We then introduce our new
32 measures of formal and actual independence, and describe the operationalization of the
33 other variables. The importance of the different variables is then analyzed, followed by a
34 discussion of the results.

35 36 **2. Formal and actual independence**

37 In delegating to regulatory agencies, politicians not only decide on the competences of
38 these organizations, but also on the degree to which these competences can be exercised
39 independently from politics. The preferred degree of independence will be reflected in
40 statutory provisions on the appointment and removal of the head and board members,
41 the possibility for politicians to overrule the agency's decisions, the legal status of the
42 organization, and its financial and organizational autonomy. The overall degree of formal
43 independence, which results from these provisions, is usually regarded as the main
44 determinant of the actual independence with which an agency exercises its competences.
45 Hence, politicians would only interfere in the business of regulatory agencies if the law
46 allowed them to do so.
47

1 Politicians may, indeed, have good reasons to respect the formal independence of
2 regulatory agencies. First of all, they may be “affected” by the widespread belief that
3 having IRAs results in better policy outcomes. Regulatory agencies, which are insulated
4 from politics, would be better able to enhance the credibility of long-term policy com-
5 mitments (Majone 1996), and they would be able to develop higher levels of special-
6 ization and expertise (Bawn 1995; Vibert 2007). As a consequence, they would make
7 more efficient and effective regulatory decisions. For these desired outcomes to be
8 achieved, politicians would not only need to introduce statutory provisions for inde-
9 pendence, but they would also need to respect that independence in practice. Second,
10 the insulation of regulatory agencies from politics enables politicians to shift both the
11 responsibility and the eventual blame for regulatory decisions, to these organizations
12 (Fiorina 1982). Hence, by introducing and adhering to provisions for independence,
13 politicians can use the insulation of regulatory agencies as a blame-shifting instrument.
14 Third, politicians may respect the formal independence of regulatory agencies because
15 they find it inappropriate to interfere in the business of organizations, which have been
16 placed at arm’s length. And finally, even if politicians themselves do not consider inter-
17 fering in the business of independent agencies inappropriate, they may be concerned
18 about the negative reactions, which could follow from such actions. When having inde-
19 pendent regulatory agencies is the norm, politicians may fear being criticized for not
20 respecting regulators’ independence.

21 Yet the relation between formal and actual independence may not be that straight-
22 forward. First, the practice of the law may depart substantially from the text of the law,
23 making formal provisions unreliable indicators. The practice of the law may be more
24 beneficial for agency independence than the text of the law implies. For example, statu-
25 tory drafters in Commonwealth countries typically grant ministers broad discretionary
26 powers not intended to be used regularly by the minister, but allowing for ministerial
27 action in the event of unexpected scenarios (Thornton 1987, p. 275).² In other countries,
28 it is more common for the practice of the law to be less beneficial for agency indepen-
29 dence, as politicians may be accustomed to ignoring onerous provisions.

30 Second, there may be important non-legal determinants of actual independence.
31 Carpenter (2001) traces the actual independence of US government agencies in the
32 Progressive Era back to successful bureaucratic practices of the “politics of legitimacy,”
33 consisting of building reputations for the agency and grounding these in broad and
34 diverse networks. Ringquist *et al.* (2003) conclude that political salience and policy com-
35 plexity are the main determinants of the propensity of legislators to intervene in regula-
36 tory decisions. Maggetti (2007) demonstrates that the actual independence of regulatory
37 agencies in ten Western European countries is determined by the age of the agencies,
38 membership of European networks, and the number of veto players in the polity. Egeberg
39 and Trondal (2009) find that Norwegian agencies pay less attention to political signals
40 than do ministerial departments, but other factors, such as political salience and task
41 discretion, also matter. Finally, studying Norwegian, Irish, and Flemish agencies, Verhoest
42 *et al.* (2010, pp. 249–269) conclude that the structural design of these organizations
43 matters for actual independence, but that other, non-legal factors, such as the country’s
44 politico-administrative tradition, the organization’s size, and its political salience, are also
45 important.

46 Admitting a role for non-legal determinants of independence does not mean that
47 formal independence is irrelevant. Though some studies do not find it to be an important

determinant (Carpenter 2001; Maggetti 2007; Lægreid *et al.* 2008), and others present mixed results (Yesilkagit & Van Thiel 2008), many scholars do trace actual independence back to formal independence (Furlong 1998; Hayo & Voigt 2007; Egeberg & Trondal 2009; Verhoest *et al.* 2010). Therefore, we expect that:

H1. IRAs with higher degrees of formal independence possess higher degrees of actual independence.

3. Other potential explanatory factors

3.1. The rule of law

The specific statutory provisions of the legislation establishing a regulatory agency may be less important than the general orientation of a society towards law itself. In particular, we should expect societies, where the rule of law is more firmly established, to be societies where agencies operate more independently from politics. One of the central components of the rule of law is the presence of a judiciary which is independent of the executive of the day, and which can defend citizens' legally guaranteed rights against those who transgress them – including the executive. IRAs are not judicial bodies, but they often act in a quasi-judicial fashion. Consequently, we might expect that in countries where judicial bodies' decisions are respected, decisions of other independent bodies acting in a quasi-judicial fashion will also be respected, and, thus, IRAs will enjoy actual independence. In other words, in countries where the rule of law is well established, IRAs may benefit from a displaced tolerance of independent institutions acting in a judicial manner. We therefore hypothesize that:

H2. The more firmly the rule of law is established in a country, the higher the degree of actual independence of IRAs.

3.2. Veto players

Actions taken by politicians to reward or sanction regulators may often require the agreement of multiple actors. This may be because the action in question requires the formal passage of an act in parliament, and because no single party has a majority or because the action in question can be taken by the executive or an individual ministry, but cabinet and intra-ministry decisionmaking procedures require agreement between coalition members in order to prevent the coalition from breaking down. The more veto players – actors whose agreement is necessary for an action to be taken (Tsebelis 1995, p. 293) – the more difficult it will be for politicians to sanction or reward the regulator through legislative or executive measures. The more difficult it is for politicians to sanction or reward, the more independent the regulator will be in practice (cf. Maggetti 2007). Consequently, we expect that:

H3. The more veto players in a polity, the higher the degree of actual independence of IRAs.

3.3. Political salience

As politicians have only limited time and resources, they will pay more attention to some agencies than to others, and they will also prioritize controlling some agencies rather than others (Calvert *et al.* 1989, pp. 589–590). Political salience plays an important role in the

1 process of prioritization, and is an important determinant of political efforts to control
2 the behavior of agencies (Dudley 1994; Ringquist *et al.* 2003). As Calvert *et al.* (1989, p.
3 590) explain, “in those areas in which they care the most, politicians will expend greater
4 effort and resources in reducing the uncertainty that affords bureaucrats the opportunity
5 for discretion.” Hence, we propose:

6
7 H4. The greater the salience of the policy area covered by the regulatory agency, the
8 lower the degree of actual independence of IRAs.

9
10 **3.4. Coordination of the economy**

11 As coordinated market economies (CMEs) are characterized by extensive networks
12 linking business and governments, and as these networks are usually taken to be inimical
13 to independent policymaking, we may expect regulatory agencies to be less independent
14 in such systems. As the networks in CMEs primarily coordinate firms, and only second-
15 arily link business to government, they need not play a role for semi-detached parts of
16 government. Nonetheless, Maggetti (2007, p. 274) has hypothesized that CMEs will have
17 less independent regulatory agencies. In the same study, however, not only was this
18 hypothesis not confirmed, but also the link ran precisely in the opposite direction. One
19 explanation is that while the types of networks found in CMEs are inimical to indepen-
20 dence *simpliciter*, they are particularly harmful to independence from regulatees; but
21 dependence on regulatees may bolster independence vis-à-vis politicians. “An agency
22 cannot be a servant of two masters: if it is scarcely independent from the politicians, it
23 should be highly independent from those being regulated” (Maggetti 2007, p. 281).
24 Hence:

25
26 H5. The more coordinated the market economy in a country, the higher the degree
27 of actual independence of IRAs.

28
29 **4. Operationalization**

30
31 **4.1. Measurement of actual independence**

32 Before discussing how to operationalize the actual independence of regulatory agencies
33 from politicians, it is worth setting out what our operationalization attempts to measure,
34 and why it is different from some other literature on this subject. Our root concept,
35 independence from politics, is narrowly drawn. We define political independence of an
36 agency as the degree to which that agency takes day-to-day decisions without the inter-
37 ference of politicians – in terms of the offering of inducements or threats – and/or the
38 consideration of political preferences.³ Formal political independence refers to the degree
39 of independence from politics inherent in those legal instruments which constitute and
40 govern the agency. Actual political independence, on the other hand, refers to the degree
41 to which the agency, in practice, makes its decisions independently from politics. We
42 consider the scope of the powers of an agency – an element that is often included in
43 measures of independence – a separate feature of agencies (Hanretty & Koop 2012). A
44 second important point is that we consider independence from politicians to be unidi-
45 mensional in practice, even if for analytical purposes it may be helpful to distinguish
46 aspects of independence, such as financial independence, managerial independence, and
47 so on.⁴ This does not exhaust the idea of agency independence: agency independence
48 from regulatees, as opposed to politicians, is a classic area of study, and it may be that

1 these two types of independence form part of a multidimensional schema. Focusing
2 exclusively on independence from politics, we stick to measurement in one dimension.

3 Even restricting ourselves to one dimension, precise measurement of actual independence
4 of regulatory agencies is extremely difficult. While it is possible (see Maggetti
5 2007), it is exceedingly complex to produce comparable measures for enough agencies to
6 permit statistical analysis. We therefore rely on two proxy measures of independence,
7 which have been developed in the literature on central bank independence (Cukierman
8 *et al.* 1992; Cukierman & Webb 1995): a measure of political vulnerability (VUL), and a
9 measure of the average turnover of the chief executive of the agency (TOR). Our political
10 vulnerability proxy, VUL, is the percentage of government changes followed within six
11 months by a change in the agency chief executive.⁵ Our turnover proxy, TOR, is the
12 reciprocal of the average tenure, in years, of chief executives of an agency. These two proxy
13 measures have a long history of application in the literature on central bank independence
14 (Sturm & De Haan 2001; Keefer & Stasavage 2003; Dreher *et al.* 2008), and are now
15 being applied to the independence of regulatory agencies (Montoya & Trillas 2009;
16 Jordana & Ramió 2010) and public broadcasters (Hanretty 2010). Elements of these
17 proxies – in particular turnover – have also been applied to other non-majoritarian
18 institutions, such as supreme courts (Hayo & Voigt 2007). Hanretty explains the logic
19 behind VUL as follows:
20

21 If, following a new government, there is a change in the chief executive, then either
22 the chief executive reached the end of her term, or left early. If she reached the end
23 of her term, it may be that the terms of chief executives are designed so as to coincide
24 with changes in government. . . . If this is the case, then one may assume that the
25 chief executive is, in some sense, the expression of a government choice. If the terms
26 do not coincide by design, then the fact that they did so may create this impression
27 in any case. If, by contrast, the chief executive left early, she was either constrained
28 to resign, or did so of her own accord. If she was constrained to resign, this may
29 represent the introduction of some new constraint connected to the government. If
30 she left of her own accord, this may reflect a belief that the government should have
31 a ‘clean slate’ to influence the forthcoming selection of a chief executive (2010, p.
32 77).
33

34 Figure 1 plots a histogram of gaps between government formation and agency head
35 termination. The six-month window is indicated by the solid vertical line.⁶

36 The logic behind TOR is less rigorous. Rates of turnover reflect multiple influences:
37 the attractiveness of exit options, the average age at which executives are appointed, or
38 country- or sector-specific expectations about when to call time on a career in regulation.
39 For our purposes, one important influence on higher rates of turnover is political
40 (dis)satisfaction with the chief executive. While dissatisfaction may result from non-
41 partisan considerations, such as the quality of chief executives, it may also result from
42 chief executives not following the wishes of their political principals. Given such dissatisfaction,
43 politicians may either dismiss the chief executive, or decline to re-appoint her.
44 Or, anticipating this, the chief executive may resign or refuse to be considered for
45 re-appointment. Given our earlier definition of actual independence, such a situation
46 would indicate low levels of independence. The converse scenario, of low rates of turnover,
47 may either reflect high levels of independence, or continued political satisfaction
48 with the current chief executive, which results from subservient behavior. In theory, this

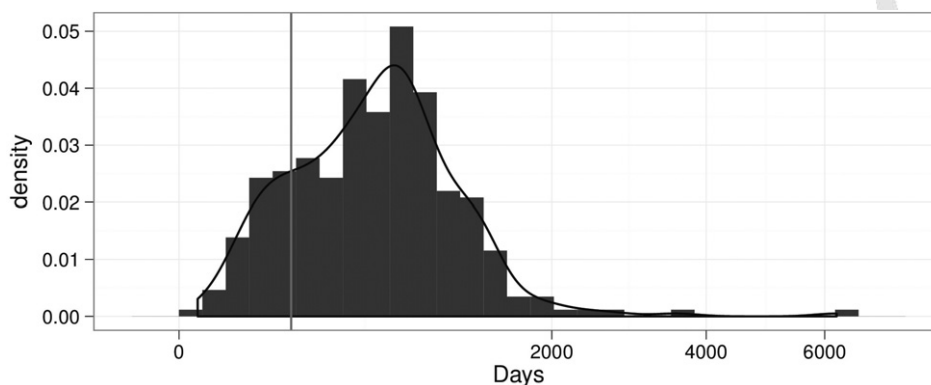


Figure 1 Appointment timing following government change.

poses a problem of observational equivalence. To use TOR as a proxy measure, we must, therefore, make two assumptions: first, that non-political factors affecting turnover are unrelated to political factors affecting turnover, and, thus, do not systematically bias the use of turnover as a proxy for independence; and second, that low rates of turnover are, *ceteris paribus*, always a sign of high degrees of independence, rather than deferential chief executives.

These are strong assumptions, but we believe they are warranted in the cases we study. In particular, our measure is highly correlated with other measures, which are expressed in terms of early exit, rather than turnover. Maggetti (2007) uses as a measure of actual independence the percentage of executives who left before two-thirds of their stated term had expired. Our measure is highly correlated with his measure (Pearson's $r = 0.67$). The strong correlation between our measure, and measures expressed in terms of early exit, would be unlikely if our measure was tapping, for instance, national variation in executive longevity, rather than national and sectoral variation in political independence.⁷

Whilst concerns about observational equivalence have a sound basis, this concern has typically been dealt with by noting the paucity of long-serving chief executives. Following Cukierman (1992, p. 385) in examining executives who have served terms of 12 years or more (three times the modal legislative term), there are only 26 such executives, 18 of whom served agencies with scores of zero for VUL, and which are, therefore, unlikely to have been subservient. The biographies of the remaining executives do not at all suggest subservience. Jens Kampmann, head of the Danish environmental regulator (TOR = 0.18; VUL = 0.13) between 1978 and 1990, was a former Social Democrat, and was unlikely to have been subservient to the Conservative-led Schlüter governments of 1982–1993. Another environmental regulator, Valfrid Paulsson, is the longest serving chief executive in our sample, and was the first director-general of the Swedish *Naturvårdsverket* (TOR = 0.07; VUL = 0). Though he began his career under the Social Democrats, he was “no political appointee” (Sjö 2006), and never acted as a “government rubber stamp” (Hennéus 2006). Rather, he protested (successfully) against the Palme government's plans to dam a river, and later served under two conservative governments. Finally, Sir Gordon Borrie was head of the UK Office of Fair Trading (TOR = 0.16, VUL = 0.25) for sixteen years, which might suggest subservience. Yet, following his long period under Conservative government, he was nominated to the House of Lords to sit as a Labour peer, hardly likely if Borrie had slavishly followed the Conservative wishes while in office.

1 Turnover rates are more closely related to some statutory provisions for indepen-
2 dence than to others. In particular, they are linked to appointment and dismissal pro-
3 cedures. We believe though, that this is not a problem for our analysis. Our starting
4 point has been that institutional design does not always translate into institutional
5 practice. Indeed, we have come across numerous examples of chief executives who left
6 their agency before the end of their term, suggesting that there is a gap between formal
7 and actual term length. Furthermore, as will be discussed later, only a few of the indi-
8 cators of formal independence are related to the appointment and dismissal of chief
9 executives. Hence, an empirical link between formal and actual independence is
10 unlikely to be the consequence of a straightforward link between provisions for turn-
11 over and turnover practices.

12 By combining these two proxies, we can mitigate the error found in each. The two
13 measures are only weakly correlated (Spearman's $\rho = 0.33$), but this is largely because
14 of a number of cases where VUL is stuck at zero, sometimes because of a limited
15 number of government changes.⁸ We scaled the two measures to have zero mean and
16 unit standard deviation, and then averaged them and subtracted the result from one in
17 order to give a measure of independence (since independence increases as TOR and
18 VUL decrease). To calculate TOR and VUL, we gathered data on the tenure of 321 chief
19 executives of 87 IRAs in Europe, using information from press releases from agencies
20 and governments, and from newspaper searches using Lexis-Nexis.⁹ Where information
21 on the day or month of appointment was missing, we imputed the first day of the
22 month, and January. Since the inclusion of recently appointed chief executives might
23 unfairly bias TOR downwards, we included currently-serving chief executives' tenure in
24 the calculation of TOR, only if TOR would not decrease as a result. Figure 2 plots
25 values of our measure by country and by sector; countries are plotted in ascending
26 order of mean actual independence; sectors are plotted left to right in increasing order
27 of mean actual independence.

28 We demonstrate our measure with a number of representative examples of situa-
29 tions in which chief executives have been replaced for political reasons. The first set of
30 examples is related to situations where the chief executive has been replaced following
31 a change of government, and largely concerns VUL. This was the case for the Greek
32 financial markets regulator, the Hellenic Capital Markets Commission. While only one
33 of the five government changes during the period resulted in a change in the chief
34 executive of the regulator, the change was drastic: following the March 2004 general
35 election and the formation of Karamanlis' first government, the entire board of the
36 regulator was replaced, and a new chief executive, Alexis Pilavios, was appointed.
37 Shortly after, the chief executive under the PASOK governments, Stavros Thomadakis
38 (who was married to a minister in the Simitis government), was prosecuted for negli-
39 gence (Athens Newswire 2004). Above-average rates of turnover corroborate the
40 impression of a low-independence regulator.

41 The second set of examples comes from situations where the chief executive has been
42 dismissed by government at any point, thereby affecting TOR. There are relatively few
43 examples of clear-cut dismissal: most chief executives tend to jump before they are
44 pushed. The example just given, of the Hellenic Capital Markets Commission, is an
45 example that affects both VUL and TOR.

46 It is far more common for chief executives to resign for political reasons: such cases
47 form our third set of examples. These cases are relatively common, and are by no means

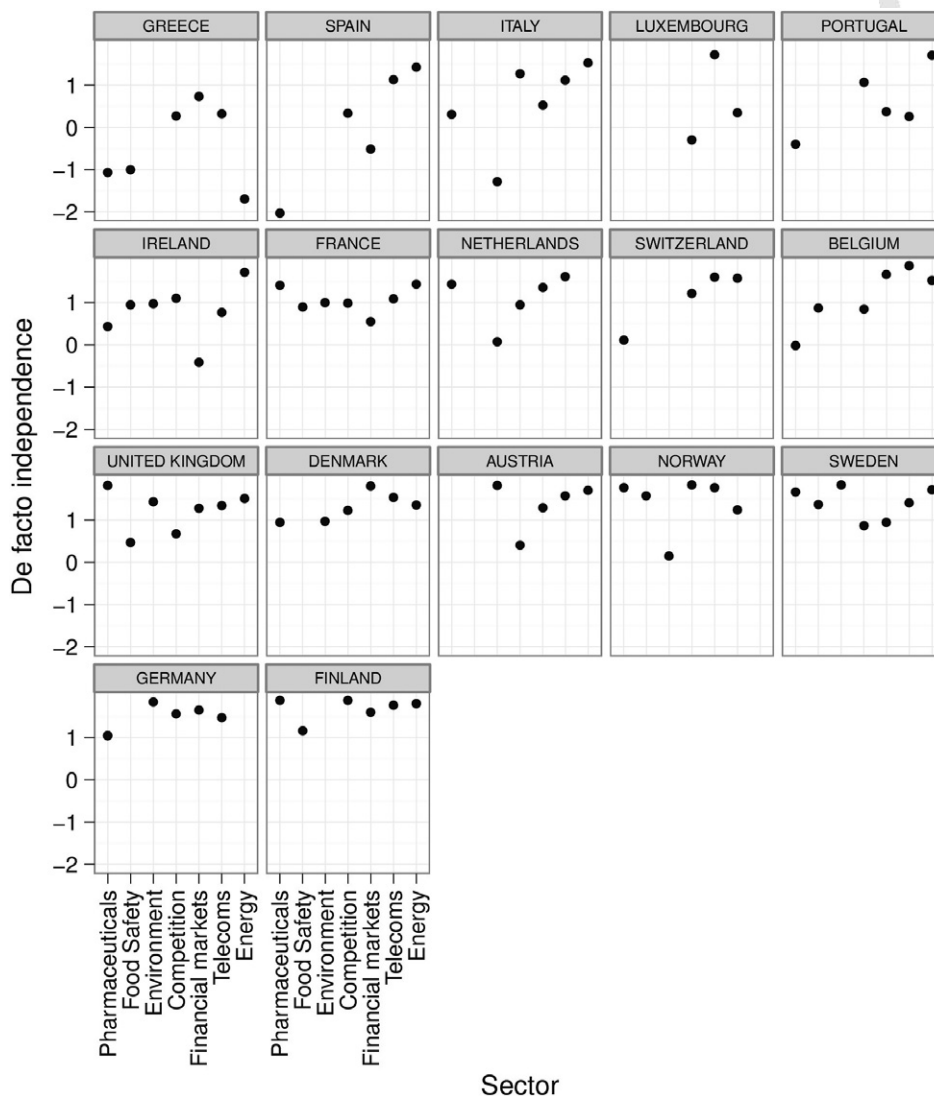


Figure 2 Actual independence by country and by sector.

confined to those countries that have a generally poor record for independence, such as Greece. The director-general of the Norwegian financial markets authority, Svein Aasmundstad, left his post in May 1992 after a dispute with the agency board and the Ministry of Finance; his successor was only appointed after parliament re-affirmed the agency's position as "an independent and strengthened organisation for financial supervision."¹⁰ A similar politically-inspired resignation took place in the Danish environment agency two years after the formation of a center-right government that was viewed by the then-director-general, Steen Gade, as wishing to starve funding for the environment (Kristeligt Dagblad 2003).

By far the largest set of examples comes from cases where the government chose not to re-appoint an outgoing chief executive because it wished to impose its own political direction on the agency. This is one way in which low political independence translates

1 into higher executive turnover, though the effect is rather indiscriminate. It is also the
2 most openly discussed way. There was a slew of non-reappointments following Labour's
3 return to government in 1997 – re-appointments which only arose three years later.
4 Commenting on the non-reappointment of Kevin Bridgeman as head of the Office of
5 Fair Trading, Brown (2000) reported that:

6
7 Few quibble with ministers' desire to replace a Conservative appointee with their
8 own man. There is also some sympathy for suggestions that Mr Bridgeman was not
9 up to the job (though others disagree). But many observers – including some other
10 regulators – are unhappy about the way Mr Bridgeman was undermined by a
11 whispering campaign. This was apparently endorsed by ministers, though not by Mr
12 Byers [the minister responsible]. The real reason they got rid of him, some say, is
13 that he was robust enough to refuse politically inspired demands for inquiries into
14 sectors where there was no evidence of anti-competitive practices.

15
16 A similar story took place in Portugal, where the government decided not to reap-
17 point competition authority chairman Abel Mateus after Mateus lost support from
18 President Cavaco Silva, and after Mateus rowed with ministers over his aggressive anti-
19 trust measures aimed at former state-owned utilities (Thomson Financial News 2007).
20 Not all cases of resignation, still less of non-reappointment, indicate low levels of actual
21 independence, nor would we claim as much. Rather, by offering these examples we
22 demonstrate how low levels of political independence can affect the values of our proxy
23 measures, and that we can, therefore, use information about turnover rates and replace-
24 ments, following government change, as proxies for independence.

25 26 **4.2. Measurement of formal independence**

27 Measures of formal independence have been proposed for central banks, supreme courts,
28 and regulatory agencies. Most of these measures share a large number of index items
29 which relate to the method by which members of the board or court are appointed; their
30 tenure in office; the provisions for their dismissal; and the relationship between the
31 organization and the legislature and the executive, respectively, in particular, concerning
32 the reporting requirements faced by the organization. The most important index of
33 formal independence for our purposes is the index created by Gilardi (2002, 2005a),
34 which, in turn, incorporates many index items found in earlier work on central bank
35 independence by Cukierman *et al.* (1992). A list of these items, and the response cate-
36 gories for each item, is found in Table 1.

37 There are, however, some issues with the items and the scoring used in the Gilardi
38 index that prevent it from being used directly. In a previous article, we have argued that
39 this index, and others like it, suffer from at least three problems: they assume an order for
40 certain response categories which is only weakly justified, or not at all; they weigh items
41 according to criteria that are either arbitrary or are based on rational ignorance about the
42 contribution of each item; and they assume that response categories are scale variables
43 (and not just ordinal categories). To deal with these problems, we developed a latent trait
44 model of formal independence. This latent trait model can also be described as a type of
45 factor analysis for ordinal, rather than interval, level data. This latent trait model allowed
46 us to test: (a) which item response categories were poorly ordered; (b) which items did
47 not fit the latent trait at all (which was often a result of poor ordering); (c) the contri-
48 bution made by each item, in terms of its ability to discriminate with respect to the latent

Table 1 Formal independence items, adapted from Gilardi (2002)

Item	Response category	β
If the head has a fixed term, how long is it?	Fixed < 4 years < 4 years < 5 years < 6 years < Over 6 years	0.55
Does the head of the agency serve for a fixed term?	No/Discretionary < Yes	1.16
Can the head of the agency be dismissed?	Can be dismissed for a variety of reasons < Can be dismissed, but only for reasons unrelated to policy < Cannot be dismissed	0.58
Are there provisions for dismissal of the head?	No < Yes	0.16
May the head of the agency hold other offices in the public administration?	Yes < Yes, but only with permission of the executive branch < No	1.52
Are there provisions for the head holding other offices?	No < Yes	1.38
Is the appointment of the agency head renewable?	Yes, more than once < Yes, once < No	1.06
Is independence a formal requirement for the appointment?	No < Yes	0.96
If the board members have a fixed term, how long is it?	Fixed < 4 years < 4 years < 5 years < 6 years < Over 6 years	1
Do board members serve for a fixed term?	No/Discretionary < Yes	1.06
Can board members be dismissed?	Can be dismissed for a variety of reasons < Can be dismissed, but only for reasons unrelated to policy < Cannot be dismissed	0.50
Are there provisions for dismissal of the board?	No < Yes	0.35
May board members hold other offices in the public administration?	Yes < Yes, but only with permission of the executive branch < No	1.25
Are there provisions for board members holding other offices?	No < Yes	1.42
Is the appointment of the board members renewable?	Yes, more than once < Yes, once < No	1.35
Is independence a formal requirement for the appointment?	No < Yes	1.17
Is the independence of the agency formally stated in legislation or in statute?	No < Yes	1.09
What are the agency's formal obligations to the executive?	Agency must present reports more than once a year for approval < Agency must present an annual report which must be approved < Agency must present an annual report for information only < No formal reporting obligations	0.36
What is the source of the agency's funding?	Government grants only < Fees levied on the regulated industry and government grants < Fees levied on the regulated industry	0.13
How is the agency's budget controlled?	By the executive and/or the legislature < By an accounting office, court or non-elected body < By the agency only	0.16
Which body decides upon the agency's internal organization?	The executive only < Both the agency and the executive < The agency only	0.48
Which body is in charge of the agency's personnel policy?	The executive only < Both the agency and the executive < The agency only	0.13

1 trait; and (d) the distance (in terms of the latent trait) between each response category
2 within an item. We found that four items – the agency’s reporting requirements to the
3 legislature; whether or not the agency had exclusive competence; and the appointment
4 method used for the head of the agency and the agency board – were either unrelated to
5 the latent trait of formal independence or were poorly ordered. We, therefore, dropped
6 these items to calculate the trait scores for formal independence for each agency, using
7 data from a wide range of agencies in Europe and in the rest of the world. In this paper,
8 we use the same data gathered by Gilardi (2005a), but we calculate the degree of formal
9 independence by using (a) the items that performed as expected, and (b) the parameter
10 estimates we obtained from our previous model. Note that using slightly older data may
11 exert a downwards bias on the effect of formal independence if there has been a general
12 increase in the formal independence of agencies. The items and their discrimination
13 parameters – which are analogous to weights in a normal index – are reported in
14 Table 1.¹¹

15 4.3. Measurement of the other independent variables

16 Let us now turn to the operationalization of the remaining variables. First of all, there are
17 a variety of measures of the *rule of law*; one review noted at least seven (Skaaning 2010).
18 Of these seven, only three measures – the PRS Group’s Law and Order measure, the
19 Freedom House measure of Rule of Law, and the World Bank’s composite index of Rule
20 of Law, released as part of their Governance Matters indicators – cover all of the countries
21 we analyze. We discarded the measure from the PRS group, as it is not publicly available
22 and, thus, causes problems for replication. We have not used the Freedom House measure
23 for the reason that there is no information available on coder reliability and on whether
24 respondents in different countries have interpreted the questions similarly. The remain-
25 ing measure – the World Bank measure – aggregates information from 77 other indica-
26 tors from 31 different sources. In the belief that aggregating multiple measures can reduce
27 the error in each, we use the World Bank measure of the rule of law in the analysis
28 (Kaufmann *et al.* 2009).¹²

29 The hypothesis on the *number of veto players* was tested using the number of veto
30 players as calculated following Tsebelis (1995, pp. 305–308). A major part of the data was
31 taken directly from Tsebelis’ website.¹³ The remainder were calculated manually. We
32 averaged these figures out over the period of the agency’s lifetime.¹⁴ To assess the effect of
33 *political salience*, we used data gathered by Laver and Hunt (1992). These authors report
34 salience scores for ministerial portfolios in established democracies. For each regulatory
35 agency, we took the score of the ministry to which the agency is linked. For Switzerland,
36 which was not included in the Laver and Hunt study, we imputed the scores for Austria
37 for the reason that the two countries are rather similar in terms of size and political
38 system.¹⁵ Finally, to test the hypothesis on *coordination of the economy*, we used data by
39 Hall and Gingerich (2009). Two of our countries are not included in the dataset of these
40 authors. Based on their corporatism scores (Siaroff 1999), we ascribed Greece a value
41 halfway between the United Kingdom and the United States, and Luxembourg the same
42 value as Belgium. We view these theoretically driven imputations as better than mean
43 imputation or other multiple imputation strategies.

44 We control for the effect of country size and real gross domestic product (GDP) per
45 capita. We control for country size because of the more exposed position of regulators in
46 smaller states. Small states spend a disproportionate amount of their national product on
47

Table 2 Descriptive statistics

Variable	Mean	SD	Min	Max
De facto independence	1	0.82	-2.03	1.88
TOR	0.19	0.12	0.05	0.73
VUL	0.09	0.14	0	0.66
Formal independence	0.45	0.22	0	0.99
Rule of law (1998–2008)	1.56	0.40	0.62	1.94
Number of veto players	2.63	1.40	1	6.13
Political salience	5.6	3.20	1	13.5
Coordination	0.62	0.26	0.06	1
Population ('000)	24,150	25,800	447	82,240
GDP per capita	28,210	7,071	17,610	59,440

^[2] GDP, gross domestic product; VUL, vulnerability; TOR, turnover.

public services, both because of fixed costs in public service provision and because of increased electoral pressure in smaller states (Remmer 2010). As a result, the role of the state in small states may be overwhelming, and “such state ubiquity . . . can foster nepotism, cronyism, patronage, and political clientelism,” as opponents and supporters are more easily identified and (proportionally) more easily rewarded (Srebrnik 2004, pp. 334–335). Each of these practices is inimical to independence. Finally, we control for real GDP per capita to test for differences between richer and poorer economies.¹⁶ The summary statistics for the different variables are reported in Table 2.

5. Analysis

We carried out a multilevel regression analysis on the 87 regulatory agencies for which we had data on formal and actual independence, with varying country-intercepts. We opted for a multilevel model rather than an ordinary least squares regression because there is a hierarchical structure in the data: regulators are nested within countries, and so are not independent of each other. The results of our models are shown in Table 3.¹⁷ The table shows six models with three different dependent variables: our measure of independence, and the component parts of that measure, TOR and VUL. Note that variables which increase actual independence should have a positive sign in the first two columns, but a negative sign in the third to sixth columns, since higher TOR, and higher political VUL, mean less independence.¹⁸

The first model for each dependent variable is the full model with all predictors included: this model is somewhat overspecified. The second model for each variable is a reduced model, which shows a number of significant variables. This reduced model is necessary to reduce the risk of a saturated model. As the table shows, each of the models perform moderately well in explaining variation in our measure of independence, with the two models explaining actual independence performing better than those explaining turnover or political vulnerability. Formal independence, contra skeptical predictions, turned out to be a significant predictor of actual independence. This was true in all models, though in the models for executive TOR, formal independence was only significant at 10 percent. The independent effect of rule of law itself was far more important, substantively and statistically, being significant at the 0.05 level in all of the six models, and affecting actual independence in the hypothesized way.

Table 3 Regression results: actual independence

	Full model	Reduced model	Full TOR	Reduced TOR	Full VUL	Reduced VUL
Intercept	-3.315 (3.554)	-1.852*** (0.419)	0.133 (0.583)	0.511*** (0.069)	1.405* (0.655)	0.515*** (0.079)
Formal independence	1.118** (0.340)	1.047** (0.342)	-0.100† (0.056)	-0.094† (0.056)	-0.198** (0.063)	-0.184** (0.064)
Rule of law	1.400*** (0.218)	1.226*** (0.191)	-0.155*** (0.036)	-0.152*** (0.032)	-0.210*** (0.040)	-0.163*** (0.036)
Veto players	0.171** (0.063)	0.200*** (0.058)	-0.004 (0.010)	-0.015 (0.010)	-0.044*** (0.012)	-0.039*** (0.011)
Population (log)	0.155* (0.067)		-0.004 (0.011)		-0.039** (0.012)	
GDP per capita (log)	-0.048 (0.333)		0.047 (0.055)		-0.044 (0.061)	
Market coordination	0.382 (0.292)		-0.133** (0.048)		0.056 (0.054)	
Salience	0.004 (0.021)		0.001 (0.003)		-0.002 (0.004)	
Log-likelihood	-87.985	-86.874	54.748	62.659	45.578	52.056
Deviance	155.500	164.326	-158.874	-149.154	-138.678	-126.926
AIC	195.970	185.748	-89.496	-113.318	-71.157	-92.113
BIC	220.629	200.544	-64.837	-98.523	-46.498	-77.318
N	87	87	87	87	87	87

GDP, gross domestic product; VUL, vulnerability; TOR, turnover.

***Significant at 0.001 level.

**Significant at 0.01 level.

*Significant at 0.05 level.

†Significant at 0.1 level.

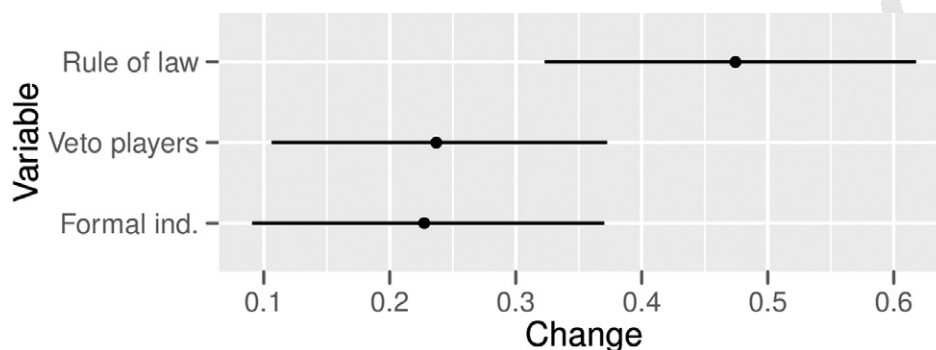


Figure 3 Effects on actual independence of standard deviation change in independent variables.

Our political system variable – the number of veto players – was significant, and in the expected direction. Hence, a larger number of veto players make it more difficult to sanction the agency, and thus make it more independent. No support for this is found, however, in the model of executive TOR. The salience of the policy area in which each agency operates was not statistically significant in any model. The same is true of the degree of coordination in the market economy, which does not increase degrees of actual independence. Although the degree of coordination is associated with longer-lasting chief executives in our model of TOR, there is no sign of any effect on political vulnerability or on the aggregate measure.

Finally, the control variable for country size, in terms of population, does have an effect on actual independence: increases in population are associated with higher degrees of actual independence. This supports the argument that the omnipresence of the state in smaller countries leads to closer ties between politicians and regulators. This finding may, however, be artefactual – a model that includes our three favored variables (veto players, rule of law, and formal independence), together with country size, has country intercepts that are all equal to zero, suggesting a saturated model.

We can go beyond hypothesis testing to examine the substantive impact of each of these variables. Figure 3 shows the effect on actual independence of a change in one standard deviation of each variable. We can see that a one standard deviation change in formal independence increases actual independence by around 0.2, more than comparable changes in the number of veto players or population. Still, the substantive effect of changes in formal independence is only modest. Thus, incorporating more provisions for independence in the statutes of regulatory agencies should not be expected to lead to major changes in actual independence. A one standard deviation change in the rule of law – about the difference between Spain and the United Kingdom – has by far the largest effect.¹⁹ Nevertheless, formal independence is by far more tractable than making changes in the rule of law. That is, while legislators can increase the formal independence of a regulatory agency by changing the statutes of the organization, there is no such “simple” solution for improving the rule of law.

The substantive importance of formal independence becomes even clearer when we consider concrete examples of the changes in each variable that are necessary to secure a desired change in actual independence. Returning to the Greek financial markets regulator, suppose that we wished to make the Greek regulator as independent from politics as the German regulator, BaFin. To achieve this change – a change of almost 2.25 units on

1 our measure – how would our key variables need to change? No single change in a
2 variable can achieve an effect of this magnitude. To surpass the level of actual indepen-
3 dence shown by the BaFin, Greece would need to become as law-abiding as Norway, and
4 grant the Hellenic Capital Markets Commission the third-highest degree of formal indepen-
5 dence seen in our sample. The first of these changes seems difficult to achieve; the
6 second is possible, but would not secure such a dramatic improvement alone.
7

8 **6. Conclusion and discussion**

9
10 So far, we have shown that we can arrive at reasonable interval-level measures of the
11 actual independence of regulatory agencies, and that the independence of these agen-
12 cies can be explained reasonably well by four main variables – the degree of formal
13 independence of the agency, the rule of law, the size of a country, and the number of
14 veto players. These findings can, of course, be contested, and we recognize that not all
15 readers will be convinced by our use of proxies and the assumptions that the effects of
16 these variables are ever-present and monotonically increasing. Our data refers to inde-
17 pendence over the life of these agencies, which presents both benefits and challenges: as
18 these institutions age, they acquire a longer track record which is a more reliable indi-
19 cator of their degree of independence. At the same time, however, static measurements
20 of independence may belie the extent to which independence varies over time in
21 response to developments, which are internal or external to the agency (and which may
22 also explain why our findings differ from other scholars who find no link between
23 formal and actual independence).
24

25 Although our study has been limited to IRAs in 17 established Western European
26 democracies, we expect our findings to be relevant for other established democracies as
27 well. Moreover, given the importance of the rule of law for actual independence, we
28 believe that our findings also have considerable relevance for regulators operating in
29 newer democracies where the rule of law is less well established. Jordana and Ramió
30 (2010) have demonstrated, on the basis of proxy measures related to turnover, that
31 regulatory agencies in Latin America are, on average, less independent than regulators in
32 Western Europe. The gap between Latin American regulators and Western European ones
33 is consistent with the difference in the rule of law between the two regions. In other
34 words, although the dynamics of independence may be different in newer democracies,
35 we expect the rule of law to be an important explanatory factor of the variation in actual
36 independence in these countries as well.

37 Our findings on the effect sizes of each of these variables imply an optimistic view for
38 institutional engineering. Olsen (2003) has written that institutional engineering requires
39 that decisionmakers know what they want, know how to achieve it, and have the power
40 to do what is needed to achieve a desired result. We cannot speak to politicians' desires
41 and preferences, though the benefits of agency independence – whether extrinsically, in
42 terms of greater efficiency, or intrinsically, in terms of greater propriety – are usually
43 taken to self-recommending. Nor still can we speak to whether politicians have the power
44 necessary to achieve changes in agency's formal independence – though here, too, the tide
45 seems to flow inexorably in the direction of greater independence (Gilardi 2005b). But we
46 do suggest that our findings offer knowledge about how to achieve the desired outcome,
47 which is relatively independent of contextual features – like limited rule of law – that
might make engineering more difficult.

Notes

- 1 Studies on the link between independence and better policy outcomes – mainly in the area of central banking – have also been inconclusive (Cukierman *et al.* 1992; Alesina & Summers 1993; Down 2004).
- 2 With only two common law countries in the analysis – Ireland and the United Kingdom – we cannot disentangle the impact of such a system from the effect of other institutional features associated with the two countries, such as the administrative traditions they share.
- 3 Our definition of independence resembles definitions of autonomy. Verhoest *et al.*, for instance, define agency autonomy as “the extent to which an agency can decide itself about matters that it considers important” (2010, p. 18–19), and Busuioc *et al.* indicate that agents have autonomy “when they have the capacity to manage their own affairs, acting and deciding unbound by the preferences and interests of their principals” (Busuioc *et al.* 2011, p. 850). Yet, for some authors, independence is more narrowly defined. Olsen, for example, defines autonomy as “both the absence of external interference and the capability of an agency or institution to exploit available spaces to manoeuvre” (Olsen 2009, p. 442).
- 4 More specifically, we consider independence from politics to be a latent trait which affects the probability that agency decisions in different areas – financial decisions, management decisions, and so on – are made without the interference of politicians and/or the consideration of political preferences.
- 5 Following Strøm *et al.* (2010), we judge a new government to have started if there has been an election, a change in the prime minister or a change in the partisan composition of the government.
- 6 We also ran the models with time windows of nine and 12 months. The results of these models are largely similar to the ones presented in Table 3, but the *P*-values of the coefficients for formal independence are slightly higher than 0.10. This is also the case for the *P*-value of the coefficient for population in the model with the 12-month window. We present the results of the alternative models in the on-line appendix.
- 7 Note, however, that national average levels of chief executive turnover (DeFond & Hung 2004) are not significantly correlated with TOR (Pearson’s $r = -0.08$).
- 8 The correlation between TOR and VUL is higher for cases where VUL is greater than zero: Pearson’s $r = 0.56$.
- 9 In most cases, we have information from the founding of the agency until the present day. In the online appendix, we have included the list of regulatory agencies and the period for which we have data on the chief executives of these agencies.
- 10 Personal communication from Bjørn Skogstad Aamo, director-general, *Finanstilsyn*.
- 11 We also estimated the final OLS model using the original Gilardi scores instead of our latent trait scores. The same variables are significant in both specifications. The results with the alternative measure are reported in the online appendix.
- 12 We also ran the analyses with the Freedom House measure; results do not differ substantially. See the online appendix.
- 13 See http://sitemaker.umich.edu/tsebelis/veto_players_data (last accessed 22 June 2012).
- 14 We re-ran the models with measures for actual independence, veto players, population, and GDP per capita, which are averaged over a shorter period of time, using a maximum of 20 years (1990–2010). These models also served to, at least partially, deal with the issue of changes in the statutory provisions for independence. Quite a number of IRA statutes have been changed in the 1990s, in which case the impact of formal independence is better captured using the adjusted measure of actual independence. The results of these models are similar to those presented in Table 3, with the exception of the effect of the population variable in the first model, which is no longer significant. The results of the models are presented in the on-line appendix.

- 15 We also ran the analyses with the Druckman and Warwick (2005) measure of portfolio salience, which excludes Greece and the UK. The results – which do not differ substantially – are in the online appendix.
- 16 Following Maggetti (2007), we initially tested for agency age. It does not appear here because it was not a significant predictor of actual independence, and because our cross-sectional data does not allow a proper test of the dynamic effects of agency age.
- 17 In the online appendix, we report the results from OLS regression with Huber-White standard errors clustered by country. All variables significant in our multilevel models are also significant in these models.
- 18 The correlation between formal independence and the three measures of actual independence is not very strong: for the aggregate measure, Pearson's $r = 0.03$; for TOR, Pearson's $r = 0.03$; and for VUL, Pearson's $r = -0.08$.
- 19 Findings are similar for the TOR and VUL models. In the online appendix, we include the figures with the effect on these variables of a change in one standard deviation of the three independent variables.

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