Keeping control of regulation? Domestic constraints on the creation of independent authorities in emerging and developing economies

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Abstract
Regulatory independence has become an international norm over the past decades. Yet, governments in some emerging and developing economies have eschewed the model. We argue that this outcome is shaped by the domestic institutional context; in particular, authoritarianism and traditions of state control over the economy. Analyzing new data on the adoption and operation of independent competition authorities between 1990 and 2017, we find that authoritarianism and, to some extent, state-led economic traditions negatively affect formal adoption. By contrast, these institutional constraints do not have much impact on the start of the operations, which seems to be driven primarily by capacity and economic need. Our findings shed light on domestic institutional constraints on the spread of international norms and the limits of “regulatory transplants” in the Global South.

1 | INTRODUCTION
Over the past decades, the importance of the state as regulator of the economy has increased considerably. Governments around the world have moved away from the model of the “positive
state” toward the “regulatory state,” regulating newly privatized companies and expanding social regulation (e.g., Dubash & Morgan, 2012; Levi-Faur, 2005; Majone, 1994). The rise of regulation has been accompanied by the creation of independent regulatory agencies. Insulated from electoral politics, these bodies are said to be better able to commit to long-term regulatory stability, thus enhancing Pareto efficiency and investment (Gilardi, 2002; Levy & Spiller, 1996). Independent regulators were initially adopted in Anglo-Saxon countries, then spread to Continental Europe and Latin America, and are now used across the globe (Jordana, Levi-Faur, & Fernández-i-Marín, 2011).

Despite regulatory independence having become an international norm, it has not been opted for by all governments in the Global South. Even in areas such as competition policy and financial regulation, where independent regulators are ubiquitous, some countries rely on ministerial departments for regulatory enforcement (Jordana et al., 2011). Our study asks why governments in some emerging and developing economies have formally or effectively eschewed regulatory independence.1

Focusing on domestic institutional constraints, we argue that authoritarian regimes are less likely to create independent authorities since independence is less advantageous when electoral institutions are absent. We also emphasize the mediating role of political-economic institutions; especially traditions of state control over the economy. As independence inhibits discretionary use of regulation, we expect authoritarian systems with a strong tradition of controlling the economy to be less inclined to create independent regulators.

We test our hypotheses on new data on the creation of independent competition authorities. Competition policy constitutes an area of regulation that has expanded rapidly over the past decades (Aydin & Büthe, 2016; Parakkal, 2011). Yet, while most governments have delegated the enforcement of competition rules to authorities located outside ministerial hierarchies, some have decided to keep it under direct political control. Figure 1 shows that while both competition laws and independent competition authorities have become popular since the 1990s, law adoption has not always been accompanied by the creation of an independent authority.2 Moreover, there is a gap between formal creation and the start of the operations. We empirically focus on why some of the governments that decided to adopt a competition law have kept away from formally and effectively embracing independence.

**FIGURE 1** Competition laws and independent competition authorities in 148 emerging and developing economies (1990–2017)
By assessing the domestic constraints on the creation of independent competition authorities in emerging and developing economies, we seek to contribute to the literature in three ways. First, comparative studies of regulatory independence have emphasized the role of diffusion (e.g., Gilardi, 2005; Henisz, Zelner, & Guillén, 2005; Jordana et al., 2011). We know less about the constraints on this diffusion. By focusing on competition policy, a field where independence prevails, we can assess the role of domestic institutions in an area where they are least likely to have played a role.

Second, the literature on the regulatory state has primarily looked at advanced economies. Studies going beyond this tend to be regional and single-case studies (Dubash & Morgan, 2012, p. 265). Our quantitative analysis builds on these studies, but focuses on the broader patterns behind the “regulatory state of the South” (ibid). Furthermore, as emerging and developing economies are institutionally more heterogeneous than advanced economies, our analysis helps understand the role of institutional constraints and, thus, the limits to “regulatory transplants” (ibid, p. 268). Finally, as both competition policy and independent regulators have been adopted in a rather short period of time, our time-series analysis has the methodological advantage of capturing authority creation under relatively similar international conditions.

Third, studies of regulatory agencies have been criticized for equating formal rules with actual practices (Büthe, 2015, p. 222), which is particularly problematic in the Global South (Jordana & Ramíó, 2010). We collected data on both the formal adoption and the start of the operations of independent competition authorities (see Section 3). The latter will not fully capture actual enforcement, but will provide some initial insight into the determinants of the operations.

2 | DOMESTIC INSTITUTIONAL CONSTRAINTS ON REGULATORY INDEPENDENCE

Governments in the Global South have not only faced considerable economic and international pressure to adopt competition rules and other forms of regulation (e.g., Büthe, 2015; Levi-Faur, 2005), but have also been encouraged to create independent regulators. Such independence is believed to enhance policy consistency, Pareto efficiency, and investment (e.g., Gilardi, 2002). Pressure has been exercised by international organizations such as the Organization for Economic Co-operation and Development (OECD), the European Union (EU), the International Monetary Fund (IMF), and the World Bank (Dubash & Morgan, 2012; Henisz et al., 2005; Jordana et al., 2011).

Yet, independence comes at a cost since it limits governments’ ability to intervene in regulatory decisions. Post-delegation interference is not impossible, but as decisions are no longer taken under political auspices, governments need to invest special effort, without guaranteed success. Moreover, as politicians publicly committed to agency independence, it is politically risky to interfere. Hence, delegation reduces the scope for political action and discretion.

Therefore, we should not be surprised to find that independence has not been embraced by all governments. Governments can choose to eschew the model in two key ways: (a) by using a ministerial unit, or (b) by formally adopting an independent regulator, but preventing this regulator from (independently) enforcing the rules. In competition policy, 25% of the 118 emerging and developing economies that had a comprehensive law by 2017 had not (yet) formally adopted an independent authority, relying instead on ministerial enforcement. Furthermore, 15% of the 89 economies that had formally adopted an independent authority by 2017 had not (yet) made it operational. Figure 2 maps our data for 2017.
We argue that while the political implications of delegation are serious for all governments, they are a greater burden for some, depending on the institutional context. We assume that governments are accustomed to operating in, and have a vested interest in, the institutions that are present. Accordingly, we argue that they are less likely to adopt independent regulators when independence is incompatible with these institutions. More specifically, we expect authoritarianism, political-economic dependence on petroleum, and communist institutional legacies to discourage governments from creating independent regulators.

2.1 Authoritarianism

The main argument behind regulatory independence—the credible commitment thesis—was developed to apply to democracies. Its starting point is democracy’s key attribute of temporal government. Democracies are characterized by two types of inconsistencies: incumbents’ time-inconsistent policy preferences and policy inconsistency due to changes in government. First, with political office depending on electoral performance, incumbents face incentives to use economic policy to promote outcomes with short-term electoral advantages, but (potential) long-term economic drawbacks. This “bias” is relevant for monetary policy, but also for economic regulation. For instance, incumbents may encourage investment in utility companies, but may then—before elections—set utility prices below cost so as to attract voters (e.g., Levy & Spiller, 1996). Second, and most relevant for this study, policy preferences change because governments change. In competition policy, government preferences reflect the relative importance attributed to consumers and producers. Hence, as governments change, competition policy may fluctuate “between pro-producer policies that tolerate the exercise of market power and pro-consumer policies that redistribute wealth from producers to consumers” (Baker, 2006, p. 484). The regulatory instability resulting from the two types of time inconsistency may be anticipated by investors and may

**FIGURE 2** Competition laws and competition authorities in 148 countries in 2017 (industrial countries by 1990 excluded)
discourage investment and growth. This undesirable outcome could be partially avoided by delegating to electorally insulated bodies with longer time horizons (Gilardi, 2002; Levy & Spiller, 1996).

Authoritarian governments do not produce the same instability. We define authoritarian systems negatively, as the antonym of electoral democracy. They are characterized by the absence of (a) institutions that allow citizens to express their policy preferences, (b) institutionalized constraints on the exercise of executive power, and (c) inclusive, universal suffrage (Doorenspleet, 2000, p. 390). It is the absence of these institutions that is at the heart of our three-pronged argument.

First, absent elections, time inconsistency is less embedded. Though authoritarian governments may be toppled, their time horizon is generally considered to be longer than for democratic governments as turnover is not institutionalized (Ginsburg, 2008, p. 63). Hence, short-term election-driven strategies and changes in government are less prevalent. This is not to say that the overall investment climate is safe. As their political survival depends on the support of a “selectorate” that typically consists of (particular) business elites (Bueno de Mesquita, Smith, Siverson, & Morrow, 2003), authoritarian governments may put in place policies that favor these elites but not investors; for instance, sector-specific tariffs and subsidies. Moreover, though consumers are not part of the selectorate, they may cause unrest, which may lead governments to seek to “pacify” them; for example, by keeping food and utility prices low (cf. Thomson, 2019). Yet, without elections and institutionalized turnover, the use of selected policies to favor particular groups will be more stable, with the sectoral investment climate being more predictable. Competition policy may, for instance, be used by governments to protect their favored industries, but we should expect such policy use to be relatively constant, with long-term protection for particular sectors.

Second, the policy outcomes associated with independence may not be as attractive for authoritarian governments as for democratic ones. Like judicial independence, regulatory independence is associated with protection of the investment climate and economic growth, which may not be what authoritarian governments desire (Root & May, 2008, p. 304). Investment and broad-based growth may appease unhappy citizens, but may just as well undermine authoritarian governments by empowering regime enemies or weakening regime stalwarts (Root & May, 2008, p. 306). These governments may, therefore, wish to provide selective benefits. Rather than promoting the neutrality and predictability of policy decisions—for instance, by delegating to independent authorities—they may prefer a system in which investors depend on government officials to protect their investments. Such dependence can provide officials with “numerous venues for amassing rents and private wealth,” which can be used to reward supporters (Root & May, 2008, p. 305).

Third, even if authoritarian governments pursue investment and growth, the impact of independence will be weaker than under democracy because investors know that it is easier to renege on commitments. In democracies, the exercise of executive power—including interference in independently made decisions—is constrained by legislatures and judiciaries. Though authoritarian governments often adopt such institutions (e.g., Brancati, 2014; Moustafa, 2014), they can more easily curb and infringe on their powers (Boulianne Lagacé & Gandhi, 2015). Thus, their institutional commitments are not as credible.

In sum, regulatory independence will be less attractive for authoritarian governments than for democratic governments because the former will (a) not face the same time inconsistency problem, (b) have weaker preferences for the outcomes associated with independence, and (c)
not benefit to the same extent from independence because of the lack of institutional constraints on executive power. Hence:

**Hypothesis 1** *The more authoritarian a political system is, the less likely government will be to formally adopt an independent authority to enforce its competition law, and to make a formally adopted independent authority operational.*

### 2.2 State control over the economy

While democracies tend to have competitive, open-market economies, the economies of authoritarian systems come in all shapes and sizes. Some of these constellations are more compatible with regulatory independence than others. In particular, independence is more compatible with liberal or “hands off” political-economic institutions than with institutionalized state control over the economy. Not only does it pose less of a threat to governments with more limited steering ambitions; economic discipline, non-discretion and predictability of policy decisions are also part of a broader liberal political-economic agenda (Roberts, 2010). By contrast, state-led political economies are characterized by state-owned enterprises, government planning, and a discretionary policy style (Majone, 1994; Schmidt, 2003). Though regulation is associated with liberal political-economic models (Majone, 1994), it can be used to direct the economy, especially under conditions of economic globalization (e.g., Pearson, 2005). As long as regulatory decisions are taken under the auspices of government, potential incompatibilities with government planning can be avoided. Yet, once these decisions are taken by independent regulators, discretion is taken away and incompatibilities may arise. Hence, we should expect governments running state-led political economies to be more hesitant to embrace independence than governments in liberal political economies.

Previous studies have indeed traced back the variation in independence to varieties of capitalism in Europe (Guidi, Guardiancich, & Levi-Faur, 2020; Thatcher, 2007). In particular, independent regulators should fit less with state-led market economies (Schmidt, 2003). In these systems, the state plays a key coordinative role in the economy, which limits the scope for independent regulation (Thatcher, 2007). The effect should be especially salient in the Global South: while the move away from state control over the economy preceded the introduction of independent regulators in Europe (e.g., Majone, 1994), statism is still prevalent in the South. Some of these countries will have kept away from regulation altogether, but insofar as regulation was introduced, we should expect governments to be less likely to opt for regulatory independence.

We expect this effect to mediate the role of authoritarianism. Not only are state-led political economies primarily present in authoritarian systems; maintaining control over the economy is also particularly important in these systems. A long as authoritarian governments can exercise discretionary control over the economy—including control over regulatory decisions—they are able to provide selective benefits. As discussed above, this is attractive because it leads producers and investors to be strongly dependent on government, which helps government generate rents and private wealth (Root & May, 2008, p. 305). These resources can, in turn, be used to reward supporters. Hence, by adhering to institutions that facilitate control over the economy, governments can enhance their survival.

We focus on two types of systems in which the economy is more state-led: (a) systems that strongly depend on petroleum production and (b) systems with communist institutional legacies. First, strong economic and political reliance on oil tends to produce institutionalized state
control over the economy. With the exception of the United States, oil industries have been nationalized, though (foreign) private companies may be responsible for the extraction (Victor, Hults, & Thurber, 2011). National petroleum industries create enormous scope for state control over the economy. As state-owned enterprises operate under ministerial or governmental auspices, they allow governments to control the petroleum industry itself. Moreover, as extraordinary profits can be generated by extracting oil, government revenues tend to be vast (Ross, 2012), which facilitates intervention in other parts of the economy (and society). Finally, due to Dutch disease, oil extraction can crowd out other industries.

Thus, oil states are characterized by a concentration of economic activity in the public sector. Typically, only service sectors remain in private hand, but these often still depend on government contracts (Ross, 2012, p. 49). Under these conditions, regulatory policies are less likely to be adopted; the model is one of ownership rather than regulation. Insofar as regulatory policies are adopted, we expect regulatory independence, which makes discretionary use of the rules to direct economic activity more difficult, to be less attractive. Hence:

**Hypothesis 2** The stronger the political economy’s reliance on petroleum is, the stronger will be the effect of authoritarianism on the likelihood of independent competition authority adoption and operation.

Second, we associate communist institutional legacies with stronger economic interventionism. Communist systems are, by definition, systems of state control of the economy: they exercise control by means of ownership and price control rather than regulation. Hence, independent regulators are not likely to be found in these systems. The situation is different for communist states that have moved toward a socialist market economy; for instance, China and Vietnam. These states have liberalized parts of their economy, privatized some state-owned enterprises, and adopted regulatory policies, including competition laws. Yet, economic interventionism is still a central feature, which discourages governments from embracing independence. For instance, a study of the Chinese regulatory state concluded that

“[r]egulatory independence is constrained by the broader political-institutional context in which the new regulatory bodies are situated, a context that possesses four salient features: continued state ownership of strategic assets; continued dominance of state and party ‘comprehensive’ institutions with authority over economic development; the bureaucratic origins of regulators in the former line ministries; and the fragmented, ambiguous authority of the regulator” (Pearson, 2005, pp. 297–298).

These dynamics have been documented in Chinese competition policy as well: enforcement has largely addressed foreign companies and has, thus far, shown limited interest in pursuing larger state-owned enterprises (Ng, 2018, pp. 315–331). Even in former communist systems that have fully adopted capitalism, communism has left its traces, with state intervention being stronger, particularly in countries with longer histories of communism (Pop-Eleches, 2007). Such institutional “stickiness” has been attributed to vested interests in, and enduring ideas about, state control over the economy (e.g., Kovacic, 1996). The presence of institutional legacies of state control are not only associated with late adoption, but also with delays in enforcement (Kovacic & Lopez-Galdos, 2016, p. 105). Therefore, our final hypothesis reads:

**Hypothesis 3** The stronger communist institutional legacies are, the stronger will be the effect of authoritarianism on the likelihood of independent competition authority adoption and operation.
To assess why some emerging and developing economies have eschewed independent competition authorities, we collected new data on the formal adoption and start of the operations of such authorities between 1990 and 2017. We analyze the period from 1990 for three reasons. First, almost all countries with an independent authority adopted it post-1990. Second, we are concerned with non-adoption in periods when adoption is the “normal” thing to do; previous research identified the 1990s as the “take-off period” of the model (Jordana et al., 2011, p. 1355). Third, we can keep the international context relatively constant. The trend toward economic liberalization took off in the early 1990s, when international organizations also started promoting independence. Our dataset includes all countries with over 500,000 inhabitants that were not considered industrial countries in 1990 (see Appendix A for details).

To be categorized as an independent competition authority, an organization had to fulfill two conditions: (a) being located outside the ministerial hierarchy, and (b) having specialized public authority in the field of competition policy. First, we operationalized independence in terms of regulators’ position outside the ministerial or governmental hierarchy (Gilardi, 2005; Henisz et al., 2005; Jordana et al., 2011). This is not the only operationalization available: various regional studies have measured the variation in degree of formal independence, looking at, for instance, budget control and the appointment and dismissal of key decision-makers (Gilardi, 2002; Guidi, 2014; Koop & Hanretty, 2018). Our study cannot offer such granular insight into the formal independence of competition authorities, but our dichotomous operationalization has allowed us to collect data on countries around the globe and assess both the adoption and the start of the operations of independent competition authorities.

Crucially, the operationalization captures what is widely seen as the element that defines the concept of independent regulatory agency. That is, regulators generally qualify as independent once they are positioned outside the ministerial or governmental hierarchy and are, thus, insulated from the political command structure (see Gilardi, 2005; Henisz et al., 2005; Jordana et al., 2011; Koop & Hanretty, 2018, p. 41; OECD, 2019; Thatcher & Stone Sweet, 2002; UNCTAD, 2008, p. 6). It is this provision that that constitutes their main layer of protection against political interference (Jordana et al., 2011, p. 1344). For instance, a comparative case study of Kenya and Zambia in the 1990s linked greater interference in competition policy decisions in Kenya to their embeddedness in the Ministry of Finance (Boadu & Olofinbiyi, 2003). Protection from interference is never fully guaranteed, and formal independence does not necessarily mean de facto independence (Hanretty & Koop, 2013; Maggetti, 2007). Yet, once regulators are located outside the hierarchy, it is more difficult and riskier to interfere (see Section 2).

Second, independent competition authorities need to possess “specialised public authority” in competition policy (cf. Thatcher & Stone Sweet, 2002, p. 2). This has two implications. First, authorities cannot just have advisory powers, with politicians taking the ultimate decisions. Second, they need to have a clear-cut mandate to regulate market competition, as opposed to a broad mandate with objectives that have an inherent tendency to conflict (e.g., the promotion of both competition and business interests).

For each country, we determined whether and when an independent competition authority was formally established, and—if established—when it started operating. Formal establishment refers to the year in which the legislation with provisions for an independent authority was adopted. We operationalized the start of the operations by identifying the year when the authority started its first investigations of individual cases in any area of competition law (e.g., anticompetitive agreements, abuse of dominance, and mergers). We used various primary and
secondary sources to construct our dependent variables, including competition laws, annual reports of competition authorities, reports of the OECD and United Nations Conference on Trade and Development (UNCTAD), case studies on competition policy, and handbooks of competition law enforcement (see Appendix A for more detail).

We relied on the Varieties of Democracy project for the operationalization of authoritarianism (Coppedge, Gerring, Knutsen, et al., 2019). As we defined authoritarian systems in terms of the absence of electoral pressure and accountability (see Section 2), we used as a starting point the electoral democracy (polyarchy) measure. We reversed the variable so as to measure authoritarianism.

We used the World Development Indicators (WDI) to operationalize oil dependence; countries’ reliance on oil and natural gas. It is these resources that share an unusual set of characteristics that are important for our argument (Section 2; cf. Ross, 2012, Ch. 2). Our measure is the sum of oil and natural gas rents as percentage of the gross domestic product (GDP), where rents refer to the difference between the production value at world prices and the total costs of production (World Bank, 2011). As there is relatively little short-term change in rents, we replaced missing values for some country-year observations with the nearest non-missing value for the country (except for Taiwan, where no data are available). As a robustness check, we ran our models with a dichotomous measure, which takes the value of 1 in country-years in which the sum of oil and gas rents constituted 20% of GDP or more (see Tables B2 and B3 in Appendix B).

Communist institutional legacies are difficult to operationalize, but we followed Pop-Elesches (2007, p. 912) in calculating countries’ years under communism as a proxy for institutional penetration. We only included years with an overall communist political-economic system, thus excluding multipartyism with a ruling communist party (e.g., Nepal since 2017). For countries with a communist past, the values do not vary over time; they only vary for countries that currently have communist systems.

We also include a number of controls. First, we control for the level of economic globalization. Globalization and competition policy diffusion have gone hand in hand, which has been attributed to new forms of anticompetitive behavior in a more competitive global economy (e.g., transnational collusion; see Büthe, 2015, p. 224; Townley, 2018, p. 7). Given the complexity of transnational business behavior, and the greater need for commitment when a country is more dependent on international investment, globalization may make independence more likely. Yet, globalization may also be inversely related to independence. Governments exposed to globalization may wish to use competition rules strategically and discretely, to favor domestic consumers at the expense of foreign producers in import-oriented economies, and domestic producers at the expense of foreign consumers in export-oriented economies (Guzman, 1998). To assess the relationship, we used the KOF de facto economic globalization index (Gygli, Haelg, Potrafke, & Sturm, 2019). We divided the values by 100 to facilitate interpretation.

Second, the promotion of regulatory independence is strongly associated with the EU (Jordana et al., 2011, p. 1353). Hence, (potential) future EU member states may be more likely to embrace it. We created a dummy variable that takes the value of 1 for countries that were identified as potential future member states (following Article 49 TFEU).

Third, independence has been promoted by other international organizations, including the OECD and UNCTAD. Though not a condition of structural adjustment programmes,7 we may expect countries relying on loans to face more informal pressure to comply with international norms. For instance, a comparative study of utility regulation in Jamaica and Trinidad and Tobago attributed the late adoption of regulatory independence in Trinidad and Tobago to the country’s independence from international loans (Lodge & Stirton, 2006, p. 485). Though we
would rather emphasize the latter’s oil reliance, it is important to control for loans. We include the WDI measure of use of IMF credit in our models.

Fourth, larger economies are more likely to suffer from problems associated with a lack of competition. Indeed, such economies are more likely to adopt competition laws (e.g., Parakkal, 2011). By extension, and given the greater complexity of markets and enforcement in larger economies, and the established link between expertise and organizational insulation, we expect larger economies to be more likely to use independent regulators. We operationalized size of the economy by using the Penn World Table measure of expenditure-side real GDP at chained PPPs (Feenstra, Inklaar, & Timmer, 2015).

Fifth, avoiding regulatory independence has been linked to standards of living. Discretionary use of regulatory policy—with a broader set of objectives, including redistributive ones—is considered more important for less developed economies (Dubash & Morgan, 2012). Hence, independence is less attractive under conditions of lower living standards. The measure will also capture the effect of resource shortages on the start of the operations. We calculated GDP per capita using Penn data.

Sixth, as the model of the independent competition authority has spread rapidly, policy diffusion may have played a role. We created a straightforward measure to take this into account, calculating for each year the proportion of economies with a formally adopted independent competition authority (cf. Jordana et al., 2011 on sectoral diffusion).

Finally, we added to the analysis of the start of the operations a dummy variable that takes the value of 1 for those countries that, at the time of adoption, already had a functioning (non-independent) competition unit. Setting up an independent authority requires not only political will but also resources such as capacity and expertise (e.g., Aydin & Büthe, 2016). In countries with departmental competition units, such resources are already present, which should facilitate the start of the operations of the independent authority.

For all time-varying covariates, we use a one-year lag in the analyses. Given our “narrow” dependent variables, we are less concerned about endogeneity, but our time-varying conditions will have needed some time to affect policy-makers. Furthermore, we log-transformed those covariates that showed strong positive skewness (oil reliance, communist legacy, IMF credit, size of the economy, and standard of living) by calculating the natural log of (the sum of 1 and) the original value. Table B1 in Appendix B includes all descriptive statistics.

4 | ANALYSIS
As our dependent variable is binary and time-varying, we use event history models to test our hypotheses. More specifically, we use logistic regression, which is recommended when time—measured here at yearly intervals—is a discrete variable (Box-Steffensmeier & Jones, 2004, Ch. 5). To model time dependence in our data, we follow Carter and Signorino (2010) in using a cubic polynomial approximation, including $t$, $t^2$, and $t^3$ in the analyses. The robust (Huber-White) standard errors in the models are clustered by country.

Our dependent variables take the value of 0 until the year in which an independent competition authority (a) is formally adopted, or (b) starts enforcing the competition law. After that year, the country is dropped from the analysis; it is no longer “at risk.” As we are interested in the creation of independent competition authorities, and not the adoption of competition policy, the adoption of the first competition law is our starting point; this is when a country enters
the analysis as it starts being “at risk” of adoption. Previous studies on the adoption of independent regulators have taken a fixed starting point for all countries (e.g., Gilardi, 2005; Jordana et al., 2011). Their disadvantage is that they cannot distinguish between country-years in which no (competition) law existed and country-years in which a law was in place, but no independent authority existed; both take the value of 0. As we focus on the factors driving independence, and as having a competition law is a prerequisite, law adoption formed the starting point in our analyses of authority adoption.9 Similarly, as formal adoption is a prerequisite for operations, we took the year of adoption as the point when a country started being “at risk” of having an operational authority.10 Our restrictive strategy has limited the number of country-clusters and observations: our models of formal adoption include only those countries that have a competition law, while the models for the start of the operations only include countries that have formally adopted an independent authority.

Let us first turn to formal adoption. Table 1 presents five models. Model 1 includes the key independent variables as well as $t$, $t^2$, and $t^3$ and the control for diffusion. The latter variables are, because of their importance, included in all models. Model 2 adds the other controls. Model 3 adds the interaction of authoritarianism and petroleum reliance, while Model 4 introduces the interaction of authoritarianism and communist legacy. Model 5 serves as a robustness check, including those variables that were significant in previous models.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Logistic models for formal adoption of independent competition authorities</th>
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<tbody>
<tr>
<td></td>
<td>Model 1</td>
</tr>
<tr>
<td>Authoritarianism</td>
<td>$-2.25^{***}$ (0.62)</td>
</tr>
<tr>
<td>Oil reliance</td>
<td>$-0.04$ (0.11)</td>
</tr>
<tr>
<td>Communist legacy</td>
<td>$-0.03$ (0.06)</td>
</tr>
<tr>
<td>Authoritarian x oil reliance</td>
<td>$-0.97^{*}$ (0.50)</td>
</tr>
<tr>
<td>Authoritarian x communist</td>
<td></td>
</tr>
<tr>
<td>Economic globalization</td>
<td>2.17** (1.06)</td>
</tr>
<tr>
<td>EU membership zone</td>
<td>1.46*** (0.49)</td>
</tr>
<tr>
<td>IMF credit</td>
<td>0.01 (0.02)</td>
</tr>
<tr>
<td>Size of the economy</td>
<td>0.31*** (0.10)</td>
</tr>
<tr>
<td>Standard of living</td>
<td>$-0.26$ (0.20)</td>
</tr>
<tr>
<td>ICA diffusion</td>
<td>3.38*** (0.79)</td>
</tr>
<tr>
<td>$t$</td>
<td>$-0.18^{***}$ (0.05)</td>
</tr>
<tr>
<td>$t^2$</td>
<td>0.24 (0.33)</td>
</tr>
<tr>
<td>$t^3$</td>
<td>0.28 (0.39)</td>
</tr>
<tr>
<td>Constant</td>
<td>$-2.66^{***}$ (0.46)</td>
</tr>
<tr>
<td>Log-pseudolikelihood</td>
<td>$-252.51$</td>
</tr>
<tr>
<td>McFadden-adj. $R^2$</td>
<td>0.10</td>
</tr>
<tr>
<td>Clusters</td>
<td>112</td>
</tr>
<tr>
<td>N</td>
<td>1,023</td>
</tr>
</tbody>
</table>

Note: Estimates are logistic coefficients with robust standard errors clustered by country in parentheses. *$p < .1$; **$p < .05$; ***$p < .01$ (two-tailed).
The models show strong support for the hypothesis on authoritarianism: governments in more authoritarian systems are less likely to adopt independent authorities to enforce their competition rules, and the effect is robust across model specifications (cf. Pavón Mediano, 2020 on Latin America).

The results on petroleum dependence are less straightforward. In the models without the interaction term, the effect of oil reliance is negative but not significant. Yet, in the presence of the interaction, the main term is positive and significant, while the interaction is negative and significant, suggesting that oil reliance enhances the negative effect of authoritarianism. These findings are confirmed when using our dichotomous variable (see Table B2). They are also in line with the literature on competition policy in the Middle East, which shows that both legislation and independent authorities are remarkably absent in the region’s oil-rich authoritarian systems (Dabbah, 2007).

Figure 3 visualizes the interaction. It shows that the effect of authoritarianism is always negative; yet, only under high levels of authoritarianism does oil reliance depress its effect. By contrast, in more democratic systems, it is associated with a higher probability of adoption, though, empirically, there are few observations combining strong petroleum reliance with democracy. For instance, there are only six countries with competition laws that ever combined levels of authoritarianism below 0.4 and petroleum reliance of over 19% (Argentina, Ecuador, Niger, Peru, Trinidad and Tobago, and Venezuela); of these countries, only two formally adopted an independent authority under these two conditions (Trinidad and Tobago and Venezuela). Moreover, the effect is likely to be underestimated given that some oil-reliant authoritarian states have stayed away from competition law altogether (e.g., Bahrain, Nigeria).

The effect of communist institutional legacies is not straightforward either. Having a stronger communist legacy does not enhance the effect of authoritarianism, but the main effect is negative and significant at the 10% level in some models. The case of China illustrates the relationship: while the country adopted competition rules, the enforcement of these rules takes place under the auspices of government and takes a rather strategic form (Ng, 2018, pp. 315–331). The effect may be relatively weak because many countries with a communist past are in the EU membership zone; a zone greatly affected by EU pressure to embrace independence. Though we control for this, the variation among post-communist states is important to take into

**FIGURE 3** The effect of authoritarianism under different levels of oil reliance (Model 5)
consideration when interpreting the effect (cf. Pop-Eleches, 2007). Nonetheless, the effect is likely to be underestimated given that some current communist states have no competition law and are, thus, excluded from the analysis (e.g., Cuba, North Korea).

Turning to our control variables, the likelihood of independent authority adoption is, as expected, positively associated with being part of the EU membership zone, by having a larger economy, and by the period of adoption, with the likelihood increasing with the increased prevalence of the model. Economic globalization is also positively related to authority adoption. This contrasts with previous studies (Gilardi, 2002; Pavón Mediano, 2020), which did not find any effect, though they relied on samples with less variation in globalization. We find no evidence of an effect of IMF loans (cf. Jordana and Levi-Faur, 2005; Pavón Mediano, 2020) and of having higher levels of GDP per capita. The latter contrasts with Pavón Mediano’s finding that levels of independence in Latin America are higher where standards of living are lower. In substantive terms, formal adoption is primarily driven by the size of the economy, followed by economic globalization, EU membership, and the oil reliance-authoritarianism interaction (see Table B6 for the marginal changes).

Let us now turn to the start of the operations. Table 2 presents the results for the start of the operations after (and on the condition that) an independent authority is formally adopted. Model 1 includes the independent variables as well as \( t, t^2, \) and \( t^3 \) and the diffusion proxy. Model 2 adds the other controls. Model 3 adds the interaction of authoritarianism and petroleum reliance, while Model 4 replaces this interaction with the one with communist legacy. Model 5 includes those variables that had a significant effect in previous models.

While the effect of authoritarianism on authority adoption was negative and significant across model specifications, this is not the case for the operations of authorities: authoritarianism does not matter for (delays in) the start of the operations. If anything, the relationship is positive, though never significant. Hence, our authoritarianism-hypothesis needs to be rejected for the start of the operations. This is illustrated by countries such as Egypt and Ethiopia, which made their independent authorities operational shortly after formal adoption.

Petroleum reliance itself has a negative effect on the likelihood of the start of the operations, except in Model 3, which also includes the interaction term. Interacted with authoritarianism, it does not have an effect. Table 2 suggests that oil-relying economies are less likely to make their formally adopted independent competition authorities operational, regardless of the nature of the regime. This is confirmed when using a dichotomous operationalization (Table B3). To recall, our argument is that this is for reasons of institutional incompatibility. Petroleum reliance is associated with strong control over the (oil-driven) economy, which is less compatible with independent enforcement than is a “hands off” approach toward the economy.

The effect is plotted in Figure 4. The figure shows that the probability of the start of the operations decreases from 0.16 for country-years without oil to 0.02 for country-years with an oil reliance just over 50% of GDP. The figure also shows that the odds are already significantly lower for relatively low levels of oil reliance: country-years with about 5% reliance (1.8 in log-transformed terms) have a significantly lower probability than country-years without oil. Altogether, the findings suggest that of the different types of institutional factors, only petroleum dependence affects operations. Authoritarianism and, to some extent, communist legacies matter for formal adoption, but do not impact on the start of the operations.

While a stronger communist institutional legacy was associated with a lower likelihood of formal adoption (though not always significant), its effect on operations is positive, but not significant across model specifications. The positive effect is dependent on the inclusion of the control variable for EU membership zone—a zone that includes many post-communist
<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
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<td>−0.48</td>
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<td>Authoritarian * communist</td>
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<td>t</td>
<td>0.13</td>
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<td>t²</td>
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<td>t³</td>
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<td>11.98***</td>
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<td>Constant</td>
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<td>−10.96***</td>
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**Note:** Estimates are logistic coefficients with robust standard errors clustered by country in parentheses. 
*p < .1; **p < .05; ***p < .01 (two-tailed).
countries –, which has itself a negative but non-significant effect. Like for formal adoption, communist legacies do not have a straightforward effect. Yet, unlike for formal adoption, the effect is always positive (though not always significant), which is inconsistent with our expectations, but illustrated by countries in the EU’s enlargement zone and many post-Soviet states, which made their formally adopted independent authorities almost immediately operational.

Let us finally turn to the controls. Neither economic globalization nor being in the EU membership zone matter significantly, but the start of the operations is more likely when the economy is larger, when the country is richer, and when there is a pre-existing ministerial division responsible for competition policy enforcement. The explained variance increases considerably when adding the controls, suggesting that these are most important. This is confirmed by the marginal changes (see Table B7), which show that size of the economy and standard of living are the main predictors.

These results suggest that the start of the operations of independent authorities is driven more by functional need and (lack of) capacity than by institutional compatibility. This may help explain why the prevalence of the model of the independent competition authority (as a percentage of all countries) is significantly but negatively related to the likelihood of the start of the operations; this finding may be accounted for by the features of countries that adopted the model when it was already dominant. These “late adopters”—whose operations were also often delayed—include many countries with few financial and human resources; countries for which formal adoption may have constituted an important international “signal”, but which are likely to have had difficulties making their authority operational.

5 | CONCLUSIONS AND DISCUSSION

Taking the variation in the creation of independent regulators in the Global South as a starting point, we asked why some governments have chosen to stay away from independence, despite pressure to embrace it. Our analysis suggests that political institutions matter for formal adoption, and so do the political-economic arrangements, though to a smaller extent. Authoritarian governments are less likely to formally adopt independent competition
authorities, especially when they rely strongly on petroleum. Strong communist legacies also dampen the likelihood of adoption, though the effect does not depend on authoritarianism. By contrast, the start of the operations after formal adoption is not strongly affected by institutional factors, with the exception of a decrease in likelihood in countries that rely more on oil (and in some specifications, an increase under stronger communist legacies). Instead, it seems primarily driven by economic need and capacity, with larger economies, richer countries and countries with a pre-existing competition unit being more likely to make their authority work.

Our findings imply that the formal adoption of independent regulators is not just a symbolic exercise. In systems in which the model does not fit well, governments hesitate to embrace it, even though they could, in principle, decide to adopt it without making it operational. In other words, the political costs of independence seem to be given particular attention at the stage of adoption; once independence is formally adopted, political considerations would seem to play a minor role only. This finding speaks to the debate about whether formal institutions matter, but follow-up research of a qualitative nature is needed to assess what it is about formal adoption that leads governments to take it so seriously.

The implications of the findings go beyond competition policy. The results should “travel” to other areas of policy-making, especially energy and financial regulation. In these areas, many but not all governments have delegated powers to independent regulators. We would expect petroleum-reliant, authoritarian governments to be particularly reluctant to give up control over these areas of regulation.

Though our study does not address the desirability of regulatory independence, it does suggest that there are institutional limits to the spread of international norms and to regulatory transplants. The findings also raise important questions for future research. First, authoritarianism is negatively related to formal adoption, but many authoritarian systems have still opted for independent regulators. The latter may be primarily driven by external pressure, but it may also serve strategic domestic purposes, just like courts do (see Moustafa, 2014). Research of a more qualitative nature is needed to explore this. Second, our findings raise questions about varieties of authoritarianism. Authoritarianism matters, especially in petroleum-reliant political economies. Yet, why are the latter particularly resistant to the model, while other authoritarian systems with strong state control are more open to it?

Finally, our results on political and political-economic compatibility raise questions about the future of the model of the independent regulator. Recent years have seen an increase in political desire to use regulation to interfere politically in economic affairs, particularly post-financial crisis (e.g., Bulfone, 2020). Such a desire to “politicize” regulation (as well as the judiciary) is particularly, though certainly not exclusively, visible in countries that have experienced illiberal turns. Though our data do not show any reversals of decisions to create independent authorities, and do not capture post-delegation intervention and “agency starvation”, the changes in political climate suggest that we may see more infringement on independence. These form some of the questions that future research may wish to address.

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ENDNOTES
1 Empirically, we focus on the independence of regulators from ministerial hierarchies (see Section 3).
2 See Section 3 and Online Appendix for data and sources.
3 Our hypotheses apply to both strategies as we have no straightforward theoretical reasons to expect one of the them to have higher political costs under the different institutional conditions.
4 We use the term petroleum (or oil) reliance to refer to dependence on oil and gas.
5 Similarly, central banks are considered independent once their operations are insulated from the hierarchy of the Treasury or Ministry of Finance.
6 The data are available via Harvard Dataverse: https://doi.org/10.7910/DVN/XCOBE9.
7 Having a competition law is typically required. Bilateral trade agreement may also include competition provisions, but do not normally cover independence (exceptions include the 2001 Canada-Costa Rica agreement and some EC agreements with future member states). The International Competition Network (ICN) also promotes independence (Townley, 2018, p. 4), but membership normally follows independence (though it may further enhance it).
8 As the variables $t$, $t^2$ and $t^3$ strongly correlate, leading to multicollinearity, we demeaned $t$ before squaring and cubing it (Carter & Signorino, 2010, p. 283). To mitigate numerical instability due to large differences in magnitude, we divided $t^2$ by 100, and $t^3$ by 1,000 (ibid).
9 Nonetheless, as many countries provided for an independent authority in their first competition law, we cannot fully separate authority adoption from law adoption. We included controls capturing particular needs for enforcement to take this into consideration.
10 Countries take the value of 0 in (a) the year preceding law adoption (for authority adoption), or (b) the year preceding agency adoption (for the operations). They may take the value of 1 on the dependent variable in, respectively, the year of law adoption and the year of authority adoption. This allows us to avoid losing countries, while being consistent with the argument that law and authority adoption are logically prior to, respectively, authority adoption and operation.
11 In line with other studies (Ross, 2012), the effect only holds for oil and gas; not for natural resources, when using the broader World Bank (2011) measure.
12 While we argue that resisting independence is about institutional non-complementarity, one may contend that it is linked to more general (and not necessarily institutional) state involvement. We ran additional models with a general state ownership measure (Coppedge et al., 2019) and with government expenditure as percentage of GDP (Feenstra et al., 2015) (Tables B4 and B5). The main and interaction effect of state ownership resembles the effect of oil reliance, though it is not significant. The effect of expenditure is less straightforward, but not significant either. These results suggest that resistance is associated with particular systems; not with generic state involvement.
13 The interaction term in Model 4 in Table B3 suggests that the effect of the main term for petroleum reliance is negative and significant, while the effect of the interaction is positive and significant. However, these effects and their size would seem a product of multicollinearity following the inclusion of the dichotomous variable as main term and in the interaction.
REFERENCES


SUPPORTING INFORMATION
Additional supporting information may be found online in the Supporting Information section at the end of this article.

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