The Institutional Impact of Left-Leaning Populism in Latin America

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Abstract

We study the institutional impact 21st-century left-leaning populist regimes have in Latin America. Looking at the iconic left-leaning populist regimes in Argentina, Bolivia, Ecuador, Nicaragua, and Venezuela, we find that these types of populist regimes impose a significant deterioration on the liberal-democracy institutional quality of their countries. The institutional cost is both significant and long-lasting, and our synthetic counterfactual suggests that liberal democratic institutions would have improved if not for these populist regimes.

JEL codes: P40, O54.
Keywords: Populism, Institutions, Latin America, Synthetic Control Method.

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1 Introduction

We explore the impact of left-leaning durable populism in Latin America on liberal democratic institutions. We define liberal democracy as a system of institutions safeguarding individual and minority rights against state tyranny or majority rule. The media, policy networks, and academic literature have argued that populism threatens liberal democracy institutions (Casas-Zamora, 2023; Houle and Kenny, 2018; Ludwig, 2022). Our focus is on left-leaning populist because it is the most prevalent in Latin America during the 21st century, and because left-populism done "more damage to democracy in Latin America than right-wing populism" (Weyland, 2013, p. 26).

For example, in Venezuela, Hugo Chávez gained nearly absolute power through two constitutional reforms, abolished term limits, and increased the number of Supreme Court judges from 20 to 32. Canova Gonzáles et al. (2014) analyzed approximately 45,000 court sentences, revealing that the executive won in virtually all cases. In Bolivia, the electoral court issued controversial rulings that enabled Evo Morales to run for a fourth term, despite facing term limits. Morales also excluded opposition participation in the constitutional drafting process and resorted to arresting, intimidating, or exiling other opponents based on fabricated "charges of administrative irregularities, corruptions, terrorism, and genocide against numerous opposition politicians" (Weyland, 2013, p. 23). In Nicaragua, Daniel Ortega's government came to power by manipulating electoral rules (Pallais, 2009) and subsequently engaged in human rights violations during the repression of protests in 2018, as reported by the Inter-American Commission on Human Rights (CIDH, 2021).

These examples make it evident why populism is perceived as a threat to the republican institutions that serve as checks on democratically elected officials. However, institutional decay in Latin America is not exclusive to populist governments. Coup d'états, persecution of opposition leaders, and the control of state bureaucracy through patronage and corruption have been prevalent throughout Latin American history. This raises the question: would countries prone to electing populist leaders have experienced

institutional decay even in the absence of a populist regime?

The same underlying characteristics that attract populists may be confounding factors influencing institutional decay. Although previous studies have addressed the impact of populism on institutions (Huber and Schimpf, 2016; Houle and Kenny, 2018; Cachanosky and Padilla, 2019), a potential concern is that populists do not come to power randomly; theoretical work suggests that they are drawn to notoriously weak institutional environments, enabling them to evade constraints and prolong their stay in power (e.g. Kaufman and Stallings, 1991; Riker, 1982). Regression analyses may draw inferences from extreme counterfactuals, and give more weight to observations for which treatment is unlikely (King and Zeng, 2006; Aronow and Samii, 2016). Therefore, to disentangle these effects, we need a method that enables us to provide a reliable counterfactual for what would have occurred in each country if a populist leader had not ascended to power.

To identify the causal effect of populism on institutions, we rely on the synthetic control method (Abadie and Gardeazabal, 2003; Abadie et al., 2010, 2015). This method involves constructing a plausible counterfactual scenario, which is a weighted average of countries sharing similar characteristics to the treated countries. Our synthetic counterfactual closely tracks the institutional environment of the treated countries for at least ten years prior to treatment, but none of the donor countries included in the counterfactual experienced a populist episode like the ones observed in the treated countries. Consequently, we can estimate the causal effect of populism on liberal democratic institutions by calculating the difference between the synthetic counterfactual and the actual treated country following the populist episode.

We study five Latin American representative cases of Left-Leaning populism regimes: Néstor and Cristina Kirchner's presidencies in Argentina (2003-2015); Evo Morales in Bolivia (2006-2019); Rafael Correa in Ecuador (2007-2016); Daniel Ortega in Nicaragua (2007-present); and Hugo Chávez and Nicolás Maduro in Venezuela (1999-present). For each of these countries, we estimate a liberal-democracy index synthetic counterfactual.

We find that in all five cases, there is an economic and statistically significant nega-

tive institutional effect as captured by V-Dem's Liberal Democracy index. Furthermore, the effect is not only significant, but it also depicts divergent paths; all counterfactuals indicate that the institutional environment of these countries would have improved while left-leaning populist regimes produced a marked descent in the institutional environment.

Our study contributes to a growing literature on populism in Latin America. Considering that institutions play a crucial role in long-term growth (Rodrik et al., 2004), our study provides potential institutional mechanisms to explain the poor economic outcomes during populist regimes and their long-run negative effects on economic activity. In particular, our results directly map to the poor economic performance reported (Absher et al., 2020). Since constitutional-level institutions are more resistant to change, we can better understand why these effects endure following populist regimes.

2 Literature Review

2.1 Populism as bypassing liberal democracy

Contrasting the definition of liberal democracy and populism sheds light on why the latter is a threat to the former. Liberal democracy can be defined as a "political regime, which not only respects popular sovereignty and majority rule, but also establishes independent institutions specialized in the protection of fundamental sights, such as freedom of expression and the protection of minorities" (Mudde and Rovira Kaltwasser, 2017, p. 80). Liberal democracy goals are achieved "through constitutionally protected civil liberties, a strong rule of law, and effective checks and balances that limit the use of executive power" (Coppedge et al., 2024, p. 4).

Defining populism has proven to be more challenging; a reason being its lack of far-reaching ideas about social transformation (Mudde and Rovira Kaltwasser, 2017, p. 6) or socioeconomic priorities (Albertazzi and McDonnell, 2007, p. 4). Therefore, populism is better understood as a "thin-centered ideology" (Mudde and Rovira Kaltwasser, 2017, p. 7). It contends that society is divided into two homogeneous antagonistic groups of

people, "the pure people" and "the corrupt elite," where "the pure people" are morally superior to "the corrupt elites," and the latter have usurped "the pure people's" moral right to govern. The construction of "the people" and "the elite" (empty signifiers) can represent a wide array of grievances (Laclau, 2005).[1] Populist leaders "merge their populism with more 'established' ideologies, notably liberalism, nationalism, conservatism, federalism, and socialism" (Albertazzi and McDonnell, 2007, p. 4). Thus, both left- and right-wing varieties of populism are possible.

Crucially, in the populist conception, democracy is primarily about enacting the will of the majority, often without regard for institutional constraints (March, 2007, p. 72; Mudde, 2004, p. 561; Mudde and Rovira Kaltwasser, 2017, p. 81). For Seligson (2007), populism is best understood as the expression of "a core belief that the institutions of classical liberal democracy, especially legislatures and courts, are anachronistic, inefficient, and inconsistent with the true expression of 'the people's will' (or at least the populist officials' interpretation of it)" (p. 82). Under the guise of representing the people and promises of carrying out people's will and isolating those who reject such ideal, "in practice, populism often can mean running roughshod over fundamental democratic guarantees of civil liberties, especially free expression and the right to due process" (p. 82).

In sum, the dangers of populism lie in its tendency to bypass institutional checks and balances. In an environment where institutions are discredited, populist leaders claim to embody the will of the people, using this as a justification for overriding due process and democratic procedures (de la Torre, 2016, 2017a,b; Weyland, 2013, p. 21).

[1]This is why populism can exploit generic concerns about inequality that promotes social conflict (Kaufman and Stallings, 1991; Sachs, 1989), globalization (e.g. Rodrik, 2018a; Guriev, 2017; Guriev and Papaioannou, 2022), or even voter unhappiness and dissatisfaction more broadly (Silva, 2024; Nowakowski, 2021).

2.2 Is left-wing populism more democratic?

Some authors contended that left-wing populism can be seen as more inclusive than right-wing populism (Mudde and Rovira Kaltwasser, 2013, pp. 158-166). Rodrik (2018b) go as far as saying that this is a key difference between the two sides of populism: "unlike populism of the left, populism of the right directly blocks the emergence of liberal democracy" (p. 102).

However, this does not seem to be the case in Latin America. Indeed, Weyland (2013, p. 26) argued that left-wing populism "more damage to democracy in Latin America than right-wing populism." Left-wing populists, in particular, argue that they embody the true interests of "the people," typically framed in terms of economic and social rights. This view can lead to a dismissal of opposition voices as illegitimate or elitist, potentially undermining the pluralistic nature of liberal democracy (Mudde and Rovira Kaltwasser, 2012, p. 17; Mudde and Rovira Kaltwasser, 2013, p. 195, p. 195; Müller, 2016, p.51). They emphasize direct representation of "the people's will" and often portrays this will as singular and unambiguous (Mudde and Rovira Kaltwasser, 2018, pp. 1669-70). For instance, Chávez famously stated, "You are not going to reelect Chávez really, you are going to reelect yourselves. The people will reelect the people. Chávez is nothing but an instrument of the people" (Friedman, 2017, quoted in). Likewise, as Rafael Correa lifted the ban on reelections along with other 15 amendments to the constitution, he wrote: "In Ecuador, the people of Ecuador will rule!' (BBC, 2015).

Therefore, extraordinary measures are needed to defend "the people against rapacious elites" (Weyland, 2013, p. 21), even if this means arguing that institutional checks and balances are obstacles to be removed in order to execute the will of the people (de la Torre, de la Torre,2007, p. 394; O'Donnell, 1994, pp. 61–62; Seligson, 2007).

Left-wing populism has undermined democratic institutions through executive aggrandizement that manifests through the gradual concentration of power in the executive branch, often through legal means (Bermeo, 2016, pp. 10-11; Roberts, 2012, p. 137; Corrales, 2015). In Latin America, left-populism has undermined electoral com-

petition by appointing "new electoral authorities" (Levitsky and Loxton, 2013, p. 112; Corrales, 2020), and undermined judicial autonomy through court-packing, removal of judges, or creation of parallel judicial structures (Helmke, 2017; Callais and Mkrtchian, 2024; Canova Gonzáles et al., 2014). For similar reasons, left-leaning populists clash with the media, who they see as political actors who are either in favor or against "the people" (Mudde and Rovira Kaltwasser, 2017, p. 82; Waisbord, 2011, p. 100). These perspectives stand in stark contrast to liberal democracy's emphasis on institutional checks and balances (Plattner, 2010, p. 88).

The above discussion can be observed in our sample of Latin American left-leaning populist regimes. In Argentina, the Kirchner administration sought to remove independent judges sidestepping due process. Nationalization of flows (oil company Repsol-YPF) and stocks (private retirement accounts) are two of the most noteworthy expropriations. Kirchner's information control included tampering with official inflation numbers, therefore biasing poverty and GDP numbers as well.

In Bolivia, Evo Morales pushed for reforms such as the nationalization of a Swiss metallurgy plant and a land reform. Morales was able to reform the constitution in 2009, allowing him to run for another 5-year term, including the power to dissolve Congress. In 2013, his established Plurinational Constitutional Tribunal ruled that his first presidential term did not count towards the two-term constitutional limit. Furthermore, Morales ran for a fourth presidential term in 2019; allegations of electoral fraud and social protest led to his resignation on November 10 of that year.

In Ecuador, Rafael Correa was also able to reform the constitution expanding his powers, eliminating presidential term limits, and increasing the number of presidential decrees. Correa gained notoriety for his contentious relationship with the media. His government strongly criticized the press, accusing media outlets of spreading falsehoods and defamation against him. Correa responded by imposing restrictions on the media and curbing freedom of expression. He even imposed fines on media outlets that were critical of his administration. Furthermore, individuals who voiced dissent, whether they

were politicians or civilians, were subjected to prosecution and espionage, raising concerns about the safety of democratic discourse. Correa became a pioneer in central bank digital currency (CBDC) when trying to issue *dinero electrónico* as a way to circumvent the constraints imposed by dollarization (Arauz et al., 2021b; Cachanosky et al., 2022).

In Nicaragua, Daniel Ortega also managed to have presidential term limits lifted (in 2014 he ran for president, with his wife as the vice-president candidate). Ortega has been president since January 2007. As president, Ortega also has the sole authority to appoint military and police commanders, reinforcing executive dominance over key force-bearing institutions. Ortega's regime became notorious for its violent suppression of civilian protests during the 2018 demonstrations against his social security reform, which aimed to increase contributions and reduce benefits. Ortega wielded his political power to promote a narrative of a failed coup through the media.

In Venezuela, Hugo Chávez showed a notable erosion of press freedom and a rise in censorship, as state-run bodies attempted to silence the media and shut down over 115 media outlets critical of the government. The government also restricted citizens from running for governmental positions, further limiting political pluralism. Moreover, the autonomy of judges was undermined, as illustrated by the arrest of Judge Maria Lourdes Afini for challenging the government's detention of a banker without evidence. Enacted laws, such as the *desacato* (insult laws), penalized citizens for criticizing public officials, resulting in violations of freedom of expression and a significant decline in Venezuela's Press Freedom Index ranking. "Information blackouts" were prevalent, further suppressing dissenting voices and restricting the flow of information unfavorable to the government.

2.3 Previous Empirical Findings

While a large empirical literature has found that Latin American populism has placed a significant toll on economic outcomes (e.g. Dornbusch and Edwards, 1990; Grier and Maynard, 2016; Cachanosky and Padilla, 2019, 2020; Absher et al., 2020; Strobl et al.,

2023), estimates of its effects on political institutions are scarce.[2].

Huber and Schimpf (2016) are the first to investigate quantitatively how populism influences democratic quality in eighteen Latin American countries between 1995 and 2009.[3] Using a linear mixed-effects model, they find "that populist actors may be less of a 'foe' than some scholarly writings have led us to believe" (Huber and Schimpf, 2016, p. 884). While they find that populist actors in government do weaken democratic quality, the negative effect on democratic quality is much smaller than the positive effect that populist actors in the opposition have on democratic quality (Huber and Schimpf, 2016, p. 884).

Houle and Kenny (2018) is another notable exception that considers both economic and political outcomes. Their sample includes 19 Latin American countries from 1982 to 2012, comprising fifteen populist governments of both left and right-wing orientations. Using an instrumental variable strategy, their findings indicate that populist governments are associated with a reduction in all measures of democratic constraints while having no effect on voter turnout.

While these are important contributions and a step in the right direction, we also believe that common problems shared by regression analysis in general, and instrumental variables specifically (e.g. Lal et al., 2024; Young, 2022; Andrews et al., 2019), warrant the use of techniques that do not suffer from the same issues.[4] As it is well-known, IV's strict assumptions, particularly the exclusion restriction, are often challenging to meet in practice.

[2]Strobl et al. (2023) also considers how political variables (in this case, democratic vs. autocratic populism) can mediate the economic outcomes. On this topic, see also Acemoglu et al. (2013) and Bastos et al. (2023)

[3]Their main test hypothesis is based on Mudde and Rovira Kaltwasser (2012) conceptual framework that the direction of populism's impact on democratic institutions depends on whether the populist actors are in the government or in the opposition (Huber and Schimpf, 2016, p. 872).

[4]Regression analysis may extrapolate outside of the common support of the data (King and Zeng, 2006), and may give more weight to observations for which treatment is unlikely conditional on observables, generating an "effective sample" that is remarkably different from the overall population (Aronow and Samii, 2016). See also Pavlik et al. (2023) for an import replication effort in the same spirit.

3 Selection of Left-Leaning Populist Regimes

Our selection of populist regimes is consistent with recent literature, where these five countries repeatedly show up. We look at these countries because a) they experience long-lasting populist regimes and b) they are consistently pointed out as representative cases of populism in the literature. Studies vary in their sample precisely because many examples are not a consensus in the literature. Yet, these five cases are commonly identified as representative populist regimes in the literature. Our sample thus focuses on the "consensus cases" of Funke et al. (2023), who evaluate "770 books, chapters, and articles on populism from all social sciences, comprising more than 20,000 pages of case studies on populist politicians" (p. 12).[5] Nicaragua is our only addition to match the sample of Absher et al. (2020), which is the closest study to ours in terms of method.

Our selection is also consistent with V-Dem's populist index (V-Party) as well as typical policies carried out by these political movements (Table 1). This index measures the presence of populist rhetoric from low (zero) to high (one) of the governing political party. In these countries, left-populist regimes last at least a decade, covering enough time to capture the institutional effects of populist governments. These are also politically powerful regimes. Except for Argentina, all other four regimes were able to reform their national constitutions.[6] Additionally, all of them carried on expropriations or nationalizations as well as attacks on judiciary independence (Absher et al., 2020, p. 789).

Latin America depicts other left-leaning populist regimes that do not rise to the "iconic level" of these five. Fernando Lugo's presidency in Paraguay (2008-2011), for instance, has a V-Party score of 0.40. Another case is that of Ollanta Humala in Peru (2011-2016), with a V-Dem score of 0.80, but with no evidence of institutional or economic populist policy advances. One last example is that of Manuel Zelaya (2006-2009), whose presidency in Honduras gets a V-Party score of 0.30. Crucially, none of these cases are

[5] For a list of consensus cases, see the working paper version (Funke et al., 2022, Table A1).

[6] Cristina Kirchner attempted to reform the constitution but ultimately failed because she did not have enough representation in Congress.

Table 1: Left-Leaning Populist regimes in Latin America

	Argentina	Bolivia	Ecuador	Nicaragua	Venezuela
Presidential terms	2003-2015	2006-2019	2007-2017	2007-2020	1999-2020
President(s)	NK, CFK	EM	RC	DO	HC,NM
V-Party populism index (avg.)	0.83	0.89	0.95	0.69	0.99
Constitutional reforms	No	Yes	Yes	Yes	Yes
Attacks on judicial independence	Yes	Yes	Yes	Yes	Yes
Expropriation / Nationalization	Yes	Yes	Yes	Yes	Yes
Consensus in Literature	Yes	Yes	Yes	No	Yes

Notes: NK: Néstor Kirchner; CFK: Cristina Fernández de Kirchner; EM: Evo Morales; RC: Rafael Correa; DO: Daniel Ortega; HC: Hugo Chávez; NM: Nicolás Maduro. Sources: V-Dem (Coppedge et al., 2023a), Absher et al. (2020, p. 789), Funke et al. (2023) (consensus in literature).

coded as populist by Funke et al. (2023).

Further, we focus on left-leaning populist regimes for a couple of reasons. First, because this is the most prominent type of populism in Latin America (Weyland, 2013). Secondly, right-wing populism has significant differences from left-leaning populism with regards to its impact on liberal democracy. For instance, (Rodrik, 2018b, p.102) states that left and right-wing populists differ not only in their policies but also in their impact on liberal democracy.

4 Empirical Method and Result

4.1 Empirical Strategy

To identify the causal effect of populism on liberal democratic institutions, we utilize a synthetic control (Abadie and Gardeazabal, 2003; Abadie et al., 2010, 2015), following the approach used by Absher et al. (2020) in their study of the economic impact of populism. The method relies on constructing a reliable counterfactual for the treated country which is composed by a weighted average of similar countries that did not receive treatment.[7]

[7]The identifying condition requires the Stable Unit Treatment Value Assumption (SUTVA) (Rubin, 1980, 1986), which states that the treatment on a particular unit depends only on the unit itself, i.e. there's no interference across units. In the context of synthetic control, Abadie (2021) notes that: "the assumption of no interference can be enforced in the design of a study by discarding from the donor pool those units with outcomes possibly affected by the intervention on the treated unit" (p. 410).

Firstly, we conduct a synthetic control for each country. We select the predictor variables to minimize the pre-treatment root mean square prediction error (RMSPE) for each country. For each country, we consider at least a 10-year period before pre-treatment period, and the 10 years after the left-leaning populist regime takes office.

To mitigate potential over-fitting, we limit our donor pool to 27 countries. We also utilize the same donor pool in each country's SCA. Our donor pool is similar in size and donors to previous SCA studies conducted in Latin America (Absher et al., 2020; Cachanosky et al., 2024; Grier and Maynard, 2016; Spruk, 2019).[8] The donor pool primarily includes Latin American and other developing countries comparable to those with a populist regime but that did not experience a populist shock.[9] We have also included some developed countries since some of our treated countries had Liberal Democracy Index scores that were on the upper bound of Latin America and close to those of developed countries (see Table 2).[10]

Our outcome variable is the V-Dem's Liberal Democracy Index, which we re-scale to range from 0 (low) to 100 (high). A lower value indicates weak protection of individual and minority rights against an authoritarian state, as well as a lack of limits on executive power. Similarly, a low index signifies weak constitutional protection of civil liberties, an absence of the rule of law, and a lack of judicial independence.[11] We posit that changes

[8]Spruk (2019) donor pool includes 24 countries. Absher et al. (2020), and Cachanosky et al. (2024) donor pools include 18 and 26 countries respectively. The non-Latin American countries in these studies are 18 (more than half), 9 (half), and 11 (less than half) respectively. Another non-Latin American example would be Lawson et al. (2019), whose donor pool includes 36 countries.

[9]While Peru depicts a relatively high populist score during 2012-2016, we do not expect its inclusion to bias our estimations. Since a major advantage of the synthetic control method is the transparency of the counterfactual Abadie (2021), we can confirm that participation in producing the synthetic counterfactual is minimal and seldom present. Peru appears as a donor in all specifications for Venezuela, but Peru's populist experience (2011-2016) falls outside Venezuela's years of analysis (1980-2009). In the column 5 of Table B1, it comprises 9.1% of Argentina's counterfactual in a robustness check, but results are robust to the presence or absence of Peru. In the worst-case scenario where Peru introduces a downward bias in the counterfactual, it would mean that our results are conservative estimates of the effect of populism on institutions, similar to the setting of Abadie et al. (2015). See also Abadie (2021, p. 410) for a discussion related to this point.

[10]As the synthetic control method relies strictly on interpolation for finding a counterfactual, we needed some donors with scores above our treated units to create the weighted average. However, we also show that our results hold under a series of robustness checks that include alternative donor pools.

[11]V-Dem's Codebook (v13 – March 2023), defines its liberal democracy index as follows: "The liberal principle of democracy emphasizes the importance of protecting individual and minority rights against the tyranny of the state and the tyranny of the majority. The liberal model takes a "negative" view of

in the V-Dem index not only serve as a reliable measure of the institutional impact of populism but also reflect the desired institutional qualities necessary for achieving a prosperous civil society and sustainable long-term economic development.

For this paper's purpose, V-Dem Liberal Democracy index offers some advantages over other alternatives such as PolityV or the World Governance Indicators, which we use as predictors instead. PolityV is a discrete (rather than continuous) measure that looks at the executive's constraints (Marshall and Gurr, 2020). Thus, it leaves outside other important elements of a liberal democracy such as an independent judiciary or free and fair elections. WGI starts in 1996, which means that we would have to drop pre-treatment years in our estimations. In short, V-Dem's Liberal Democracy Index offers a homogeneous and continuous series for all treated countries and the donor pool.

Following Abadie et al. (2010), we chose predictor variables that can predict changes in our outcome variable of interest, V-Dem's Liberal Democracy Index. These include the sub-indices of the index, which are thus related by construction, and variables from different sources that are correlated with the outcome variable and help capture relevant changes using different methodologies. The weight given to each predictor value is proportional to their capacity of minimizing RMSPE over the pre-treatment period (Abadie, 2021). We report predictor weights (V-Matrices) with the country-specific results in Appendix A.

To assess the statistical significance of our results, we employ standardized p-values. These p-values are calculated by conducting an in-place placebo test (Cavallo et al., 2013). This consists of estimating a synthetic control for each donor as if they had a populist regime and estimating the proportion of effects that are greater than or equal to the effect of the actual treated unit (Abadie et al., 2015, p. 500).

A standardized p-value assigns different weights to donors based on the quality of their fits. Intuitively, countries with poor fits are expected to yield larger effects than those

political power insofar as it judges the quality of democracy by the limits placed on government. This is achieved by constitutionally protected civil liberties, strong rule of law, an independent judiciary, and effective checks and balances that, together, limit the exercise of executive power" (Coppedge et al., 2023b, p. 45).

Table 2: Donor Weights and RMPSE: Left-Leaning Populist Regimes in Latin America

Donor	Argentina	Bolivia	Ecuador	Nicaragua	Venezuela
Algeria	0	0.032	0	0.132	0
Australia	0	0	0	0	0
Austria	0.128	0	0	0	0
Belgium	0	0	0	0	0
Brazil	0.466	0	0	0	0
Canada	0	0.067	0	0	0
Chile	0	0	0	0	0
Colombia	0.085	0	0.520	0.659	0.102
Costa Rica	0.072	0	0	0	0
Denmark	0	0	0	0	0
France	0	0	0	0	0
Germany	0	0	0	0	0
Guatemala	0	0	0	0	0
Italy	0	0.3	0.168	0	0.231
Japan	0.100	0	0	0	0
Mexico	0	0	0	0	0
Netherlands	0	0	0	0	0
Nigeria	0.150	0	0	0	0.202
Paraguay	0	0.508	0.206	0	0
Peru	0	0	0	0	0.024
Portugal	0	0	0	0	0
Spain	0	0	0	0	0.441
Sweden	0	0	0	0	0
Thailand	0	0.093	0.105	0.209	0
Turkey	0	0	0	0	0
United Kingdom	0	0	0	0	0
Uruguay	0	0	0	0	0
Latin America	0.623	0.508	0.726	0.659	0.126
Non Latin America	0.378	0.492	0.273	0.341	0.874
RMPSE	0.750	0.727	0.440	1.718	1.120
Joint Std. p-value	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

Note: Percentages may not sum to one due to rounding.

with a good fit, which would amplify p-value estimation making them too conservative. To obtain a standardized p-value, we divide each country's treatment effect by its pre-treatment RMSPE (Abadie et al., 2010; Galiani and Quistorff, 2017).

Following Abadie et al. (2010), we chose predictor variables that can predict changes in our outcome variable on interest, V-Dem's Liberal Democracy Index. These include the sub-indices of the index, which are thus related by construction, and variables from different sources that are correlated with the outcome variable and help capture relevant

changes using different methodologies. Table 3 lists our predictor variables and their sources.

Table 3: Predictor variables and Sources

Predictor variable	Source
Electoral democracy index	V-Dem
Freedom of expression	V-Dem
Public sector corrupt charges	V-Dem
Government attack on the judiciary	V-Dem
Clientelism index	V-Dem
Presidentialism index	V-Dem
Voice and accountability	World Governance Indicators
Rule of law	World Governance Indicators
Control of corruption	World Governance Indicators
Corruption	International Country Risk Guide
Economic freedom of the World (EFW)	Fraser Institute
Political Rights	Freedom House
Civil Liberties	Freedom House
PolityV	Center for Systemic Peace

Notes: V-Dem: Variaties of Democracy Dataset (Coppedge et al., 2023a), World Governance Indicators (Kaufmann et al., 2011), International Country Risk Guide (ICRG, 2011), EFW-Fraser Institute (Gwartney et al., 2021), PolityV (Marshall and Gurr, 2020).

For our average treatment effects, the general inference procedure is similar in terms of the permutation process, but differs in the way we construct our placebos. In this case, placebos are constructed using all possible averages of donors across each of the five event samples. To calculate our p-values, we rank our average treatment effect against a random sample of 10,000 averages placebo effects.[12]

5 Results

We present here our average results and relegate country-specific results to Appendix A. Following Cavallo et al. (2013), to obtain these results, we begin by centering all independent SCA findings on the year when a populist regime assumes government. Next, we average the observed change in the outcome variable among the treated units. To obtain a counterfactual, we average their synthetic controls. The difference between these two averages represents the average treatment effect, reported in Figure 1.

[12]With 27 donors across 5 event samples, there are 27^5 = 14,348,907 potential placebos.

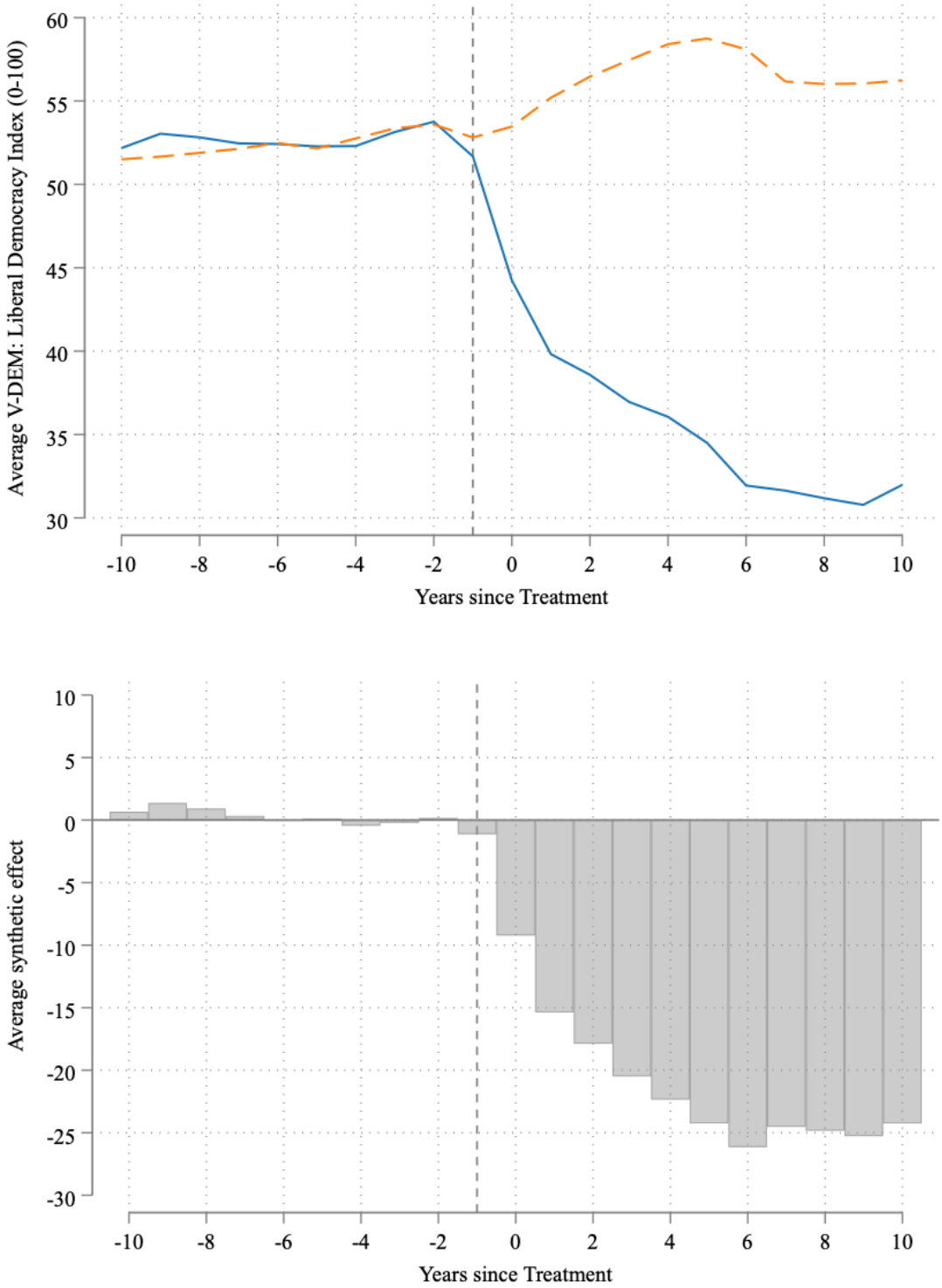

Figure 1: Effect of Left-Leaning Populism on Liberal Democracy, average treatment effect

Note: Treatment line placed on the last pre-treatment period.

Figure 2 depicts the average treatment effect along 10,000 placebo estimations. There is no evidence that our results are driven by "accident". The standardized p-values are exactly zero for all years following the intervention, implying that no average of donor countries experienced a larger effect in any given year, conditional on pre-treatment RMPSE.

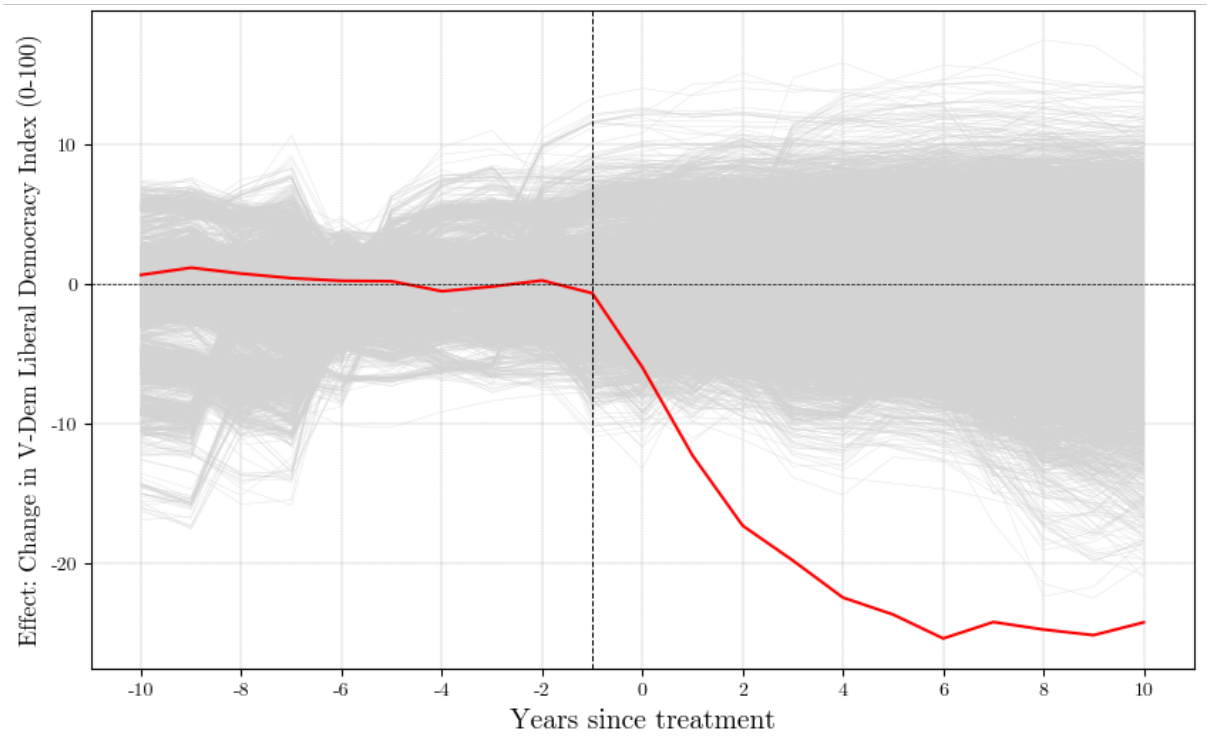

Figure 2: Average Treatment Effect of Populism and Placebo Effects

Note: Treatment line placed on the last pre-treatment period.

The average results are also of significant institutional importance. Our estimates indicate a sizeable and negative gap of 25 points between the average V-Dem Liberal Democracy Index and its synthetic counterfactual. This amounts to a full standard deviation within our sample, or roughly the difference between Argentina and Norway. Notably, this impact is not only significant, with a rapid deterioration in a span of nine years, they are also long-lasting.

There are three noteworthy characteristics to highlight. First, on average, populist regimes emerge in countries with a value around 53 and this level has been stable for

a least a decade erstwhile to the rise of a populist, consistent with the thesis that pre-existing weak institutions increase the likelihood of having a populist regime.[13] Second, results show that instead of slowing down institutional improvement, populist regimes revert the trend producing a sharp decline on institutional quality. Our treated countries would have experienced a positive effect with almost a 10-point increase in the V-Dem Liberal Democracy Index. Finally, the effect is increasing during the first five years, suggesting that the longer the populist stays in power, the greater its negative impact on democratic institutions.

We summarize country-specific results in Table 4, which shows the value of liberal-democracy the year before the populist shock, the lowest value attained under their populist regimes, the SCA counterfactual for the same year, and the spread between the last two. This value measures the maximum institutional damage for each country during the period under study. Full country-specific results are available in Appendix A.

Table 4: Summary: The Causal Effect of Left-Leaning Populism on Liberal Democracy

Country	Year Populist Shock	Initial Liberal Democracy	Lowest Liberal Democracy	Synthetic Liberal Democracy	Effect
Argentina	2003	65.9	60.1	70.6	-10.5
Bolivia	2006	54.1	37.5	51.5	-14.0
Ecuador	2007	46.6	26.8	51.5	-24.7
Nicaragua	2007	33.1	12.1	40.2	-28.1
Venezuela	1999	58.7	16.3	68.2	-51.9

5.1 Robustness Checks

We perform four robustness checks for each country to check the robustness of our results. Here we briefly discuss our findings, but all details are reported in Appendix B. The first involves dropping the largest donor from the baseline specification, to ease concerns that the results may be driven by a particular donor. For each case of populism, we drop the following countries, which represented (%) of the counterfactual: Argentina (Brazil,

[13] However, it is important to mention that there is significant heterogeneity. As the individual country results indicate (see Appendix A), liberal democracy scores were in fact increasing for Argentina and Bolivia.

46.6%), Bolivia (Paraguay, 50.8%), Ecuador (Colombia, 52%), Nicaragua (Colombia, 65.9%), Venezuela (Spain, 44.1%). The results remain significant in all cases, although at the expense of higher RMPSE, especially for Ecuador.[14]

The second one addresses the potential issue is that the results may be sensitive to specification search. To mitigate such concerns, we apply the test proposed Ferman et al. (2020) of estimating the synthetic control using all pre-treatment lags and no predictor variables. Our results remain highly significant even when using this benchmark specification, except for Nicaragua, for which the effect becomes indistinguishable from zero.

The two remaining robustness checks are related to the donor pool. First, we drop all developed countries, which may be casting doubts as to whether they are sufficiently similar to treated countries with respect to liberal democracy. Dropping such countries does not affect the significance of our results, again except for Nicaragua.[15] For the last check we dropped Algeria, Nigeria, Thailand, and Turkey to constrain our donor pool to Latin American countries alone. Our results remain highly significant. Table 5 summarizes the RMPSE and the joint p-values for all post-treatment periods under each robustness check.

Table 5: Results for Robustness Checks: RMPSE

Country	Baseline Results	Drop Largest Donor	All Pre-Treat. Lags	Drop Developed	Latin America Only
Argentina	0.750	0.828	0.360	0.828	1.168
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
Bolivia	0.727	0.861	0.547	0.724	0.892
	(0.000)	(0.038)	(0.037)	(0.000)	(0.000)
Ecuador	0.440	1.297	0.370	0.591	0.916
	(0.000)	(0.038)	(0.037)	(0.000)	(0.000)
Nicaragua	1.718	1.705	1.622	3.192	5.296
	(0.037)	(0.038)	(0.222)	(0.154)	(0.000)
Venezuela	1.120	1.179	0.544	1.872	2.097
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

Notes: RMPSE for each robustness check. Joint p-value for all post-treatment years in parenthesis.

[14]Since we are dropping the country which the synthetic control algorithm identified as the best counterfactual, this increase in RMPSE is completely expected.

[15]As Figure B4 shows, the quality of the fit drops significantly under the last two robustness checks for Nicaragua. We caution the readers that although the results are significant under the Latin American-only robustness check, the results may be spurious due to poor pre-treatment fit.

6 Conclusion

Over the last century, Latin America has experienced numerous episodes of populism, both left and right. Rodrik (2018b, p.102) has argued that it is populism on the right that blocks liberal democracy, not that on the left. In contrast, Weyland (2013) argued that, at least in Latin America, left-wing populism was associated with more damage to democratic institutions. Thus, whether left-populism is associated with attacks on democracy is an empirical question. Although previous literature has suggested this connection, democratic backsliding in Latin America is not exclusive to populism regimes. Can we say that erosion of liberal democracy has been *caused* by the populists? How large is this effect? What would have happened otherwise? Our study attempts to provide such answers.

We analyze the causal effect of 21^{st} century left-leaning populist regimes in Latin America on the institutions of liberal democracy using a synthetic control approach. Overall, regardless of the specification and donor pool used, our results are consistent in magnitude and point to a large and statistically significant negative effect of left-populism on democratic institutions.

Our findings underscore the significant institutional costs observed in Latin American populism. This damage carries the potential for long-lasting effects on institutions and the hindrance of long-term economic growth. These results align with the existing literature's findings on the relationship between populism and institutional quality in Latin America. However, our study provides three major novel implications.

First, while previous literature argued that populism is endemic to weak institutional settings (e.g. Kaufman and Stallings, 1991; Riker, 1982), our study suggests that populism can arise in a fairly wide range of liberal democracy levels, and it can cause serious damages regardless of the starting level. Second, we take a step further in addressing potential endogeneity issues by constructing a synthetic counterfactual that closely tracks liberal democracy for at least a decade prior to the populist episode. Third, this coun-

terfactual allows us to answer what would have happened to these countries if not by the populist regime, and measure the magnitude of the effect. They suggest that, on average, left-wing populism has a strong, negative, and statistically significant effect on liberal democracy, and countries plagued by populism would otherwise have improved their liberal democratic institutions.

In the aftermath of a populist regime, a non-populist administration faces the dual challenge of rectifying not only the macroeconomic imbalances inherited from populist policies but also rehabilitating the country's institutional quality. Since constitutional-level institutions are more resistant to change, we can better understand why these effects endure following populist regimes. Neglecting the erosion of liberal-democratic institutions poses the risk of further empowering future populist cycles.

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Appendices

A Individual Country Results

A.1 Argentina

The populist regime of Néstor and Cristina Kirchner from 2003 to 2015 had a profound impact on the country's democratic institutions. Their government sought to remove independent judges and attempt the impeachment of Supreme Court judges without going through Congress. The national government ignored unfavorable rulings, weakening the rule of law and checks on executive power.

The Kirchners pursued re-nationalization of privatized companies, such as the oil company Repsol-YPF and private retirement accounts. The government pursued diplomatic isolation, increased interventionism, and concentrated economic decision-making in the executive. The inability to control inflation led to tampering with official data reported by the National Institute of Statistics and Census (INDEC). Notably, no cabinet meetings were held, a sign of strong presidentialism.

The Kirchners were also known for their high-profile disputes against entities that would challenge their power or investigate corruption. It was also a populist playbook strategy to align the electorate against a created enemy. The media, the military, the IMF, bondholders, and corporations, are some examples.

Argentina's low ranking on the World Economic Forum's 2004 Index of judicial independence further reflected the erosion of democratic norms. The 2001-2002 crisis prompted demands for institutional reform, but Kirchner's government failed to engage in significant institutional-building efforts. The populist approach during their rule concentrated power in the executive, weakened democratic institutions, and raised concerns about the health of liberal democracy in Argentina.

Our results show institutional deterioration under the Kirchners' regime (see Tables A2 and Figure A1). The effects became statistically significant starting in 2007, which coincided with Cristina Kirchner's presidency, which deepened even further Nestor's populist style.

Table A1: Predictor Balance: Argentina

Predictor	Treated	Synthetic	V-Matrix
WGI: Voice and Accountability	0.345	0.333	0.002
WGI: Rule of Law	-0.235	0.036	0.001
V-Dem: Electoral Democracy Index	83.377	74.264	0.001
V-Dem: Freedom of Expression	93.969	88.331	0.002
V-Dem: Clientelism Index	46.262	45.001	0.001
V-Dem: Presidentialism Index	6.349	6.093	0.001
V-Dem: Liberal Democracy Index (1994)	63.000	62.534	0.094
V-Dem: Liberal Democracy Index (1997)	62.500	62.653	0.481
V-Dem: Liberal Democracy Index (1998)	62.800	62.853	0.401
V-Dem: Liberal Democracy Index (2002)	65.900	66.690	0.015

Note: The V-Matrix reports the weights assigned to each predictor variable by the algorithm in order to minimize RMPSE.

Table A2: Post-treatment effects and standardized p-values: Argentina

Year	Effect	Standardized p-value
2003	-1.820	0.074
2004	-1.587	0.148
2005	-4.343	0.111
2006	-5.487	0.111
2007	-5.633	0.000
2008	-6.803	0.000
2009	-7.984	0.000
2010	-8.448	0.000
2011	-10.520	0.000
2012	-10.275	0.000
2013	-10.257	0.000

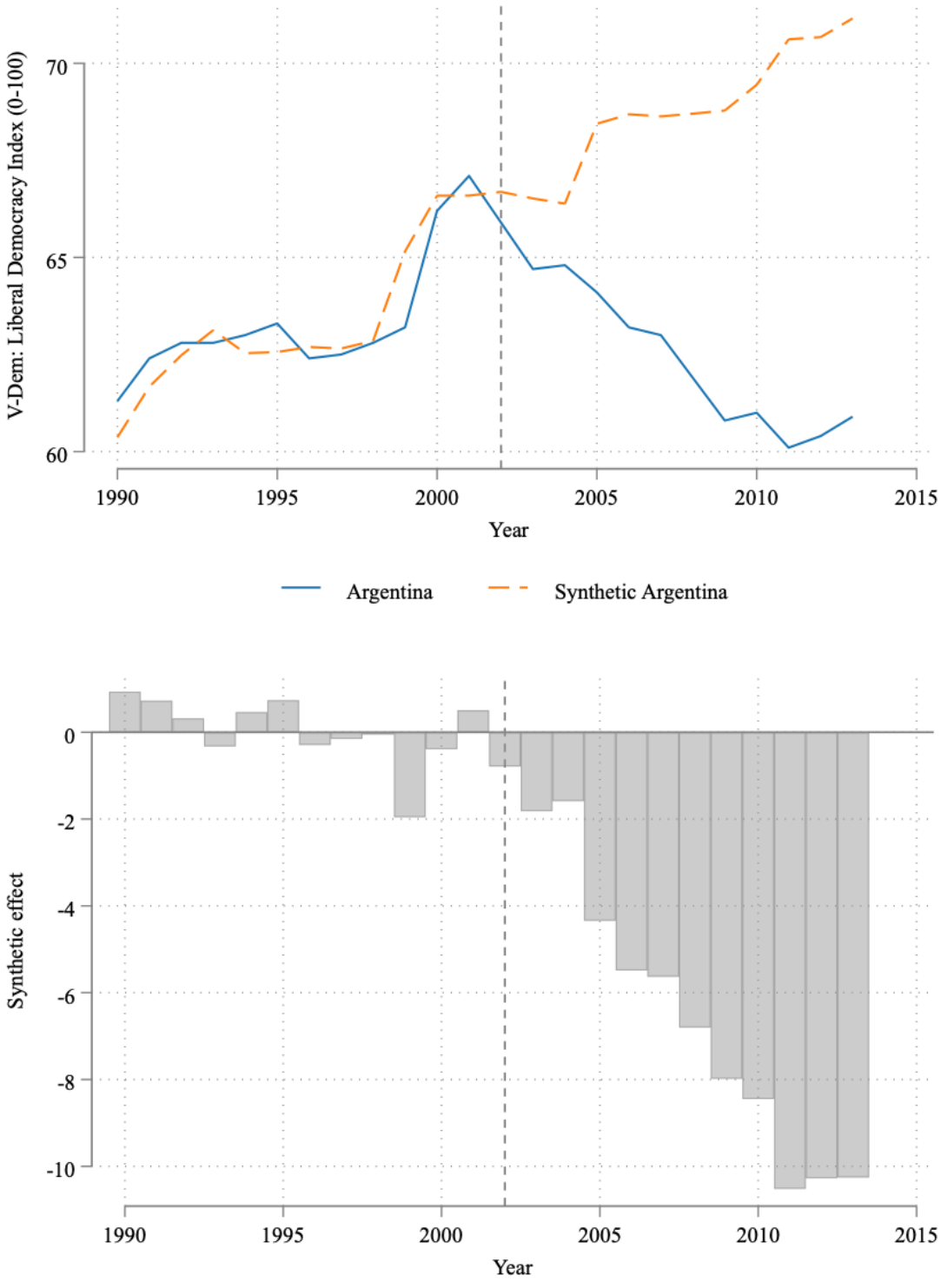

Figure A1: Synthetic Control: Argentina

A.2 Bolivia

Evo Morales' political party, the *Movimiento al Socialismo* (MAS), comprised fervent supporters. One of Morales' initial decisions was to fulfill a campaign promise by increasing taxes on the hydrocarbon industry, raising the profit tax rate from 18% to 82%, leaving 18% for the companies. Early the following year, Morales nationalized a metallurgy plant in the town of Vinto, which was operated by the Swiss company Glenco, arguing that they had obtained the contract illegally.

Later in 2006, Morales initiated a land reform program, seizing unproductive lands with absentee owners and transferring them to low-income individuals. Although the opposition approved regional referenda to be held in 2008, Morales dismissed the initiative, claiming it was illegal.

Despite Morales' initial declaration that he would not amend the constitution, MAS sponsored a national vote. The 2009 constitutional reform allowed Morales to run for a second 5-year presidential term and granted him the power to dissolve Congress. Additionally, he established the Plurinational Constitutional Tribunal, responsible for adjudicating the constitutionality of laws. In 2013, the constitutional court ruled that Morales' first presidential term, before the constitutional reform, did not count toward the constitutional two-term limit. In 2017, MAS petitioned the Plurinational Constitutional Tribunal to abolish presidential term limits, arguing that they violated human rights under the American Convention on Human Rights.

Morales ran for a fourth term in the 2019 presidential elections. The transmission of the results was temporarily paused for 24 hours, after which Morales went from being in a tight race with Carlos Mesa to securing a clear victory. However, Morales ultimately resigned amid allegations of electoral fraud and social protests during the 2019 presidential elections. Our results reveal statistically significant negative results (Table A4 and Figure A2). Bolivia's liberal democracy index declined from its peak of 55 to less than 40 in 2014.

Table A3: Predictor Balance: Bolivia

Predictor	Treated	Synthetic	V-Matrix
V-Dem: Presidentialism Index	31.557	24.354	0.001
Polity2: Democracy Score	8.786	8.035	0.001
V-Dem: Electoral Democracy Index	74.143	63.822	0.003
ICRG: Corruption	2.560	2.496	0.000
V-Dem: Liberal Democracy Index (1992)	47.500	47.583	0.129
V-Dem: Liberal Democracy Index (1995)	50.300	50.387	0.387
V-Dem: Liberal Democracy Index (1998)	52.600	52.074	0.190
V-Dem: Liberal Democracy Index (2000)	53.000	52.340	0.092
V-Dem: Liberal Democracy Index (2002)	51.500	52.261	0.114
V-Dem: Liberal Democracy Index (2005)	54.100	54.196	0.082

Note: The V-Matrix reports the weights assigned to each predictor variable by the algorithm in order to minimize RMPSE.

Table A4: Post-treatment effects and standardized p-values: Bolivia

Year	Effect	Standardized p-value
2006	-6.153	0.000
2007	-7.471	0.000
2008	-11.264	0.000
2009	-13.693	0.000
2010	-16.553	0.000
2011	-17.197	0.000
2012	-17.410	0.000
2013	-13.010	0.000
2014	-12.142	0.037
2015	-13.980	0.037
2016	-14.333	0.037

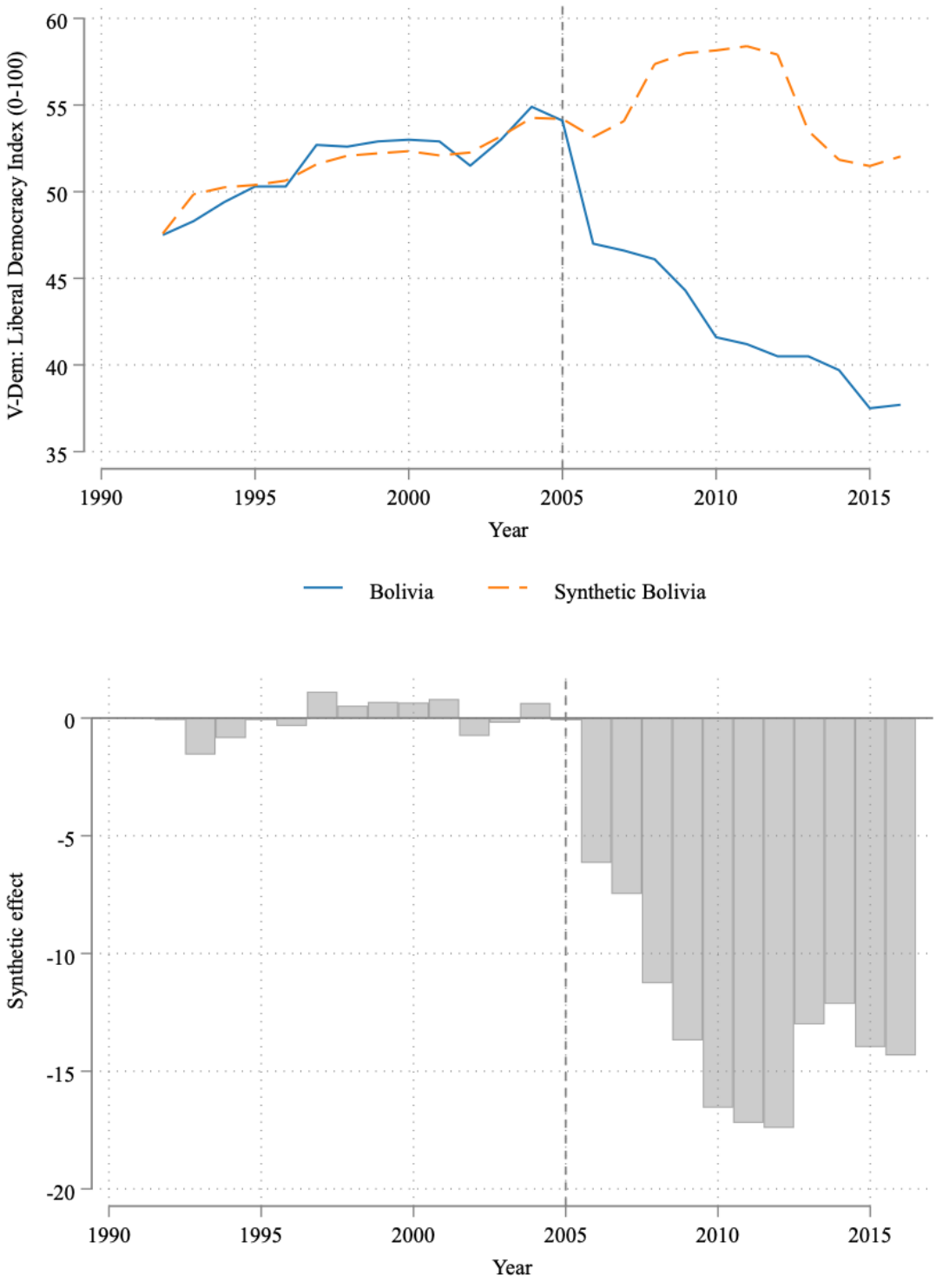

Figure A2: Synthetic Control: Bolivia

A.3 Ecuador

Rafael Correa successfully reformed the constitution, expanding the powers vested in the president by increasing the number of permitted presidential decrees. He also eliminated presidential term limits. Correa gained notoriety for his contentious relationship with the media. His government strongly criticized the press, accusing media outlets of spreading falsehoods and defamation against him. Correa responded by imposing restrictions on the media and curbing freedom of expression. He even imposed fines on media outlets that were critical of his administration. Furthermore, individuals who voiced dissent, whether they were politicians or civilians, were subjected to prosecution and espionage, raising concerns about the safety of democratic discourse.

Correa, who vehemently opposed dollarization, attempted to circumvent the monetary regime through two distinct approaches. First, there was the unsuccessful endeavor to introduce what would have been the inaugural central bank digital currency (CBDC) (Arauz et al., 2021a; Cachanosky et al., 2022) – a dollar-convertible digital currency issued and managed by the central bank and state-owned companies. The second approach involved the banking sector. He diminished the transparency of the central bank's balance sheet and subsequently mandated that banks repatriate their foreign reserves and deposit them with the central bank. Following this, he directed the central bank to utilize those reserves for the purchase of treasury bonds.

Figure A3 plots our results for Ecuador and shows a consistent decline in the liberal democracy index, with a p-value of zero for all ten years under consideration (see A6). The increase in 2017 is worth discussing. Rafael Correa ended his presidency mid-year, in May 2017. Thus, it is very likely that the inflection captures the effect of a new, non-populist government. Overall, as observed in other countries within this study, liberal democracy would have experienced an increase in its score had it not been for the influence of a left-leaning populist regime.

Table A5: Predictor Balance: Ecuador

Predictor	Treated	Synthetic	V-Matrix
Economic Freedom of the World Index	6.085	6.685	0.000
Polity2: Democracy Score	7.571	7.795	0.001
V-Dem: Government Attacks on the Judiciary	-98.864	-63.041	0.001
ICRG: Corruption	2.943	2.368	0.000
V-Dem: Liberal Democracy Index (1997)	47.200	46.974	0.290
V-Dem: Liberal Democracy Index (2002)	46.800	47.069	0.341
V-Dem: Liberal Democracy Index (2003)	47.900	47.582	0.336
V-Dem: Liberal Democracy Index (2006)	46.600	47.247	0.032

Note: The V-Matrix reports the weights assigned to each predictor variable by the algorithm in order to minimize RMPSE.

Table A6: Post-treatment effects and standardized p-values: Ecuador

Year	Effect	Standardized p-value
2007	-6.035	0.000
2008	-15.544	0.000
2009	-17.704	0.000
2010	-20.957	0.000
2011	-23.484	0.000
2012	-23.777	0.000
2013	-25.698	0.000
2014	-24.215	0.000
2015	-23.962	0.000
2016	-23.345	0.000
2017	-16.218	0.000

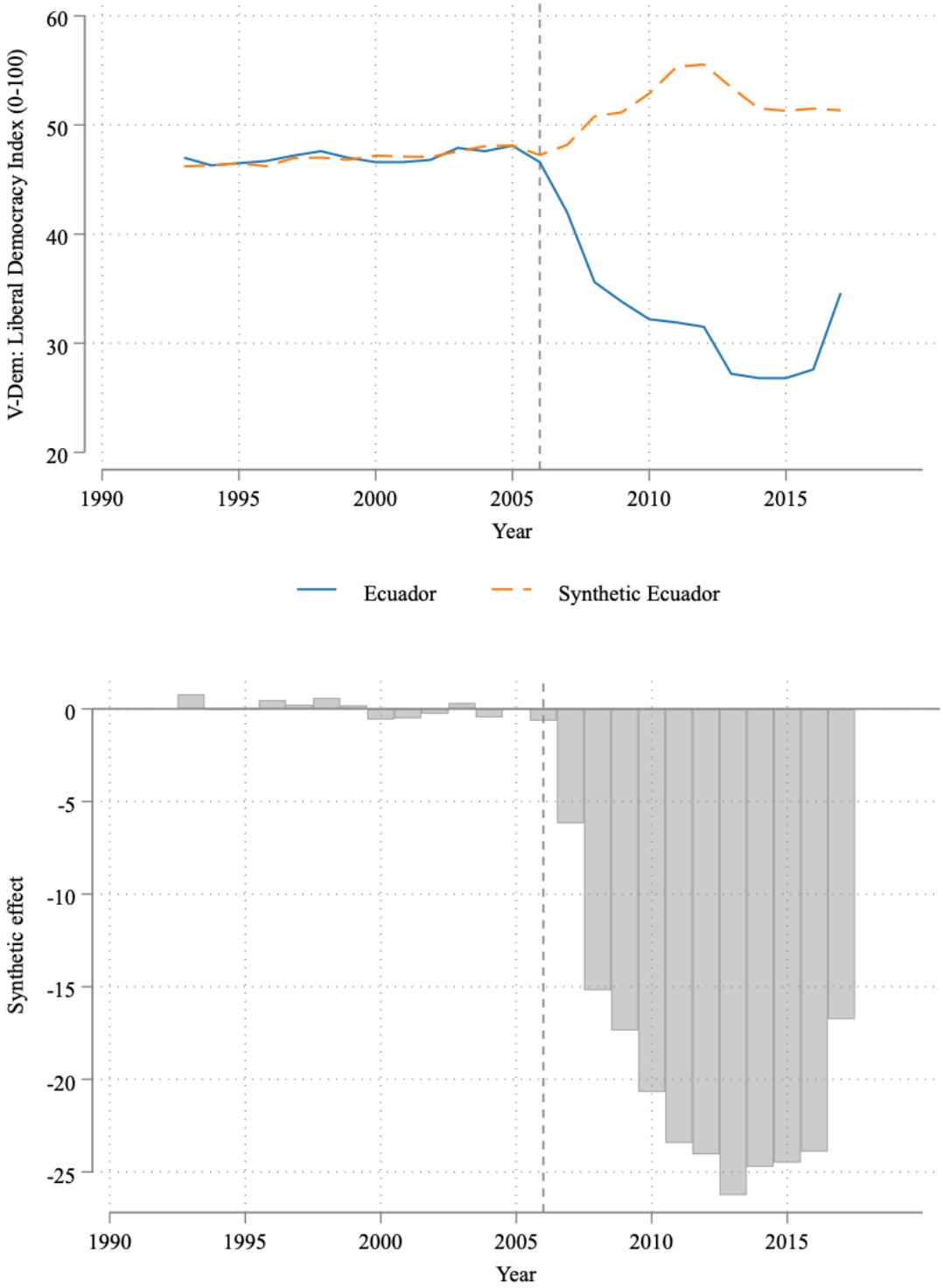

Figure A3: Synthetic Control: Ecuador

A.4 Nicaragua

Daniel Ortega previously governed the country from 1985 to 1990 as the leader of the Sandinista Revolution. Ortega ran for president in multiple elections, ultimately securing victory in 2006, thanks to a political agreement known as *El Pacto*. During this time, he forged a close relationship with Hugo Chávez in Venezuela. Chávez provided financial support to Ortega's regime through the *PetroCaribe* initiative, where Venezuela supplied oil to Nicaragua at a discounted price, allowing Nicaragua to resell the oil at market prices.

In 2009, the Nicaraguan Supreme Court lifted the constitutional ban on consecutive re-elections. Ortega ran for president for the third time in 2011, and his party achieved a super-majority in the National Assembly. In 2014, the National Assembly abolished term limits for the presidency, enabling Ortega to run for an unlimited number of five-year terms, thereby further consolidating his power. The constitution granted the president sole authority to appoint military and police commanders, reinforcing executive dominance over key institutions. Ortega ran for president again in 2014, with his wife as the vice-presidential candidate.

Ortega's regime became notorious for its violent suppression of civilian protests during the 2018 demonstrations against his social security reform, which aimed to increase contributions and reduce benefits. Ortega wielded his political power to promote a narrative of a failed coup through the media.

Our results indicate a significant decline in liberal democracy, supported by statistically significant results (Table A8 and Figure A4). This decline in institutional quality became apparent immediately upon Ortega assuming the presidency.

Table A7: Predictor Balance: Nicaragua

Predictor	Treated	Synthetic	V-Matrix
V-Dem: Freedom of Expression	87.130	71.776	0.000
V-Dem: Government Attacks on the Judiciary	-9.990	-52.794	0.000
WGI: Voice and Accountability	-0.054	-0.340	0.000
Polity2: Democracy Score	8.000	6.003	0.000
WGI: Control of Corruption	-0.665	-0.328	0.000
V-Dem: Liberal Democracy Index (1996)	41.300	37.886	0.268
V-Dem: Liberal Democracy Index (2001)	37.700	38.726	0.335
V-Dem: Liberal Democracy Index (2002)	38.200	38.487	0.165
V-Dem: Liberal Democracy Index (2004)	37.800	38.546	0.151
V-Dem: Liberal Democracy Index (2006)	33.100	35.256	0.081

Note: The V-Matrix reports the weights assigned to each predictor variable by the algorithm in order to minimize RMPSE.

Table A8: Post-treatment effects and standardized p-values: Nicaragua

Year	Effect	Standardized p-value
2007	-13.731	0.000
2008	-18.820	0.000
2009	-19.644	0.000
2010	-22.218	0.000
2011	-26.168	0.000
2012	-30.198	0.000
2013	-32.144	0.000
2014	-27.724	0.037
2015	-27.686	0.037
2016	-28.088	0.111
2017	-29.586	0.111

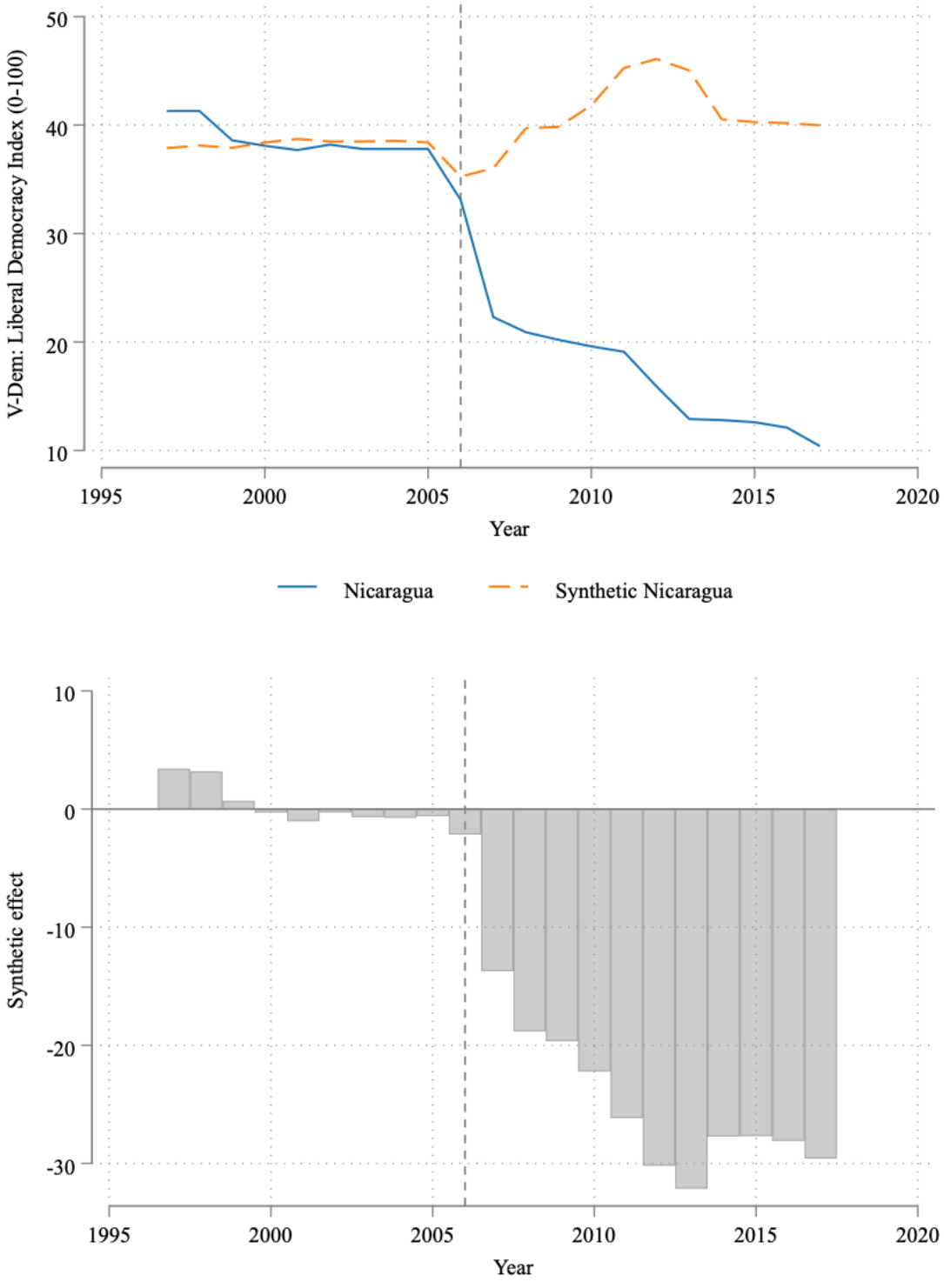

Figure A4: Synthetic Control: Nicaragua

A.5 Venezuela

The Chávez-Maduro regime in Venezuela, spanning from 1999 to the present, stands out as the most iconic and enduring left-leaning populist regime in the region. In 1999, the Bicameral Congress was replaced with a Unicameral one, curbing legislative control over the executive. Like the other populist regimes, the Chávez-Maduro regime policies included implementing price controls on food and products. These policies, however, stifled economic freedom, as they interfered with private businesses and discouraged foreign investment.

In Venezuela, there was a notable erosion of press freedom and a rise in censorship, as state-run bodies attempted to silence the media and shut down over 115 media outlets critical of the government. The government also restricted citizens from running for governmental positions, further limiting political pluralism. Moreover, the autonomy of judges was undermined, as illustrated by the arrest of Judge Maria Lourdes Afini for challenging the government's detention of a banker without evidence. Enacted laws, such as the *desacato* (insult laws), penalized citizens for criticizing public officials, resulting in violations of freedom of expression and a significant decline in Venezuela's Press Freedom Index ranking. "Information blackouts" were prevalent, further suppressing dissenting voices and restricting the flow of information unfavorable to the government.

In summary, the populist rule of Chávez and Maduro in Venezuela has been characterized by a deterioration of democratic principles, marked by the concentration of power in the executive branch, restrictions on press freedom, limited political competition, and the undermining of judicial autonomy. These actions have raised serious concerns about the state of liberal democracy in the country.

Our findings reveal statistically significant negative results on Venezuela's liberal democracy (Table A9, Table A10, and Figure A5. Venezuela stands out as the country with the largest effect, signifying the most significant institutional impact of a left-leaning populist regime.

Table A9: Predictor Balance: Venezuela

Predictor	Treated	Synthetic	V-Matrix
V-Dem: Freedom of Expression	89.542	85.173	0.018
Polity2: Democracy Score	8.632	6.948	0.003
Economic Freedom of the World Index	5.690	6.095	0.001
ICRG: Corruption	2.961	3.502	0.005
V-Dem: Liberal Democracy Index (1985)	58.800	58.740	0.119
V-Dem: Liberal Democracy Index (1988)	59.100	58.883	0.073
V-Dem: Liberal Democracy Index (1991)	62.300	60.188	0.110
V-Dem: Liberal Democracy Index (1994)	60.700	60.266	0.458
V-Dem: Liberal Democracy Index (1998)	58.700	60.672	0.213

Note: The V-Matrix reports the weights assigned to each predictor variable by the algorithm in order to minimize RMPSE.

Table A10: Post-treatment effects and standardized p-values: Venezuela

Year	Effect	Standardized p-value
1999	-18.2693	0.000
2000	-33.8356	0.000
2001	-36.8072	0.000
2002	-40.3702	0.000
2003	-39.9696	0.000
2004	-42.9933	0.000
2005	-47.0122	0.000
2006	-48.7401	0.000
2007	-49.3526	0.000
2008	-50.1014	0.000
2009	-50.3388	0.000

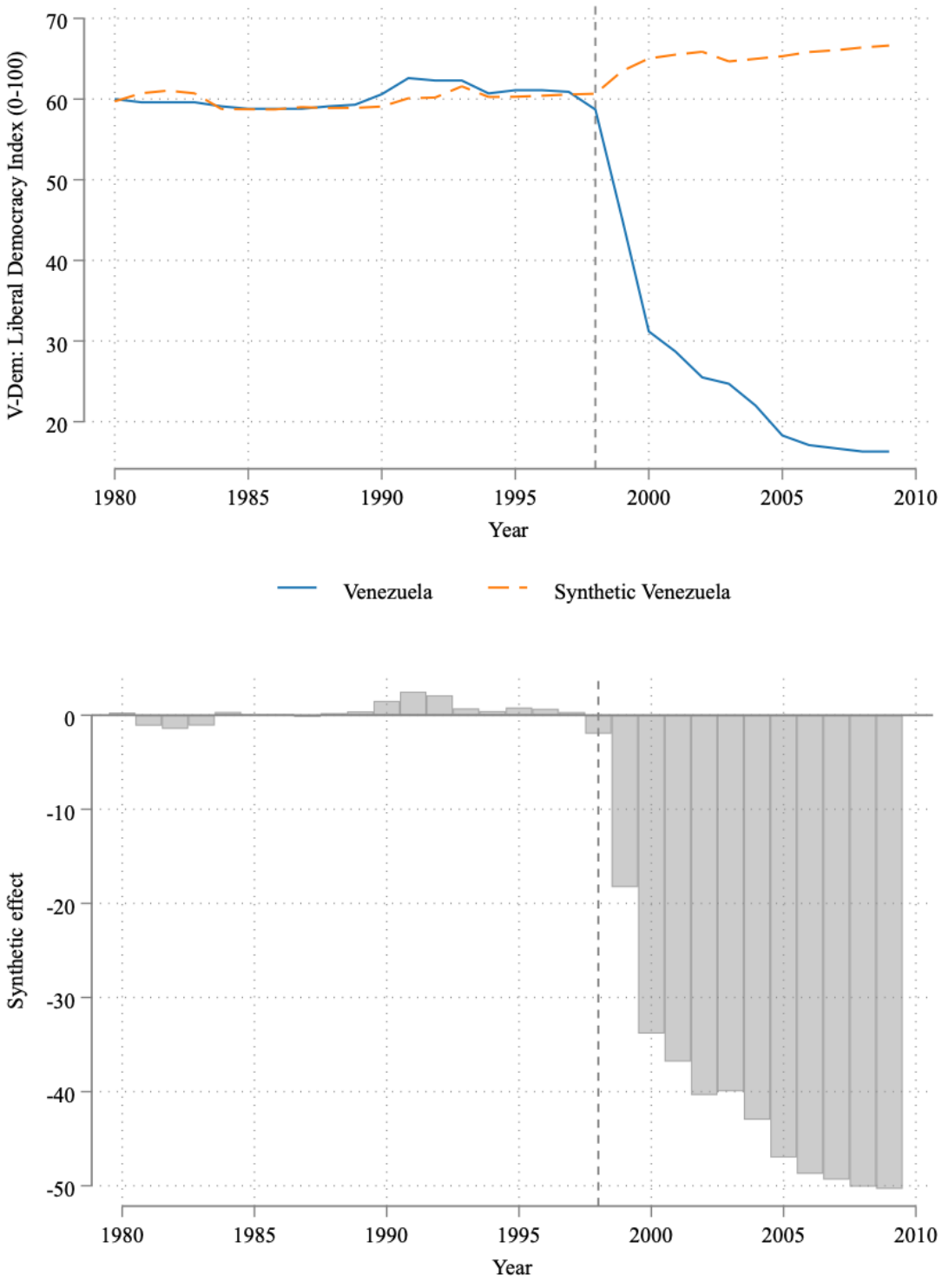

Figure A5: Synthetic Control: Venezuela

B Robustness Checks

Table B1: Robustness Checks: Argentina

Donor	Baseline Results	Drop Largest Donor	All Pre-Treat. Lags	Drop Developed	Latin America Only
Algeria	0	0	0	0	–
Australia	0	0	0.597	–	–
Austria	0.128	0	0	–	–
Belgium	0	0	0	–	–
Brazil	0.466	–	0	0.197	0.656
Canada	0	0	0	–	–
Chile	0	0	0	0	0
Colombia	0.085	0.221	0.199	0.186	0.138
Costa Rica	0.072	0.601	0	0.458	0.078
Denmark	0	0	0	–	–
France	0	0.008	0	–	–
Germany	0	0	0	–	–
Guatemala	0	0	0.080	0	0
Italy	0	0	0	–	–
Japan	0.100	0	0	–	–
Mexico	0	0	0	0	0.037
Netherlands	0	0	0	–	–
Nigeria	0.150	0.169	0.086	0.159	–
Paraguay	0	0	0	0	0
Peru	0	0	0.027	0	0.091
Portugal	0	0	0	–	–
Spain	0	0	0	–	–
Sweden	0	0	0	–	–
Thailand	0	0	0.011	0	–
Turkey	0	0	0	0	–
United Kingdom	0	0	0	–	–
Uruguay	0	0	0	0	0
Latin America	0.623	0.822	0.306	0.841	1.000
Non Latin America	0.378	0.169	0.694	0.159	0.000
RMPSE	0.750	0.828	0.36	0.828	1.168

Note: All estimations use the same specification (see main text). Percentages may not sum to one due to rounding.

Table B2: Post-treatment effects and standardized p-values: Argentina

Year	Baseline Results	Drop Largest Donor	All Pre-Treat Lags	Drop Developed	Latin America Only
2003	-1.820	-1.176	-1.548	-1.760	-4.348
	(0.074)	(0.385)	(0.148)	(0.077)	(0.000)
2004	-1.587	-0.994	-1.517	-1.508	-4.294
	(0.148)	(0.538)	(0.111)	(0.231)	(0.000)
2005	-4.343	-1.754	-2.213	-3.038	-7.882
	(0.111)	(0.308)	(0.185)	(0.077)	(0.111)
2006	-5.487	-3.436	-3.198	-4.477	-8.772
	(0.111)	(0.115)	(0.148)	(0.077)	(0.111)
2007	-5.633	-4.020	-3.688	-4.814	-8.412
	(0.000)	(0.038)	(0.074)	(0.077)	(0.000)
2008	-6.803	-5.291	-5.822	-6.039	-9.625
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2009	-7.984	-6.551	-6.980	-7.283	-10.747
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2010	-8.448	-7.561	-8.119	-8.108	-11.450
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2011	-10.520	-10.107	-10.431	-10.515	-13.405
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2012	-10.275	-10.001	-10.264	-10.413	-12.953
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2013	-10.257	-9.386	-8.750	-10.091	-12.803
	(0.000)	(0.000)	(0.074)	(0.000)	(0.000)
Avg. Effect	-6.651	-5.480	-5.684	-6.186	-9.517
Joint Std. p-val.	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)

Note: All estimations use the same specification (see main text). Standardized p-value in parenthesis.

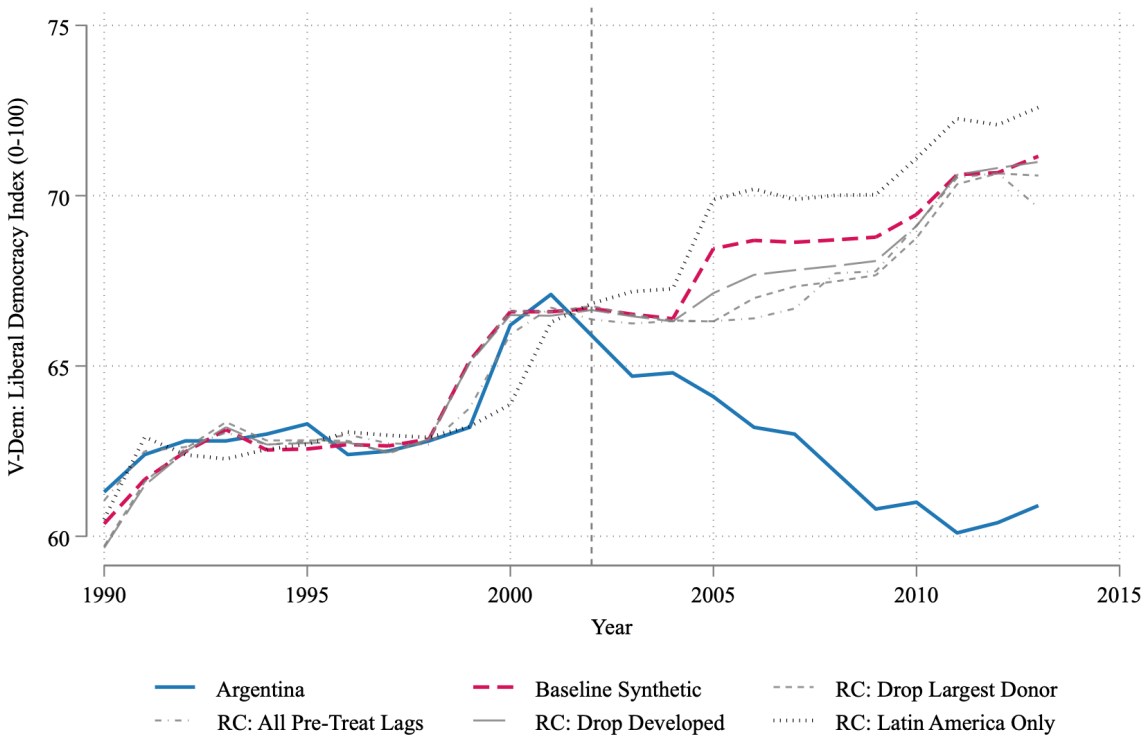

Figure B1: Robustness Checks: Argentina

Table B3: Robustness Checks: Bolivia

Donor	Baseline Results	Drop Largest Donor	All Pre–Treat. Lags	Drop Developed	Latin America Only
Algeria	0.032	0.143	0.132	0.063	–
Australia	0	0	0	–	–
Austria	0	0	0	–	–
Belgium	0	0	0	–	–
Brazil	0	0.316	0	0	0
Canada	0.067	0	0.322	–	–
Chile	0	0	0	-	-
Colombia	0	0.237	0	0	0
Costa Rica	0	0	0	0.221	0.206
Denmark	0	0	0	–	–
France	0	0	0	–	–
Germany	0	0	0	–	–
Guatemala	0	0	0	0	0
Italy	0.300	0.131	0	–	–
Japan	0	0	0	–	–
Mexico	0	0	0.037	0.003	0.017
Netherlands	0	0	0	–	–
Nigeria	0	0	0	0	–
Paraguay	0.508	–	0.332	0.554	0.706
Peru	0	0	0	0	0
Portugal	0	0	0	–	–
Spain	0	0	0	–	–
Sweden	0	0	0	–	–
Thailand	0.093	0.174	0.069	0.064	–
Turkey	0	0	0	0	–
United Kingdom	0	0	0	–	–
Uruguay	0	0	0.108	0.098	0.071
Latin America	0.508	0.553	0.477	0.876	1.000
Non Latin America	0.492	0.448	0.523	0.127	0.000
RMPSE	0.727	0.861	0.547	0.724	0.892

Note: All estimations use the same specification (see main text). Percentages may not sum to one due to rounding.

Table B4: Post-treatment effects and standardized p-values: Bolivia

Year	Baseline Results	Drop Largest Donor	All Pre-Treat Lags	Drop Developed	Latin America Only
2006	-6.153	-4.082	-6.095	-6.462	-8.261
	(0.000)	(0.038)	(0.037)	(0.000)	(0.000)
2007	-7.471	-4.672	-6.899	-7.733	-9.643
	(0.000)	(0.038)	(0.000)	(0.000)	(0.000)
2008	-11.264	-7.871	-9.928	-11.750	-13.324
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2009	-13.693	-9.755	-12.053	-14.223	-15.954
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2010	-16.553	-13.237	-15.030	-17.275	-19.097
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2011	-17.197	-15.627	-15.027	-17.649	-19.084
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2012	-17.410	-16.935	-15.035	-17.461	-18.379
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2013	-13.010	-16.216	-12.156	-12.722	-12.827
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2014	-12.142	-12.987	-11.731	-12.651	-14.425
	(0.037)	(0.038)	(0.037)	(0.077)	(0.000)
2015	-13.980	-14.708	-13.558	-14.332	-16.140
	(0.037)	(0.038)	(0.037)	(0.077)	(0.000)
2016	-14.333	-10.297	-14.094	-14.447	-16.415
	(0.037)	(0.115)	(0.111)	(0.077)	(0.000)
Avg. Effect	-13.019	-11.490	-11.964	-13.337	-14.868
Joint Std. p-val.	(0.000)	(0.038)	(0.037)	(0.000)	(0.000)

Note: All estimations use the same specification (see main text). Standardized p-value in parenthesis.

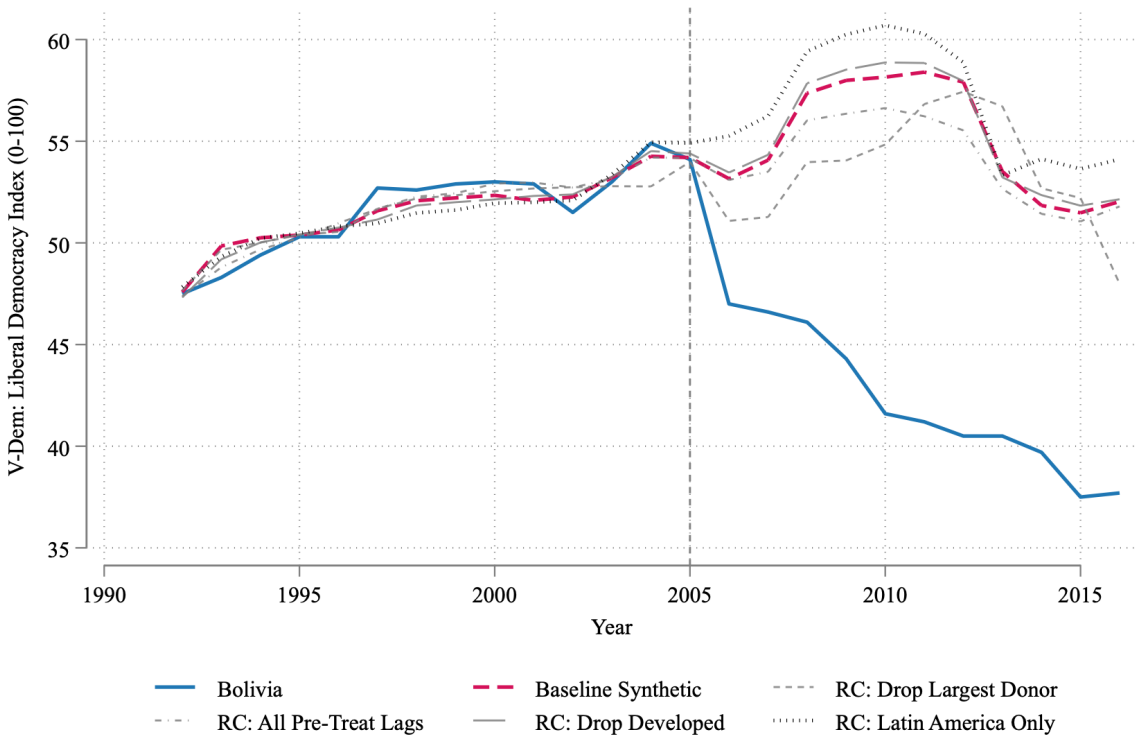

Figure B2: Robustness Checks: Bolivia

Table B5: Robustness Checks: Ecuador

Donor	Baseline Results	Drop Largest Donor	All Pre-Treat. Lags	Drop Developed	Latin America Only
Algeria	0	0.15	0	0	–
Australia	0	0	0	–	–
Austria	0	0	0	–	–
Belgium	0	0	0	–	–
Brazil	0	0	0	0	0
Canada	0	0.023	0	–	–
Chile	0	0	0	0	0
Colombia	0.52	0	0.631	0.769	0.888
Costa Rica	0	0	0	0.108	0.105
Denmark	0		0	–	–
France	0	0	0	–	–
Germany	0	0	0	–	–
Guatemala	0	0	0	0	0
Italy	0.168	0.276	0.16	–	–
Japan	0	0	0	–	–
Mexico	0	0	0	0	0
Netherlands	0	0	0	–	–
Nigeria	0	0	0	0	–
Paraguay	0.206	0.454	0.095	0	0
Peru	0	0	0	0	0.007
Portugal	0	0	0	–	–
Spain	0	0	0	–	–
Sweden	0	0	0	–	–
Thailand	0.105	0.097	0.114	0	–
Turkey	0	0	0	0.073	–
United Kingdom	-	0	0	–	–
Uruguay	-	0	0	0	0
Latin America	0.726	0.454	0.726	0.877	1.000
Non Latin America	0.273	0.546	0.274	0.073	0.000
RMPSE	0.440	1.297	0.370	0.591	0.916

Note: All estimations use the same specification (see main text). Percentages may not sum to one due to rounding.

Table B6: Post-treatment effects and standardized p-values: Ecuador

Year	Baseline Results	Drop Largest Donor	All Pre-Treat Lags	Drop Developed	Latin America Only
2003	-6.135	-6.435	-5.723	-6.625	-7.776
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2004	-15.418	-15.973	-14.457	-13.782	-14.623
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2005	-17.546	-18.356	-16.524	-15.708	-16.620
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2006	-20.931	-20.067	-20.158	-19.578	-21.188
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2007	-23.621	-20.736	-23.428	-22.973	-24.883
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2008	-23.988	-20.799	-24.318	-23.693	-25.567
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2009	-26.223	-21.090	-27.322	-27.340	-29.959
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2010	-24.852	-19.673	-25.550	-26.827	-31.023
	(0.000)	(0.000)	(0.037)	(0.000)	(0.000)
2011	-24.624	-19.345	-25.366	-26.556	-30.999
	(0.000)	(0.038)	(0.037)	(0.000)	(0.000)
2012	-23.981	-18.864	-24.692	-25.093	-30.182
	(0.000)	(0.038)	(0.037)	(0.000)	(0.000)
2013	-16.859	-11.663	-17.548	-17.650	-23.066
	(0.000)	(0.038)	(0.037)	(0.000)	(0.000)
Avg. Effect	-20.380	-17.545	-20.462	-20.530	-23.262
Joint Std. p-val.	(0.000)	(0.038)	(0.037)	(0.000)	(0.000)

Note: All estimations use the same specification (see main text). Standardized p-value in parenthesis.

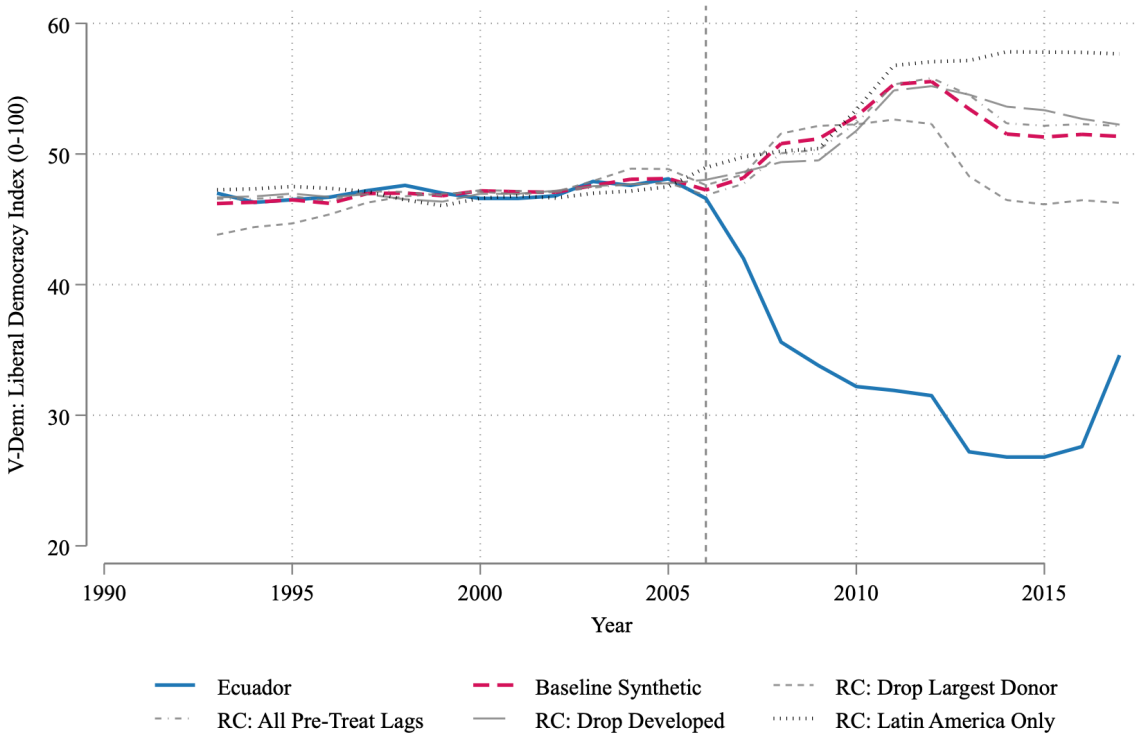

Figure B3: Robustness Checks: Ecuador

Table B7: Robustness Checks: Nicaragua

Donor	Baseline Results	Drop Largest Donor	All Pre-Treat. Lags	Drop Developed	Latin America Only
Algeria	0.132	0.536	0.284	0.415	–
Australia	0	0	0	–	–
Austria	0	0	0	–	–
Belgium	0	0	0	–	–
Brazil	0	0	0	0	0
Canada	0	0	0	–	–
Chile	0	0	0	0	0
Colombia	0.659	–	0.345	0	0.116
Costa Rica	0	0	0	0	0
Denmark	0	0	0	–	–
France	0	0	0	–	–
Germany	0	0	0	–	–
Guatemala	0	0	0	0	0.832
Italy	0	0.067	0	–	–
Japan	0	0	0	–	–
Mexico	0	0	0	0	0
Netherlands	0	0	0	–	–
Nigeria	0	0	0	0.129	–
Paraguay	0	0	0	0	0.052
Peru	0	0	0	0	0
Portugal	0	0	0	–	–
Spain	0	0.212	0.115	–	–
Sweden	0	0	0	–	–
Thailand	0.209	0.186	0.256	0.232	–
Turkey	0	0	0	0	–
United Kingdom	0	0	0	–	–
Uruguay	0	0	0	0.224	0
Latin America	0.659	0.000	0.345	0.224	1.000
Non Latin America	0.341	1.000	0.655	0.776	0.000
RMPSE	1.718	1.705	1.622	3.192	5.296

Note: All estimations use the same specification (see main text). Percentages may not sum to one due to rounding.

Table B8: Post-treatment effects and standardized p-values: Nicaragua

Year	Baseline Results	Drop Largest Donor	All Pre-Treat Lags	Drop Developed	Latin America Only
2007	-7.867	-12.510	-12.162	-11.197	-18.685
	(0.148)	(0.000)	(0.111)	(0.000)	(0.000)
2008	-19.426	-17.005	-17.986	-16.299	-21.126
	(0.000)	(0.000)	(0.148)	(0.154)	(0.000)
2009	-21.237	-17.824	-18.792	-17.075	-22.073
	(0.037)	(0.000)	(0.074)	(0.154)	(0.000)
2010	-22.124	-18.231	-20.283	-17.857	-22.827
	(0.037)	(0.038)	(0.222)	(0.154)	(0.000)
2011	-25.589	-19.646	-23.243	-19.955	-23.570
	(0.037)	(0.000)	(0.222)	(0.154)	(0.000)
2012	-29.428	-23.221	-27.162	-24.053	-25.869
	(0.037)	(0.000)	(0.148)	(0.154)	(0.000)
2013	-32.915	-24.742	-28.538	-25.962	-30.582
	(0.037)	(0.000)	(0.185)	(0.154)	(0.000)
2014	-36.115	-20.456	-22.790	-20.632	-31.314
	(0.037)	(0.038)	(0.222)	(0.154)	(0.000)
2015	-36.838	-20.084	-22.493	-20.524	-33.152
	(0.037)	(0.077)	(0.222)	(0.231)	(0.000)
2016	-37.051	-20.268	-22.832	-20.557	-35.353
	(0.037)	(0.154)	(0.259)	(0.231)	(0.000)
2017	-37.436	-21.439	-24.155	-21.851	-36.781
	(0.037)	(0.154)	(0.259)	(0.231)	(0.000)
Avg. Effect	-27.821	-19.584	-21.858	-19.633	-27.394
Joint Std. p-val.	(0.037)	(0.038)	(0.222)	(0.154)	(0.000)

Note: All estimations use the same specification (see main text). Standardized p-value in parenthesis.

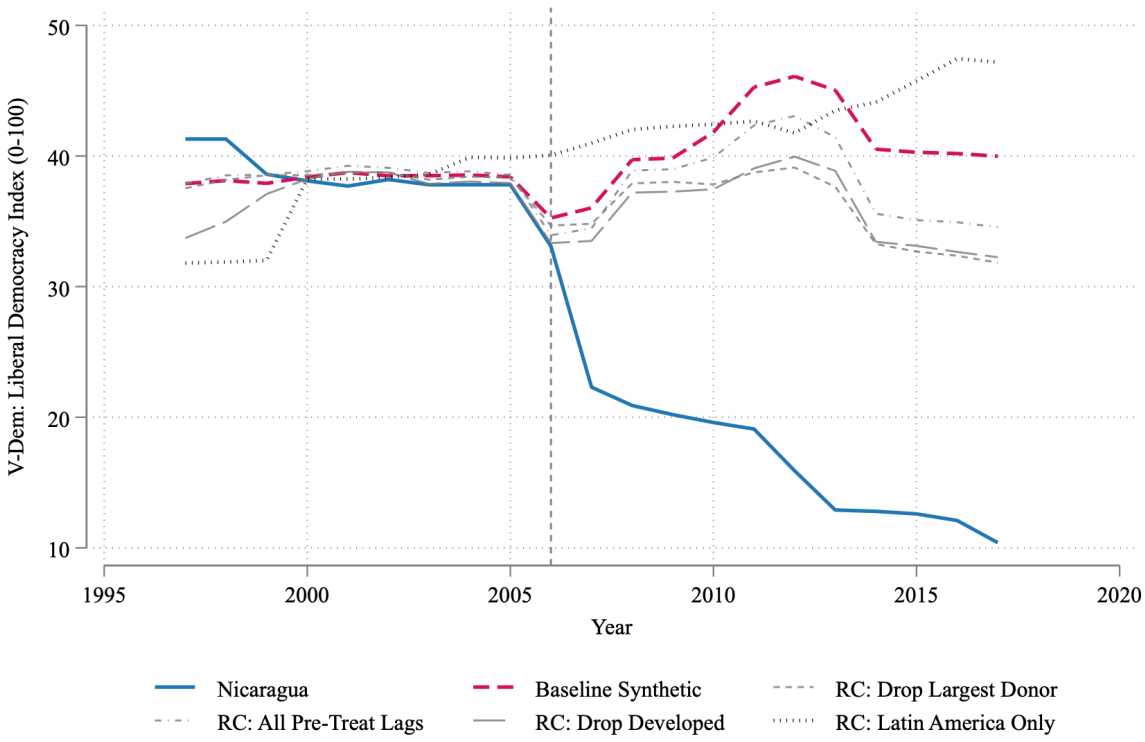

Figure B4: Robustness Checks: Nicaragua

Table B9: Robustness Checks: Venezuela

Donor	Baseline Results	Drop Largest Donor	All Pre-Treat Lags	Drop Developed	Latin America Only
Algeria	0	0	0	0	–
Australia	0	0.029	0	–	–
Austria	0	0	0	–	–
Belgium	0	0	0	–	–
Brazil	0	0	0	0	0
Canada	0	0	0	–	–
Chile	0	0	0.026	0	0
Colombia	0.102	0.041	0.056	0.187	0.286
Costa Rica	0	0	0	0.591	0.554
Denmark	0	0	0	–	–
France	0	0	0	–	–
Germany	0	0	0	–	–
Guatemala	0	0	0	0	0
Italy	0.231	0.713	0	–	–
Japan	0	0	0	–	–
Mexico	0	0	0	0	0
Netherlands	0	0	0.634	–	–
Nigeria	0.202	0.198	0.175	0.112	–
Paraguay	0	0	0	0	0
Peru	0.024	0.018	0.033	0.109	0.161
Portugal	0	0	0	–	–
Spain	0.441	–	0	–	–
Sweden	0	0	0	–	–
Thailand	0	0	0	0	–
Turkey	0	0	0.076	0	–
United Kingdom	0	0	0	–	–
Uruguay	0	0	0	0	0
Latin America	0.126	0.059	0.115	0.887	1.000
Non Latin America	0.874	0.940	0.885	0.112	0.000
RMPSE	1.120	1.179	0.544	1.289	2.097

Note: All estimations use the same specification (see main text), except for columns 4 and 5, where we drop *ICRG: Corruption* as a predictor to improve pre-treatment fit. Percentages may not sum to one due to rounding.

Table B10: Post-treatment effects and standardized p-values: Venezuela

Year	Baseline Results	Drop Largest Donor	All Pre-Treat Lags	Drop Developed	Latin America Only
1999	-18.269	-18.609	-18.992	-16.984	-15.861
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2000	-33.836	-34.303	-34.336	-32.719	-31.072
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2001	-36.807	-36.546	-38.080	-39.353	-39.677
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2002	-40.370	-40.435	-41.745	-43.682	-44.414
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2003	-39.970	-40.999	-42.833	-44.401	-45.464
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2004	-42.993	-43.529	-45.425	-46.979	-48.166
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2005	-47.012	-47.676	-49.059	-50.668	-51.918
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2006	-48.740	-50.316	-50.693	-52.365	-53.675
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2007	-49.353	-51.034	-51.449	-52.899	-54.202
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2008	-50.101	-50.392	-51.472	-53.459	-54.810
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2009	-50.339	-50.630	-51.441	-53.604	-54.945
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Avg. Effect	-41.617	-42.224	-43.229	-44.283	-44.928
Joint Std. p-val.	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

Note: All estimations use the same specification (see main text), except for columns 4 and 5, where we drop *V-Dem: Public Sector Corrupt Charges* and *ICRG: Corruption* as predictors.

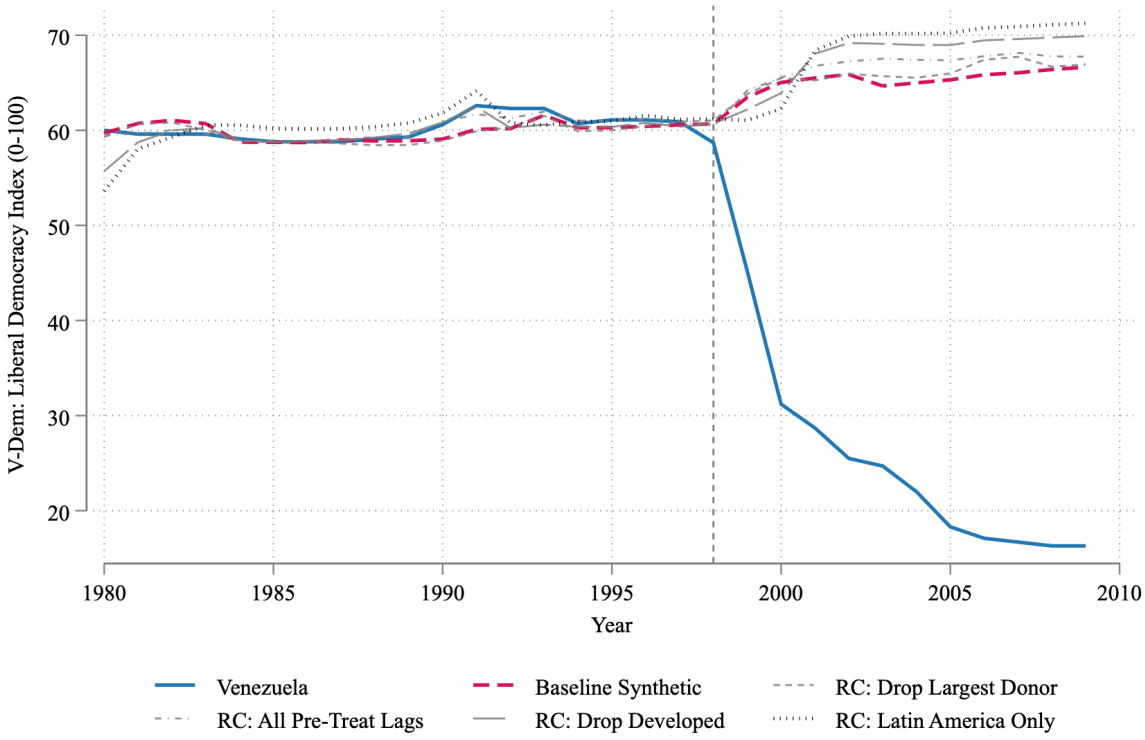

Figure B5: Robustness Checks: Venezuela