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Electoral Turnovers

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In most national elections, voters face a key choice between continuity and change. Electoral turnovers occur when the incumbent candidate or party fails to win reelection. To understand how turnovers affect national outcomes, we study all presidential and parliamentary elections held globally between 1946 and 2018. We document the prevalence of turnovers over time and estimate their effects on economic performance, human development, and the quality of democracy. Using a close-elections regression discontinuity design across countries, we show that turnovers improve several measures of country performance. To explain these positive effects, we explore how electoral turnovers affect leader characteristics, shape policy decisions, reduce perceived corruption, and foster accountability.

Key words: Elections, Turnovers, Democracy, Institutions

JEL codes: D72, O43, P16

1. INTRODUCTION

In most societies, voting incumbents out is the only mechanism allowing citizens to peacefully replace their country's leadership. For this reason, electoral turnovers are fundamental to democracy, which Przeworski (1991) characterized as "a system in which parties lose elections." Despite this, economists have given little attention to the consequences of turnovers at the national level. Assessing the costs and benefits of turnovers is particularly relevant to current debates prompted by democratic backsliding and the rise of populism in many countries (Levitsky and Ziblatt, 2019; Guriev and Papaioannou, 2022).

This paper asks how power transitions caused by national elections shape country performance. Jones and Olken (2005) showed that, in autocracies, new leaders appointed after the death of their predecessor can change the growth trajectory of nations. Turnovers could give new impetus to a country's performance by bringing to power new leaders facing stronger incentives to perform (Persson and Tabellini, 2002; Ashworth, 2005; Ferraz and Finan, 2011). At the

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same time, the loss of political experience (Alt *et al.*, 2011), the personnel instability (Akhtari *et al.*, 2022), and the policy uncertainty (Alesina *et al.*, 1996; Horowitz *et al.*, 2009) induced by turnovers could be detrimental to economic performance.

To explore the impacts of power transitions caused by-elections, we build a new dataset of national election results. Our dataset includes all presidential and parliamentary elections held around the world between 1946 and 2018. We estimate the impact of electing a challenger versus that of reelecting the incumbent on several dimensions of country performance, using a regression discontinuity design (RDD) across countries. Electoral turnovers are not random events and in particular may be more likely to occur after an economic downturn, making it difficult to attribute post-election differences in performance to the electoral outcome (Brender and Drazen, 2008; Fair, 2009; Nunn *et al.*, 2018). By focusing on close elections in which the incumbent narrowly won or lost, our empirical strategy seeks to address this concern. Our paper is among the first to implement a close-elections RDD in a cross-country setting, a demanding empirical exercise that required assembling the largest possible database of national election results through a systematic process of identifying and validating available data sources.[1]

We define an electoral turnover as an electoral defeat of the incumbent candidate or party, namely an election where the candidate of the incumbency fails to secure a plurality of votes (in presidential elections) or a plurality of seats (in parliamentary elections). We identify an incumbent candidate or party across 2,488 national elections, including 1,817 parliamentary elections and 671 presidential elections. These elections constitute the main sample for our analysis. Figure 1 shows the worldwide prevalence of electoral turnovers since 1945. Importantly, our analysis distinguishes between *electoral turnovers* (electoral defeats of the incumbent, which may or may not lead to a change of leadership) and changes in the leadership of the executive branch resulting from elections. We refer to the latter as *executive turnovers.*

Our identification strategy assumes that elections won by incumbents are ex ante comparable to elections won by challengers. One important concern involves the potential ability of incumbents to manipulate election results. Under such manipulation, any effects of turnovers on performance could be driven by unobservable differences between elections that lead to a turnover, and those that do not. We present various identification checks to validate our empirical strategy, including the density test from Cattaneo *et al.* (2018) to detect electoral manipulation in close elections, and the permutation test from Canay and Kamat (2017). We also show that a range of baseline covariates are continuous across the RD cutoff, and we obtain similar results using the randomization inference procedure from Cattaneo *et al.* (2015). With these identification checks and our discussion of the challenges associated with estimating a RDD across countries, we extend to a cross-country setting the literature discussing the validity of RDDs in close elections (*e.g.* Eggers *et al.*, 2015). While local elections have been the focus of close-elections RDDs, national elections are allegedly more consequential for the economic and democratic trajectory of countries, as national leaders have more policy tools at their disposal than local leaders.

Turnovers potentially affect a large number of outcomes. We first focus on four economic indicators that are natural measures of a country's performance (GDP per capita growth, inflation, unemployment, and trade intensity). We then ask whether the economic impacts of turnovers affect citizens' welfare, which we quantify in terms of human development. Finally, we explore whether turnovers (or the lack thereof) induce a deterioration of democratic quality, as a result of instability or institutional capture by reelected incumbents. To minimize the risk of finding false positives, we follow Kling *et al.* (2007) to compute an index of economic

1. One exception is Girardi (2020), who estimates the stock market impacts of partisanship across 758 national elections. Others have implemented close elections RDDs using data from local elections across multiple countries (*e.g.* Anagol and Fujiwara, 2016; Granzier *et al.*, 2023).

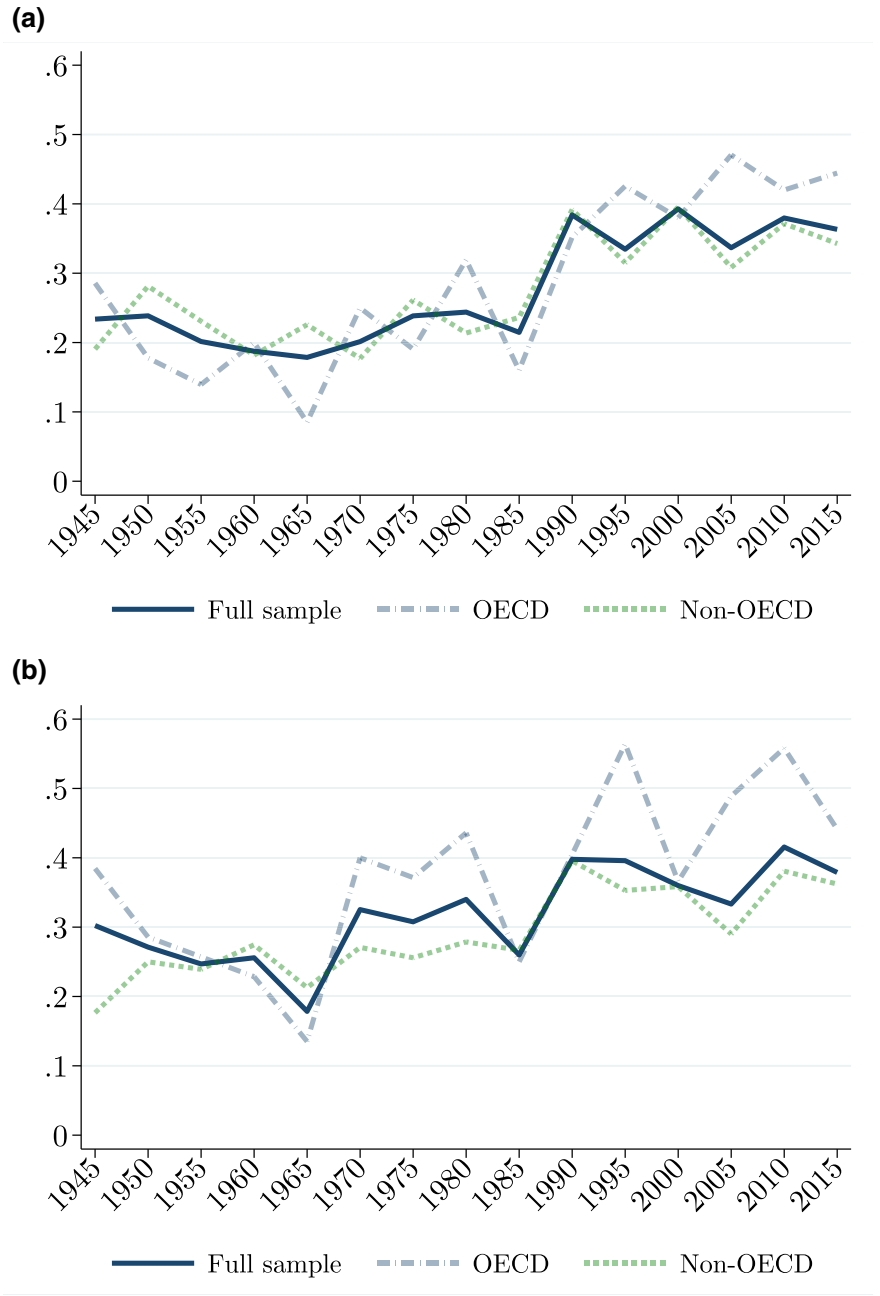

FIGURE 1

Share of elections with a turnover (a) electoral turnover and (b) turnover in the executive branch

Notes: This figure plots the share of elections in our regression sample associated with a turnover for each half-decade since 1945. Panel a focuses on electoral turnovers and panel b on turnovers in the executive branch. We define electoral turnovers and executive turnovers in Section 3.1 and Section 3.5, respectively.

performance combining the four economic outcomes above, as well as a general index of performance combining economic performance with human development and democratic quality. To construct these indicators, we identified outcomes from a variety of administrative sources, prioritizing sources with the best reliability and coverage.[2] Our main outcomes of interest are the changes in our measures of country performance over a typical 4-year election cycle. For ease of interpretation, we normalize these outcomes such that estimates can be interpreted in terms of their standard deviation (SD).

We first show that electoral turnovers improve performance along several dimensions, resulting in a 0.27 SD improvement in economic performance and a 0.28 SD increase in our general index of performance. These positive effects are large in magnitude, robust to a range of robustness checks, and materialize gradually over time. The largest effects of turnovers are on measures of trade intensity and macroeconomic discipline, such as inflation, rather than GDP per capita growth. These effects tend to be larger in settings where governments face weaker constraints, namely after presidential elections, when checks and balances on the executive are weaker, when more power is vested in the executive leader, and in less democratic regimes. However, the point estimates are positive in all these subsamples, and differences across subsamples are generally non-significant. We then show that the effects of electoral turnovers are partly driven by *executive* turnovers in both presidential and parliamentary systems. In the latter, a defeat of the incumbent party discontinuously increases the probability of an executive turnover. Having documented this relationship, we show that executive turnovers improve a country's index of performance by 0.34 SD. Overall, these results consistently show that power transitions caused by-elections improve country performance.

One question raised by our approach is whether the positive impacts of turnovers only hold for close elections or extend to all national elections. Incumbents who struggle to win reelection may be worse performers than the average incumbent, and weak incumbents may encourage the strategic entry of high-quality challengers (Gordon *et al.*, 2007; Ban *et al.*, 2016). We conduct several exercises to show that the positive effect of turnovers extends to elections that are less close. First, we show that OLS estimates of the impacts of turnovers are also positive, even when we consider decisively won elections. Second, we look at a subsample of national elections involving "unlucky incumbents," namely elections conducted in a context of unfavourable global oil prices capturing adverse economic circumstances outside the incumbent's control (Arezki *et al.*, 2022). Our main results largely hold in such contexts. Third, we implement the procedure from Angrist and Rokkanen (2015) to show that the effects of turnovers remain positive and sizeable away from the RD cutoff, and thus are not just driven by-election closeness. Finally, there is little evidence that the quality of elected leaders (proxied by subsequent electoral performance) jumps discontinuously after a turnover. Our exploration of the role of quality is motivated by the following observation. By focusing on close national elections, we may be comparing low-quality incumbents (elected on the left-hand side of the threshold) to high-quality challengers (elected on the right-hand side of the threshold). While the quality of individual candidates varies smoothly across the RD threshold, any potential jump in the quality of *elected leaders* could therefore contribute to the effects of turnovers on performance. We additionally show that challengers elected in close elections are not disproportionately more left-wing, more populist, less liberal, or younger than reelected incumbents.

2. Our focus is on outcomes measured 1–4 years after the election. We do not study the short-run response of financial markets, which has been explored by papers studying the left-right divide (Snowberg *et al.*, 2007; Girardi, 2020).

We highlight two main mechanisms behind these shifts in performance: policy change and improved governance. First, the effects of turnovers on country performance appear driven in part by greater international openness as well as changes in domestic policies. We find positive effects of turnovers on trade diversification and on country-level measures of globalization from Gygli *et al.* (2019), suggesting that electoral turnovers are accompanied by an effort to intensify exchanges with the rest of the world. On the domestic front, the effect of electing challengers on a measure of change in government intervention is 0.21 SD. Second, we show that turnovers reduce perceived corruption and improve the quality of governance. These effects increase over time: challengers become relatively less corrupt than reelected incumbents over the course of the subsequent term.[3] Building on insights from the literature on political agency (Besley, 2007), we conclude that mechanisms related to reputation and reelection concerns likely contribute to explain our results, together with a general erosion of power taking place after many years spent in office. Turnovers improve performance by helping to replace poorly incentivized and low-performing incumbents with new national leaders facing greater incentives to prove themselves to their electorate. This can also explain why the effects of turnovers are slightly larger close to the RD threshold: narrowly reelected incumbents may be more likely to expect an impending electoral defeat and thus face lower incentives to perform, relative to incumbents reelected with a wide margin.

By providing the first estimates of the impact of national electoral turnovers, our paper relates to the literature on the economic impacts of democracy. Others have shown that democratization affects the pace of policy reforms (Papaioannou and Siourounis, 2008; Giuliano *et al.*, 2013) and economic growth (Rodrik and Wacziarg, 2005; Acemoglu *et al.*, 2019). We show that democracy is not a sufficient condition to deliver good performance: the latter also requires a competitive electoral system allowing citizens to periodically replace their country's leadership. Furthermore, many regimes classified as hybrid or populist also hold elections (Guriev and Treisman, 2019). We focus on a phenomenon, electoral turnovers, which occurs across different types of political regimes.[4] By studying the impact of power transitions induced by-elections, our results extend beyond the literature on the impacts of democratization.

Our results can also be interpreted in light of Olson (1984)'s seminal argument, itself echoing (Hegel, 1820), that stable societies eventually experience institutional sclerosis and economic stagnation, unlike societies that undergo deep structural changes as a result of wars and revolutions. While our analysis focuses primarily on power transitions occurring within a given set of institutions and political regime, it is possible that electoral turnovers also trigger a reshuffling of the governing elite and impede the formation of "distributional coalitions" which, in Olson's view, could undermine economic efficiency.

Finally, we build on the literature studying the impacts of turnovers in local governments. Previous studies have shown that political renewal can improve performance by enhancing politicians' incentives (Ferraz and Finan, 2011). Other evidence suggests that political turnovers may engender excessive bureaucratic turnover and foster patronage in public sector organizations, with detrimental effects on performance (Colonnelli *et al.*, 2020; Akhtari *et al.*, 2022). Local turnover in bipartisan systems can also affect fiscal policy (Carlino *et al.*, 2023) and labour market outcomes (Beland, 2015). Our results obtained across a global sample of national elections suggest that the benefits of turnovers outweigh their costs at that level. This is an important

3. One explanation for this could be constitutional term limits, which are generally more binding for reelected incumbents than for first-term leaders. Term-limited leaders likely face fewer incentives to perform well (Ferraz and Finan, 2011; Fouirnaies and Hall, 2021). However, we show that our results are unlikely to simply be driven by term limits (see Section 5.2).

4. Importantly, electoral turnovers are not associated with more democratization episodes or democratic reversals, and they also improve country performance when the election does not coincide with a regime change.

result given that many dimensions of policy (*e.g.* trade or monetary policy) are exclusively determined at the national level. In line with this result, we find no evidence of adverse effects on bureaucratic quality in our sample, perhaps because newly elected leaders are more successful in maintaining an impartial and rigorous administration.

The paper proceeds as follows. We describe our data and empirical strategy in Sections 2 and 3, respectively. Section 4 presents our main results and Section 5 discusses mechanisms. Section 6 concludes.

2. KEY DATA SOURCES

Our dataset combines the results of all presidential and parliamentary elections conducted worldwide since World War II with detailed data on economic performance, policy outcomes, leader characteristics, and regime types. This section describes our approach; the Data Appendix provides additional details.

2.1. *Data on elections, leaders, and institutions*

2.1.1. Elections and electoral results. Our complete dataset contains 3,985 national elections, including 1,023 presidential elections and 2,962 parliamentary elections. The latter include all unicameral parliaments and the lower chamber of bicameral parliaments in both presidential and parliamentary systems. To construct this database, we first identify all national elections held between 1946 and 2018 using the Varieties of Democracy (V-Dem) database (Coppedge *et al.*, 2021) as our primary source. We complement V-Dem with the Parliaments and Governments (PARLGOV) database, the Manifesto Project, several books by Dieter Nohlen and coauthors, the Database of Political Institutions (DPI), the Global Elections Database, and the Constituency-Level Elections Archive. Data Appendix A describes this data construction.

We then search for the results of each election. For this step, we rely on the aforementioned sources as well as Adam Carr's Psephos election archive, the African Elections Database, the European Elections Database, the Political Database of the Americas, the Inter-Parliamentary Union PARLINE database, the International Institute for Democracy and Electoral Assistance (IDEA) database, the International Foundation for Electoral Systems (IFES) election guide, and the National Archives presidential elections database. We prioritize sources that cover more elections, show fewer inconsistencies, and have been used more often in previous work.[5] Appendix Figure B.1 shows a comparison between our sample and pre-existing databases as well as the number of elections collected from each source.

We collect data on vote shares for presidential elections and seat shares for parliamentary elections. We then systematically check data consistency within each source (Data Appendix A.5). In collecting parliamentary election results, we take into account the existence of ex ante coalitions officially formed before the election, as described in Section 3.1 and Data Appendix A.4. Overall, we retrieve election results for 97% of presidential elections and 97% of parliamentary elections identified in the first step.

2.1.2. Leaders and their parties. We link election results with information on leaders and political parties. First, we identify a head of state and a head of government for each country-year in our data (Data Appendix B). We then associate parties in our database of election results

5. Academic sources are lacking or incomplete for 12.7% of elections. In these cases, we collect the results from Wikipedia.

with parties in V-Parties, another dataset provided by V-Dem and containing various measures of party ideology (Data Appendix C).

2.1.3. Institutions and regimes. We also retrieve data on the regimes and rules under which elections take place. First, we divide the modern history of each country into regimes, allowing us to understand the role of each election (Data Appendix D). Second, we determine whether each election led to the nomination of a head of state, a head of government, or none of the two. Data Appendix E describes the rules used to determine the role of each election, as well as data quality checks. Third, we rely on the Comparative Constitutions Project (Elkins *et al.*, 2021) to identify term limits (Data Appendix F).

2.2. *Data on national outcomes*

In our analysis, we estimate the impact of electoral turnovers on measures of country performance falling into three broad categories: economic performance, human development, and democratic quality.[6]

To measure economic performance, we use four authoritative indicators: GDP per capita growth from the Penn World Tables (Feenstra *et al.*, 2015),[7] CPI inflation from the IMF, the unemployment rate from the ILO, and trade intensity, defined as the total value of imports and exports divided by GDP (measured by the World Bank). We selected these data sources after careful consideration of other available sources for each outcome, as they provide the most comprehensive coverage in terms of the number of national elections covered in our data. Nonetheless, in the Appendix, we probe the robustness of our results to using alternative data sources. To avoid results being driven by outliers (*e.g.* hyperinflation episodes or terms of trade swings), all components of the economic performance index are winsorized at the third and 97th percentiles. We check the robustness of our results to different ways of winsorizing and to trimming. For human development, we use the human development index (HDI) from the UNDP. Finally, we rely on V-Dem's measures of the quality of democracy, including deliberative, egalitarian, liberal, participatory, and electoral democracy. We use the simple average of these five measures (which all vary between 0 and 1) to quantify the quality of democracy. Appendix Table B.1 indicates the number of elections for which we have data on each outcome. Appendix Table C.1 shows that the fraction of observations with missing data is not significantly affected by turnovers.

Data Appendix G provides a detailed description of the rules we used to construct our dataset of outcomes. Given the scope of our analysis, this data collection required making appropriate choices in terms of which sources to prioritize and how to define our outcomes of interest. While we aimed to cover as many countries as possible, we acknowledge the inherent limitations and shortcomings associated with combining data for such a large sample. First, our data coverage across countries and years is imperfect and varies across outcomes. For example, the HDI is only available from 1990 onwards. Second, measurement quality is also heterogeneous across countries and years. Third, we are unable to observe some important outcomes. For instance, since we generally only have limited information on the specific policies implemented by elected candidates, we focus in our analysis on several measures of government intervention, which

6. Appendix Tables D.1–D.4 report results for a broader set of outcomes than those considered in our baseline analysis.

7. We use version 9.0 of the Penn World Tables, which addresses the data issues highlighted by Johnson *et al.* (2013) (see Feenstra *et al.*, 2015). In Appendix Table D.1, we show robustness to using alternative sources to measure GDP growth.

are most consistently measured across our sample. Notwithstanding these limitations, our data coverage allows us to estimate the effects of turnovers on a wide range of outcomes and across a large sample of national elections between 1946 and 2018.

3. EMPIRICAL FRAMEWORK

This section presents our empirical strategy. We first define the key concepts of incumbency and electoral turnovers (Section 3.1). We then describe our sample (Section 3.2) and the construction of our outcome variables (Section 3.3). Section 3.4 presents our main empirical specification. Finally, we describe the alternative specification used to estimate the impact of turnovers in the executive branch (Section 3.5).

3.1. *Defining electoral turnovers*

Our analysis estimates the impacts of electoral turnovers using a RDD. To set up this design, we must identify which candidate or party represents the incumbency in each election. We then define electoral turnovers as a defeat of the incumbent candidate or party. This section describes how we construct these key variables for each type of election.

3.1.1. Presidential elections. In presidential elections, the incumbent is the individual or party that effectively held power at the time the election took place. To account for caretaker governments and transition periods, we use a flexible definition: we define the incumbent as the leader who held executive power for a period of at least 365 days in the 2-year period before the election. The incumbent party is analogously defined as the party which held executive power for at least 365 days during the same period. Panel a of Appendix Table B.2 illustrates the implementation of this rule.

To account for all cases where the incumbent competes or has a clear designated successor, we consider that the incumbency is represented by: (1) the incumbent leader, if the leader is personally competing (56.3% of cases); (2) the candidate of the incumbent party, if the leader is not personally competing (39.4% of cases); (3) the candidate unambiguously designated as the representative of the ruling government, if neither the country leader nor any candidate from their party are competing (4.3% of cases).[8] Elections in which we cannot define a candidate of the incumbency are excluded from the analysis.

We then construct a treatment variable T equal to 1 if the incumbent candidate loses the election. The running variable X is equal to the margin of victory of the best-ranked challenger, which is the difference between this challenger's and the incumbent's vote share. When the election features a run-off, we use the second round results to construct the running and treatment variables. If the incumbent did not compete in the second round, we do not define a running variable. For indirect presidential elections (including U.S. presidential elections), we use electoral college vote shares to define the running variable. Furthermore, we exclude elections where one candidate ran unopposed, elections that were not the last presidential election in the calendar year, indirect presidential elections that could easily be manipulated, as well as various types of inconsequential elections (Appendices A.1 and A.3 provide additional details).[9] We checked

8. When the election features two rounds, we check whenever possible that this support was expressed before the first round.

9. In Appendix Figure C.1, we verify that electoral turnovers are not associated with a significantly different probability of exclusion from the sample following an inconsequential election. In Appendix Table D.5, we further show that our main results are robust to including inconsequential elections in our sample.

the validity of our key variables through an independent audit encompassing all elections with a running variable X between -15 and $+15$ percentage points and a subset of other elections (see Data Appendix H.4).

3.1.2. Parliamentary elections. In parliamentary elections, the incumbent party is the party which secured a plurality of seats in the previous election. Our definition is based on the results of the previous election because the available data do not systematically document how the composition of parliaments varies between national elections, for example through by-elections. Furthermore, note that only some parliamentary elections lead to the designation of a leader of the executive branch. Our baseline definition is based on seat shares, because the relative seat shares obtained by different parties may matter in and of themselves, independently of who controls the executive. This definition allows us to include parliamentary elections which are not associated with the designation of a member of the executive and which may nonetheless be impactful, such as the elections to the lower chamber of parliament in presidential systems (*e.g.* the U.S. House of Representatives).

We set the treatment variable T equal to 1 if the incumbent party fails to secure again a plurality. The running variable X is equal to the margin of victory of the best-ranked opposition party, *i.e.* the difference between the seat share of this party and the incumbent party. We again drop elections in which the incumbent party ran unopposed or obtained 100% of the seats, as well as elections to constitutional assemblies without any legislative power and elections where a fraction of parliamentary seats are appointed rather than elected (see Appendix A.1). Finally, we do not define a treatment variable in 23 elections where the incumbent and challenger parties obtained exactly the same number of seats.

As with presidential elections, we account for cases where the incumbent party has a clear successor. We also account for the existence of coalitions. We collected systematic evidence to identify coalitions and distinguish those officially formed before the election (ex ante) from those formed after the election (ex post). To compute seat shares, we group together parties belonging to the same ex ante coalition but we keep as separate the members of ex post coalitions, since these are endogenous to election results. Therefore, the candidate of the incumbency in parliamentary elections is: (1) the incumbent party when it participates in the election, or alternatively the coalition that the incumbent party is part of; (2) the party or coalition unambiguously designated as the representative of the ruling government if the incumbent party is not competing. As with presidential elections, we exclude elections in which we cannot define an incumbent party. When identifying the previous election, we exclude inconsequential elections, constitutional assembly elections, and elections that are not the last parliamentary election in a calendar year. We also impose that the previous election took place no more than 10 years earlier. Additional details regarding the determination of the incumbent party are provided in Appendix A.4.

3.2. *Sample description*

Overall, we are able to identify an incumbent candidate or party and to define a running and treatment variable in 671 presidential elections and 1,817 parliamentary elections. Accordingly, our main analysis sample includes a total of 2,488 national elections across 201 countries.[10] Fifty-nine per cent of these elections are conducted under regimes classified as liberal or electoral democracies by V-Dem, and 26% of elections take place in OECD countries. Close to the

10. Our sample includes a few autonomous territories which are not United Nations members (*e.g.* Greenland and Puerto Rico).

threshold, when the running variable is comprised between −5 and 5 percentage points, the fractions of elections in democracies and in OECD countries increase to 84% and 39%, respectively. Figure 1(a) shows the share of elections featuring an electoral defeat of the incumbency. Appendix Figure B.2 shows the geographical distribution of all elections we identified over the period, all elections included in our main analysis, and all elections with a turnover.

3.3. *Outcome variables*

We explore how turnovers affect national outcomes. To compare the level of an outcome Y before and after an election E taking place in country c and year t_E, we compute the difference between the average level of Y in the 4 years following the election and the level of Y in the year before the election:

$$\underbrace{\Delta Y_E}_{\text{Improvement over the election cycle}} = \underbrace{\left(\frac{1}{k}\sum_{\tau=1}^{k} Y_{c,t_E+\tau}\right)}_{\text{Post-election average of the outcome}} - \underbrace{Y_{c,t_E-1}}_{\text{Pre-election value of the outcome}}$$

This definition allows us to control for large differences in levels across countries and time periods and to increase the precision of our estimates. In our baseline analysis, we use $k = 4$ since the modal distance between elections of the same type in a country is 4 years. To make estimates comparable across outcomes, we standardize the ΔY_E. In the Appendix, we report a wide range of checks verifying the robustness of our results to using different values of k and to replacing the pre-election value of the outcome with the average over the last 3 years before the election.

3.3.1. Building indices. Electoral results potentially affect a large number of outcomes, which raises the problem of multiple testing. To minimize the risk of overrejecting the null hypothesis and to gain statistical power, we group the ΔY_E constructed above for our four economic outcomes (GDP per capita growth, inflation, unemployment, and trade intensity) into an index equal to the unweighted average of the four standardized variables, following Kling *et al.* (2007). When a component is missing, we do not include it in the average (*i.e.* we do not impute a value). Furthermore, we adjust the sign of the components such that higher values of the index reflect better outcomes. Thus, inflation and unemployment enter negatively in the index. We use the same method to aggregate this economic index and the standardized ΔY_E of human development and democracy into the general index of country performance.

3.4. *Regression discontinuity estimation*

3.4.1. Effects of an electoral defeat of the incumbent. We estimate the effects of an electoral defeat of the incumbent with the following RD equation, using one observation per election:

$$\Delta Y_E = \alpha + \beta_1 X_E + \beta_2 X_E T_E + \gamma T_E + \varepsilon_E, \tag{1}$$

where X_E, the running variable, is the victory margin of the best-ranked challenger and $T_E = \mathbb{1}(X_E > 0)$, as described in Section 3.1. ΔY_E measures the difference in outcomes between the post-election average and the pre-election value (see Section 3.3). Equation (1) is estimated with the non-parametric method of Calonico *et al.* (2014). Using this method, we report the standard RD point estimate γ and the robust standard error as well as the p-value associated

with the robust confidence interval for γ.[11] In our baseline estimation, we use the MSE-optimal bandwidth from Calonico *et al.* (2014). When looking at the general index of country performance, this bandwidth includes 858 national elections, corresponding to a bandwidth size of 14.4 percentage points.[12]

In our exploration of mechanisms, we also estimate alternative versions of equation (1) where we use $|\Delta Y_E|$ as the outcome (*i.e.* the absolute value of the difference in outcomes between the post-election average and the pre-election value). Finally, we compare the RD point estimates of γ in equation (1) with the corresponding estimates obtained via OLS, without controlling for the running variable X_E. In this case, the point estimates do not have a causal interpretation and may instead capture other factors which are endogenous to the occurrence of an electoral turnover.

3.4.2. Interpretation. To measure the change in performance caused by an electoral turnover, the ideal experiment would be a randomization of the electoral outcome across many elections. Without a randomized experiment, a simple comparison of outcomes between elections won by challengers and those won by incumbents would fail to identify the effect of turnovers. There are at least two sources of endogeneity to consider. First, unobserved variables correlated with incumbents' reelection prospects might affect future performance. Second, reelected incumbents may be systematically different from defeated incumbents, and elected challengers may be systematically different from defeated challengers.

Our empirical strategy addresses the first concern, as economic conditions and other variables that may affect a country's performance after the election can be expected to be identical on both sides of the RD threshold. In Section 4.1, we check that this is indeed verified in our data. By contrast, OLS estimates of equation (1) would not eliminate this bias. To some extent, the RD design also addresses the second concern as it ensures that the characteristics of reelected and defeated incumbents vary smoothly at the threshold, and likewise for challengers. This does not preclude the possibility that the characteristics of *elected leaders* might vary discontinuously at the threshold, a possibility we explore in Section 4.5.

Another aspect to consider when interpreting estimates of γ in equation (1) involves differences in the characteristics of incumbents reelected in close elections compared to those who decisively win. Close elections may feature incumbents who are negatively selected, and weak incumbents might incentivize high-quality challengers to compete. By focusing on close elections, we may therefore be comparing "weak" incumbents with "strong" challengers. Furthermore, closely reelected incumbents likely face different incentives, relative to incumbents who are decisively reelected. On the one hand, closely elected leaders may have lower legitimacy and stronger incentives to perform. On the other hand, a close victory margin might signal to these leaders a high probability of losing the subsequent election, which could lead to discouragement effects and a *de facto* term limit. Whichever hypothesis holds has implications for the interpretation of our main results: more negative sorting and worse incentives for closely reelected incumbents—relative to incumbents who decisively win reelection—imply relatively larger estimates of the effects of turnovers close to the cutoff. We return to this discussion in Section 4.4.

11. In Appendix Table D.6, we show that our results are robust to clustering standard errors at the country × year level.

12. This bandwidth is well within the range of the bandwidths used in other close election RDDs. Note that the exact size of the MSE-optimal bandwidth from Calonico *et al.* (2014) depends on the dependent variable considered. Across our main outcomes, the number of elections included in the bandwidth varies between 562 and 1,192 (see Table 1).

TABLE 1
Effects of electoral turnovers on country performance

	(1) Econ. perf.	(2) GDP p.c. gr.	(3) (Minus) Inflation	(4) (Minus) Unemp.	(5) Trade	(6) HDI	(7) Democ.	(8) General index
El. turn.	0.269***	0.044	0.430**	0.221	0.249**	0.197	0.192**	0.276***
	(0.101)	(0.155)	(0.192)	(0.170)	(0.127)	(0.167)	(0.101)	(0.105)
p-val.	[0.003]	[0.841]	[0.012]	[0.101]	[0.028]	[0.173]	[0.043]	[0.004]
N	2201	1815	1887	1331	1767	1305	2187	2356
N eff.	763	827	723	670	763	565	1194	861
Band.	13.5	19.5	14.8	21.6	17.4	18.0	23.8	14.4

Notes: This table reports RD estimates corresponding to equation (1) for our measures of country performance, expressed in standard deviation terms. We report local linear regression estimates from Calonico *et al.* (2014), robust standard errors in parentheses, the *p*-value associated with the robust confidence interval in brackets, the number of observations in the sample and in the bandwidth, and the MSERD-optimal bandwidth. ** $p < 0.05$,*** $p < 0.01$.

3.5. *Turnovers in the executive branch*

Electoral turnovers often, but do not always trigger a change of executive leader. While in presidential elections, electoral and executive turnovers generally coincide, the same may not be true for parliamentary elections. First, only slightly over half of the parliamentary elections in the sample lead (in a constitutional sense) to the designation of an executive leader. Second, in these elections, electoral turnovers usually trigger an executive turnover, but this is not always the case. For example, an incumbent party that loses a parliamentary election may be able to retain executive power by forming a different coalition after the election. To determine whether an election led to an executive turnover, we define a country's leader and leading party before (resp. after) the election as the individual and party that led the executive during a period of at least 365 days in the 2 years before (resp. following) the election. Panel b of Appendix Table B.2 illustrates this rule, and Data Appendix H provides further details.

We then define an executive turnover T^x as the nomination of a new executive leader. This variable is set to 0 (meaning that an executive turnover did *not* take place) if: (1) the leader before and after the election are identical; (2) the leading party before and after the election are identical; or (3) the leading party before the election did not compete and instead supported the leading party after the election. If none of these conditions holds, we set T^x as equal to 1. If we are unable to define a leading party before the election (*e.g.* because the leader was an independent) or after the election, we do not define T^x. Figure 1(b) shows the evolution of the frequency of turnovers in the executive branch since 1945.

Figure 2(a) shows the impact of electoral turnovers on executive turnovers in parliamentary elections that lead to the designation of an executive leader. We use T^x as the dependent variable in a specification in the form of equation (1). We observe a large upward jump (of 38 percentage points) at the threshold, indicating that executive turnovers are much more likely to occur when the challenger party obtained slightly more seats than the incumbent party. This result generalizes a finding from Fujiwara and Sanz (2020) to the entire world and reflects the norm that the party with a plurality of seats generally has priority over the formation of a new government. Naturally, we observe an even larger jump (of 62 percentage points) when we also include presidential elections (Figure 2(b)). Thus, the effects of electoral turnovers on country performance are likely to be mediated in part by executive turnovers.

Some of our analyses seek to isolate the effects of executive turnovers. There, we restrict the sample to presidential and parliamentary elections leading to the designation of an executive leader. These analyses use a distinct running variable, X^x, equal to the margin of victory of the

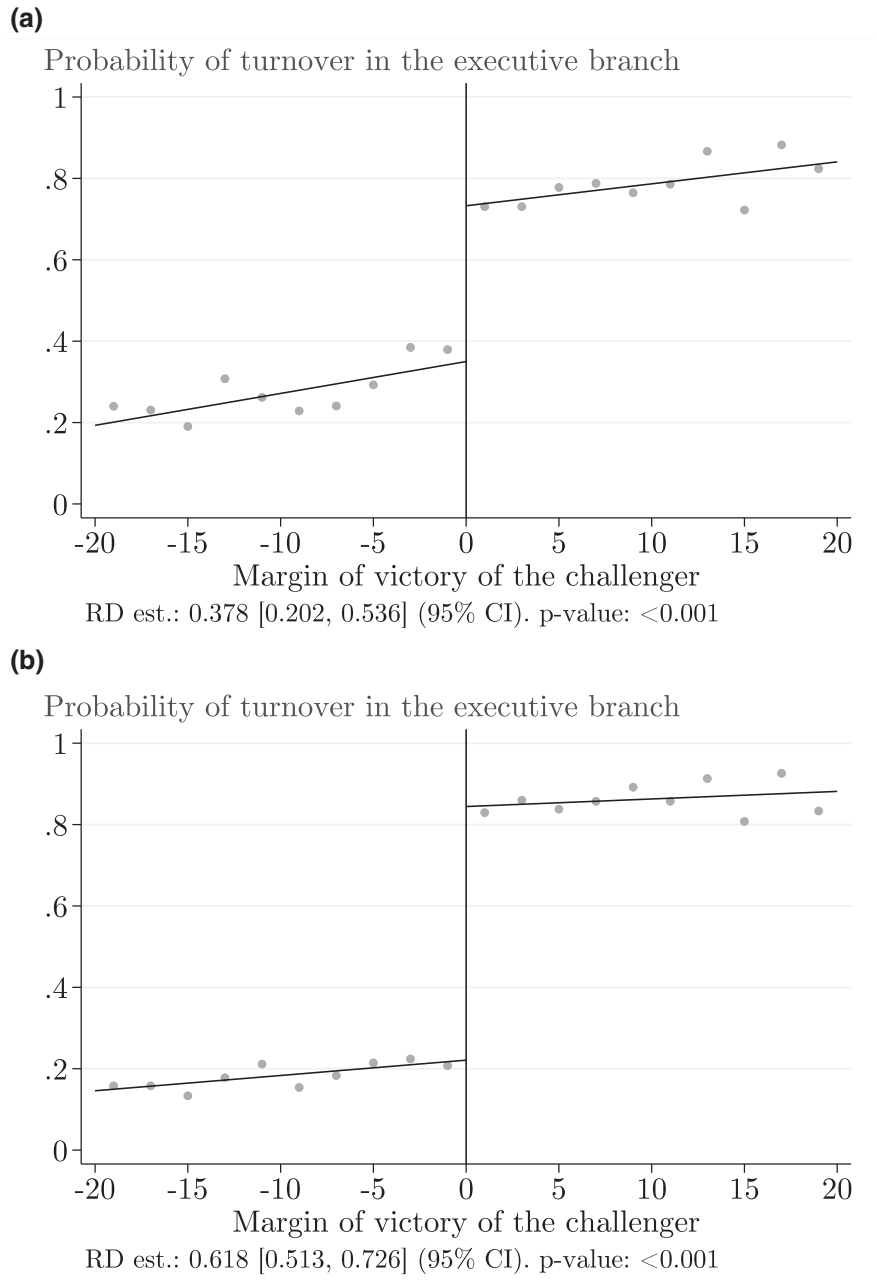

FIGURE 2

Effect of an electoral turnover on the probability of turnover in the executive branch (a) Parliamentary elections only and (b) full sample

Notes: This figure plots the probability of a turnover in the executive branch depending on the margin of victory of the challenger. Turnovers in the executive branch are defined in Section 3.5. We restrict the sample to elections leading to the designation of a member of the executive, with panel a being further restricted to the sample of parliamentary elections. Each grey dot represents the probability of a turnover in the executive branch in a 2 percentage points bin and the lines represent a linear fit on each side of the discontinuity. At the bottom of each graph, we report the non-parametric RD estimate from Calonico *et al.* (2014), with the robust 95% confidence interval in brackets, as well as the robust *p*-value associated with the robust confidence interval for γ in equation (1).

best-ranked challenger over the leader or leading party before the election. To estimate the effect of executive turnovers, we rely on a fuzzy RDD in which T^x is instrumented with the assignment variable $A^x = \mathbb{1}(X^x > 0)$.[13] This specification relies on the following exclusion restriction: the defeat of the leading party only affects outcomes through the higher probability of an executive turnover. Since this assumption is unlikely to hold in some settings, we also report reduced-form estimates in addition to the fuzzy RDD results. The RD, first stage, and reduced-form equations are shown in Appendix A.2.

3.5.1. Examples. To illustrate the definitions above, we provide some examples below and in Appendix A.3:

- **1977 Indian parliamentary elections**. The Indian National Congress (INC) had won by a landslide in the preceding 1971 elections, and its leader Indira Gandhi was Prime Minister before the election. In 1977, the alliance centered around the INC won 34.7% of the seats, while the Janata alliance won 63.6% of the seats. After the election, Morarji Desai of the Janata party became Prime Minister. For this election, we have $X = X^x = 29.0\%$ and $T = T^x = 1$ (there was an electoral defeat of the incumbency and a turnover in the executive branch).
- **2000 U.S. presidential election**. The incumbent leader was Bill Clinton from the Democratic party, which was represented by Al Gore in the election. Gore lost with 266 out of the 538 electoral college votes (49.4%) to George W. Bush, who won 271 votes (50.4%). For this election, we have $X = X^x = 0.9\%$ and $T = T^x = 1$ (there was an electoral defeat of the incumbency and a turnover in the executive branch).
- **2007 French presidential election**. The incumbent leader was Jacques Chirac from the UMP party. He did not compete in the election, but the UMP candidate (Nicolas Sarkozy) did and won with 53.1% of the vote. The runner-up, Segolène Royal, obtained 46.9% of the vote. Here, the running variable is $X = X^x = -6.2\%$ and the treatment is $T = T^x = 0$ (there was an electoral win of the incumbency and no turnover in the executive branch).
- **2011 Danish parliamentary election**. The Venstre party won a plurality of seats in 2007, and the incumbent head of government (Lars Løkke) was from the Venstre. The Venstre party won a plurality of seats in the 2011 elections (with 26.3% of seats), and the Social Democrats party ranked second (with 24.6% of seats), but the head of government after the election was Helle Thorning-Schmidt from the Social Democrats. Here, we have $X = X^x = -1.7\%$. However, we have $T = 0$ and $T^x = 1$ (there was an electoral victory of the incumbency and a turnover in the executive branch).

4. MAIN RESULTS

This section presents our main results. We first report identification checks and placebo tests to verify the validity of our RDD (Section 4.1). We then present our main results showing a positive effect of turnovers on country performance (Section 4.2), as well as robustness checks (Section 4.3). Section 4.4 discusses how our results extend to elections that are less close, and Section 4.5 explores how turnovers relate to changes in leader characteristics.

13. For parliamentary elections, it is possible to have $X^x \neq X$. Indeed, when we estimate the effects of electoral turnovers, the incumbent party is defined using the results of the previous election while when we focus on executive turnovers, the leading party is defined based on which party held executive power in the 2-year period before the election. Furthermore, it is possible to have $T^x \neq T$, for instance, because the head of government appointed following a parliamentary election is not necessarily affiliated with the party which won a plurality of seats.

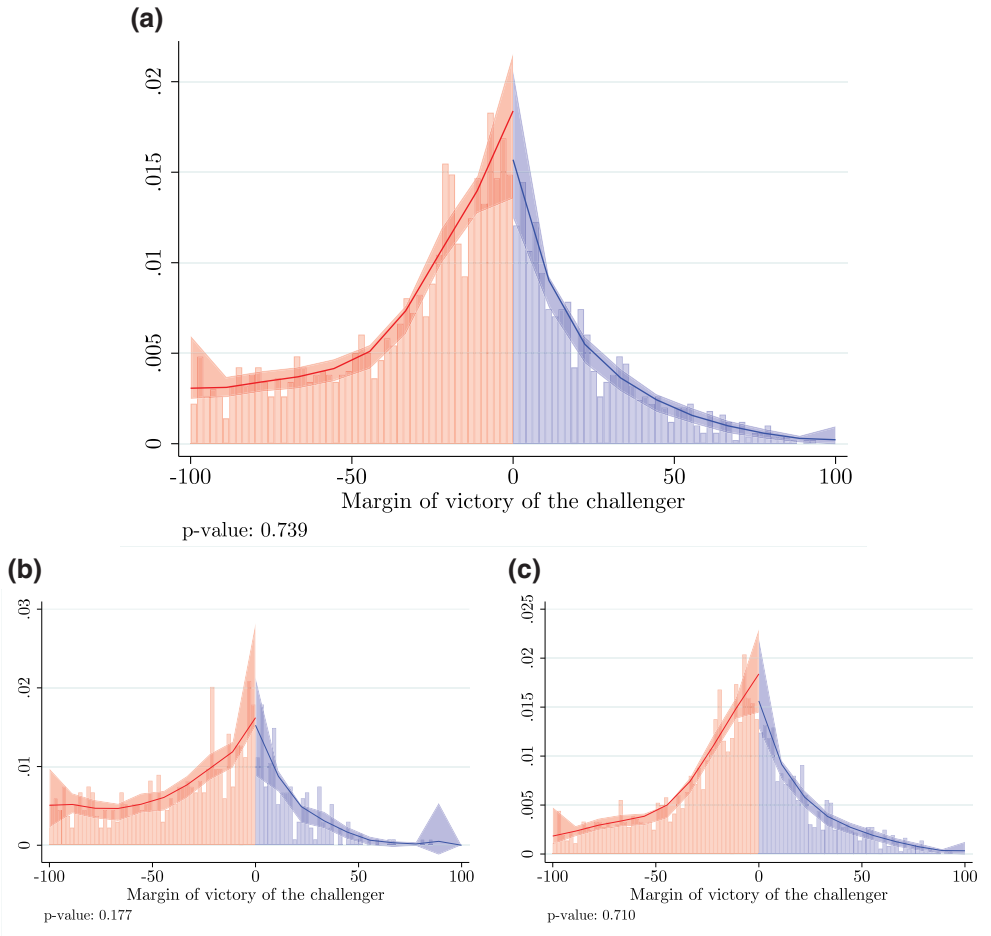

FIGURE 3

Density tests (a) Full sample, (b) Presidential elections, and (c) Parliamentary elections

Notes: In this figure, we implement the density test from Cattaneo *et al.* (2018) using the margin of victory of the challenger as running variable. *P*-values for this test are reported below each graph, and we plot the density of the running variable on both sides of the cutoff. Panel a includes all elections in our sample, and panels b and c restrict the sample to presidential and parliamentary elections, respectively.

4.1. *Identification checks*

Implementing a RDD in a sample of close national elections raises many challenges, including a concern of sorting at the threshold. Incumbents may be able to manipulate election results, in a way that would systematically benefit them and hurt challengers. If this occurred, we would observe a discontinuous drop in the density of our running variable across the threshold (McCrary, 2008).

To address these concerns, we first implement the density test from Cattaneo *et al.* (2018). Figure 3 reports this density test for all elections (panel a), presidential elections (panel b), and parliamentary elections (panel c). We find no evidence of manipulation in the full sample (p-val. $= 0.739$) and in the subsamples of presidential and parliamentary elections

(p-val. = 0.177 and 0.710, respectively).[14] Furthermore, in Appendix Figure C.2, we find no evidence of manipulation among elections in democracies, elections in autocracies, and elections assessed as free and fair by V-Dem (panels a, b, and c). However, the density test fails for elections assessed as not free and fair (panel d). We keep these elections in the main sample because the negative jump in the density of the running variable could be due to endogenous retrospective coding instead of actual manipulation: experts may be more likely to rate an election as not free and fair because it was won by the incumbent. Reassuringly, Appendix Table D.7 shows that our main results are robust to dropping these elections from the analysis.[15]

We then present a variety of placebo tests showing that the treatment has no impact on our outcomes of interest measured in pre-election years. Appendix Tables C.2 to C.4 report these tests with outcomes measured in levels for years $t_E - 1$, $t_E - 2$, and $t_E - 3$, while Appendix Tables C.5 and C.6 report these tests in year-on-year differences. In Appendix Table C.7, we show that turnovers are uncorrelated with decade and region dummies. We also find no jump at the threshold for the time elapsed since the last treatment, the running variable in the previous election, and the value of the treatment in the previous election (Appendix Figure C.3). We further fail to reject the null hypothesis of continuity of the distribution of a large set of pre-election covariates at the cutoff, using Canay and Kamat (2017)'s permutation test, either in our full sample or in the subsamples of presidential, parliamentary, free and fair, and non-free and fair elections (see Appendix Table C.8).

4.2. *Main results: effects of electoral and executive turnovers*

We now study the consequences of electoral turnovers. Table 1 presents RD estimates of the effect of γ from equation (1). Our outcomes of interest are the standardized index of economic performance (combining GDP per capita growth, inflation, unemployment, and trade), human development, democracy, and the general index of country performance. Figure 4 presents the corresponding RD plots.

Electoral turnovers improve country performance along all dimensions, although estimates are statistically significant for only some of these dimensions. As shown in Table 1, an electoral defeat of the incumbent results in a 0.27 SD improvement in economic performance. This is mainly driven by a decrease in both inflation and unemployment (respectively, significant at the 5% level and not significant, with a p-value of 0.101) and an increase in trade intensity (significant at the 5% level).[16] The increase in trade intensity is, in turn, associated with increased openness and greater trade diversification. We find an increase in Herfindahl indices of countries' trade partners' shares for imports and exports (Appendix Table D.2) and we also measure

14. In parliamentary elections, bunching at the threshold could be more likely to occur in small parliaments, where it may be easier for a party to win a plurality of seats by manipulating results or exerting additional effort in tangential constituencies. However, the median number of seats in parliaments in our sample is relatively high (127 seats), and we continue to find no evidence of manipulation of the running variable when focusing on parliamentary elections with fewer than sixty seats, which corresponds to the 25th percentile of the distribution (Appendix Figure C.2(f)). Appendix Table D.8 further shows that the impact of electoral turnovers on performance is robust to excluding parliamentary elections with fewer than sixty seats.

15. In addition, we obtain similar results when focusing on elections following a previous free and fair election (Appendix Table D.9). The logic behind this sample restriction is that the assessed fairness of the previous election predicts the fairness of the present election (with a 0.72 correlation) but it should not be endogenous to the present treatment.

16. Turnovers increase trade intensity measured in the World Bank data, our preferred data source, by 0.25 SD (significant at the 5% level). We find effects of 0.06 SD and 0.18 SD (not significant, and significant at the 10% level) when using data from CEPII and the WTO (see Appendix Table D.2).

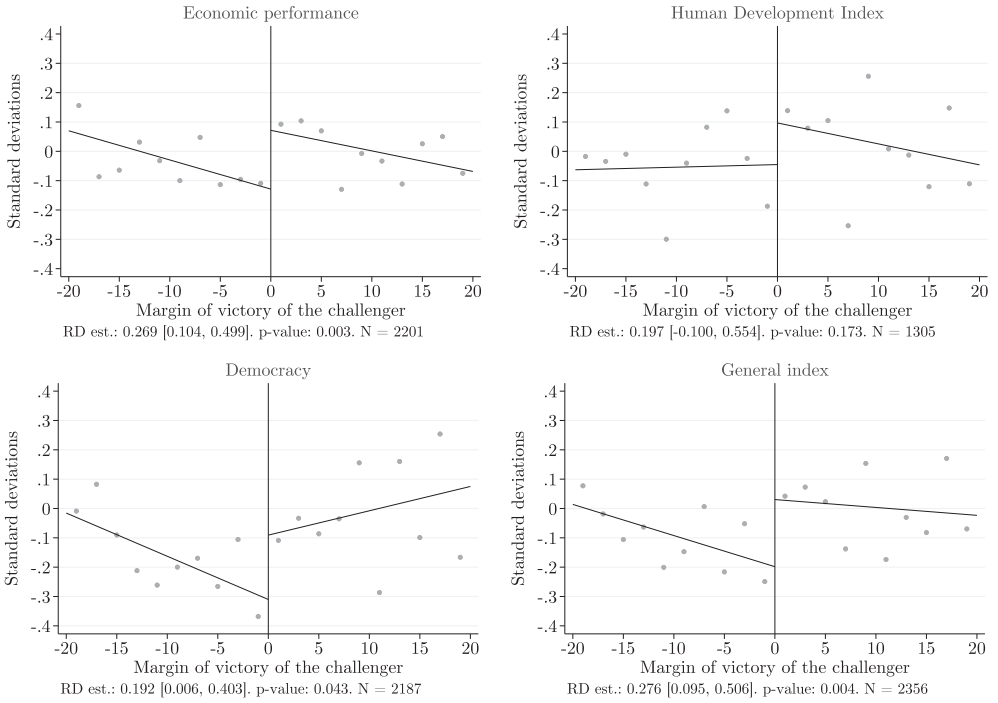

FIGURE 4

Effects of electoral turnovers on country performance

Notes: This figure reports RD plots corresponding to equation (1). The dependent variables are a standardized index of economic performance (combining GDP growth, inflation, unemployment, and trade), human development, democracy, and a general index of performance combining all these components. The grey dots are sample means across 2 percentage point bins of the running variable. See Section 3.3 for details on the construction of each outcome and data sources. At the bottom of each graph, we report the local linear regression estimate from Calonico *et al.* (2014), with the robust confidence interval in brackets, as well as the robust *p*-value associated with the robust confidence interval for γ in equation (1).

positive effects on country-level measures of globalization from Gygli *et al.* (2019), suggesting that electoral turnovers are accompanied by an effort to intensify exchanges with the rest of the world. The effect of turnovers on GDP per capita growth is positive but small in magnitude and non-significant. We also estimate positive and large effects of turnovers on human development (0.20 SD), but this point estimate falls short of statistical significance at conventional levels.[17] Finally, our general index of country performance increases by 0.28 SD after an electoral turnover, which is significant at the 1% level. In Appendix Table D.10, we also report estimates measured in natural units. These estimates can be compared with the mean and SDs of the outcomes of interest (Appendix Table B.3).

The positive effect of turnovers on democracy is also large (0.19 SD) and significant. We interpret this estimate with much caution because experts responsible for the retrospective evaluation of democratic quality may be influenced ex post by the occurrence of a turnover.

17. The UNDP's Human Development Index is the geometric mean of three components measuring income, life expectancy, and education. Because income is similar to GDP per capita, which we include separately in our economic performance index, we show effects on each of these three components separately in Appendix Table D.3. All point estimates are positive and the effect on the geometric mean of life expectancy and education is larger, if anything, than the baseline effect.

Nonetheless, the effect of turnovers on the general index of performance remains large and significant (0.35 SD, see Appendix Table D.8) when excluding democracy from the construction of this index. In addition, in Appendix Table D.4, we find consistent effects on democratic quality across a wide range of independent sources and indicators, including dichotomous measures of democratic quality from the academic literature (Cheibub *et al.*, 2010; Boix *et al.*, 2018), and indicators that consider other dimensions than electoral democracy and are thus less likely to be directly affected by the occurrence of an electoral turnover.[18] Furthermore, we test whether turnovers affect the likelihood of observing large changes in democratic quality in the period following the election, which may reflect specific events that are distinct from the election itself and capture the subsequent evolution of democratic institutions, as perceived by experts. We find a negligible effect on the probability of a large positive shock but a substantial negative effect of −5.4 percentage points, which is significant at the 10% level, on the probability of a large negative democratic shock, suggesting that turnovers prevent democratic backsliding that would occur under reelected incumbents. Finally, we find positive effects using sources which code democratic quality in real time (Freedom House) and thus cannot be affected by endogenous retrospective expert coding or recall bias.

4.2.1. Heterogeneity. Figure 5 shows the positive effects of turnovers across a variety of subsamples, including elections held across different world regions, before and after 1990, and under different types of political regimes and electoral systems. Table 2 reports heterogeneous effects along three key dimensions. First, looking at presidential and parliamentary elections separately, we find positive and significant effects in both subsamples, with slightly larger effects for presidential elections (columns 2 versus 3).

Second, we distinguish between cases when the incumbent leader is nominally on the ballot or not (columns 4 versus 5). This is ex ante ambiguous. On the one hand, individual incumbents may have accumulated valuable experience, and replacing them may be costly, thus reducing the positive effects of turnovers. On the other hand, reelection incentives may be stronger for candidates who represent the incumbency but are distinct from the outgoing leader, thus mitigating the adverse effects of keeping the incumbent party in power. Overall, we find very similar estimates in both subsamples.

Third, the positive effects of turnovers are larger in contexts with weaker checks and balances, measured using the average of two V-Dem indices (judicial and legislative constraints on the executive), in columns 6 and 7. Appendix Table E.1 further shows that turnovers matter more when the executive faces fewer internal and external constraints, namely when more power is vested in the executive leader (see Data Appendix D.2)[19] and when the country is less exposed to globalization, which we quantify using trade intensity, and which can constrain economic policy through trade agreements, currency unions, and the free movement of capital. For each dimension of heterogeneity, we consider the value of the variable in the year before each election, compute the median among elections for which the running variable is under 15 percentage points in absolute value, split the sample between elections above and below the median, and estimate equation (1) separately in each subsample. Differences across these subsamples, however, are generally non-significant.

In Appendix Table E.3, we split our sample between democracies and autocracies and between OECD and non-OECD countries. Overall, turnovers have a positive effect across these subsamples. Finally, we assess how the effects of turnovers vary with the tenure of the incumbent. Successive turnovers in a short timeframe may generate instability (*e.g.*

18. Specifically, we find effects of 0.13–0.20 SD on all five independent dimensions of democracy included in V-Dem's overall index: electoral democracy, egalitarian democracy, liberal democracy, participatory democracy, and deliberative democracy.

19. This measure can only be defined when the election leads to the designation of a member of the executive.

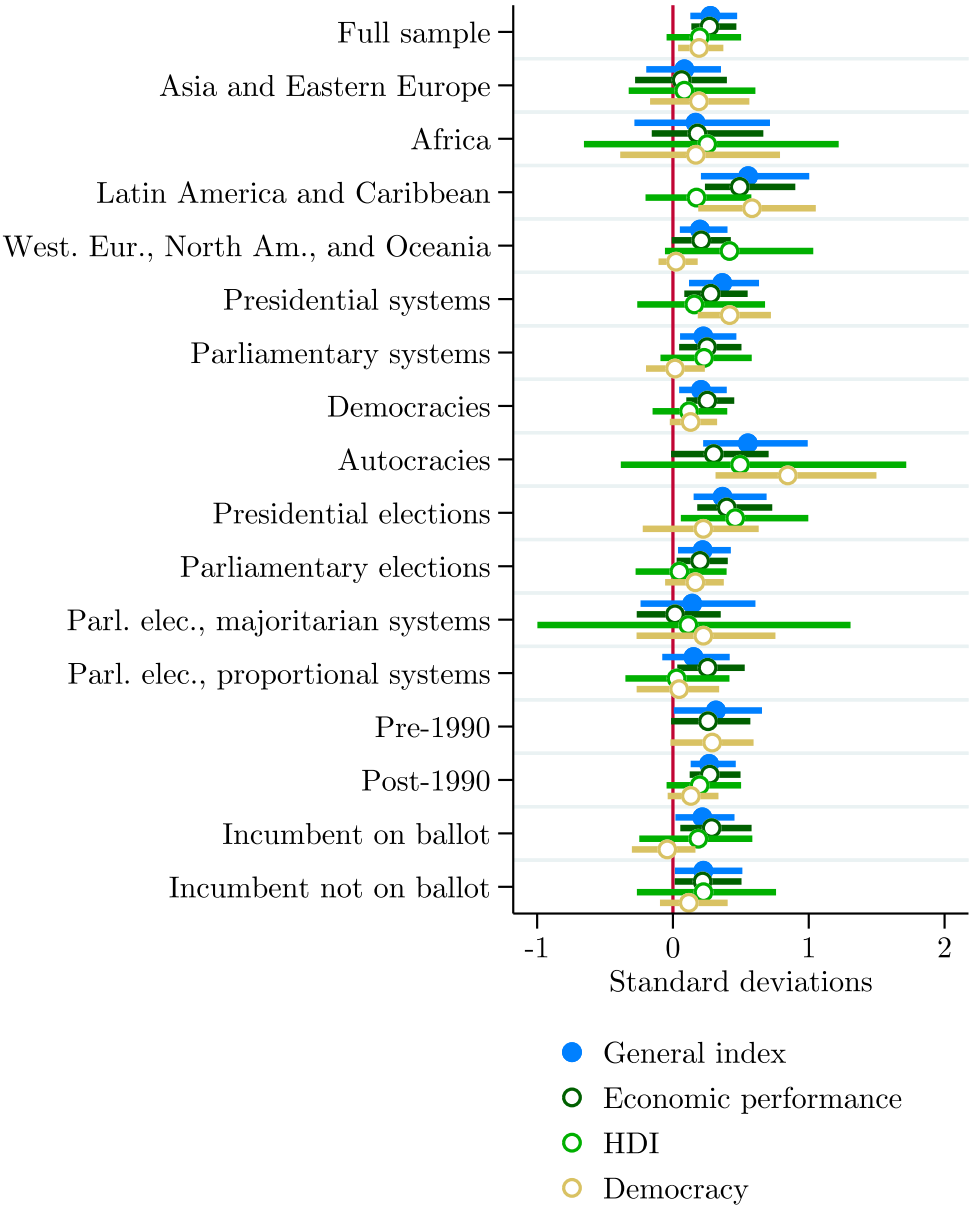

FIGURE 5
Effects of turnovers on country performance across subsamples

Notes: This figure plots RD estimates and 90% robust confidence intervals of the effects of electoral turnovers on our general index of country performance across subsamples, including different regions, regime types, election types, time periods, and whether the individual incumbent was nominally on the ballot or not.

see Gratton *et al.*, 2015), and the risk of power erosion may be higher when incumbents have been in office for a long time, leading to larger effects of turnovers. On the other hand, long-tenured incumbents may have accumulated more experience, making it costly to replace them. In line with this second prediction, we find that the effects of turnovers tend to be larger when less time has elapsed since the last turnover (Appendix Table E.3, column 5 versus 6) and when

TABLE 2
Heterogeneity analysis

		Election type		Incumbent on ballot		Checks and balances	
	(1) Baseline	(2) Pres.	(3) Parl.	(4) Yes	(5) No	(6) High	(7) Low
Economic performance	0.269***	0.396***	0.200*	0.285**	0.218*	0.159	0.357**
	(0.101)	(0.168)	(0.115)	(0.160)	(0.150)	(0.108)	(0.171)
GDP p.c. growth	0.044	−0.020	0.087	−0.285	0.074	−0.030	0.120
	(0.155)	(0.239)	(0.200)	(0.242)	(0.265)	(0.152)	(0.243)
(Minus) Inflation	0.430**	1.093***	0.166	0.425**	0.293	0.312*	0.530**
	(0.192)	(0.445)	(0.186)	(0.233)	(0.247)	(0.183)	(0.299)
(Minus) Unemployment	0.221	0.422	0.154	0.833***	−0.048	0.173	0.269
	(0.170)	(0.330)	(0.211)	(0.343)	(0.269)	(0.320)	(0.261)
Trade	0.249**	0.237*	0.215	0.354*	0.187	0.249	0.205
	(0.127)	(0.175)	(0.163)	(0.226)	(0.237)	(0.186)	(0.213)
HDI	0.197	0.459*	0.048	0.187	0.225	0.228	0.148
	(0.167)	(0.285)	(0.204)	(0.253)	(0.311)	(0.272)	(0.240)
Democracy	0.192**	0.224	0.165	−0.042	0.117	0.050	0.298*
	(0.101)	(0.259)	(0.131)	(0.142)	(0.151)	(0.060)	(0.194)
General index	0.276***	0.365***	0.219*	0.217*	0.224*	0.150**	0.332**
	(0.105)	(0.163)	(0.118)	(0.132)	(0.151)	(0.077)	(0.176)
N	2,356	6,53	1,703	960	515	739	1,399

Notes: This table reports estimated effects of electoral turnovers for different subsamples. Each estimate corresponds to a separate regression. Column (1) reports results for the full sample. Columns (2) and (3) report results for the subsamples of presidential and parliamentary elections, respectively. Column (4) (resp., 5) shows results on the subsample of elections in which the candidate of the incumbency was the incumbent leader themselves (resp., someone else). Column (6) (resp., 7) shows results for the subsample of elections for which checks and balances on the year before the election were above (resp., below) the median, computed among close elections (*i.e.* elections with a running variable below 15pp in absolute value). The subsamples of columns (4) and (5) only include elections leading to the designation of a leader in the executive branch. Data Appendix I explains how we identify the candidate of the incumbency. Checks and balances are measured as the average of two V-Dem indices: the judicial constraints on the executive index and the legislative constraints on the executive index. Using the method of Clogg *et al.* (1995), we cannot reject the equality of the estimates for the general index for presidential and parliamentary elections (p-val. $= 0.468$), for the presence or absence of the incumbent leader on the ballot (p-val. $= 0.972$), and for high and low checks and balances (p-val. $= 0.343$). We obtain broadly consistent results when running a parametric regression in which we include the interaction between the treatment and the dimension of heterogeneity. We report the number of observations in the regressions of the table's last row, where the outcome is the general index of country performance. $^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$.

there was a turnover in the previous election (column 7 versus 8). However, these differences may be driven by other differences in the composition of these two samples and they are not statistically significant.

4.2.2. Dynamic effects. We further assess how the effects of electoral turnovers evolve over time. We estimate the following RD equation for each year after the election, *i.e.* each value of $\tau \in \{-2, 0, 1, 2, 3, 4, 5\}$:

$$Y_{c,t_E+\tau} - Y_{c,t_E-1} = \alpha_\tau + \beta_{1,\tau} X_E + \beta_{2,\tau} X_E T_E + \gamma_\tau T_E + \varepsilon_{E,\tau} \quad (2)$$

Figure 6 reports the estimated γ_τ's. The estimates of γ_{-2} correspond to the effect of turnovers on outcomes measured 2 years before the election and can be interpreted as placebo tests. These estimates are small in magnitude and non-significant, as expected. Furthermore, we find that the effects of turnovers are initially small, but increase over time. This is especially the case for economic performance and the overall index of performance, which increase gradually until the third year after a turnover. Appendix Figure E.1 corroborates these findings with separate RD

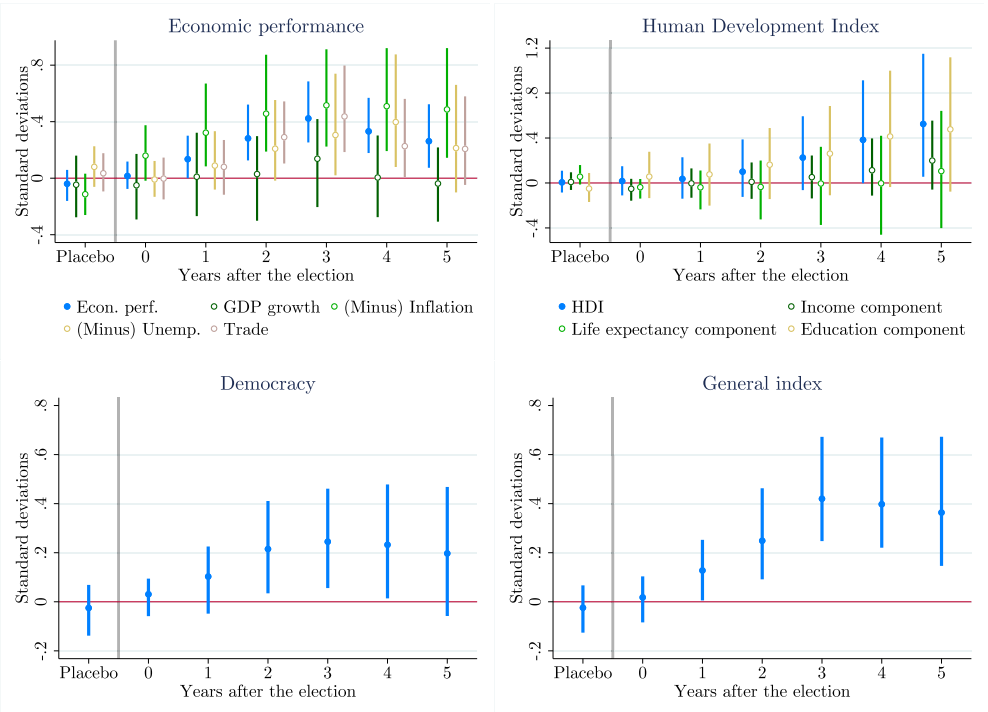

FIGURE 6

Dynamic effects of electoral turnovers on country performance

Notes: This figure reports RD point estimates and 90% robust confidence intervals for the γ_τ in equation (2), with $\tau \in \{-2, 0, 1, 2, 3, 4, 5\}$, for all our main outcomes. Placebo refers to the point estimate obtained for $\tau = -2$. We use the procedure of Calonico *et al.* (2014) for estimation, and all outcomes are measured in SDs.

plots for the general index of performance and for each year after the election. Overall, these dynamic patterns indicate that it takes a few years for electoral turnovers to impact country-level outcomes.[20] Consistent with these dynamic results, using data from Carlin *et al.* (2019), we find that turnovers improve the approval ratings of the elected leader after a few years spent in office (see Appendix Figure E.3).

4.2.3. Executive turnovers. We further explore the impacts of turnovers in the executive branch, using the fuzzy RDD approach described in Section 3.5. Table 3 shows the first stage, second stage, reduced form, and OLS results, and Appendix Figure E.4 shows reduced form RD plots. The effects of executive turnovers are similar to those of electoral turnovers. They are slightly less precisely estimated since the exclusion of parliamentary elections that do not lead to the designation of a member of the executive decreases the sample size. Nevertheless, to the extent that the effects of electoral turnovers are driven by leadership changes in the executive branch, one would expect executive turnovers to have larger effects than electoral turnovers. Our results are generally consistent with this expectation: executive turnovers increase the index of

20. Turnovers could also affect the timing of the next election, which would affect the interpretation of estimates in this section. However, there is no significant effect on the number of years until the next election (Appendix Figure E.2, panel a).

TABLE 3
Effects of turnovers in the executive branch on country performance

	(1) Econ. perf.	(2) GDP p.c. gr.	(3) (Minus) Inflation	(4) (Minus) Unemp.	(5) Trade	(6) HDI	(7) Democ.	(8) General index
Panel a: Fuzzy RDD (Effects of an executive turnover)								
Ex. turn.	0.367***	−0.026	0.398*	0.811***	0.494***	0.521**	0.058	0.343***
	(0.161)	(0.212)	(0.252)	(0.333)	(0.196)	(0.260)	(0.160)	(0.154)
p-val.	[0.005]	[0.977]	[0.055]	[0.005]	[0.003]	[0.023]	[0.868]	[0.009]
N	1582	1288	1378	962	1240	940	1529	1677
N eff.	674	689	676	444	553	459	831	723
Band.	16.7	23.1	19.7	18.8	16.9	20.5	22.6	17.2
Panel b: Reduced form (Effects of a defeat of the leading party before the election)								
El. defeat	0.274***	−0.015	0.315*	0.594***	0.354***	0.361**	0.027	0.256**
	(0.118)	(0.166)	(0.188)	(0.235)	(0.142)	(0.187)	(0.109)	(0.113)
p-val.	[0.007]	[0.986]	[0.051]	[0.004]	[0.004]	[0.034]	[0.960]	[0.011]
N	1582	1288	1378	962	1240	940	1529	1677
N eff.	571	628	576	385	517	429	739	635
Band.	13.4	20.9	15.9	15.5	15.3	18.5	19.8	14.3
Panel c: First stage (Effects of a defeat of the leading party before the election on the probability of an executive turnover)								
El. defeat	0.697***	0.745***	0.685***	0.691***	0.678***	0.687***	0.660***	0.684***
	(0.068)	(0.062)	(0.069)	(0.077)	(0.075)	(0.082)	(0.064)	(0.067)
p-val.	[<0.001]	[<0.001]	[<0.001]	[<0.001]	[<0.001]	[<0.001]	[<0.001]	[<0.001]
N	1582	1288	1378	962	1240	940	1529	1677
N eff.	674	689	676	444	553	459	831	723
Band.	16.7	23.1	19.7	18.8	16.9	20.5	22.6	17.2
Panel d: OLS (Effects of an executive turnover)								
Ex. turn.	0.084***	0.127**	0.071	−0.070	0.155***	−0.010	0.046	0.073**
	(0.032)	(0.055)	(0.053)	(0.068)	(0.055)	(0.063)	(0.042)	(0.035)
p-val.	[0.009]	[0.021]	[0.180]	[0.305]	[0.005]	[0.879]	[0.275]	[0.037]
N	1582	1288	1378	962	1240	940	1529	1677

Notes: This table reports estimated effects of turnovers in the executive branch for the sample of elections leading to the appointment of a leader in the executive branch. In panel a, we report fuzzy RDD estimates of the effects of executive turnovers, using as assignment variable the defeat of the leading party before the election and turnover in the executive branch as treatment. We show estimates of γ in equation (A.1)—see Appendix A.2. In panel b, we report reduced form estimates of γ^r in equation (A.3)—see Appendix A.2, corresponding to the effects of an electoral defeat of the leading party before the election. We use the margin of victory of the best-ranked challenger of the leading party before the election as the running variable. In panel c, we report estimates of $\tilde{\gamma}$ in equation (A.2), corresponding to the first stage of panel a. In panel d, we report OLS estimates of the effect of executive turnovers. Details about the definition of the leading party before the election can be found in Section 3.5. $^*p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$.

economic performance and the general index of performance by 0.37 and 0.34 SD, respectively, when compared with effect sizes of 0.27 and 0.28 SD for electoral turnovers.[21]

4.2.4. Examples. Recent world history provides examples illustrating the positive impacts of turnovers. Appendix G discusses case studies from four national elections held in Brazil (2014), Germany (2005), Israel (1992), and the U.S. (1992). The 2014 Brazilian presidential election was won by the incumbent president, Dilma Rousseff from the Workers' Party, with a 3% margin. Rousseff's reelection was quickly followed by a deterioration of economic performance driven by rapidly rising inflation (Appendix Figure G.1) and the unfolding of a major corruption scandal. Rousseff's tenure ended with a controversial impeachment procedure in 2016. By contrast, the close election victory of the CDU-CSU in Germany's 2005 federal election, which led to Angela Merkel's appointment as the new German chancellor, fostered important social policy reforms and improvements in overall performance (Appendix Figure G.2). The turnovers induced by the 1992 U.S. presidential election and the Labour party's 1992 electoral victory in Israel similarly delivered notable benefits. In the first case, the new U.S. President Bill Clinton managed during his first term to restore budget balance, to keep interest rates low, to promote an economic expansion, and to implement a major tax reform—the introduction of the earned income tax credit—with beneficial impacts on the economy as a whole (Appendix Figure G.3). In the latter case, the new Israeli Prime Minister Yitzhak Rabin (who previously also governed between 1974 and 77) achieved marked improvements in economic performance induced by major investments in infrastructure and education funded by defense spending cuts (Appendix Figure G.4).

4.3. *Robustness*

In the Appendix, we show that our results are robust to numerous specification changes and alternative ways of constructing our outcome variables. Here, we provide a brief overview of these checks.

4.3.1. Changing the post-election period and the pre-election baseline. Our main results in Table 1 and Figure 4 compare the post-election average of each outcome to the value of the same outcome measured in the year before the election. Instead of using the average of the four post-election years to measure post-election outcomes, we also estimate equation (1), including 3, 5, 7, and 10 years in the post-election period. We further show that the results are robust to adding the year of the election to the post-election period. Appendix Tables D.11 to D.15 report these checks separately for each outcome of interest and for the general index of country performance, constructed with and without the democracy index. In addition, we show in Appendix Table D.16 that these results are robust to using the average of the three pre-election years instead of the pre-election year as the baseline period. Namely, we define $\Delta Y_E = (\frac{1}{4}\sum_{\tau=1}^{4} Y_{c,t_E+\tau}) - (\frac{1}{3}\sum_{\tau=1}^{3} Y_{c,t_E-\tau})$.

4.3.2. Winsorizing. To avoid results being driven by extreme events (*e.g.* hyperinflation episodes), changes in measurement, or data errors, we winsorize the components of the economic performance index (GDP per capita growth, inflation, unemployment, and trade) at the

21. Remember that the sample of elections used to estimate the effects of executive turnovers is a subset of the main sample since it only includes elections that lead to the designation of a leader of the executive branch. Therefore, the fact that the fuzzy RDD effects of executive turnovers are larger than the effects of electoral turnovers is not mechanical.

third and 97th percentiles. Appendix Tables D.11, D.14, and D.15 show that our results are unchanged when we winsorize less (at the first and 99th percentiles) or more (at the fifth and 95th percentiles), and that our results are robust to trimming instead of winsorizing.

4.3.3. RD bandwidth and specification. We check the robustness of our results to five deviations from the baseline RD specification choices in Calonico *et al.* (2014). First, in Appendix Tables D.11–D.15, we show that including geographical region and decade fixed effects does not affect our estimates. Appendix Table D.17 shows that controlling for pre-election outcomes also does not change our results, though it slightly increases the precision of our estimates. Second, in Appendix Tables D.11–D.15, we obtain very similar estimates with a bandwidth twice larger or twice smaller than the optimal bandwidth used in our baseline estimation. Third, we show that our results are robust to using a second-order local polynomial instead of the default local linear regression of Calonico *et al.* (2014). Fourth, we show robustness to different choices of kernel. Finally, Appendix F shows that our results are robust to using the independent randomization inference procedure from Cattaneo *et al.* (2015).

4.3.4. Construction of the general index. In Appendix Table D.8, we show that our results for the general index are robust to alternative constructions of this index, namely: excluding each of the components in turn; only keeping elections for which we have data on all components; using a weighted index à la (Pocock, 1997), which gives less weight to components which are more correlated with each other; defining the general index as the simple average of all outcomes used in the components instead of the simple average of the components; excluding observations in large geographical regions; and excluding observations in each decade of the sample.

4.3.5. Restricting to major elections. Many countries, including the U.S., hold both presidential and parliamentary elections. In these cases, our main sample includes both types of elections. Appendix Table D.8 shows that our results are robust to restricting the sample to major elections in each country, namely presidential elections in presidential systems, and parliamentary elections in parliamentary systems.

4.3.6. Excluding elections coinciding with a regime change. Turnovers might improve outcomes by fostering an immediate change in the nature of the political regime in a direction that tends to promote performance. However, such episodes are unlikely to explain our results since turnovers do not lead to a discontinuous jump in the likelihood of a regime change in the year of the election (see Appendix Figure C.4). In addition, our results are robust to excluding these elections from the sample: the impact of turnovers remains nearly identical (0.27 SD) in this case (Appendix Table D.8).[22]

4.3.7. Alternative outcomes and data sources. To choose our main outcomes, we prioritized data availability and reliability. Appendix Tables D.1 to D.4 show additional results for a wider set of outcomes. For example, we show that our results are unchanged when we use growth in GDP instead of GDP per capita growth, and that electoral turnovers decrease poverty and have no discernible effects on inequality.

22. Appendix Figure C.5 further shows that electoral turnovers do not affect the likelihood of concomitant constitutional events, defined as the adoption of a new constitution or constitutional amendment.

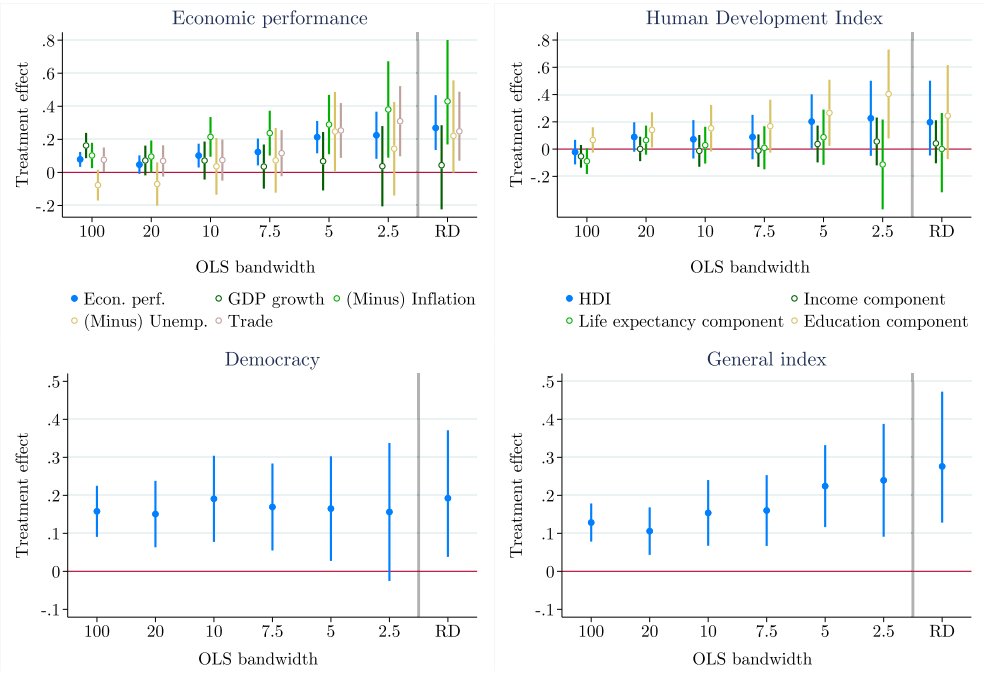

FIGURE 7
Comparing RD with OLS estimates

Notes: This figure compares OLS and RD estimates of the effects of electoral turnovers on country performance. For OLS estimates, we plot effects for the full sample, as well as for the subsamples of elections with a running variable in [−20, 20], [−10, 10], [−7.5, 7.5], [−5, 5], and [−2.5, 2.5]. All point estimates are displayed with 90% confidence bands.

4.4. *Comparing effects in close elections and other elections*

4.4.1. OLS estimation and endogeneity. Figure 7 reports OLS estimates of the effects of electoral turnovers. The OLS estimates can be interpreted as difference-in-differences estimates since we difference out each outcome with its value in the year preceding the election, as in the RD estimation. We report these estimates across windows of different sizes around the RD cutoff, ranging from 2.5 to 100 percentage points. In line with our RD results, the OLS estimates indicate that turnovers are associated with improved performance. Moreover, the magnitude of OLS estimates for very close elections is similar to that of RD estimates: turnovers in elections settled with a victory margin under 5 p.p. increase both economic performance and overall performance by approximately 0.20 SD. The effects on human development and democracy are also positive and statistically significant for these elections.

OLS estimates remain positive, but their magnitude is smaller when we consider elections that are less close. In line with our earlier discussion (see Section 3.4), several forces could explain these differences. First, OLS estimates might be biased downward if economic decline before the election is associated with lower reelection probabilities for incumbents *and* a further degradation of performance after the election. Second, incumbents who decisely win reelection may be more positively selected than challengers who decisively get elected, relative to closely elected candidates of either type. This would bias the effect of turnovers downward for elections that are less close, in the OLS estimation.

Furthermore, unlike OLS, the RDD estimates a local effect of electoral turnovers: specifically, we measure the effect of turnovers for elections *exactly* at the cutoff. As mentioned in

Section 3.2 and shown in Appendix Figure B.3, close elections are more likely to be held in more developed and democratic countries, and in contexts with slightly more favourable economic conditions.

To assess whether our results hold for elections that are less close, we implement two exercises. First, building on Arezki *et al.* (2022), we look at a subsample of "unlucky incumbents" who run for reelection in a context of unfavourable global oil prices. Second, we follow Angrist and Rokkanen (2015) to estimate RD treatment effects in a larger window around the cutoff.

4.4.2. Global oil prices. To explore the possibility that our results are driven by a selection of low-quality incumbents at the RD threshold, it is informative to look at national elections that happened to be close not as a result of poor incumbent performance, but due to factors outside the incumbent's control.

Incumbents are often penalized by their electorate when elections take place in the aftermath of an oil shock (Arezki *et al.*, 2022), possibly because voters over-attribute observable outcomes to leaders or fail to take into account these adverse circumstances (Glaeser and Ponzetto, 2017). Unfavourable global oil prices thus provide exogenous variation affecting the occurrence of close national elections. While some incumbents struggle to get reelected because of their own poor performance, other unlucky incumbents face stiffer competition due to adverse oil prices. In Appendix Table E.4, we estimate the effects of turnovers in elections conducted in a context of unfavourable oil prices. We first compute the annual growth in the worldwide price of crude oil g_t using the World Bank Commodity Price Data. Distinguishing between oil-importing and oil-exporting countries, we then associate an election taking place at time t_E with the following variable:

$$s_E = \text{OilNetImporter}_{c,t_E} \times \frac{g_{t_E-1} + g_{t_E-2}}{2},$$

where g_t corresponds to the annual growth in the worldwide price of crude oil from the World Bank's World Integrated Trade Solution (WITS) dataset, and $\text{OilNetImporter}_{c,t}$ is a variable equal to 1 for net oil importers and to -1 for net oil exporters.

We then show how the estimated effects of electoral turnovers change when we restrict the sample to contexts that were increasingly unfavourable to the incumbent, *i.e.* when the s_E variable is above the sample median, in the top tercile, and in the top quartile (Appendix Table E.4, columns 2–4). As expected, the running variable is on average 2 percentage points higher when s_E is above the median than when s_E is below the median: unfavourable oil prices tend to improve the performance of challengers. Yet, the positive effects of turnovers hold in all subsamples, with effect sizes slightly smaller than in the full sample of elections and ranging between 0.13 and 0.19 SD. Column 5 further shows the effects following the 1973, 1979, and 2007–08 global economic crises. Effects on economic performance and on the general index are actually larger there than in the full sample, and they are significant at the 1% and 10% level, respectively. In sum, the incumbents who are closely reelected under adverse global economic circumstances also tend to perform worse than counterfactual challengers.

4.4.3. Estimating effects away from the cutoff. Appendix Table E.5 and Appendix Figures E.5–E.6 report results from the procedure of Angrist and Rokkanen (2015). This procedure relies on a testable conditional independence assumption (CIA): in a window around the cutoff, potential outcomes are assumed to be mean-independent of the running variable conditional on a set of controls. We focus on the [−10pp,+10pp] window, which encompasses about 30% of elections in our sample. In Appendix Figure E.5, we test the CIA hypothesis and fail to reject its validity for our main outcomes. We then construct two CIA-based estimators: a linear reweighting estimator discussed by Kline (2011), and a version of the Hirano *et al.* (2003)

propensity score estimator. Appendix Table E.5 reports these estimates. We find effects which are all positive and consistent with our main results, although smaller in magnitude. On average, elections won by the challenger by 10 percentage points at most increase the general index by 0.16–0.18 SD, and we fail to reject equality of the Calonico *et al.* (2014) and CIA-based estimates for all outcomes. These results indicate that the effects of electoral turnovers are not limited to close elections.

4.5. *The role of leader characteristics*

The effects of turnovers on country performance may in principle result from differences in the characteristics of elected leaders. Recent work shows how certain types of leaders have affected national performance throughout history (Dube and Harish, 2020; Ottinger and Voigtländer, 2021; Funke *et al.*, 2023). For this to be the case in our context, leader characteristics would need to systematically differ after an electoral turnover. For example, elected challengers should have systematically different ideologies, or their average quality should differ from that of reelected incumbents.

We first investigate whether electoral turnovers coincide with the victory of candidates with specific ideological characteristics. Here, we estimate equation (1) using as our dependent variable the left-right ideology, the populism score, and the illiberalism score of the winning party. Appendix Figure E.8 reports the corresponding results. Elected challengers tend to be more to the right, more populist, and less illiberal than reelected incumbents, but most of these effects are non-significant. We interpret these results with much caution: the sample size in these regressions is small, and these analyses rely on V-Dem's classification of party ideologies. Nonetheless, the evidence does not point to systematically different ideologies between elected challengers and incumbents.[23]

Next, we examine the role of leader quality. Since quality is unobserved, we build a proxy measure based on observed improvements in electoral performance. Intuitively, an increase in the winner's vote share between one election and the next indicates that voters are satisfied with the leader's performance during this timeframe. We compute the difference between the incumbent's vote share in the next ($t+1$) election and the winner's vote share in the current (time t) election, and we examine the extent to which turnovers explain variation in this outcome. Appendix Table E.8 suggests there is no jump in this proxy for leader quality (column 1). Then, we regress this outcome on country performance measured before the (time t) election as well as characteristics of the election (such as the number of candidates), and we use the residuals from this regression as proxies for unobserved leader quality. We also do not find evidence of a change in this measure: if anything, the point estimate is negative (column 2). In column 3, we additionally control for endogenous measures of leader performance between t and $t+1$, namely the same indicators of country performance that we use in our main analysis. In this case, the dependent variable can be interpreted as a proxy for unobserved quality, net of observable pre-existing conditions and post-election performance. Again, we find no evidence that turnovers increase leader quality. These findings are consistent with the fact that overall, turnovers have no measurable effect on the probability of a turnover in the next election (Appendix Figure E.2, panel b). Overall, these results suggest that quality differentials are unlikely to play a major role

23. We additionally look at effects on the leader's age. The point estimate (−2.0 years) is non-significant again. In this case, we restrict the sample to elections that lead to the designation of a member of the executive. Note that the positive effects of turnovers are unlikely to be driven by changes in leader gender. Our sample only includes 133 electoral races where exactly one female candidate is among the top two candidates, and our results are robust to dropping these elections.

in our results.[24] Nonetheless, we acknowledge that this channel may still be present as quality cannot be observed directly.

5. MECHANISMS

We now highlight two main mechanisms driving the positive effect of turnovers on performance. We first show that these effects come, in part, from shifts in economic policy (Section 5.1). We then explore the role of accountability mechanisms (Section 5.2).

5.1. *Policy changes*

A likely channel driving the positive effects of turnovers, in addition to the increase in international openness discussed in Section 4.2, is that challengers may implement different *policies* than incumbents would have in the counterfactual electoral outcome. Thus, we first ask whether turnovers foster more change in economic policy, proxied by the level of government intervention in the economy. We consider four measures of intervention: government expenditure, tax revenue, national debt (all measured as a share of GDP), and a standardized index combining these outcomes.[25]

Appendix Figure E.7, panel a, shows that the effect of turnovers on the *level* of government intervention is small and non-significant across all four measures. However, challengers could still enact new policies that are better tailored to the country's needs, whereas incumbents prefer the status quo. For instance, challengers might increase government intervention (relative to incumbents) during economic downturns and reduce it when the economy is overheating. Such mechanisms would only be captured by the effect of turnovers on *non-directional* outcomes.

Accordingly, we examine as an outcome the absolute value of the difference between the post-election average and the pre-election value of each policy measure. We find positive effects of turnovers on changes in government expenditure, national debt, and tax revenue. The latter effect (but not the two others) is significant at the 10% level (Appendix Figure E.7, panel b). The effect on the overall change in government intervention, of 0.21 SD, is also significant at the 10% level. In Appendix Table E.6, we show additional results on the absolute value of the difference of various types of economic policies, including a measure of central bank independence (Garriga, 2016), government expenditure composition (Ortiz-Ospina, 2016), taxation composition from the World Bank, and financial liberalization (Abiad *et al.*, 2010).[26] Most estimates (25 out of 28) in this table are positive, suggesting that policy shifts take place across a range of

24. In Appendix Table E.9, we implement a different exercise built on the intuition that unobserved quality differences between elected challengers and elected incumbents can be bounded using information on the previous government experience of challengers. Challengers who have previously served as incumbents are plausibly of higher quality than those without recent government experience, and we should expect turnovers to be more beneficial in such instances. When considering only challengers who have not previously served in government in the previous 10 years, turnovers increase economic performance by 0.24 SD and the index of overall country performance by 0.23 SD. Both coefficients are statistically significant at the 5% level. When considering only challengers who have previously been in power, turnovers increase economic performance by 0.29 SD and overall performance by 0.29 SD (both coefficients are significant at the 5% level). Thus, the two types of challengers deliver similar improvements in country performance.

25. Government intervention is typically one of the key policy levers that newly elected leaders employ to improve economic performance early in their tenure. In the U.S., Franklin D. Roosevelt passed most of the New Deal legislation within his first 100 days in office, while major economic stimulus bills were adopted in the early days of several recent presidencies.

26. Appendix Table E.7 reports the corresponding directional effects. While some estimates are statistically significant, as one would expect, we do not find robust evidence that electoral turnovers systematically move policies in one direction or another.

dimensions. Overall, this suggests that non-directional differences in the policies implemented by incumbents and challengers might contribute to the positive effect of turnovers.

Appendix Table E.2 provides additional evidence. Elected challengers deliver achievements that are better suited to their country's needs: the beneficial effects of turnovers on inflation and unemployment are concentrated in contexts where these indicators are deteriorated. When inflation in the pre-election year is high (above the sample median), turnovers decrease inflation by 0.92 SD, while the corresponding effect is −0.06 SD when pre-election inflation is low (columns 1 and 2). Similarly, when unemployment in the pre-election year is high (resp. low), turnovers are associated with a 0.71 SD (resp. 0.04 SD) drop in unemployment (columns 3 and 4). Turnovers are also more beneficial when leaders have more policy leverage. As shown in columns 5 and 6, the effect of turnovers on inflation is larger (−1.05 SD) when the independence of the central bank before the election is low than when it is high (−0.44 SD).

5.2. *Political accountability*

Turnovers may also improve performance because newly elected challengers face stronger incentives to perform. If this were the case, we should observe that standard proxies for politician effort, such as corruption (*e.g.* Besley, 2007; Ferraz and Finan, 2011), also improve as a result of turnovers.

Appendix Figure E.9 shows that turnovers positively affect several measures of perceived corruption and accountability. We use an index of government accountability,[27] indices of executive corruption and public sector corruption from V-Dem, the World Bank's index on the control of corruption, and a standardized index aggregating these measures. The effects we estimate are large (ranging from 0.16 SD for public sector corruption to 0.44 SD for the control of corruption) and they are generally significant at the 1% or 5% level. Appendix Table E.10 shows results for a broader set of variables. Among twenty outcomes signed such that higher values indicate greater accountability, all but two are positively affected by turnovers (eighteen estimates are larger than 0.10 SD, and seven are statistically significant). Finally, Appendix Table E.11 shows that the effects on corruption are larger for presidential elections, for elections held in regimes with fewer checks and balances, and for those where the executive leader holds more power. This suggests that turnovers are especially conducive to good governance in countries with weaker constraints on the executive, where reelected incumbents may otherwise use their power to extract rents.

As with measures of democracy explored in Section 4, one might fear that the coding of these indicators is endogenous to the occurrence of a turnover. In that case, corruption indices might drop sharply during the year of the turnover, or shortly thereafter. To explore this, we estimate dynamic effects of electoral turnovers on corruption, using specifications in the form of equation (2). Instead, we find that the effects of a turnover on corruption are initially small and increase over time (Appendix Figure E.10). Moreover, turnovers have a 0.12 SD (non-significant) effect on the reduction of actual corruption incidents measured in the Global Incidents of Corruption Index (GICI) from Furceri *et al.* (2019). Overall, this provides suggestive evidence that

27. The accountability index of V-Dem aggregates measures of vertical, diagonal, and horizontal accountability. Vertical accountability captures the extent to which citizens can hold the government accountable. Diagonal accountability covers the mechanisms that citizens, civil society, and the media can use to hold the government accountable. Finally, horizontal accountability captures the power of state institutions to oversee the government. The effects of electoral turnovers are strongest for horizontal accountability, followed by diagonal accountability and vertical accountability (Appendix Table E.10).

improvements in governance and corruption might contribute to the overall improvement in country performance, which follows similar dynamics after turnovers.[28]

5.2.1. Term limits. Prior work suggests that term limits could explain why corruption falls after turnovers: in the absence of reelection incentives, incumbents who are reelected but term-limited might exert less effort and perform more poorly (Ferraz and Finan, 2011; Fouirnaies and Hall, 2021). However, Table 2 already provided evidence at odds with this mechanism: electoral turnovers also improve economic performance (by 0.20 SD) and country performance (by 0.22 SD) under parliamentary systems, where leader term limits are almost always absent.

Nonetheless, term limits could play a role in the context of presidential elections. To explore this, we identify regimes with presidential term limits, using data from the Comparative Constitutions Project or CCP (Elkins *et al.*, 2021). In these regimes, we determine whether the incumbent and challenger would face a term limit, should they win.[29] In total, term limits exist and are differentially binding for the incumbent and the challenger in less than half of the presidential elections covered by the CCP. Appendix Table E.1, column 6 reports the effects of turnovers in a subsample restricted to parliamentary elections and presidential elections in which there is no differentially binding term limit. Electoral turnovers improve the general index of country performance by 0.22 SD in this subsample, which is similar to the point estimate in the full sample. Thus, presidential term limits are unlikely to be driving our results.[30]

5.2.2. Interpretation. Even in the absence of *de jure* term limits, turnovers could still improve accountability through related mechanisms akin to career concerns (Holmström, 1999). In regimes that hold regular elections, elected leaders may want to build reputation by exerting more effort early in their tenure, and use their later terms in office to extract rents. In the late terms of a given leader or party, the incentives to not misbehave are diminished because voters have already formed precise beliefs about the incumbent's type, and additional new information is unlikely to change these beliefs (as in Ashworth, 2005).

This mechanism is compatible with learning in corruption by incumbents, who might learn over time how to extract rents, and delayed corruption or "golden goose" effects (Niehaus and Sukhtankar, 2013). While leaders elected in close elections might have lower legitimacy and stronger incentives to perform, close elections could also signal to incumbents that their days as national leaders are numbered, a mechanism akin to a "de facto" term limit. This can explain why the effects of turnovers appear slightly larger close to the RD threshold: closely reelected incumbents may face lower incentives to perform and engage in more rent extraction than decisively reelected incumbents if a narrow margin of victory signals to reelected incumbents that future reelection is unlikely. Finally, incumbents might simply be experiencing government fatigue—an erosion of their motivation and power due to the effect of time.

28. A large literature has documented the relationship between corruption and economic performance (Mauro, 1995) through theft of government resources (Olken, 2006; Ferraz *et al.*, 2012), effects on firms (Svensson, 2003; Sequeira and Djankov, 2014), misallocation of capital (Khwaja and Mian, 2005), and demand for regulation (Di Tella and MacCulloch, 2007).

29. The CCP covers 59% of our presidential elections. Within this subsample, term limits are not specified in the constitution in 12% of elections, and are explicitly non-existent in 4% of elections. Furthermore, in 52% of elections, term limits exist but are not differentially binding for the incumbent and the challenger. This occurs because: presidents can only serve one term (13%), the candidate representing the incumbency is not the incumbent themselves (35%), the challenger had already been in power in the past (2%), or the candidate representing the incumbency had already been in power in the past but the term limit is of three terms or more (2%).

30. The small number of elections with a differentially binding term limit unfortunately means that we do not have sufficient sample size and power to estimate the effect of electoral turnovers in these elections specifically.

Implementing reforms is more difficult for individuals and parties which have held power for a long time. The effects we find on bureaucratic quality, also reported in Appendix Table E.10, are consistent with this interpretation. We use the bureaucracy score from Khan *et al.* (2022), which captures the presence of meritocratic recruitment and of an impartial administration, to evaluate bureaucratic effectiveness in our sample. If anything, the effect of turnovers on this measure of bureaucratic quality is positive (0.12 SD, not significant), consistent with the notion that turnovers do not deteriorate bureaucratic quality and perhaps mitigate bureaucratic inertia under long-serving incumbents.

Overall, the evidence we present suggests that a combination of these accountability mechanisms contributes to explain shifts in performance and policy taking place in the aftermath of turnovers.

6. CONCLUSION

Since the end of World War II, most countries have held regular presidential or parliamentary elections to determine the composition of their government. A key function associated with these elections is to allow citizens to ask for continuity or change in their country's leadership: dismissing incumbents in the ballot box can allow citizens to chart a new course for their country. To evaluate the merits of electoral democracy, understanding how the outcome of national elections affects country-level performance—including, but not limited to economic performance—is essential. To a large extent, the benefits of electoral transitions are commensurate with their ability to deliver improvements in citizens' welfare.

Overall, we find that voting for change matters: turnovers deliver improvements in country-level performance along many dimensions. The largest effects of turnovers are on measures of international openness, inflation, and democratic quality, and they tend to be larger in settings where governments face weaker checks and balances on their power. We also observe large effects on indices of corruption and on policy change. We hypothesize that the main force driving these effects is the role turnovers play in giving the reins of government to new leaders facing stronger incentives and reputation concerns.

These novel findings call for future research exploring the mechanisms linking turnovers to specific dimensions of economic policy and performance. For example, future work may investigate the role of countercyclical policy responses in explaining how turnovers enhance macroeconomic discipline. Our results also provide reasons to be cautiously optimistic about the potential of electoral democracies to deliver superior performance to their citizens. While recent research shows that populist leaders deteriorate economic performance (Funke *et al.*, 2023), our paper shows that regular power transitions enabled by democracy are conducive to better performance. Together, this body of evidence suggests that healthy democracies shall continue to outperform autocracies and populist regimes over the *longue durée*. To what extent citizens perceive these performance differentials across regime types, however, remains an open question for future research.

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Supplementary Data

Supplementary data are available at *Review of Economic Studies* online.

Data Availability

The data and code underlying this research are publicly available on Zenodo at https://doi.org/10.5281/zenodo.13314638.

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