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**PICKING WINNERS AT THE BALLOT BOX: VOTES AND
LOCAL ECONOMIC GROWTH IN TURKEY**

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Working Paper No. 1232

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Abstract

While there is systematic evidence of how governments affect policy outputs for strategic reasons, a limited amount of studies has assessed whether these distortions are consequential for economic growth. Using data from Turkey over the period 2004-2013, the current paper measures the effect of voting for the national incumbent party on local economic performance. New instrumental variable estimates suggest that provinces where the electoral race for the Justice and Development Party (AKP) was closer have experienced faster per-capita GVA and employment growth rates. The effect is economically substantive and increases in election years. Results also provide evidence that the government has affected growth through the selective provision of state goods.

Keywords: elections, distributive politics, political polarization, economic growth, Turkey

JEL Classifications: C26, D72, H73, O18, O43, R11

ملخص

بينما تتوفر أدلة منهجية على كيفية تأثير الحكومات على مخرجات السياسة العامة لأسباب استراتيجية ، قام عدد محدود من الدراسات بتقدير ما إذا كانت هذه التشوهات ناتجة عن النمو الاقتصادي. تستخدم الورقة الحالية بيانات من تركيا خلال الفترة 2004-2013 ، لقياس تأثير التصويت للحزب الوطني الحالي على الأداء الاقتصادي المحلي. تشير تقديرات متغير ألى جديد إلى أن الأقاليم التي كان فيها سباق الفوز بانتخابات أقرب لحزب العدالة والتنمية، قد شهدت نمواً أعلى في معدل العمالة ومعدل التشغيل. هذا التأثير جوهري اقتصادياً ويزداد في سنوات الانتخابات. كما تقدم النتائج دليلاً على أن الحكومة قد حققت النمو من خلال توفير انتقائي لسلع الدولة.

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1. Introduction

Deep socio-political divides, on one hand, and high ‘political’ discretion in the management and distribution of public resources, on the other, are two common institutional problems in emerging economies around the world. A significant amount of literature has explored how incumbent political parties and politicians who are self-motivated by electorally strategic reasons frequently provide preferential treatment to specific groups and constituencies (Albertus, 2017; Banerjee & Somanathan, 2007; Blaydes, 2010; Corvalan, Cox, & Osorio, 2018; G. De Luca, Hodler, Raschky, & Valsecchi, 2018; Fisman, 2001; Golden & Min, 2013; Gurarak & Meyersson, 2016; Labonne, 2016; Lehne, Shapiro, & Vanden Eynde, 2018; Markussen & Tarp, 2014; Sharif, 2011; World Bank, 2014a). While there is now systematic evidence of how governments affect policy outputs beyond considerations of efficiency and equity (Khemani, 2017), there is still limited evidence on whether such distortions may be consequential for local economic dynamics. The current paper builds on recent efforts to bridge such gap (Asher & Novosad, 2017; D. Luca, 2016), and aims to identify whether, and how, partisan politics affects subnational economic growth.

The paper tests such issues on Turkey’s 81 provinces over 2004-2013 by focusing, in particular, on how the central government may favour provinces following different levels of support for the incumbent party in national elections. The empirical context of the analysis is Turkey, a highly centralised country where the national government has significant leverage on economic policy-making. Turkey’s case is informative because the country has traditionally suffered from social and political polarization and considerable subordination of the public bureaucracy to incumbent politicians. The study covers a period of time during which the ruling Justice and Development Party (*Adalet ve Kalkima Partisi*, AKP) gained and consolidated its grip on power. At the same time, throughout the 2000s Turkey was internationally seen as a ‘success story’ of economic and institutional transition, providing “a source of inspiration for a number of developing countries, particularly, but not only, in the Muslim world” (World Bank, 2014b, p. 3).

The analysis adopts a two-stage-least-square estimator and a shift-share instrument to identify the effect of partisan votes on local economic growth. The paper provides novel results suggesting that provinces where the electoral race for the AKP was closer have experienced significantly faster per-capita GVA and employment growth rates. Results are robust against alternative specifications, and are economically substantive. As an example, estimates suggest that a hypothetical province where AKP votes are just below the national average experienced more than 3 percentage points (i.e. close to half a standard deviation) of faster annual per-capita GVA growth compared to a hypothetical constituency where the AKP vote share was lowest or highest. The positive effect fades away above a level of vote share coinciding with the national average, consistently with a framework combining core-voter and electoral battleground hypotheses (as in Asher & Novosad, 2017). Furthermore, in line with the literature on political budget cycles (Alt & Lassen, 2006; Bircan & Saka, 2018; Corvalan et al., 2018; Drazen & Eslava, 2010; Khemani, 2000; Labonne, 2016; Rogoff & Sibert, 1988; Tufte, 1978), the effect is strongest in election years, decreases mid-term, and then increases again in the year prior to the following ballots. While the methodology does not allow to make strong inference about the overall national aggregate effects, results

uncover a robust negative link between support for the main opposition party and local growth. Faster growth in pro-government areas may hence come at the cost of reduced output in opposition constituencies. This is unlikely to represent an efficient allocation (cf. Cadot, Röller, & Stephan, 2006, for a similar argument in France).

The paper also examines potential channels that could explain the effect of votes on local economies. Complementing recent work on the impact of partisanship on the implementation of firm regulations (Gurarak, 2016; Gurarak & Meyersson, 2016; Özcan & Gündüz, 2015b, 2015a) and the supply of public credit (Bircan & Saka, 2018), the analysis shows that votes for the AKP have a significant and substantive effect on the territorial redistribution of state goods, namely public capital investment and investment subsidies to firms. Furthermore, results provide direct evidence that capital investment acts as a mediator between votes and economic performance. Such result is consistent with recent research on the positive effects that infrastructure improvements have had on Turkey's local economies in recent years (Coşar & Demir, 2016). By contrast, while there could be reason to expect AKP-supporting provinces to have preferentially benefitted from the government-led tightening of trade relationships between Turkey and Muslim-majority countries (cf. Lo Turco & Maggioni, 2018), results do not uncover any significant effects of voting patterns on provinces' international exports (Barlow & Şenses, 1995), nor on the allocation of inward foreign direct investment (FDI). The analysis also provides indirect evidence consistent with the hypothesis that the government may have contributed to a structural diversification of local economies out of agriculture and into the secondary and tertiary sectors.

The paper adds to the literature on the politics of development (Farole, Storper, & Rodríguez-Pose, 2010; Gourevitch, 2008). Research in this area has mostly been either carried out at the cross-country level, overlooking sub-national variation (cf. Chen & Feng, 1996; Persson & Tabellini, 2003), or by paying close attention to local economic dynamics while missing a sufficiently broad analysis of politics (cf. Christopherson, 2008). Besides, the majority of studies from the first group have focused on *de jure* institutional differences, rather than *de facto* power dynamics across social groups (Gourevitch, 2008). Until recently, a limited amount of research has explored whether electoral politics can affect economic outcomes at the subnational level. The few exceptions are Levitt and Poterba (1999), who provide non-robust evidence on the US, Luca (2016), who focus on Turkey but fails to identify significant effects, and Asher and Novosad (2017), who provide evidence on the effects of partisanship on local economic growth in India. The current paper adds to these studies by providing the first robust and systematic evidence for the case of Turkey.

Results have implications for the large body of work on distributive politics (cf. Albertus, 2017; Golden & Min, 2013 for a review) by showing that votes can affect not only policy outputs but also real outcomes. Findings similarly relate to the literature on political budget cycles (Alt & Lassen, 2006; Cole, 2009; Corvalan et al., 2018; Drazen & Eslava, 2010; Khemani, 2000; Labonne, 2016; Tutar & Tansel, 2000) by providing preliminary evidence that politicians can affect not only budget allocations but also local economic performance.

The article is structured as follows. Section 2 reviews the literature and develops a simple theoretical framework. Section 3 describes Turkey's institutional background and the data. Section 4 discusses the empirical strategy. Section 5 presents the results, and then provides an

exploration of potential explanatory channels. Section 6 draws the conclusions and presents the implications for theory and policy.

2. Theoretical preliminaries

Since the 1990s, social scientists have shown growing interest in the role of institutions for economic growth (Acemoglu & Robinson, 2012; Engerman & Sokoloff, 2008; Rodrik, Subramanian, & Trebbi, 2004). Among the set of institutions which shape economic outcomes, political channels are seen to play a key role (Farole et al., 2010; Gourevitch, 2008; Sen, 2013). Political economists, for example, have suggested how the presence of inclusive institutions preventing specific groups from monopolizing power and resources is important to sustain economic growth and to overcome middle-income traps (Acemoglu & Robinson, 2012). Yet, in spite of such interest, until recently limited research has been carried out to specifically explore how political cleavages may influence economic development at the local level. Such gap contrasts with the vast amount of literature on distributive politics, i.e. on how self-interested politicians may heterogeneously target the territorial distribution of public spending and other governmental goods to gain electoral advantage (Albertus, 2017; Golden & Min, 2013).

Given the ample evidence on how political actors may design/implement public policies at their discretion, as well as use the public purse for strategic distribution, there is reason to suspect that votes and partisan articulations may influence not only policy outputs, but also economic outcomes. This may be particularly true in societies showing deep cleavages and polarization.¹ Existing research has also suggested how higher polarization may lead to stronger electoral cycles in fiscal balance (Alt & Lassen, 2006; Frye, 2002).

Furthermore, the effects of socio-political cleavages on the economy may be particularly strong in emerging markets, where state support has traditionally played a key role in the economy and, yet, it has been frequently mediated by political connections (Bellin, 2002; Chekir & Diwan, 2015; Springboard, 2018; World Bank, 2014a). Besides, insufficient levels of bureaucratic insulation from politics (Evans, 1995; Luca, 2017) have frequently reduced the incentives/capacity to prevent the use of public monies for personalistic/partisan redistribution. Focussing in particular on the Middle East and North Africa, Springboard (2018) stresses the longstanding subordination of economic development actors to state apparatuses across many countries, where political elites – frequently supervised by ‘deep states’ – “were willing to accept the trade-off of slower development for more assured control and rents made available by it” (ibid., p. 5). Chekir & Diwan (2015) show that cronyism is one of the key characteristics of Egypt’s capitalism. Similarly, Diwan and Haidar (2017) uncover how, in Lebanon, political connections are pervasive and have significant impacts on labour markets. In the Turkish case, although the state has reduced its direct intervention in the economy since the 1980s, its role in influencing the business environment has not diminished (Bugra & Savaskan, 2014; Gurarak & Meyersson, 2016).

¹ Chen & Feng (1996) provide preliminary evidence for a panel of 88 countries over the period 1974-1990 of how political polarization has a negative impact on national economic growth. Frye (2002) explores economic performance across 25 former Communist countries, and suggests that political polarization between different factions has had a devastating effect on national growth.

Overall, there is reason to expect political favouritism to affect not only the allocation of state resources to firms and territories, but also to be consequential for local economic growth, as recently shown by Asher and Novosad (2017) in the case of India. The following paragraphs develop a simple conceptual framework inspired by Levitt & Poterba (1999) and by Asher and Novosad (2017).

Assume that $y_{i,t}^0$ denotes personal income in year t in constituency (province) i in absence of any political economic effect. Let $g_{i,t-1}$ indicate the per-capita benefits in year t deriving from government activities in the year $t-1$. $g_{i,t-1}$ may include any effects on regional per-capita income associated with central government spending in the constituency, as well as potential effects of regulations, policies, and particularistic state-business relations. For simplicity, the bureaucracy in charge of implementing public policies is treated as a direct and fully subordinate agent of the government. While this is a simplification of the more complex principal-agent relationship existing in many real world cases (cf. Evans, Huber, & Stephens, 2017), recent literature has shown how this assumption largely fits empirical contexts such as the Turkish one (cf.: Luca, 2017). In each constituency i , actual per-capita income at time t is hence:

$$y_{i,t} = y_{i,t}^0 + g_{i,t-1} \quad (1)$$

Where $y_{i,t-1}^0$ denotes personal income in absence of any government effects. $g_{i,t-1}$, by contrast, indicates the per-capita impacts deriving from government actions. These may include the provision of state goods, heterogeneous policy regulations enforcement, access to public credit, international trade support, etc.²

The one-year lag between y and g is included to account for the time necessary for government activities to (potentially) impact personal income. We can then model:

$$g_{i,t-1} = f(P_{i,t-2}) \quad (2)$$

where $P_{i,t-2}$ is a measure of the ‘political clout’ of each constituency i at time $t - 2$. We proxy such ‘political clout’ by the vote share for the incumbent party. This choice is linked to the role played by political parties as societal cleavages markers.³ A one-year lag between g and P is again included, to allow for governments to adjust their actions based on past electoral outcomes. The framework in turn assumes that votes P depend on past policy performances. Voters can reward or punish politicians on the basis of their past actions (retrospective voting), or on the basis of their promises about the future (prospective voting). While the two

² Clearly, the framework assumes that at least part of the government inputs are valuable to the economy. If, by contrast, all politically direct inputs were projects exclusively implemented to get additional votes but not economically valuable – i.e. ‘white elephants’ – we could predict an alternative scenario where the incumbent party effect on policy outputs is not consequential for local economic growth.

³ According to Lipset and Rokkan (1967)’s seminal work, party systems tend to reflect – with limited exceptions – the major social and political cleavage structure of a specific country. The number of cleavages is assumed to be an important predictor of the number of parties, while the intensity of such cleavages determines the extent to which the party system is polarized – a dimension that differentiates moderate from highly polarized political systems.

may not be mutually exclusive, the majority of research in distributive politics focuses on retrospective voting, since such behaviour seems more rational in environments where politicians may not keep their pledges (Diaz-Cayeros, Magaloni, & Estévez, 2016; Larcinese, Snyder, & Testa, 2012). Drawing on the literature, P is modelled as the sum of two components:

$$P_{i,t-2} = p_{i,t-2} + p_{i,t-2}^2 \quad (3)$$

One of the core debates within the distributive politics literature focusing on district-level allocation strategies is between the ‘core constituencies’ and the ‘battleground districts’ hypotheses (Albertus, 2017; Golden & Min, 2013). The first one suggests that politicians will likely seek re-election by nurturing their partisan strongholds (Cox, 2009; Cox & McCubbins, 1986). The second, by contrast, emphasizes the extent to which parties will allocate resources to swing electorates, where just a few votes can yield additional seats (Dixit & Londregan, 1996). Following the model developed by Asher & Novosad (2017), the current analysis suggests that these two behaviours can coexist: politicians are likely to target preferentially their core supporters (while potentially also withholding from their opponents). At the same time, this distortion is magnified in battleground districts.

There are at least two reasons why parties may have incentives to target core constituencies. First, Golden & Picci (2008) and McGillivray (2004) show that the ‘core’ vs. ‘battleground’ predictions depend on whether electoral systems are majoritarian or proportional. In the first case, winning a legislative seat requires a majority of votes in a specific district, so votes in battleground constituencies matter more to parties than votes in safe districts. In a Proportional Representation (PR) system, by contrast, all votes matter more similarly independently of district location, since each vote will contribute to the general allocation of seats among parties.⁴ Second, traditional models of distributive politics assume that party loyalty is ‘exogenous’ and fixed over time. Yet, as argued by Diaz-Cayeros et al. (2016), partisan loyalties are frequently tied to incumbents’ actions, particularly in countries with ‘weak’ institutional environments where programmatic appeals lack strong credibility. Politicians may hence need to constantly cultivate – at least in part – loyalty among their party supporters. The inclusion of $p_{i,t-2}$ is aimed at capturing such effect. By the other side of the same token, we may expect areas supporting opposition parties to be disfavored since ‘punishment regimes’ are instrumental to deter defections among core voters (Diaz-Cayeros, Magaloni, & Weingast, 2007).

Yet, even within core-supporters’ models, utility-maximizing politicians may decide to reduce their support to core constituencies above and below certain vote thresholds. Empirically, this implies that the relationship between a province’s growth rate and the share of votes for the incumbent government may be bell-shaped rather than linear. Anecdotal evidence for the Turkish context is offered by a Parliamentary speech delivered by a legislator from the province of Kütahya in 2012. In such occasion, the Member of Parliament argued that the province had been “forgotten” in the distribution of State resources and had

⁴ This is a simplification: the rule used to translate vote shares into legislature seats may deviate (slightly) from ‘pure’ proportionality. This is for example the case with the D’Hondt formula.

been left behind in terms of development (Işık, 2012), in spite of its exceptionally high support given to the AK Party – which exceeded 60 percent in both 2007 and 2011 elections. This motivates the inclusion of the quadratic term $p_{i,t-2}^2$.⁵

Overall, we can test for any potential effects of electoral politics on per-capita income y at time t in constituency i by adopting the following local economic growth model:

$$y_{i,t} = \beta_0 y_{i,t-1} + \beta_1 p_{i,t-2} + \beta_2 p_{i,t-2}^2 + \sum_j^J \beta_j X_{i,t-1} \quad (4)$$

Subtracting $y_{i,t-1}$ on both sides, yields:

$$\Delta y_{i,t} = (\beta_0 - 1)y_{i,t-1} + \beta_1 p_{i,t-2} + \beta_2 p_{i,t-2}^2 + \sum_j^J \beta_j X_{i,t-1} \quad (5)$$

3. Institutional background and data

3.1. The Turkish political system

During the period of analysis Turkey was a parliamentary democracy featuring a closed-list, proportional-representation electoral system.⁶ In spite of a relatively high volatility and turnover, parties tend to have clear and distinguishable ideological positions (Aytac, 2014) and a high degree of salience in the political arena (Dikici Bilgin, 2018; Ozbudun, 2013). Party identification has moreover increased during the AKP incumbency (Çarkoğlu, 2012).

Importantly, Turkish political parties have also acted as ‘gatekeepers’ for access to public resources, traditionally standing out as an ultimate “political institution of populist patronage” (Kalaycioğlu, 2001, p. 63). As an example, many contributions show how incumbents have frequently targeted public monies and other preferential treatments to individuals and constituencies with a similar political affiliation, and punished those who do not share the same political orientation (Aytac, 2014; Çarkoğlu & Aytaç, 2014; Kemahlioglu, 2008; D. Luca & Rodríguez-Pose, 2015). Parties have also been strongly aligned with other types of organizations considered key societal fault-line markers, such as business associations. In their analysis on state-business relations, Buğra and Savaşkan (2014) for example acknowledge how “the impact of these two types of actors on the economic environment is not exercised through separate channels, but appears the outcome of strategies that mutually support each other” (Bugra & Savaskan, 2014, p. 31).

The 2002 parliamentary elections are widely seen as a milestone in the history of the Turkish party system. For the first time since 1991, a party – the AKP, founded in 2001 just months before the elections and led by R.T. Erdogan – garnered more than 34% of the votes, winning

⁵ It is important to stress that, the quadratic term has a high correlation with more ‘traditional’ measures of electoral competitiveness (cf. Besley et al., 2010) – such as the absolute vote difference between the first and the second party in each province. The pairwise correlation coefficient between the two variables is above 0.72 and significant at the 0.01 confidence level. By including $p_{i,t-2}^2$ the analysis hence controls for electoral competitiveness. Besides, if widely adopted in majoritarian electoral systems, the more ‘traditional’ measure of close race has a limited relevance in PR ones. Similarly, the analysis does not include a more generic measure of party competition such as the Herfindahl index because of its highly collinearity with AKP. The pairwise correlation coefficient between the two is 0.76, significant at the 0.01 confidence level.

⁶ In April 2017 the country approved a constitutional referendum which transforms the political system towards a strong presidential model.

an absolute majority of seats in parliament and forming a single-party government. The incumbents have remained in power ever since, winning all subsequent local and national elections. In the next national polls, they increased their vote share first to 46.7% in 2007 and, then, to almost 49.8% in 2011 and, again, 49.5% in 2015.⁷

Bugra and Savaskan (2014) uncover the fear of local and regional actors about feeling penalized by the government for systematically voting for the *Cumhuriyet Halk Partisi* (Republican People's Party, CHP), as opposed to the AKP in both local and national elections.⁸ Luca (2016) attempted to assess whether such concerns are backed up by quantitative evidence, yet failing to provide conclusive results. The remainder of the paper will aim to test such hypothesis again, exploiting novel, more fine-grained data and a more advanced empirical specification.

3.2. Data

The analysis employs a novel panel dataset covering Turkey's 81 provinces over the period 2004-2013. It takes advantage of new data on provincial Gross Domestic Product (GVA) released by the Turkish statistical institute in 2016 – prior to that date, detailed information on economic output dynamics for the country's 81 provinces post-2001 was missing. No political economy research has been conducted on such dataset thus far. The Socio-economic and electoral data derives from Turkey's Statistical Institute (TÜİK). The analysis extends electoral results for 2002, 2007, and 2011 elections over each legislature's single year.

The paper focuses on provinces since they constitute one of the most important tiers of political representation and the power bases of political parties, as well as the only administrative tier between municipalities/metropolitan municipalities and the central State. Provincial boundaries exactly coincide with both electoral constituencies and the statistical units used to measure local economic performance. It is also important to stress that while provinces represent a key socio-political tier of governance, they mostly lack strong administrative powers autonomous from the central state. As a matter of fact, elections for the provincial assemblies play a minor role in Turkey's politics.⁹ Taking these factors into account, the analysis focuses on national ballots. Furthermore, in spite of a series of decentralization reforms implemented in the early 2000s, the country remains one with a highly centralized public finance system. Many of the decisions affecting sub-national public spending and policies potentially affecting local growth are hence in the hands of Ankara. As an example, between 2010 and 2014 local governments were responsible for less than 30% of the total amount of public fixed-capital investment (Ministry of Development, 2014), with the lion's share still managed by the national government and its local decentered branches.

⁷ The AKP's only decline occurred in the 2015 elections, when its score dropped to 40.9%, to re-bounce back to 49.5% in the November 2015 snap elections.

⁸ The other main parties since the early 2000s have been the nationalistic Nationalist Action Party (*Milliyetçi Hareket Partisi*, MHP), and the pro-Kurdish Peace and Democracy Party (*Barış ve Demokrasi Partisi*, BDP), which succeeded to the Democratic Society Party (*Demokrat Toplum Partisi*, DTP) outlawed in 2008.

⁹ An exception are metropolitan municipalities which, during the AKP incumbency, have gained increasing importance and, since 2004, correspond to provincial boundaries. While there were 16 of them in the 2000s, in December 2012 the government declared 14 new ones. Bircan & Saka (2018)'s paper by for example explores political lending cycles and economic outcomes exactly focusing on municipal majors.

Appendices 1, 2, and 3 respectively provide a detailed description of variables, their key summary statistics, and their pairwise correlation coefficients.

4. Empirical strategy

The research follows two steps: first, it assesses whether there is a reduced-form link between partisan politics and local economic growth; second, it provides a preliminary exploration of what might be the potential channels driving the results from the first stage.

4.1. Empirical estimation

In line with Equation 5, the empirical model adopted for estimation is:

$$\Delta y_{i,t} = (\beta_0 - 1)y_{i,t-1} + \beta_1 p_{i,t-2} + \beta_2 p_{i,t-2}^2 + \sum_j^J \beta_j X_{i,t-1} + \alpha_i + \gamma_j + d_t + \varepsilon_{i,t} \quad (6)$$

Where: $\Delta y_{i,t}$ is the rate of per-capita economic growth, expressed in logarithmic terms, of province i at time t , and $y_{i,t-1}$ is the yearly lagged provincial per-capita GVA level (expressed again in Ln), included to test for Solow-style convergence of income, with $\beta_0 < 0$ indicating convergence.

$p_{i,t-2}$ and $p_{i,t-2}^2$ are the key variables of interest as discussed in Section 2. In particular, we want to test whether $\beta_1 > 0$, i.e. if higher votes for the central government drive higher growth rates of provincial personal income, and if $\beta_2 < 0$, i.e. whether such relationship is bell-shaped as posited.

$X_{i,t-1}$, consists in a vector of controls. Baseline estimates include total provincial population and voter turnout to elections. Many of the socioeconomic drivers commonly included in empirical regressions among the determinants of local economic growth – such as public capital – might constitute channels through which politics may affect economic dynamics. Such variables are hence excluded from the reduced-form models as they would be ‘bad controls’ (Angrist & Pischke, 2009). By contrast, data on private capital and entrepreneurship is not available for the whole panel. It will therefore be excluded from the baseline regression, and then added in the robustness tests.

α_i , and d_t respectively consist in province and year fixed-effects (FE). I do not include province-specific time trends (the interaction between province and year FE) because of the insufficient degrees of freedom to do so. Bircan and Saka (2018) explore how Turkish large municipalities whose mayor is from the same national incumbent party may be advantaged in the allocation of state goods. Taking their analysis into account, Equation 6 also includes a dummy γ_j for metropolitan municipalities whose mayor is from the AK Party. $\varepsilon_{i,t}$ is the error term.

4.2. Identification

The estimation of Equation 6 may suffer from two identification concerns. First, while the inclusion of fixed-effects should attenuate the risk of omitted variable bias, there might still be spurious factors simultaneously affecting voting patterns and economic dynamics. Second, ballot results may suffer from reverse causality.¹⁰

¹⁰ This would be the case both if voters acted retrospectively, providing more support in response to higher benefits received – in which case ballots would be positively correlated to past preferential treatments by the

To identify the genuine causality between votes and economic performance, the analysis adopts a Two-stage Least Square (2SLS) estimator. It proposes a shift-share instrument which draws from the seminal strategy proposed by Bartik (1991) and has been increasingly exploited in spatial economics since then (e.g.: Moretti, 2010). The intuition behind the instrument is that national vote pattern changes that are party-specific but external to an individual province i reflect a ‘synthetic’ exogenous political ‘shock’ for that sub-national unit. For each province i in year t , the instrument $p_{IV_{i,t}}$ is constructed by weighting $p_{i,b}$, which represents the initial electoral result for the incumbent party in province i in the base year b , for the national variation Δn between time t and the base year b :

$$p_{IV_{i,t}} = p_{i,b} * \left(1 + \frac{n_t - n_b}{n_b}\right) \quad (7)$$

Since I include the quadratic term of the endogenous variable, I instrument it by the quadratic term of the linear instrument (cf. Woodridge, 2010). This second instrument is constructed as:

$$p_{IV_{i,t}}^2 = (p_{IV_{i,t}})^2 \quad (8)$$

2002 is selected as the base year assuming that results for that election are close to an exogenous shock. After almost a decade of rampant corruption and infighting under coalition governments, 2002 elections are widely considered a key yet unexpected turning point in Turkish politics (Çarkoğlu, 2012). As an example, the combined share of votes for the five main parties in 1999 elections was 81 percent, while it dropped to a mere 24 percent in 2002 (Akarca & Baslevent, 2011). Figure 1 shows, for each election, the turnover rate of MPs, constructed dividing the number of newly elected MPs by reconfirmed ones. The 2002 rate has been the highest in Turkey’s democratic history, even higher than after the two military coups of 1960 and 1980 (marked by vertical red lines).

2002 votes might yet be correlated to previous elections held before 1999 and, hence, to past policy outputs and outcomes. This could be for example the case if parliamentarians from ‘old parties’ in power in the mid-1990s skipped the 1999 legislature but decided to join the newly created AK Party in 2002. A second set of instruments using the 1995 elections as baseline is hence added. Robustness tests will also exclude the 2002-2006 legislature and restrict the analysis to the panel 2007-2014, for which the main set of instruments should allow the identification of a genuinely exogenous source of variation.

5. Results

5.1. Baseline estimates

Table 1 presents the results. Column one features an Ordinary Least Square (OLS) estimator. Column two adds year and province FE, as well as a dummy for metropolitan municipalities whose mayor is from the AKP (the variable, not reported, is insignificant). Such strategy should allow controlling for local idiosyncrasies and for cross-sectional common time shocks.

incumbent party – and if they behaved prospectively, by responding to campaign promises about future government actions – in which case votes would be positively correlated to future actions. While empirical evidence seems to suggest that retrospective and prospective voting are not mutually exclusive (Cammett et al., 2018), most studies in the literature find retrospective voting models more relevant.

Model three, which is the most complete, further adds provincial population and voter turnout among the regressors.

Results confirm the conceptual framework, and uncover a positive link between votes for the national incumbent party and faster per-capital provincial GVA growth rates. As expected, the linear term for AKP votes is positive and significant across all specifications, while its quadratic term is negative (and again significant), suggesting that the relationship between dependent and explanatory variables is bell-shaped as expected.

To test against potential endogeneity, coefficients for model four are estimated by means of 2SLS, whose first-stage regressions are displayed in Appendix 4.¹¹ As expected, the 2SLS coefficients are smaller than the OLS and FE ones, suggesting that the latter were biased upward due to endogeneity. Figure 2 shows the fitted lines for the regression coefficients of Table 1's columns three and four. The graphs provide clear visual evidence of how, after controlling for endogeneity, the link between votes and local economic growth is significantly smaller, in line with what just discussed. Nevertheless, the effect remains substantial. Estimates are most precise for the central part of the AKP vote share distribution. They suggest that a hypothetical battleground province where AKP votes are just below the national average experienced more than 3 percentage points (that is, close to half a standard deviation) of faster per-capita GVA growth compared to hypothetical constituencies where AKP vote shares are lowest/highest. Such finding is consistent with the conceptual framework, which combines core-voter and battleground hypotheses. In other words, the government may have tried to strategically favour core constituencies but, at the same time, this effect may have been stronger in battleground areas since these are the places where there is a higher chance to 'win' new voters. By contrast, the main losers may be the 'hard' opposition strongholds (i.e. where support for the AKP is minimum), as well as places where the incumbents have already secured a very strong electoral backing.

The following paragraphs test the robustness of the baseline results from Table 1. First, given the limited relevance of the extra set of instruments constructed using the 1995 elections as base year, there may still be concerns about the endogeneity of the 2002-2006 electoral results. I hence re-estimate Equation 6 restricting the panel to the period 2007-2014, for which the instruments built on the base year 2002 should be exogenous. The outputs are presented in Appendix 5. The exclusion of the 2002-2006 legislature does not undermine the results which, if anything, increase now in magnitude.

Second, it is well known that in dynamic models, i.e. where the lagged dependent variable is included among the regressors, panel estimates are biased in the order of $1/T$ (Nickell, 1981). Appendix 6 presents the main results estimated excluding the dynamic component from Equation 6. Not controlling for β convergence increases the magnitude of the AKP coefficients as expected. Nevertheless, results are overall qualitatively similar.

Third, results might be sensitive to the inclusion of Turkey's main economic hubs, namely Ankara, Istanbul, and Izmir. Combined, these three cities accounted for 45.84% of the country's GDP in 2014, slightly down from 46.15% in 2004. Appendix 7 reports the results

¹¹ Results from Appendix 4 confirms the relevance of only the set of instrumentals calculated using 2002 as base year.

excluding such cities from the analysis. Again, the new outputs are very similar to the baseline ones.

Fourth, the baseline specification does not control for a host of variables commonly included in growth regressions, such as public capital, on the ground that this might be a channel through which votes affect growth. While the inclusion of province and year FE should attenuate potential risks of omitted-variable biases, Appendix 8 re-runs the regressions controlling for private capital investment and entrepreneurship. Data on these two variables is not available for the whole panel (this explains why they are not included in the baseline results). Models one and two report the results from the last two columns of Table 1. For comparability, columns three and four re-estimate the same models on the restricted panel, while models five and six add the two extra regressors. Coefficients are hardly influenced by the change in specification.

Last but not least, appendix 9 shows the results of a battery of ‘placebo’ regressions where the time lag between left- and right-hand side variable is excluded. If the conceptual framework is correct, votes should only affect future economic performance, since time is needed to translate strategic political decisions into actions which may influence local growth dynamics. Results suggest that this is the case. In particular, regressing current economic performance on current electoral outcomes yields no results, with coefficients turning completely insignificant.

5.2. Political business cycle

The baseline analysis assumed that the effect of votes on local economic performance is constant across the electoral cycle. Yet, a significant amount of research suggests that politicians tend to deliberately allocate goods and services prior to elections to improve their chances of winning the forthcoming ballot (Alt & Lassen, 2006; Bircan & Saka, 2018; Corvalan et al., 2018; Drazen & Eslava, 2010; Khemani, 2000; Labonne, 2016; Rogoff & Sibert, 1988; Tufte, 1978). This section hence tests for the existence of political business cycles in local economic performance, by expanding equation (6) to the following:

$$\Delta y_{i,t} = (\beta_0 - 1)y_{i,t-1} + (\beta_1 p_{i,t-2} + \beta_2 p_{i,t-2}^2) * C_k + \sum_j^J \beta_j X_{i,t-1} + \alpha_i + \gamma_j + d_t + \varepsilon_{i,t} \quad (7)$$

Where C_k is a categorical variables equal to 0 in election years and then taking value 1 in post-election years, 2 in mid-term years, and 3 in the last year of an election cycle (that is, a pre-election year). Studies suggest that governments increase spending just prior to the ballots. The expectation is hence that the impact of votes for the incumbents on local economic performance is strongest around the election period.

Appendix 10 reports the FE and 2SLS regression results. Figure 3 then plots the predicted values of provincial per-capita GVA growth taking into account the combined interaction effects between AKP and AKP² with the electoral cycle dummies (while holding other variables constant at their mean). The graph provides evidence of how, conditioning on covariates, local economic performance in provinces with a high ‘political clout’ accelerates in the election year, slows down post-election and mid-term, and then speed-up again in the

year before the next ballot. The results are robust against excluding from the analysis the year 2009, a mid-term year during which Turkey was hit by the downturn.¹²

5.3. Heterogeneous effects

This section first compares results replacing GVA growth with employment growth as a dependent variable and, then, tests whether the positive association between AKP votes and growth is mirrored by a negative link with votes for the opposition as theoretically expected.

Table 2 presents the results obtained replacing per-capita GVA with total employment growth. Models one to four follow the same specifications as in Table 1. The last two columns are the preferred ones, as they are the most complete. Results show a very similar picture as before. Again, the linear term for AKP votes is positive and significant across all specifications, while its quadratic term is negative and significant.

Figure 4 presents the fitted lines for models three and four of Table 2. The relationship between votes and employment growth that emerges is qualitatively very similar to the one of Figure 2. 2SLS results determine a reduction in the effect of votes on employment growth. At the same time, even after controlling for endogeneity the effect is significant.

Finally, Table 3 tests whether the positive effect of votes for the AKP on local growth is mirrored by a negative link between vote shares for opposition parties and economic performance. The analysis focuses in particular on the CHP, the main party opposing Erdoğan and the AKP. Conditioning on provincial, year, and metropolitan municipality FE, as well as lagged GVA and covariates, the table shows a robust link between CHP vote shares and negative economic performance. The shift-share instruments, calculated as before, using the CHP results from 2002 and 1995 elections as base years, are unfortunately weak (the K-P first stage test is low, cf. column 4). Caution is hence needed in making strong inference. With this important caveat in mind, the table shows at least preliminary evidence of how the government may have picked not only ‘winners’, but also ‘losers’. Faster growth in pro-government areas may have hence come at the cost of reduced output in opposition constituencies.

5.4. Potential mechanisms

The previous sections provide novel evidence of a robust link between votes for Turkey’s central incumbent government and faster local economic growth. The next paragraphs aim to shed preliminary light on the channels potentially driving the results. One of the hypotheses put forward in the conceptual framework concerns the preferential allocation of key government inputs. To this aim, the analysis estimates the following model:

$$G_{i,t}^j = \beta_1 p_{i,t-1} + \beta_2 p_{i,t-1}^2 + \beta_3 X_{i,t-1} + \alpha_i + d_t + \varepsilon_{i,t} \quad (8)$$

where (i and t again denote provinces and years respectively): $G_{i,t}^j$ is a vector indicating different government goods j allocated by the central state to each province i in year t . In

¹² While results could potentially still suffer from omitted variable bias - for example if the effects of the economic recession were geographically heterogeneous, unfortunately there are not enough degrees of freedom to control for province-specific time trends.

particular, I analyse the following variables, for which provincial-level data is available: per-capita public fixed-capital investment, investment subsidies to private firms, per-capita public current expenditure; $p_{i,t-1}$, $p^2_{i,t-1}$, and $X_{i,t-1}$ represent the same variables accounted for in Equation 6. The vector $X_{i,t-1}$ includes, in particular, provincial population, per-capita GDP, and voter turnout; α_i and d_t are province and year fixed-effects; $\varepsilon_{i,t}$ is the error term. In line with the conceptual framework, the time-lag between regressors and dependent variables is now one year, rather than two.

Table 4 shows the results, obtained applying the same identification strategy as earlier. Odd and even columns respectively report FE and 2SLS outputs. Confirming previous research on distributive politics in Turkey, the table shows that voting for the central incumbent party has had a statistically significant and substantial influence over the territorial allocation of public investment and investment subsidies to firms (columns one to four). Furthermore, results are in line with recent models of strategic targeting with alternative distributive goods (Albertus, 2013; Cammett, 2014; Cammett, Luca, & Sergenti, 2018). Diaz-Cayeros et al. (2016), for example, posit that parties machines may target low-spillover (i.e. highly excludable and reversible) goods to retain core partisan supporters, while simultaneously investing in high-spillover goods (i.e. characterised by low excludability and reversibility) in battleground areas with the aim of attracting the support of voters outside of their core. The results from columns one to four are consistent with this hypothesis: while in the case of firm subsidies (low-spillover good) the function seems to be quasi-linear (the quadratic term is insignificant, cf. models three and four), in the case of capital investment (high-spillover good) the function is significantly quadratic. Finally, columns five and six do not find a statistically significant evidence of a link between AKP vote shares and total government expenditure.¹³

Throughout its incumbency, the AKP government has significantly fostered trade relationships between Turkey and Muslim-majority countries. Lo Turco and Maggioni (2018) show how firms located in provinces characterised by stronger religiosity have been more likely to enter export destinations with a higher share of Muslims. It may hence be plausible that AKP-supporting provinces may have preferentially benefitted from such government-led expansion of trade links. To this aim, I test whether there is any link between AKP vote shares and export growth. Similarly, the analysis tests whether there is any effect of votes on the location of inward FDI, since the central government may have favoured specific provinces vis-à-vis international investors through the national Investment Support and Promotion Agency of Turkey. Results, presented in Appendix 11, do not however find any statistically significant relationship between AKP vote shares, export growth, and inward FDI.

Table 5 then explores whether the developmental state goods allocated by the government for strategic reasons may be a mediator between votes and local economic growth. The table reports the most stringent reduced-form specification (i.e. the one controlling for private capital and entrepreneurship) to minimise potential risks of omitted-variable bias. The first two columns report the baseline FE and 2SLS results. Columns three and four then add

¹³ Cammett et al. (2018) indeed show how the strategic distribution of public expenditure follows complex patterns.

capital investment and firm subsidies. If such goods act as mediators between votes and GDP growth, their inclusion would lead to a reduction in significance and magnitude of the coefficients for AKP vote shares, as their effect would be absorbed by the formers. Indeed, this seems to be, at least in part, the case. The AKP linear and quadratic terms become smaller (especially with the 2SLS estimator) and lose statistical significance while, among the strategically-targeted goods, public investment seems to have a positive (although only marginally significant) effect on economic growth (with the 2SLS estimator).

At the same time, however, the distribution of capital investment may not be the only channel driving the results. As a matter of fact, while the coefficients of both political variables reduce in magnitude and significance, their joint effect is still significantly different from zero. Unable to directly explore complementary explanations due to the lack of data, I draw on recent literature to speculate about two other potential channels, namely credit and regulation. First, the literature has shown how access to public finance often depends on political factors and, at the same time, can have significant effects on the real economy (Carvalho, 2014). Indeed, Bircan and Saka (2018) demonstrate the existence of a political business cycle in Turkish state banks' lending, and an effect of it on provincial economic performance proxied by private sector building activity.

Second, a growing amount of research on state-business relations has stressed the relevance of informal links between firms and the incumbent party (Bugra & Savaskan, 2014; Gurarak, 2016; Gurarak & Meyersson, 2016; Özcan & Gündüz, 2015a, 2015b). Recent research by Özcan and Gündüz (2015) has for example shown how firms politically connected to the government have experienced abnormal performances and growth in recent years. Consistently, Bugra and Savaskan (2014) claim that frequent changes to the laws regulating public tenders have been used to favour business groups close to the ruling party. Quantitative evidence is further provided by Gurarak Meyersson (2016), who show strong evidence of how firms connected to the AK Party – particularly the ones linked to its most powerful ranks – have been significantly advantaged in public procurement. If the government preferentially favour politically-connected firms, and if the latter are located heterogeneously across the country, we may expect this to be an additional channel.

Relatedly, the government may have used regulation to influence the structural transformation of local economies. The degree to which the environment is conducive to fast structural change is a key determinant of economic performance. While it is not possible to establish a direct link, analysing the effect of votes on economic sub-sectors can yet provide exploratory evidence on local structural change associated to political dynamics. Tables 6 and 7 respectively show the estimates subdividing total GVA and employment growth into primary, secondary, and tertiary sectors. For reasons of space the tables only report 2SLS results (FE outputs, available on request, are overall similar).

In table 6, while the overall direction of coefficients is similar, the positive effect of vote shares on GVA growth is highly insignificant for the primary sector. In the case of employment, Table 7 shows a strong and significantly negative link between votes and employment growth in the agricultural sector while, at the same time, a markedly positive link for the secondary sector. Some of the coefficients need to be interpreted with care as their Hansen J test' P-values are below the threshold of 0.1. While further research with a

stronger identification is needed, it is plausible to speculate that the government may have indeed affected local economies' structural transformation. Particularly during the first years of the AKP incumbency, Turkey has experienced a significant growth in labor productivity due to labor movement out of agriculture into more productive areas of the economy (Rodrik, 2010). Relatedly, Meyersson (2017) shows how the AK Party has significantly boosted the economy by fostering the construction sector. Although weakly identified, coefficients from Tables 6 and 7 are consistent with the hypothesis that the government, in electorally strategic provinces, may have actively contributed to a diversification of the economy towards the secondary and tertiary sectors (Table 6), as well as a shift of agricultural employment into the secondary sector (Table 7).

6. Conclusion

Too frequently, governments around the world affect the design and implementation of public developmental policies for strategic reasons, beyond considerations of efficiency and equity (Khemani, 2017). Building on previous pieces of research (Asher & Novosad, 2017; Levitt & Poterba, 1999; Luca, 2016), the current paper exploits new data to show how votes for the incumbent AK Party in national elections have a substantial effect on the economic performance of Turkey's provinces, measured as per-capita GVA and employment growth. 2SLS estimates featuring a shift-share instrumental variable strategy suggest that a hypothetical province where AKP votes are just below the national average experienced more than 3 percentage points (i.e. around half a standard deviations) of faster annual per-capita GVA growth compared to a constituency where the vote share is lowest. Furthermore, the positive effect fades away above a threshold coinciding with the national average share of votes. Findings are in line with a distributive politics framework which combines, in a proportional-representation electoral system, core-voter and electoral-battleground hypotheses (as in Asher & Novosad, 2017). According to such framework, the government may favour their partisan supporters but, at the same time, try to particularly pick 'economic winners' among provinces where chances to win new electoral support is highest, while overlooking oppositions' core strongholds as well as places where it has already secured a very solid backing. Consistently with the literature on political business cycles, the analysis provides preliminary evidence that the effect of votes on local economic performance is strongest in election years, decreases mid-term, and then increases again in the year prior to the following ballots.

Results are also consistent with Besley et al. (2010)'s claim that political competition matters for economic growth – although their theoretical model assumes that competition leads to the implementation of virtuous policies while, in the current case, results seem to be driven by a zero-sum game, where the governmental actions seem to determine economic 'winners' but also, potentially, 'losers' (Meyersson, 2016). Indeed, while the methodology is not fit to make strong inference about the overall aggregate effects at the national level, results uncover a robust negative link between support for the main opposition party and local growth. Faster growth in pro-government areas may have hence come at the cost of reduced output in opposition constituencies. More broadly, deep social and political polarisation is a common malady across many emerging markets. The current paper adds to the literature on the economic effects of socio-political cleavages, by showing how governments are able to pick

winners and losers among local economies. While the current analysis is unable to assess the overall efficiency effect of such political economic dynamics, there is reason to speculate that the selection of ‘winners’ and ‘losers’ over purely political reasons may be not only unfair, but may also have negative consequences on the overall welfare (cf. Farole et al., 2010; Gourevitch, 2008). Better understanding what are the specific welfare consequences of the politically-expedient policy design and implementation by governments is a key area for future research.

The results have implications for theory and policy. The analysis contributes to the literature on the politics of development by uncovering that politics has significant effects not only on individual firms as shown by past research (Acemoglu, Johnson, Kermani, Kwak, & Mitton, 2016; Chekir & Diwan, 2015; Diwan & Haidar, 2017; Fisman, 2001; Gurarak & Meyersson, 2016; Lehne et al., 2018; Markussen & Tarp, 2014; World Bank, 2014a), but also on entire constituencies. Besides, throughout the 2000s Turkey was internationally seen as an economic and institutional ‘success story’ due to its records of fast growth and structural economic and institutional change. Yet, in recent years critics have significantly challenged the extent of the reforms the country underwent (Esen & Gumuscu, 2017; Luca & Rodríguez-Pose, 2017; Meyersson & Rodrik, 2014; Somer, 2016), and questions have emerged over the lessons to be drawn from the Turkish case. The current analysis contributes to such critical assessment, by showing how Turkey’s economic growth has been marked by strong and significant partisan dynamics.

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Table 1. Votes for the incumbent party and provincial per-capita GVA growth: robust OLS, FE and 2SLS estimates (2004-2013)

	(1) OLS	(2) FE	(3) FE	(4) 2SLS
Lagged AKP	0.215*** (0.048)	0.210** (0.100)	0.263** (0.101)	0.241** (0.097)
Lagged AKP ²	-0.002*** (0.001)	-0.002* (0.001)	-0.002** (0.001)	-0.003*** (0.001)
Observations	729	729	729	729
R-squared	0.074	0.591	0.600	0.565
First-stage K-P F				10.528
Hansen J (P-val)				0.214
Lagged GVA	yes	yes	yes	yes
Year FE		yes	yes	yes
Prov FE		yes	yes	yes
MM dummy		yes	yes	yes
Controls			yes	yes

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. Constant, lagged GVA, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Table 2. Votes for the incumbent party and provincial employment growth rate: robust FE and 2SLS estimates (2004-2012)

	(1) OLS	(2) FE	(3) FE	(4) 2SLS
Lagged AKP	0.690*** (0.202)	0.366** (0.151)	0.346** (0.155)	0.304** (0.155)
Lagged AKP ²	-0.005* (0.003)	-0.004** (0.002)	-0.004** (0.002)	-0.005*** (0.001)
Observations	648	648	648	648
R-squared	0.313	0.432	0.433	0.322
First-stage K-P F				7.704
Hansen J (P-val)				0.229
Lagged empl.	yes	yes	yes	yes
Year FE		yes	yes	yes
Prov FE		yes	yes	yes
MM dummy		yes	yes	yes
Controls			yes	yes

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. Constant, lagged employment, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Table 3. Votes for the main opposition party and provincial per-capita GVA growth: robust OLS, FE and 2SLS estimates (2004-2013)

	(1) OLS	(2) FE	(3) FE	(4) 2SLS
Lagged CHP	-0.031 (0.072)	-0.552*** (0.166)	-0.560*** (0.145)	-1.032*** (0.360)
Lagged CHP ²	0.002 (0.002)	0.008*** (0.003)	0.008*** (0.002)	0.014** (0.006)
Observations	729	729	729	729
R-squared	0.063	0.597	0.604	0.563
First-stage K-P F				3.656
Hansen J				0.193
Lagged GVA	yes	yes	yes	yes
Year FE		yes	yes	yes
Prov FE		yes	yes	yes
MM dummy		yes	yes	yes
Controls			yes	yes

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. Constant, lagged GVA, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Table 4. Votes for the incumbent party and the territorial allocation of central state goods: robust FE and 2SLS estimates (2004-2012)

	(1) FE Capital investment	(2) 2SLS	(3) FE Firm subsidies	(4) 2SLS	(5) FE Current expenditure	(6) 2SLS
Lagged AKP	0.034** (0.016)	0.051** (0.020)	0.036** (0.014)	0.030** (0.014)	0.003 (0.003)	0.001 (0.003)
Lagged AKP ²	-0.000** (0.000)	-0.001*** (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)
Observations	729	729	729	729	729	729
R-squared	0.488	0.264	0.608	0.369	0.974	0.924
First-stage K-P F		14.762		14.762		14.762
Hansen J (P-val)		0.251		0.302		0.501
Prov FE	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Constant, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Table 5. Votes for the incumbent party, the territorial allocation of public goods, and provincial per-capita GVA growth: robust FE and 2SLS estimates (2004-2012)

	(1) FE	(2) 2SLS	(3) FE	(4) 2SLS
Lagged AKP	0.339*** (0.108)	0.267*** (0.101)	0.318*** (0.109)	0.231** (0.100)
Lagged AKP ²	-0.003** (0.001)	-0.003*** (0.001)	-0.003** (0.001)	-0.003*** (0.001)
Lagged capital investment			0.380 (0.260)	0.434* (0.254)
Lagged firm subsidies			0.183 (0.516)	0.416 (0.482)
Observations	648	648	648	648
R-squared	0.632	0.591	0.634	0.592
First-stage K-P F		10.528		10.305
Hansen		0.214		0.304
Prov FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes
Lagged GVA	yes	yes	yes	yes
Controls (including extras)	yes	yes	yes	yes

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Lagged GVA, constant, controls (including extra controls), and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Table 6. Votes for the incumbent party and provincial per-capita GVA growth divided by economic sector: robust 2SLS estimates (2004-2013)

	(1) 2SLS Total	(2) 2SLS Primary	(3) 2SLS Secondary	(4) 2SLS Tertiary
Lagged AKP	0.241** (0.097)	0.315 (0.437)	0.324** (0.149)	0.248*** (0.085)
L. AKP ²	-0.003*** (0.001)	-0.009** (0.004)	-0.002 (0.001)	-0.003*** (0.001)
Observations	729	729	729	729
R-squared	0.5647	0.4371	0.6854	0.6153
First-stage K-P F	10.528	10.138	9.262	11.685
Hansen J (P-val)	0.214	0.408	0.021	0.798
Lagged (sectoral) GVA	yes	yes	yes	yes
Prov FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes
Controls	yes	yes	yes	yes

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. Constant, lagged GVA, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Table 7. Votes for the incumbent party and provincial employment growth divided by economic sector: robust 2SLS estimates (2004-2013)

	(1) 2SLS Total	(2) 2SLS Primary	(3) 2SLS Secondary	(4) 2SLS Tertiary
Lagged AKP	0.003** (0.002)	-0.007*** (0.003)	0.013*** (0.003)	0.000 (0.001)
L. AKP^2	-0.000*** (0.000)	0.000*** (0.000)	-0.000*** (0.000)	0.000 (0.000)
Observations	648	729	729	729
R-squared	0.322	0.342	0.332	0.378
First-stage K-P F	7.704	10.278	12.294	10.238
Hansen J (P-val)	0.229	0.0512	0.0823	0.237
Lagged (sectoral) empl.	yes	yes	yes	yes
Prov FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes
Controls	yes	yes	yes	yes

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1. Constant, lagged employment, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Figure 1. Turnover rate of MPs (newly elected/reconfirmed parliamentarians) at each national election. The vertical lines indicate the military coups of 1960 and 1980

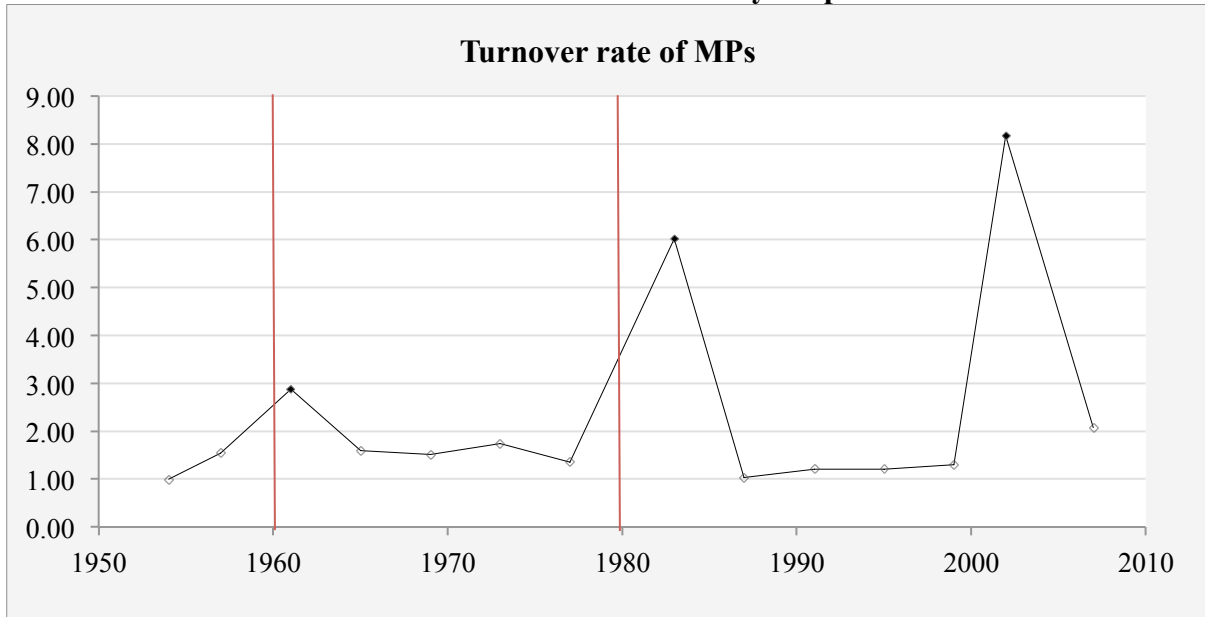


Figure 2. Votes for the incumbent party and provincial per-capita GVA growth: fitted lines (based on the FE and IV results of Table 1, columns 3 and 4). The vertical lines indicate the national vote share average +/- one standard deviation.

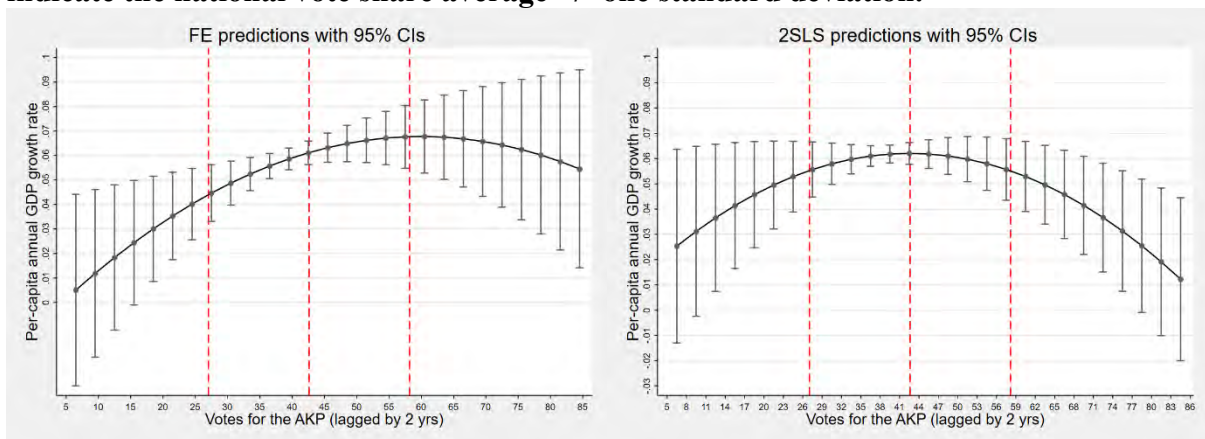


Figure 3. Political business cycle: average effect of votes for the incumbent party on provincial per-capita GVA growth across the electoral cycle

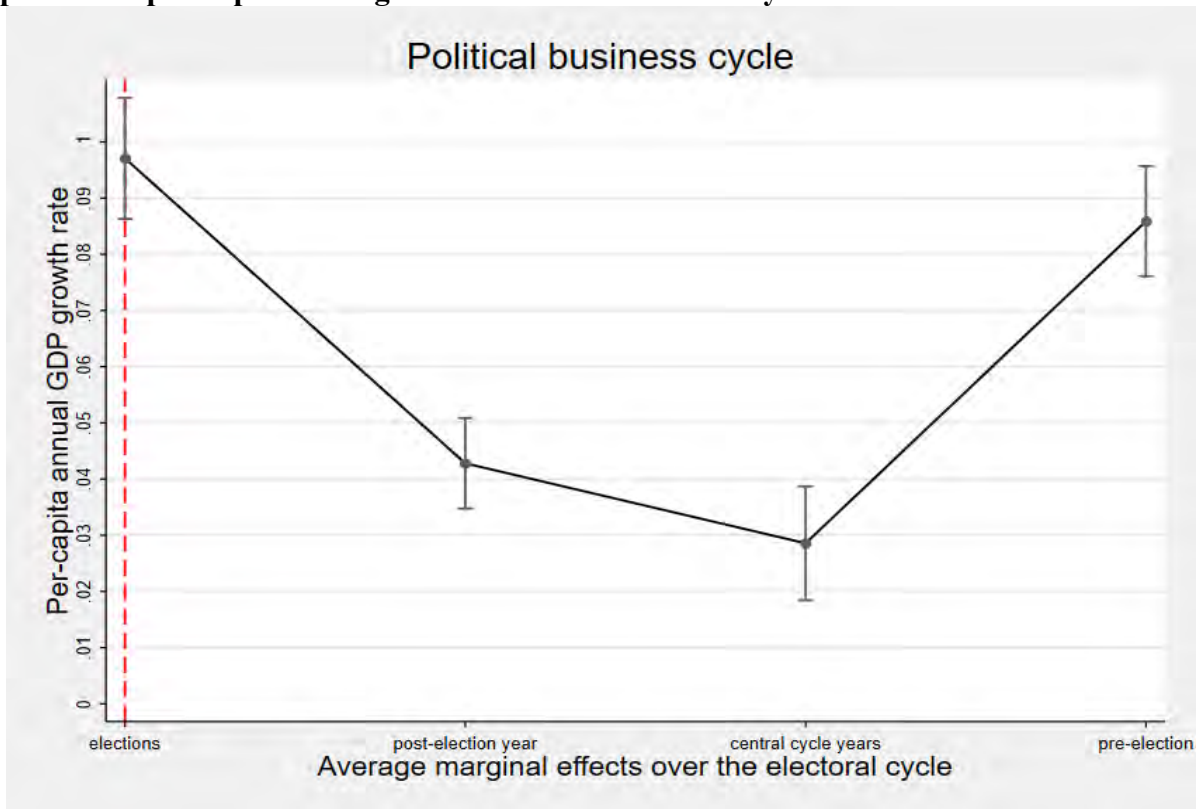
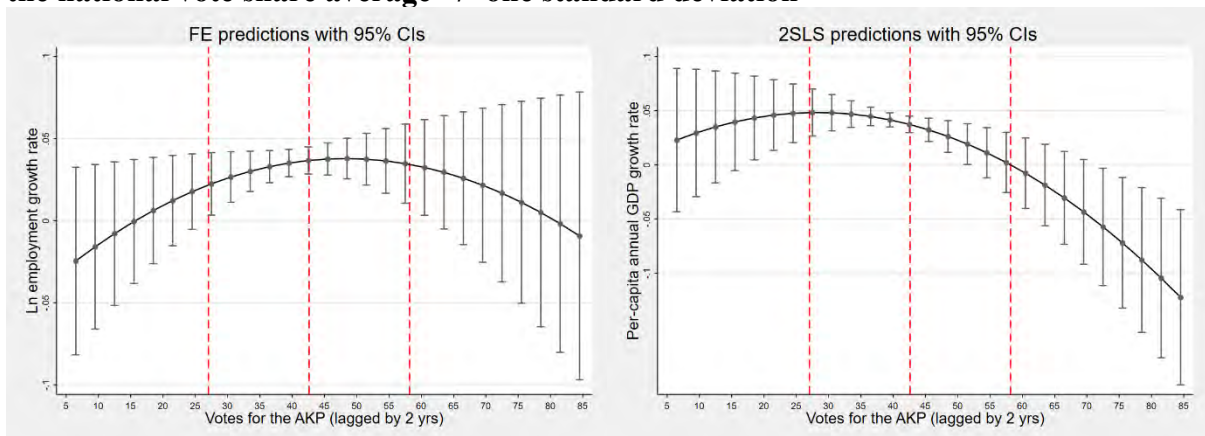


Figure 4. Votes for the incumbent party and provincial employment growth: fitted lines (based on the FE and IV results of Table 3, columns 3 and 4). The vertical lines indicate the national vote share average +/- one standard deviation



Appendix 1

Variables' description and data sources

Variable	Description	Unit	Source
Δ Gross Value Added growth	Annual growth rate of Ln per-capita gross value added (GVA) at 2012 prices.	Percent points	TURKSTAT Regional Database
Δ Employment	Annual growth rate of total employment	Percent points	TURKSTAT Regional Database
AKP	Percentage of votes to the central governing party (AKP) in national elections (2002, 2007, 2011)	Percent points	TURKSTAT Regional Database
Turnout	Turnout to national elections	Percent points	TURKSTAT Regional Database
Population	Total provincial population	1000 people	TURKSTAT Regional Database, OECD
Private investment	Per-capita gross investment in tangible goods by private economic actors	Ln, 1000 TL at 2012 prices	Own calculations on data from TURKSTAT Regional Database
Entrepreneurship	Net annual variation in regional economic units per 1000 inhabitants	Ln count	Own calculation on data from TURKSTAT Regional Database
Public investment	Per-capita fixed capital investments allocated to each province by the central state	Ln, TL at 2012 prices	Own calculation on data from the Ministry of Development
Firm subsidies	Number of investment subsidy certificates annually awarded to private firms per 10.000 inhabitants	Ln count	Own calculation on data from the Ministry of Economy
Public expenditure	Per-capita total public current expenditure allocated to each province by the central state	Ln, TL at 2012 prices	Own calculation on data from the Ministry of Finance

Appendix 2

Summary statistics

VARIABLES	Mean	Standard Deviation	Min	Max
Δ GVA	5.534	6.505	-13.381	30.324
Δ employment	2.745	6.962	-14.152	40.897
AKP	41.800	15.401	6.494	84.825
Turnout	83.037	5.613	61.800	92.800
Population	896.269	1,518.209	65.126	13,992.795
Private Investment	0.928	1.103	-2.367	3.946
Entrepreneurship	0.045	0.090	-0.224	0.250
Public investment	5.180	0.752	1.728	9.542
Investment subsidies	-0.944	0.768	-11.513	0.601
Public expenditure	9.157	0.390	8.241	10.701

Appendix 3

Pairwise correlation coefficients (* p<0.05)

	Δ GVA	Δ Empl.	AKP	Turnout	Pop	Priv. Inv.	Entrepr.	Publ. inv.	Firm subs.	Publ. Exp.
Δ GVA	1.000									
Δ Empl.	0.015	1.000								
AKP	0.041	0.080*	1.000							
Turnout	-0.206*	0.129*	0.175*	1.000						
Pop	-0.076*	0.023	0.021	-0.014*	1.000					
Priv. Inv.	-0.109*	0.106*	0.105*	0.522*	-0.112*	1.000				
Entrepr.	0.098*	-0.279*	-0.232*	-0.226*	-0.014	-0.065	1.000			
Public. Inv.	-0.005	0.095*	0.346*	0.223*	0.080*	0.298*	-0.145*	1.000		
Firm subs.	0.001	0.066	0.329*	0.409*	0.081*	0.313*	-0.111*	0.202*	1.000	
Publ. Exp.	-0.092*	0.111*	0.175*	0.180*	-0.139*	0.207*	-0.176*	0.435*	0.001	1.000

Appendix 4

First-stage regressions of the endogenous electoral variables from Table 1's model 4. Estimates are presented for both the AKP's linear (column 1) and quadratic term (column 2)

	(1) AKP	(2) AKP ²
AKP_IV	1.280** (0.533)	323.248*** (61.031)
AKP_IVb	-0.195 (0.551)	-33.127 (51.455)
AKP_IV ²	-0.013*** (0.003)	-2.098*** (0.378)
AKP_IVb ²	0.001 (0.002)	0.137 (0.171)
Observations	729	729
Adjusted R-squared	0.797	0.739
Prov FE	yes	yes
Year FE	yes	yes
MM dummy	yes	yes
Control	yes	yes

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Constant, controls, and fixed-effects not reported.

Appendix 5

Votes for the incumbent party and provincial per-capita GVA growth: robust FE and 2SLS estimates restricting the panel (2007-2013)

	(1) FE	(2) 2SLS	(3) FE	(4) 2SLS
	2007-2013 panel			
Lagged AKP	0.263** (0.101)	0.241** (0.097)	0.359** (0.145)	0.344** (0.140)
Lagged AKP ²	-0.002** (0.001)	-0.003*** (0.001)	-0.004** (0.001)	-0.005*** (0.001)
Observations	729	729	567	567
R-squared	0.600	0.565	0.730	0.704
First-stage K-P F		10.528		9.727
Hansen J (P-val)		0.214		0.306
Lagged GVA	yes	yes	yes	yes
Prov FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes
Controls	yes	yes	yes	yes

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Lagged GVA, constant, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Appendix 6

Votes for the incumbent party and provincial per-capita GVA growth: robust FE and 2SLS estimates excluding the dynamic component (2004-2013)

	(1) FE	(2) 2SLS	(3) FE	(4) 2SLS
	Excluding lagged GVA			
Lagged AKP	0.263** (0.101)	0.241** (0.097)	0.351*** (0.105)	0.442*** (0.120)
Lagged AKP ²	-0.002** (0.001)	-0.003*** (0.001)	-0.004*** (0.001)	-0.005*** (0.001)
Observations	729	729	729	729
R-squared	0.600	0.565	0.482	0.440
First-stage K-P F		10.528		10.218
Hansen J (P-val)		0.214		0.141
Lagged GVA	yes	yes		
Prov FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes
Controls	yes	yes	yes	yes

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Constant, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Appendix 7

Votes for the incumbent party and provincial per-capita GVA growth: robust FE and 2SLS estimates excluding Ankara, Istanbul, and Izmir (2004-2013)

	(1) FE	(2) 2SLS	(3) FE	(4) 2SLS
	Excluding main economic hubs			
Lagged AKP	0.263** (0.101)	0.241** (0.097)	0.278** (0.106)	0.255** (0.101)
Lagged AKP ²	-0.002** (0.001)	-0.003*** (0.001)	-0.002** (0.001)	-0.003*** (0.001)
Observations	729	729	702	702
R-squared	0.600	0.565	0.599	0.566
First-stage K-P F		10.528		10.921
Hansen J (P-val)		0.214		0.227
Lagged GVA	yes	yes	yes	yes
Prov FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes
Controls	yes	yes	yes	yes

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Lagged GVA, constant, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Appendix 8

Votes for the incumbent party and provincial per-capita GVA growth: robust FE and 2SLS estimates adding, among the controls, private capital investment and entrepreneurship (2004-2013)

	(1) FE	(2) 2SLS	(3) FE	(4) 2SLS	(5) FE	(6) 2SLS
			Censored		Extra controls	
Lagged AKP	0.263** (0.101)	0.241** (0.097)	0.308*** (0.110)	0.252** (0.099)	0.339*** (0.108)	0.267*** (0.101)
Lagged AKP ²	-0.002** (0.001)	-0.003*** (0.001)	-0.002** (0.001)	-0.003*** (0.001)	-0.003** (0.001)	-0.003*** (0.001)
Observations	729	729	648	648	648	648
R-squared	0.600	0.565	0.624	0.583	0.632	0.591
First-stage K-P F		10.528		8.276		8.465
Hansen J (P-val)		0.214		0.215		0.266
Lagged GVA	yes	yes	yes	yes	yes	yes
Prov FE	yes	yes	yes	yes	yes	yes
Year FE	yes	yes	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes	yes	yes
Controls	yes	yes	yes	yes	yes	yes
Extra controls					yes	yes

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Lagged GVA, constant, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6).

Appendix 9

Votes for the incumbent party and provincial per-capita GVA growth: robust FE and 2SLS placebo estimates excluding the time-lag between political regressors and dependent variable (2004-2013)

	(1) FE	(2) 2SLS	(3) FE	(4) 2SLS
			Placebo	
Lagged AKP	0.263** (0.101)	0.240** (0.097)		
Lagged AKP ²	-0.002** (0.001)	-0.003*** (0.001)		
AKP			-0.054 (0.109)	-0.179 (0.134)
AKP ²			0.001 (0.001)	0.001 (0.001)
Observations	729	729	729	729
R-squared	0.600	0.565	0.595	0.558
First-stage K-P F		10.448		14.730
Hansen J (p-value)		0.214		0.343
Prov FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes
Lagged GDP	yes	yes	yes	yes
Controls	yes	yes	yes	yes

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Constant, controls, fixed-effects, and electoral cycle dummies not reported. All explanatory variables are lagged as described in Equation (6).

Appendix 10

Votes for the incumbent party and provincial per-capita GVA growth across the electoral cycle: robust FE and 2SLS estimates (2004-2013). The lower part of the table reports the interactions between the AKP and AKP² coefficients with the electoral cycle dummies (baseline category: election years)

	(1) FE	(2) 2SLS
Lagged AKP	0.592*** (0.164)	0.640*** (0.151)
Lagged AKP ²	-0.006*** (0.002)	-0.007*** (0.002)
Election year*L.AKP	0.0000 (0.0000)	0.0000 (0.0000)
Election year*L.AKP ²	0.0000 (0.0000)	0.0000 (0.0000)
Post-election*L.AKP	-0.144 (0.119)	-0.253** (0.110)
Post-election*L.AKP ²	0.0000 (0.0000)	0.003** (0.001)
Mid-term*L.AKP	-0.672*** (0.225)	-0.772*** (0.222)
Mid-term*L.AKP ²	0.0001*** (0.0000)	0.009*** (0.002)
Pre-election*L.AKP	-0.459*** (0.117)	-0.563*** (0.132)
Pre-election*L.AKP ²	0.0000*** (0.0000)	0.007*** (0.002)
Observations	729	729
R-squared	0.6226	0.588
First-stage K-P F		8.850
Hansen J (p-value)		0.164
Prov FE	yes	yes
Year FE	yes	yes
MM dummy	yes	yes
Lagged GDP	yes	yes
Controls	yes	yes

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Constant, controls, fixed-effects, and electoral cycle dummies not reported. All explanatory variables are lagged as described in Equation (6).

Appendix 11

Votes for the incumbent party, provincial exports, and the location of inward foreign direct investment (FDI): robust FE and 2SLS estimates (2004-2012)

	(1) Tobit	(2) Tobit 2SLS	(3) FE	(4) 2SLS
	FDI		Export	
Lagged AKP	-0.1259 (0.1782)	-0.0155 (0.2369)	0.0446 (0.0564)	0.0183 (0.0672)
Lagged AKP ²	0.0019 (0.0021)	0.0074* (0.0038)	-0.0004 (0.0005)	-0.0000 (0.0006)
Observations	729	729	729	729
R-squared	0.288		0.1147	0.1127
First-stage K-P F		63.020		14.871
Hansen J (P-val)		0.171		0.519
Prov FE	yes	yes	yes	yes
Year FE	yes	yes	yes	yes
MM dummy	yes	yes	yes	yes
Controls	yes	yes	yes	yes

Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Constant, controls, and fixed-effects not reported. All explanatory variables are lagged as described in Equation (6). Columns 1 and 2 are estimated by means of a tobit estimator. Column 1 reports the Pseudo R-squared. Column 2 reports a global first-stage F and the P-value of a Wald test of exogeneity.