Do Synchronised Elections Matter for Electoral Outcomes? Evidence from India

Vimal Balasubramaniam   Apurav Yash Bhatiya   Sabyasachi Das [*]

September 15, 2019

Abstract

Elections for various tiers of government are conducted at different intervals to ensure accountability and legitimacy. While increasing electoral costs and inefficient governance have become dominant themes providing a compelling rationale for some countries to enable synchronised elections, its electoral implications remain unknown. We answer this question by exploiting natural variation in the Indian national and state electoral cycles between 1977-2018. We find that the probability that the same political party wins a parliamentary constituency (PC) and a state assembly constituency (within the PC) increases by 0.096 (22% on a base probability of 0.42) when the national and state elections happen on the same day rather than at different points in time. These synchronised and unsynchronised elections remain no different in terms of turnout and victory margin. We document a reduction in split-ticket voting when elections are synchronised which can potentially explain the result.

1 Introduction

Many countries across the world hold elections for multiple levels of the government on the same day. Examples include United States, Brazil, Sweden, South Africa, Indonesia among others. Importantly, there has been an increasing demand to synchronise elections across tiers of governance in both Europe and India. In the European context, for example, scholars argue that a common electoral cycle for the European parliament and the national governments in European Union (EU) would improve economic recovery by reducing political uncertainty and consequently, delay in policymaking.[1] Similarly in Indian context, the current incumbent government advocates for holding elections for the central government and the state governments on the same day to improve governance and reduce electoral costs. The Law Commission of India entrusted with the responsibility of deliberating on this issue concludes in its report that "holding simultaneous elections would be ideal as well as desirable" in the Indian context (Law Commission of India, 2018).

Considering the presence of synchronised elections in the major electoral democracies in the world, and the vigorous policy debates around this issue in Europe and India, it is surprising to note that academic work examining the political and economic implications of synchronisation of elections is extremely scant. In this paper we address this gap in the literature by examining the political consequences of synchronised of elections in the context of India. We refer to an election in India as synchronised if the national election (or general election, GE) and the state assembly election (AE) occur on the same day. Otherwise we say that the elections are unsynchronised. India is a natural context to study this question because we get natural variation in synchronisation of elections between GE and AE across the states as well as over the years. The electoral cycles of the state governments have not been synchronised with each other since 1970 onwards. This implies that in the year of a GE, only a subset of states are up for their AEs, and hence, can potentially be synchronised.[2] This gives us across state variation in synchronisation. Moreover, the national and state governments sometimes don't complete their full term in office and go for an early election. This may also lead to a change in the status of synchronisation

---

[1]https://voxeu.org/article/reducing-frequency-electoral-cycles-eu-proposal-synchronising-national-and-european-elections

[2]India observes on average 5 state assembly elections in any year.

over time. We use these variations to identify the effect of synchronisation on electoral outcomes. Evidently, the variation in synchronisation is not random. We carefully consider and address each of the endogeneity issues present in the estimation of the treatment effect. We elaborate on these issues in Section 3.1.

Our main outcome variable is defined for a pair of state assembly constituency (AC) and a parliamentary constituency (PC)[3]. It is a dummy that takes value one if the same political party wins the assembly constituency (in the AE) and the parliamentary constituency (in the GE) and zero otherwise. We therefore ask how the probability that same political party wins a seat at the national parliament and the state assembly changes when elections are conducted on the same day as opposed to on different days. We find that synchronisation of elections increases the probability that same political party wins a seat at the parliament and the state assembly by 0.096, which is 22% of the base probability of 0.42, as compared to holding the state assembly elections 180 days after the general elections. We vary the time gap between the elections for the two tiers from 120 days to 270 days, and our estimates range from 0.15 (for 120 days) to 0.082 (for 270 days).

We do a number of robustness regressions to validate our estimation strategy. Among the data sample robustness tests, we restrict our sample to the pre 2008 delimitation period, we include the 180 days election period around the general election dates and we remove those state assembly elections which either got synchronised or unsynchronised with the general elections due to strategic reasons. All three of these robustness tests keep our point estimate significant and in the range from 0.13 (strategic dissolution) to 0.081 (pre- 2008 delimitation period). Additionally for the robustness of our empirical strategy, we include assembly constituency fixed effects, include time-trends for both parliamentary constituency and assembly constituency and perform wild-clustered bootstrapped standard errors. Our main point estimate remains robust to each of these four tests. We discuss the details of these robustness tests with the results in the Section 4

One of the important reason for synchronisation of elections, as highlighted by various stakeholders, is the cost of holding elections. Holding elections separately does have high electoral costs both for the governments to organise the elections and for the political parties to participate in them.[4] Moreover, the electoral costs have been

---

[3]An AC is completely subsumed within a PC. Therefore, each PC has multiple ACs within it.

[4]The most recent General Election in India in 2019 was conducted at a total cost of Rs 50,000

constantly increasing across the world over time. Recurring elections not just imply more monetary cost but also the loss of governance time as politicians focus their time on campaigning and bureaucrats remain occupied with election work as opposed to implementing policies and public projects. The deployment of security forces away from their primary objective for electoral purposes also imposes further costs on the state. Additionally in the Indian context, there is an argument about ineffective governance due to the imposition of model code of conduct prior to elections. The model code of conduct is enforced by the Election Commission of India (ECI)[5] and comes in-effect a month before the elections during which the governments are barred from announcing new policy decisions.[6] This leads to multiple interruptions in policymaking in a state having unsynchronised elections. Moreover, if policymaking in one state has spillovers in other states then having policy interruptions across various states every years due to elections would lead to a much greater negative welfare implication of unsynchronisation.

However, our results show that synchronisation, though may address some of these issues, can also have important implication for the degree of effective decentralisation in India. Both political science and economics scholars have advocated for decentralisation of governments as an effective form of governance though diffusion of responsibility (Rudolph, 2003; Cutler, 2004). Decentralisation becomes even more important in countries which are ethnically and linguistically diverse. The core rationale behind decentralisation of governance lies in the political accountability of elected officials through the checks and balances encoded in the federal structure. Our results suggest that holding elections for various tiers of the government on the same day will weaken the primary motive of decentralisation by having the same party across multiple tiers, and thereby, potentially weakening the federal structure of the states.

Exploring the potential channels of the impact on electoral outcomes, we find the underlying force driving the results is that synchronisation of elections lowers split-ticket voting, i.e., synchronisation leads to the voters voting for the same political party

---

crore or about 7 billion dollars.

[5]ECI is the independent body in-charge of organising elections all across India.

[6]Taking the example of 2019 Indian Elections, the General Elections in April and May 2019 saw the model code of conduct throughout the country for 3 months. Next up, the state assembly elections towards the end of year for Jharkhand, Maharashtra and Haryana would mean the model code of conduct enforced again for 2 months. Thus leading to policy paralysis in effective government functioning.

in both the GE and the AE with a higher probability. We show this by calculating the Euclidean distance between the vector of vote shares of the parties in the PC and the AC.[7] We show that the distance is significantly lower in synchronised elections. This shows that the parties get more similar vote shares in a GE and an AE when they happen on the same day compared to when they happen on different days. This we interpret as evidence for reduction in split-ticket voting. Now, both the supply-side and the demand-side forces could explain the fall in split-ticket voting owing to synchronisation. On the supply-side, political parties maybe homogenising voter information sets when elections are synchronised by having a more similar campaign for the two elections. The political parties could also manage to have a greater engagement with voters on the ground during synchronised elections, since they can economize on campaign resources in a synchronised elections. Both of the factors could align a voter along a single political party for both tiers of election. On the demand-side, it may be cognitively more demanding for voters to rationalize voting for two different parties in the two elections when they have to vote for them at the same time. This may also lead to reduced split-ticket voting in synchronised elections. In future we plan to use respondent-level election surveys to be able to tease out the mechanisms behind these results.

Our papers contributes to a number of fields in both political science and economics literature. In the field of political science, existing literature studies the synchronisation of elections with multiple tiers of government where the elections of national government (often called as first-order elections) are held simultaneously with the regional governments (referred to as second-order election, Reif and Schmitt (1980)). The literature talks about a number of issues in this context. First, there are significant differences in turnout of voters arising from the structural differences in the elections. Second, national issues and national parties dominate the electoral debate away from the regional parties and governments and simultaneous elections thus dishonour the regional level Hooghe et al. (2010); Schakel and Dandoy (2013). Third, the second-order elections are considered inferior and electoral outcomes reflect the politics at the national level (Schakel and Jeffery, 2013).

Analysing the synchronised elections for first-order and second-order across Europe, Romanova (2014) finds that national elections set the tone for elections and

---

[7]We currently restrict attention to parties in the top four positions in either of the elections.

voting was congruent at both tiers of the government. We make the primary contribution here by discussing the electoral implications of holding elections for multiple levels of governments with are both first-order elections[8]. We find similar results on voter congruence while the advantage to national or regional parties remains to be understood. In our context, we find no significant differences in turnout and winner's win margin for both synchronised and unsynchronised elections reflecting equal competitiveness of the elections.

In economics literature, Asher and Novosad (2017) estimate the local economic impact of having representation at the state assembly level by a politician in the ruling party. They find higher private sector employment, higher share prices of firms and increased output as measured by night lights in assembly constituencies with politicians from the ruling parties. Our paper analyses the electoral implications of similar parties across both the central and the state government, while the economic implications still remain unexplored. Similarly, Burgess et al. (2015) analysing Kenyan districts between 1963 and 2011 period find that districts that share the same ethnicity as that of the President receive twice as much expenditure on roads and have five times the length of paved roads built. In the Indian context, Arulampalam et al. (2009) finds the central government behaves opportunistically (aligned and swing states vs unaligned and non-swing states) while disbursing funds to the state governments. This research highlights the significant effects of having mis-aligned representation across decentralised governments on the development outcomes. We contribute to this literature by highlighting an unexplored reason associated with the timing of elections that could lead to same party holding power across tiers of government.

A number of issues still remain open for further research. First, some political scientists also argue that synchronisation of elections would reduce the importance of state level elections and leave no space for regional issues. What implications this would have on the weakening of democracy still remains to be studied. Second, the economic consequences of having the same party at multiple tiers of government are also unknown. While synchronised representation may increase the coordination across decentralised government structure and improve efficiency of governance. It may also lead to lower economic growth through increase in elite capture and corruption. Third, which political parties (national or state vs regional) or incumbent government tend

---

[8]In the European context, the European Union Parliament and the European National Government elections and in Indian context, the Lok Sabha and Vidhan Sabha elections.

to gain from synchronised elections remains to be explored.

In the next section 2 we explain the Indian political context and the electoral data used for analysis. Section 3 explains our empirical strategy. The results are described in section 4 along with a number of placebo checks and robustness tests. Finally section 5 concludes.

2   Context and Data

The national elections or GEs are organised in 543 single-member parliamentary constituencies (PC henceforth) and the state AEs are organised in about 4300 assembly constituencies (AC henceforth). The term for either the central or state governments is 5 years. Therefore, we have a GE or an AE in every 5 years unless there is a premature dissolution of the national parliament or the state assembly. Elections for both PC and AC are conducted using the first-past-the-post voting and the results are declared within 1 week of the end of voting. Moreover, for some GEs and the AEs for a few big states, elections are conducted over multiple phases. Therefore, the actual date of election can vary within a state. The number of constituencies (PCs for GE and ACs for AE) are decided by the Delimitation Commission of India to have equal representation in the government depending on the total population based on the last census.

Our primary source of data is the Election Commission of India reports.[9] The ECI reports for each election comprises of the total votes for each candidate contested, the party affiliations of the candidates, number of nominations filed, the size of electorate, total turnout, number of polling stations and the date of the election. We use the ECI reports cleaned and assembled by the Centre of Monitoring for Indian Economy (CMIE) between 1977 and 2018. The main advantage of using this assembled dataset is the availability of actual date of each election which is crucial for our analysis.

By using the delimitation commission reports[10] of 1973 and 2002 and data assembled by Jensenius (2015), we map each AC to its PC for all elections conducted

---

[9]The Election Commission is a government body in-charge of monitoring and administering all elections in India.

[10]The recommendations of the 1973 delimitation was under the 1972 Delimitation Act and came in force in 1976, while the 2002 delimitation was under the 2002 Delimitation Act and it in force in May 2008 Karnataka assembly elections.

between 1977 and 2018. Our time period begins in 1977 which was the first general election after the 1973 Delimitation Commission recommendations. Since India's independence in 1947, the Indian National Congress (INC) party was in power for almost 2 decades. Historically during the period from 1951 to 1967, the GE and AE were synchronised all across the country. However due to pre-mature dissolution of some state assemblies in 1968 and 1969, the synchronisation cycle got disrupted for the first time.

Synchronised elections are defined as those in which electors in a constituency vote for the AE and GE on the same day. All remaining elections are considered unsynchronised. We ignore all constituency by-elections[11] that lead to a synchronised or an unsynchronised election. In the figure 1, we show the frequency of election pairs (AC-PC pairs) which happened within 1 year of each GE. Synchronised elections are represented in the centre where the gap in GE and AE date is zero; all other election pairs represented in the figure are unsynchronised elections.

3 Empirical Strategy

3.1 Identification

We wish to examine if synchronising elections for different tiers of the government as opposed to conducting them on different dates affects electoral outcomes. Our main identification strategy relies on exploiting the natural variation in the electoral cycles of the states and the central government that led to changes in the synchronisation status of elections. There are two sources of this variation. First, the electoral cycles are different for different states. Therefore, only a subset of states are up for election in the year of a national election, and therefore, can potentially be synchronised. This gives us *across state* variation in synchronisation. Moreover, the central government as well as some state governments failed to complete their full terms in office at various points in our sample period. This led to changes in the synchronisation status of elections as well.[12] This gives us *within state* variation in synchronisation over time.

Understandably, the variation in both kinds are not random. Using across state variation to estimate the treatment effect may lead to biased estimates because

---

[11]By-elections can be organised when an elected member vacates a seat after contesting from multiple seats or when the incumbent dies or resigns or becomes ineligible to continue in office.

[12]Synchronisation status can change because of early dissolution of either the state government or the central government or both.

the states that get synchronised in a given year may be very different from the other states in terms of their nature of political competition or voter preferences. We refer to this as the *cross-sectional* selection problem. To overcome this we compare outcomes within a PC over time by using PC fixed effects. However, within PC variation in synchronisation status is caused by early dissolution of either the state or the central government. If the early dissolution periods are marked by different nature of party politics and generally, more political uncertainty in the constituency relative to other periods, then the electoral outcomes in the same constituency may differ across years of synchronisation and unsynchronisation due to those factors, leading to a *temporal* selection problem. Moreover, the state governments sometimes announce policies close to the assembly election in order to influence the outcome in their favor. If elections are synchronised then the policy announcements might affect the outcome in the national elections as well. Such spillover effects will be absent when the national and state elections happen at different points in time. Additionally, this may incentivize the state government to strategically announce more policies close to assembly election if it is synchronised. Hence, this introduces an additional *spillover* problem in our estimation.

We address the temporal selection and spillover issues by restricting the time gap between national and state elections when they are unsynchronised. Specifically, we remove from the sample the national and state elections which happened more than 180 days apart from each other.[13] Therefore, we now compare the same constituency over time and compare periods when the two elections occurred on the same day (synchronised) to periods when they occurred within 1-180 days of each other (unsynchronised). The timing of elections within such a short time frame is not in the hands of the political parties and is independently decided by the Election Commission. Therefore, it should be equally likely that an early dissolution election becomes synchronised or unsynchronised. If early dissolution periods are characterized by different political environments then such environments are equally likely to be present in both the treatment and control elections as we define them. Moreover, the same restriction deals with the spillover issue as well since the potential spillover from policy announcements by the state government would now affect the unsynchronised elections as well. Here we are implicitly assuming that the state government's policy announcements do

---

[13]We discuss the choice of 180 days as our cut-off point in the next sub-section.

not happen too close to the election. This is likely to be the case due the presence of model code of conduct two months before the date of election, when the incumbent government is barred from announcing any policy. Therefore, our assumption is likely to be valid.

3.2 Estimation

Our main regression specification is:

$$I(\text{Same Party} = 1)_{a,p,s,t} = \mu_p + \mu_t + \gamma I(\text{Sync} = 1)_{s,t} + \beta' X_{a,p,s,t} + \epsilon_{a,p,s,t} \qquad (1)$$

where $I(\text{Same Party} = 1)$ is a dummy variable if the party elected post election at an AC (represented by a) and at the PC (represented by p) is the same. The crucial right hand side variable is $I(\text{Sync} = 1)_{s,t}$ which takes the value 1 if the AE in the state (s) during the GE-year (t) was synchronised with the GE and 0 otherwise. $X_{a,p,s,t}$ includes a vector of controls that consist of dummy for reservation status[14] and the incumbent party[15] for both AC and PC. We include the PC fixed effects (μ_p) to account for unobserved differences across various PCs within each state and allows us to study the outcome variable within each PC. The inclusion of GE year fixed effects (μ_t) further removes any differences particular to each GE. The standard errors are clustered by State-GE Year level and the observations are weighted by the size of electorate for the AC since the electorate numbers change across elections. Therefore, γ identifies how does the probability that the same political party wins both the AC and PC changes if elections are synchronised.

Our main specification includes the AE which happen 180 days after the GE. We do this to test the differences in electoral outcomes taking the GE as the main event. Also, most of the AE than happened within 180 days of the GE happened after the GE. In our robustness exercise we include the AE that happened within 180 days before the GE and show that our results remain the same. Our choice of 180 days gives us enough state assembly elections to obtain statistical power while keeping the least gap in days between GE and AE. While most of the states had a synchronised

---

[14]Both state and central government have seats reserved for the historically disadvantaged SC and ST in proportion to their population in the census. The reservation of the AC and PC are indicated and modified by the independent delimitation commission.

[15]We assign a dummy variable 1 If the party elected in power after the election was same as the party in power before the election for both AC and PC and 0 otherwise.

AE-GE election at some point, not all of them also had an unsynchronised election which happened 180 days after the GE.[16] Thus in our regression estimates we only include those states which had at least one election each of the synchronised and the unsynchronised types. Additionally, we present results for the same specification using the AE which happen within 120, 150, 210, 240 and 270 days after the GE.

One concern with our empirical strategy could be associated with having synchronised and unsynchronised elections happening at different points in time for the same PC. This is unlikely to affect the results because different states had a synchronised or unsynchronised election each with a different GE. As an additional robustness, we include a PC level time-trend variable to account for any observable or unobservable differences between the same constituency over time.[17] We include incumbency of the party at each AC and PC and not the government incumbency to account for heterogeneity in incumbency voting across each constituency.

In the table 1 we provide summary statistics for a number of electoral indicators associated with the AE and how different they are between a synchronised and an unsynchronised election. The most important variables - turnout in the election and win margin do not significantly differ when the elections are separated by 180 days as opposed to holding them on the same day. This implies on average both types of elections are no different in terms of participation of the voters and their competitiveness. Additionally, the turnout of voters is also not significantly different by gender mix of the population.

Synchronised elections do have significantly higher number of nominations filed and the number of actual contestants in the elections is higher and significant only at 10%. The assembly elections almost always see participation of the similar political parties, therefore, the increment in the number of candidates contesting synchronised elections would potentially be driven by the independent candidates. This is not a concern in our analysis as independent candidates have won just about 5% of all AE elections. The cases where independent candidates have won both AC and PC is down to 0.09% in our sample. The number of polling stations is higher for synchronised elections by a very small number and significant only at 10%, since the turnout is the

---

[16]Bihar, Chhattisgarh, Delhi, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Rajasthan and Uttarakhand are the states which never had a synchronised election.

[17]The time-trends are calculated as the gap between the election year for a constituency and the year when we record the constituency for the first time in our dataset.

11

same this is not a big concern. All results, placebo regressions and robustness checks are discussed in details in the next section.

To study the mechanisms behind the results, we look at the gap between the vote shares of the AC and PC winner. Under the assumption that voters preferences do not change in the small time period, the winner of AC and PC should have similar vote shares when elections are synchronised and the gap should increase when elections are unsynchronised. We test if this reduction in split-ticket voting could be the underlying force behind the results. In the equation 2, we use the similar estimation strategy as above and modify the outcome variable as the gap in winner vote share.

$$\text{Winner Vote Share Gap}_{a,p,s,t} = \mu_p + \mu_t + \gamma_1 I(\text{Sync} = 1)_{s,t} + \beta' X_{a,p,s,t} + \epsilon_{a,p,s,t} \quad (2)$$

$$\text{Vote Share Gap}_{pp,a,p,s,t} = \mu_{pp} + \mu_p + \mu_t + \gamma_2 I(\text{Sync} = 1)_{s,t} + \beta' X_{a,p,s,t} + \epsilon_{a,p,s,t} \quad (3)$$

The regression equation 2 will only show the results for all political parties where the winning party could still be different across and within elections. In order to test the vote shares across party lines, we construct a panel of AC-PC pairs for each political party and for each election. Adding fixed effects for political parties in the above estimation strategy, in the equation 3 we now test if political parties also get similar vote shares with synchronised elections and not just the winning party.

4   Results

In this section we discuss evidence that synchronised elections have significantly higher probability of same party winning both AC and PC. We discuss the placebo tests and conduct a number of robustness checks. We also document a reduction in split ticket voting due to synchronisation of elections.

Table 2 presents the regression estimates using the equation 1 for all AE which are held within 180 days after the GE. The estimate on $I(\text{Sync} = 1)$ indicates that synchronised state assembly elections are synchronised have a 8.9 percentage point significantly higher probability of electing the same party at both AC and PC as opposed to holding them within the 180 days after the general election. Subsequent columns add controls for the assembly and parliamentary constituencies which fall under the reserved category and the indicator for party incumbency at both constituencies. In-

cluding a term for PC party incumbency increases the point estimate only slightly with similar statistical significance. All columns include fixed effects for PC and GE-year. The number of state elections which were either synchronised or unsynchronised are included in the bottom of the table. These estimates suggest a 9.6 percentage point (22% on a base probability of 0.42) increase in probability of same party winning both AC and PC when elections are synchronised.

In the table 3, we present the same specification varying the time-distance of the unsynchronised elections. Each column includes the unsynchronised state AE which happened within 'x' days after the GE. Following the main specification as described in equation 1, all regression estimates included fixed effects and clustered standard errors. The point estimate on $I(\text{Sync} = 1)$ indicates that closing the gap between the AE and GE incrementally increases the probability of same party winning both AC and PC. Taking into account generalisability through the number of state elections in the sample (42 in the case of 180 days specification) and the gap in days between AE and GE, we use the 180 days specification as the final specification for the paper.

Next we analyse the robustness of our main 180 days specification to a number of econometric and data sample tests. The table 4 column 1 simply presents the results from our final specification for easier comparison. In order to account for the potential observable and unobservable differences across AC within each PC, in the column 2 we include AC fixed effects in our main specification. This inclusion of additional controls at the AC level only drops the point estimate by 0.5 percentage points. One can argue that there could have been differences across the PC within each State since the synchronised and unsynchronised elections happened at different points in time. To account for such differences at both PC level, in column 3, we interact the constituency fixed effects with a continuous variable denoting the gap in years since the first election for each PC. The inclusion of these time-trends while drops the point estimate by 4.3 percentage points but still maintains significance at 5% level. While there is an almost 50% drop the effect size we do not include time-trends in the main specification because each state had a synchronised election associated with a different GE in the entire time period. Thus any differences associated with having synchronisation over time would be captured through the GE-Year fixed effects.

In our next step on the econometric specification robustness we account for the differences across AC over time by similarly interacting the AC fixed effects with time-

13

trend variable. While the point estimate in the column 4 is very similar to the PC level time trends in column 3 it is not significant. Since we only have on average about 4 state assembly elections for each AC the inclusion of time-trends blows up the standard errors. The main take-away point here is that we don't have enough observations to account for AC time-trends while the effect size still remains similar to the PC time-trends. In the final column we perform a wild clustered bootstrapped standard errors on the number of state assembly elections which either had a synchronised or an unsynchronised election[18]. The point estimate only drops by 0.7 percentage points as compared to our final specification and the effect still remains at about 21% of the base probability.

Next we perform a number of data sample robustness test, the results are presented in the table 5 with the final specification once again in column 1 for easier comparison. Changes in boundaries post 2008 delimitation period could mean we have new AC within each PC and new PC within each state which are not a good comparison group. In column 2, we drop the elections which were conducted with the new boundaries and find the point estimate drops by 1.5 percentage points keeping the effect size at 18% of the new base probability of 0.44. In the column 3 we test our specification without including weights for the state assembly constituency and the point estimate still stay almost the same.

While a majority of the AE happened within the 180 days after the GE, we test if inclusion of state elections within the 180 days interval of each GE affects our point estimate. The results are presented in column 4 where we find this inclusion does not affect our estimates. In the last column 5, we now test if the state elections which were either synchronised or unsynchronisd with the GE while the GE was running its usual 5 year cycle were actually done for strategic reasons by the incumbent. This strategy could either benefit or harm the incumbent depending on the incumbent party at the PC and the overall seat composition of the state. We find exclusion of such strategic state elections which could potentially be endogenous actually increases our point estimates resolving any concerns of bias in our estimates.

Next we test whether the our main results are not driven by chance and actually

---

[18]This column does not include the weights of the state assembly constituency since bootstrapping the sample ignores weights.

hold when synchronisation is randomly varied across different elections[19]. In table 6, we present the results for the 180 days and 210 days specification. These choices are again based on the target of achieving statistical power and keeping the gap between AE and GE to its minimum. The columns in grey show the point estimates when the synchronisation is randomly varied across different state assembly elections, while the plain columns shows the actual point estimates. We find in one random choice of synchronisation, the point estimate becomes insignificant. In the appendix figure B1 we perform 10,000 similar random simulations and check the distribution of t-statistic. We find the t-statistic distribution looks similar to the normal distribution and our actual point estimate (represented by the green line) is well above the 2.63 (1% significance) value. The simulations results confirm our belief that our point estimates were not a result of chance.

We now test how the effect of synchronisation is different if we vary the time period of synchronisation assignment. We want to examine if the effect of synchronisation is driven by voting on the same day as compared to voting in an AE while the GE is in close proximity. To test this we assume all AE held between 30 to 90 days after GE to be synchronised while all AE held between 120 to 180 days after GE to be unsynchronised. The results are presented in table 7, we note that the point estimate on $I(\text{Sync Placebo} = 1)$ disappears. This test confirms that the effect of synchronisation is indeed driven by voting for AE and GE on the same day rather than on different days but closely together.

Exploring the mechanisms, we study if winners get similar vote shares when elections are synchronised. The table 8 reports the results from the estimation equation 2 in the columns 1 and 2. We find synchronisation of elections reduces the gap between winner's vote share at the AC and PC level by 1.5 percentage points (about 25% of the base probability of 0.06). Next, we explore if the results are consistent for votes obtained by all parties and not just the winner. The results from the regression equation 3 are reported in the columns 3 and 4. The party vote share gap is significantly lower during synchronised elections and the effect size is about 33% of the base probability. The results are consistent in both cases with the inclusion of PC level time-trends. These results suggest reduction in split-ticket voting as the primary force driving the electoral outcomes result.

---

[19]The randomisation is kept same within each state and is only done across state election years

5 Conclusion

Both Europe and India are recently going through a clamour of synchronised elections. Both political science and economics literatures have discussed about the issues of synchronising elections where one of the elections is a first-order election and the other is a second-order election. While there is a lack of academic work on examining the political and economic consequences of synchronisation for two first-order elections. In this paper, we address this gap in literature by examining the political consequences of synchronising the general election and state assembly election in the Indian context. Using the natural variation in electoral cycles of both tiers of the governments, we find that the synchronisation of elections increases the probability of the same political party to win a seat at the parliamentary and state assembly constituency by 22% as compared to holding the elections 180 days after the general election. Our paper contributes to the recent debates on this topic which have largely focussed on monetary costs and opportunity costs associated with changing the electoral structure. Further work addressing the mechanisms behind the effects needs to be explored.

References

Arulampalam, W., S. Dasgupta, A. Dhillon, and B. Dutta (2009). Electoral goals and center-state transfers: A theoretical model and empirical evidence from india. *Journal of Development Economics 88*(1), 103–119.

Asher, S. and P. Novosad (2017). Politics and local economic growth: Evidence from india. *American Economic Journal: Applied Economics 9*(1), 229–73.

Burgess, R., R. Jedwab, E. Miguel, A. Morjaria, and G. Padró i Miquel (2015). The value of democracy: evidence from road building in kenya. *American Economic Review 105*(6), 1817–51.

Cutler, F. (2004). Government responsibility and electoral accountability in federations. *Publius: The Journal of Federalism 34*(2), 19–38.

Hooghe, L., G. N. Marks, and A. H. Schakel (2010). *The rise of regional authority: A comparative study of 42 democracies*. Routledge.

Jensenius, F. R. (2015). Development from representation? a study of quotas for the scheduled castes in india. *American Economic Journal: Applied Economics 7*(3), 196–220.

Reif, K. and H. Schmitt (1980). Nine second-order national elections–a conceptual framework for the analysis of european election results. *European Journal of Political Research 8*(1), 3–44.

Romanova, V. (2014). The principle of cyclicality of the second-order election theory for simultaneous multi-level elections. *Politics 34*(2), 161–179.

Rudolph, T. J. (2003). Who's responsible for the economy? the formation and consequences of responsibility attributions. *American Journal of Political Science 47*(4), 698–713.

Schakel, A. H. and R. Dandoy (2013). Conclusion: Regional elections in comparative perspective. In *Regional and National Elections in Western Europe*, pp. 275–299. Springer.

Schakel, A. H. and C. Jeffery (2013). Are regional elections really 'second-order' elections? *Regional Studies 47*(3), 323–341.

Figure 1. Election Pairs by Time Distances
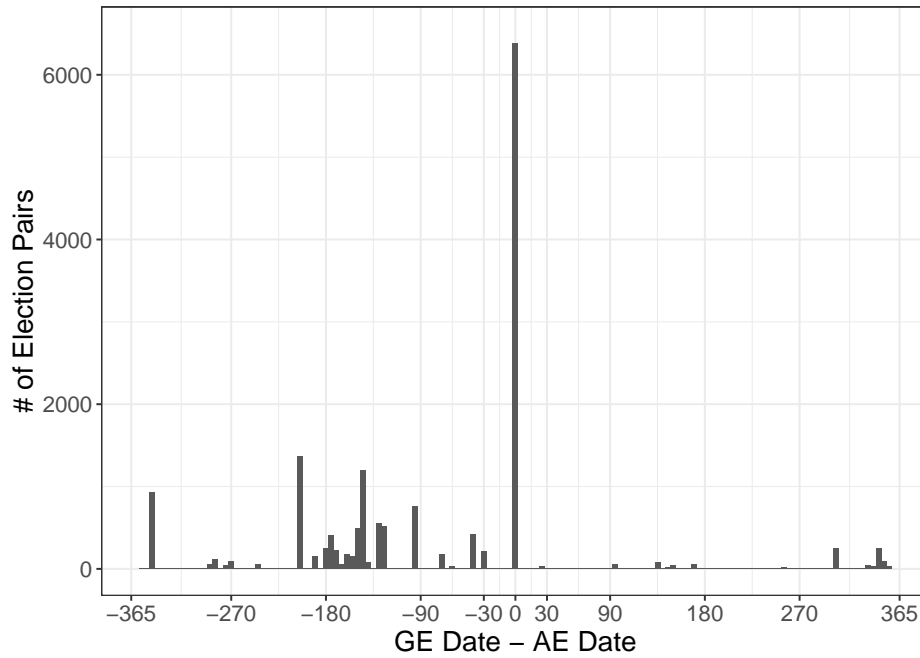
Notes: The figure displays the frequency of AC-PC election pairs with the gap between the GE and AE election date. The synchronised elections are shown in the ones where GE and AE happened on the same day. The rest all are defined as unsynchronised elections. The figure takes all elections conducted between 1977 and 2018.
Source: Election Commission reports assembled by the Centre of Monitoring for Indian Economy (CMIE).

Table 1—Balance Statistics: Assembly Elections

	Unconditional Mean		Regression
	Sync = 1	Sync = 0	Coefficient
Female Contestants	1.351	1.339	0.029
Total Contestants	12.054	9.139	0.187*
Nominations Filed	17.941	15.731	−0.172***
Number of Polling Stations	184.470	179.989	−0.026*
Turnout Female	0.573	0.547	0.010
Turnout Total	0.602	0.587	0.002
Win Margin	0.083	0.088	-0.011
N	2566	3608	

Notes: The column 3 presents regression coefficient for each outcome variable on synchronisation and controls for reservation status for each constituency and party incumbency. The control group includes unsynchronised assembly elections which happen within 180 days after the general election. The regression includes parliamentary constituency fixed effects and GE-Year fixed effect. Standard errors are clustered at the State-GE Year level. The estimates are weighted by the size of electorate for the state assembly constituency. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 2—Main Results 1 (180 Days)

	Dep. Variable: I(Same Party = 1)			
I(Sync = 1)	0.089***	0.089***	0.089***	0.096***
	(0.029)	(0.029)	(0.032)	(0.036)
AC Reserved		0.025*	0.029*	0.029*
		(0.015)	(0.017)	(0.016)
PC Reserved		−0.008	−0.058	−0.049
		(0.075)	(0.080)	(0.080)
AC Party Incumbent			0.087**	0.083**
			(0.041)	(0.042)
PC Party Incumbent				0.029
				(0.029)
PC FE	Yes	Yes	Yes	Yes
GE-Year FE	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.42	0.42	0.42	0.42
Number AE	42	42	42	42
Observations	6,505	6,505	6,299	6,174

Notes: Standard errors are clustered at the State-GE Year level. The estimates are weighted by the size of electorate for the AE constituency. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 3—Main Results 2 (Various Time-Distances)

	Dep. Var.: I(Same Party = 1)					
	120 days	150 days	180 days	210 days	240 days	270 days
I(Sync = 1)	0.150**	0.163***	0.096***	0.094***	0.094***	0.082**
	(0.068)	(0.051)	(0.036)	(0.033)	(0.033)	(0.039)
AC Party Incumbent	0.175***	0.079	0.083**	0.085**	0.085**	0.083**
	(0.045)	(0.054)	(0.042)	(0.037)	(0.037)	(0.037)
PC Party Incumbent	0.089	0.041	0.029	0.023	0.023	0.009
	(0.060)	(0.037)	(0.029)	(0.029)	(0.029)	(0.032)
AC Reserved	0.060*	0.035**	0.029*	0.039**	0.039**	0.037**
	(0.036)	(0.014)	(0.016)	(0.016)	(0.016)	(0.016)
PC Reserved	0.182	−0.093	−0.049	−0.095	−0.095	−0.093
	(0.383)	(0.327)	(0.080)	(0.059)	(0.059)	(0.059)
PC FE	Yes	Yes	Yes	Yes	Yes	Yes
GE-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.48	0.47	0.42	0.39	0.39	0.39
Number AE	19	33	42	52	52	56
Observations	1,849	5,024	6,174	7,007	7,007	7,217

Notes: Each column includes unsynchronised assembly elections which happen within 'x' days after the general election. The control variables are for the reservation status of the constituency and incumbent party for assembly and parliamentary constituency. Standard errors are clustered at the State-GE Year level. The estimates are weighted by the size of electorate for the AE constituency. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 4—Robustness: Econometric Specification

	Final	AC FE	PC Time Trends	AC Time Trends	C. B. SE
	Dep. Var.: I(Same Party = 1)				
	(1)	(2)	(3)	(4)	(5)
I(Sync = 1)	0.096***	0.091**	0.053**	0.049	0.089***
	(0.036)	(0.038)	(0.023)	(0.030)	(0.037)
Controls	Yes	Yes	Yes	Yes	Yes
Weights	Yes	Yes	Yes	Yes	No
Fixed Effects	PC	AC	PC	AC	PC
FE x Time-Trends	No	No	Yes	Yes	No
GE-Year FE	Yes	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.42	0.42	0.42	0.42	0.42
Number AE	42	42	42	42	42
Observations	6,174	6,174	6,174	6,174	6,174

Notes: Column 1 presents the final specification for robustness comparison. Column 2 includes the Assembly Constituency fixed effects. Column 3 includes an interaction of time-trends with the Parliamentary Constituency fixed effects. Column 4 includes an interaction of time-trends with the Assembly Constituency fixed effects. Standard errors are clustered using wild clustered bootstrap at the State-GE Year level for the column 5 without weights. For the remaining columns the standard errors are clustered at the State-GE Year level. The fixed effects are for Parliamentary/Assembly Constituency as indicated and GE Year. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 5—Robustness: Data Sample

	Final	Pre 2008 Delimitation	Without Weights	-180 to +180	Strategic Dissolution
	Dep. Var.: I(Same Party = 1)				
	(1)	(2)	(3)	(4)	(5)
I(Sync = 1)	0.096***	0.081**	0.089**	0.098***	0.132***
	(0.036)	(0.037)	(0.037)	(0.035)	(0.034)
Controls	Yes	Yes	Yes	Yes	Yes
PC FE	Yes	Yes	Yes	Yes	Yes
GE-Year FE	Yes	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.42	0.44	0.45	0.42	0.42
Number AE	42	35	42	54	40
Observations	6,174	5,527	6,174	6,516	5,934

Notes: Column 1 presents the final specification for robustness comparison. Column 2 subsets the elections to only the pre 2001 delimitation constituency boundaries. The 2001 delimitation was actually first implemented in May 2008 Karnataka elections. The estimates are weighted by the size of electorate for the AE constituency except for column 3. The column 4 takes into account all unsynchronised state assembly elections which happen within 180 days of the general election. The column 5 drops those state assembly elections which got synchronised or un-synchronised apart from its normal cycle conditional on the general elections following its usual 5 year cycle. The fixed effects are for Parliamentary Constituency and GE Year. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 6—Placebo: Random Treatment Assignment

| | Dep. Variable: I(Same Party = 1) | | | |
	180 days	180 days	210 days	210 days
I(Sync = 1)	0.096***	−0.099	0.094***	−0.062
	(0.036)	(0.075)	(0.033)	(0.042)
Controls	Yes	Yes	Yes	Yes
PC FE	Yes	Yes	Yes	Yes
GE-Year FE	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.42	0.42	0.39	0.39
Number AE	42	42	52	52
Observations	6,174	6,174	7,007	7,007

Notes: The synchronisation is randomly varied across different state assembly elections. The columns in grey shows the point estimate for 1 randomly varied sample. We also perform 10,000 random simulations and check the t-static distribution. Standard errors are clustered at the State-GE Year level. The control variables are for the reservation status of the constituency and incumbent party for assembly and parliamentary constituency. The estimates are weighted by the size of electorate for the AE constituency. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 7—Placebo: Treatment Assignment to Different Time Period

| | Dep. Variable: I(Same Party = 1) | |
	-30 to -90 vs -120 to -180	-60 to -120 vs -120 to -180
I(Sync Placebo = 1)	−0.010	−0.004
	(0.054)	(0.067)
Controls	Yes	Yes
PC FE	Yes	Yes
GE-Year FE	Yes	Yes
Mean Dep. Var.	0.42	0.45
Number AE	40	65
Observations	4,301	4,993

Notes: The -30 to -90 vs -120 to -180 column assumes the elections held within 30 and 90 days after the general election to be synchronised and the elections held within 120 to 180 days to be unsynchronised. Standard errors are clustered at the State-GE Year level. The estimates are weighted by the size of electorate for the AE constituency. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Table 8—Vote Share Gap Results

	Dep. Variable:			
	Gap Winner Vote Share		Party Vote Share Gap	
	(1)	(2)	(3)	(4)
I(Sync = 1)	−0.015***	−0.015***	−0.010***	−0.010***
	(0.002)	(0.002)	(0.001)	(0.001)
Controls	Yes	Yes	Yes	Yes
Party FE	No	No	Yes	Yes
PC FE x Time-Trends	No	Yes	No	Yes
PC FE	Yes	Yes	Yes	Yes
GE-Year FE	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.06	0.06	0.03	0.03
Number AE	42	42	42	42
Observations	6,036	6,036	13,229	13,229

Notes: Column 2 and 4 includes parliamentary constituency level time-trends. Standard errors are clustered at the State-GE Year level. The control variables are for the reservation status of the constituency and incumbent party for assembly and parliamentary constituency. The estimates are weighted by the size of electorate for the State assembly constituency. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Online Appendix

Table A1—Results with Time Trends

	Dep. Var.: I(Same Party = 1)					
	120 days	150 days	180 days	210 days	240 days	270 days
I(Sync = 1)	0.396*	0.051	0.053**	0.051**	0.051**	0.042
	(0.238)	(0.045)	(0.023)	(0.022)	(0.022)	(0.031)
AC Party Incumbent	0.172***	0.102**	0.103***	0.108***	0.108***	0.105***
	(0.047)	(0.047)	(0.034)	(0.031)	(0.031)	(0.030)
PC Party Incumbent	−0.075***	−0.012	0.004	−0.004	−0.004	−0.017
	(0.005)	(0.037)	(0.027)	(0.027)	(0.027)	(0.031)
AC Reserved	0.060	0.040***	0.032*	0.041**	0.041**	0.038**
	(0.037)	(0.015)	(0.017)	(0.017)	(0.017)	(0.017)
PC Reserved	−0.852***	−0.567	−0.038	−0.051	−0.051	−0.045
	(0.203)	(0.361)	(0.117)	(0.123)	(0.123)	(0.120)
PC FE x Time-Trends	Yes	Yes	Yes	Yes	Yes	Yes
GE-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Mean Dep. Var.	0.48	0.47	0.42	0.39	0.39	0.39
Number AE	19	33	42	52	52	56
Observations	1,849	5,024	6,174	7,007	7,007	7,217

Notes: Each column includes unsynchronised assembly elections which happen within 'x' days after the general election. The control variables are for the reservation status of the constituency and incumbent party for assembly and parliamentary constituency. Standard errors are clustered at the State-GE Year level. The estimates are weighted by the size of electorate for the AE constituency. ***, **, and * indicate significance at the 1, 5, and 10 percent critical level.

Figure B1. Simulations Study: 180 Days
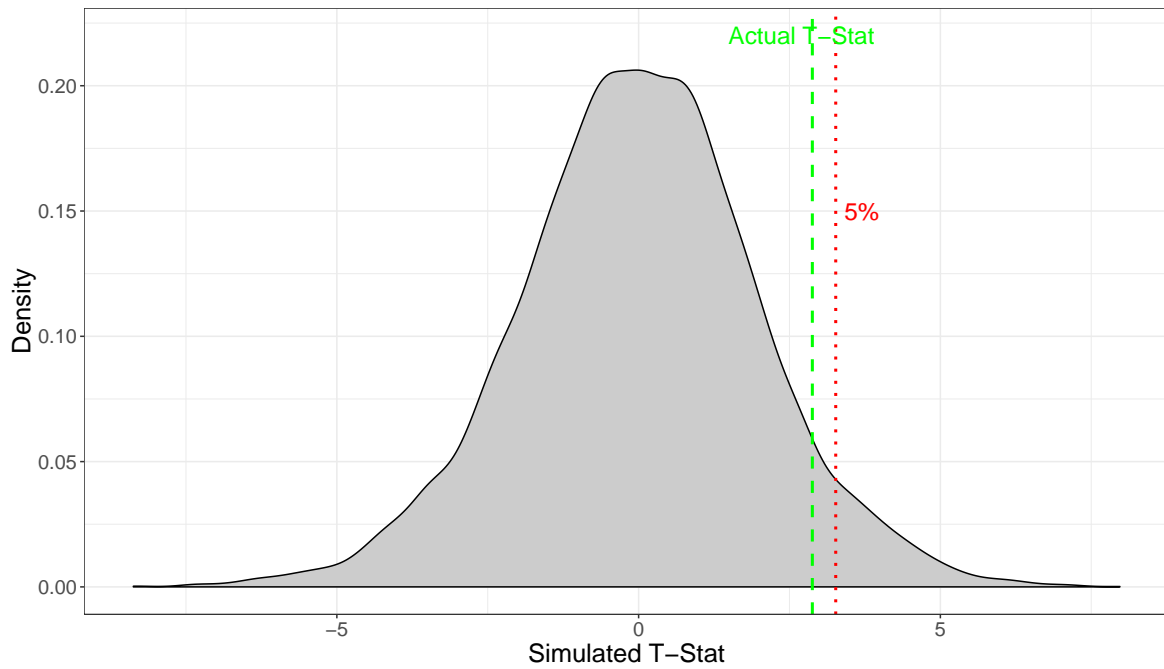
Notes: The figure distribution of t-statistics when we perform 10,000 simulations of synchronisation randomly varied across different state assembly elections. The green line shows the actual point estimate. The curve in the red line shows a simulated normal distribution from the similar sample. The dotted lines denote significance at 1% (2.63) and 5% (1.96) respectively.