

# The Political Impact of Economic Shocks: Evidence from India's 2016 Demonetization\*

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## Abstract

What are the political consequences of economic shocks? We argue that economic shocks have distributional consequences, and draw on the economic voting literature to suggest that voters should condition their vote on these. We examine whether this is the case in a high profile instance, by tracing the impact of the deliberate and sudden demonetization of 86% of India's currency in 2016. We show, using difference-in-difference and instrumental variables analyses, that the negative economic impact of demonetization was felt most acutely in relatively “unbanked” areas, where households and businesses lack access to the formal financial system and are most cash-dependent. Further, the BJP, the incumbent party that implemented demonetization, was penalized the least in relatively unbanked districts where people were economically hurt the most. In other words, voters failed to punish the government for the large and deliberate negative economic shock inflicted on them. We explore the mechanisms that might explain this important and understudied anomaly in the literature on voting.

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How do voters respond to economic shocks? In the wake of a decade of financial crises, recessions, and trade and exchange rate shocks, this has become one of the most important questions in political science. A wave of recent studies has shown that financial crises (Ahlquist, Copelovitch and Walter forthcoming; Crespo-Tenorio, Jensen and Rosas 2014; Funke, Schularick and Trebesch 2016; Guiso et al. 2019; Hernández and Kriesi 2016; Lindvall 2014) and trade shocks (Autor et al. 2016; Colantone and Stanig 2018; Dippel, Gold and Heblich 2015) can substantially influence electoral politics in democracies. Yet while the connection between economic shocks and domestic politics is well-established in the literature, scholars continue to hotly debate the degree to which voters' preferences and voting behavior reflect material interests or ideological and identity-based factors (Bearce and Tuxhorn 2017; Bechtel, Hainmueller and Margalit 2014; Curtis, Jupille and Leblang 2014; Fernández-Albertos and Kuo 2016; Margalit 2012; Walter et al. 2018).

In the study of voter behavior, the dominant paradigm conceives of voters as rational agents who vote retrospectively, punishing incumbents for poor performance and rewarding them for successes (Key 1966). The degree to which voters respond in such a way is thought to be dependent on a number of factors, including the institutional context (Duch and Stevenson 2008; Lewis-Beck 1990), the availability of information (Ferejohn and Kuklinski 1990), and voters' cognitive constraints (Anderson 2007).<sup>1</sup> Other works dismiss this intellectual edifice, arguing that individuals think of themselves as being a part of identity-based social groups, associate those groups with particular political parties, and therefore vote for the party with which their group is associated (Achen and Bartels 2016; Lenz 2013). This approach is consistent with a substantial literature in comparative politics, which views vote choice across the developing world as being driven by ethnicity (Chandra 2007).<sup>2</sup>

In this paper, we focus on a large and important negative economic shock, the case of India's sudden and rapid demonetization in 2016, asking what the effects of demonetization have been on the support for the Bharatiya Janata Party (BJP), the party of demonetization. On November 8,

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<sup>1</sup>A related literature emphasizes the role of elections in allowing voters to select rather than sanction politicians (Ashworth 2012; Fearon 1999).

<sup>2</sup>The literature on India finds evidence for both economic and identity-based voting (Chandra 2007; Suri 2009), with some arguing that the economic vote has become particularly important since the 2000s (Vaishnav and Swanson 2015). That said, in India as elsewhere, voters do not always reward incumbents for performance (Goyal 2019).

India's Prime Minister, Narendra Modi, announced the sudden demonetization of 86% of India's cash in circulation. With immediate effect, the two largest notes in India, the Rs. 500 and Rs. 1,000 bills were deemed to no longer be legal tender, except for a handful of specific exceptions (**Ministry of Finance 2017**, 53). Holders of demonetized currency had until December 30 to deposit these notes into banks and receive new ones. By August 2017, 99% of demonetized notes had been exchanged for new, legal tender.

As with most monetary and financial shocks—such as currency crashes, sovereign defaults, or banking crises—the 2016 demonetization simultaneously hit the entire Indian economy and had distributional consequences. Unlike most previous negative shocks, however, Modi's demonetization was an intentional policy decision taken suddenly and in the absence of adverse economic conditions. Moreover, it was a shock that the Modi government actively took credit for initiating. This stands in marked contrast to most monetary and financial shocks, where governments rush to blame others for the economic upheaval. These characteristics—a monetary shock deliberately triggered and embraced by an incumbent leader/government, in the complete absence of economic or market pressures to do so—make the 2016 demonetization an excellent case for studying the political consequences of economic shocks. Indeed, unlike financial or currency crises or long-term trends in trade patterns such as the “China shock,” the responsibility for the demonetization shock and its precise timing are both crystal clear.

In both his initial announcement and subsequent speeches, Prime Minister Modi and his surrogates offered a variety of reasons for pursuing demonetization. The most prominent of these was rooting out “black money”—income not declared to the tax authorities. One year on, the Modi government declared victory in accomplishing its policy goals. According to the Prime Minister's numerous speeches and website, demonetization provided a “massive cleaning of India's financial system” and led to an “unprecedented increase in tax compliance.”<sup>3</sup> The Modi government also touted demonetization's benefits in moving India toward a more formal and digital economy, which it claimed would enhance job opportunities for the poor and accelerate India's economic de-

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<sup>3</sup>See <http://www.narendramodi.in/category/infographics>, accessed November 9, 2017.

velopment.<sup>4</sup> Early in the process, demonetization was seen by some as an opportunistic fiscal grab by the government, since any notes not deposited could have reduced the central bank's liabilities, and increased its dividends to the central government.

Scholars and observers remain skeptical that demonetization has achieved these stated goals. Since 99% of the Rs. 500 and Rs. 1,000 notes were exchanged, the government saw little to no fiscal gain from demonetization, and it is not yet clear that levels of corruption, terrorism, or tax evasion have changed.<sup>5</sup> This is perhaps unsurprising, since demonetization did little to address longer-term, structural incentives for actors in the Indian economy to engage in corruption. Nonetheless, demonetization had a substantial and immediate impact on the Indian economy. In the two months following demonetization, the Indian money supply halved. This led to a sharp drop in economic activity and job losses throughout the country.<sup>6</sup> The immediate negative economic impacts of demonetization have been confirmed by several academic analyses (Aggarwal and Narayanan 2017; Banerjee and Kala 2017), and are thought to have been particularly concentrated in the more cash dependent rural, agricultural and informal economies. A particularly credible estimate of the the economic effects of demonetization suggests that the economy contracted by 2 percentage points in the quarter after demonetization (Chodorow-Reich et al. 2020). Thus, while it is possibly too soon to know whether demonetization will achieve the broader structural development goals of the Modi government noted above, it is clear that demonetization had an immediate, substantial negative impact on the Indian economy.

How did voters respond to the negative economic shock of demonetization? To develop our theoretical expectations of how voters might respond, we focus on the substantial distributional implications of economic shocks and argue that the variation in the magnitude of the shock experienced by voters induces variation in the voter response to the shock. The economic, retrospective voting literature (Duch and Stevenson 2008; Key 1966) suggests that Prime Minister Modi's BJP would perform worse in areas hit hardest economically by demonetization. This is particularly

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<sup>4</sup>Ibid.

<sup>5</sup>"India Demonetisation Failed to Purge Black Money," *Financial Times*, August 31, 2017.

<sup>6</sup>Amy Kazmin, "One Year On, Jury Is Still Out On India's 'Black Money' Ban," *Financial Times*, November 7, 2017.

the case since the BJP clearly and proudly took responsibility for demonetization, so voters will have had no problem attributing the effects of demonetization to the party. An alternative literature suggests a variety of non-material and psychological reasons why voters might fail to penalize the BJP, despite the adverse economic effects of demonetization (Achen and Bartels 2016; Healy and Malhotra 2013). In particular, Indian voters might have been swayed by the BJP's framing of demonetization as a part of a broader anti-corruption drive. That said, our strongly-held priors were that the BJP would be penalized for demonetization, due to the apparent and severe negative economic effects of demonetization and since the BJP proudly claimed ownership over the policy.

We argue that the economic impact of India's 2016 demonetization was likely to be felt most in relatively "unbanked" areas, where households and businesses operate overwhelmingly in the informal economy, are most dependent on cash, and lack access to financial intermediation. In these areas, converting 500 and 1,000 rupee notes into new, legal denominations was most difficult and time-consuming. Further, individuals and firms in these districts have poorer access to credit, which will have made it difficult to smooth economic activity (consumption and investment) in response to the shock.<sup>7</sup> In other words, the financial system had a substantial role to play in the transmission of the economic shock. Using new, micro-level and high frequency economic data we confirm that investment activity did indeed reduce after demonetization, and that this was particularly the case in relatively unbanked districts. Other studies have confirmed this pattern using nightlights data, which is reflective of consumption rather than investment.

To examine the political effects of demonetization, we then analyze how the BJP performed in the first state elections after demonetization. Since these elections were held soon (3–4 months) after demonetization, even myopic voters "ought" have punished the Modi government for demonetization (Healy and Malhotra 2009). Consistent with theories of retrospective voting, we find that the BJP's vote share slightly declined after demonetization. To statistically identify the effects of demonetization due to banking, we use difference-in-difference and instrumental variables estimators. These suggest the BJP was penalized the least in districts with few bank branches, whereas its support declined in districts with many branches. In other words, the districts that were the hardest

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<sup>7</sup>For evidence on the role of Indian banks in the development process, see Burgess and Pande (2005).

hit by demonetization failed to punish the BJP, even as less hard hit districts reduced their support for the BJP. In additional tests, we explore the reasons for this theoretically anomalous result.

Our paper joins a number of works in noting that voters may at times fail to behave in a manner consistent with the theory of retrospective voting. To see how this paper fits in with these works, consider the typology of the literature presented in Figure 1. On one dimension, we note that politicians vary in the degree to which they are responsible for positive or negative economic shocks. On the other dimension, voters condition or fail to condition their vote on the state of the world, which the politician might or might not have affected. This yields four possible outcomes: 1) voters reward or punish politicians when they “should” (that is, when politicians are responsible for a shock); 2) voters do not reward or punish politicians when they “should”; 3) voters punish politicians when they “should not” (that is, when there is no shock, or politicians are not responsible for a shock); and 4) voters do not punish politicians when they “should not.” The studies in cells 1 and 4 are consistent with theories of retrospective voting, while those in cells 2 and 3 are anomalous. Works in cell 1 show that voters reward politicians that perform well, and punish those that do not.<sup>8</sup> Those in cell 4 confirm that voters do not condition their vote for events out of their politicians’ control, such as natural disasters. Cell 3 has studies that show that voters are swayed by “irrelevant” facts such as football games (Healy and Malhotra 2013) and shark attacks (Achen and Bartels 2016), although the latter finding is disputed (Fowler and Hall 2018). Cell 2, which is where this paper falls, is underpopulated, possibly due to the by now well-known bias against the publication of null results. It contains studies showing that voters fail to punish (or reward) politician performance when retrospective voting theory suggests that they should. One recent study in this vein is Boas, Hidalgo and Melo (2019), which shows that although voters punish corrupt politicians in abstract survey experiments, they fail to do so in real world field experiments.

The remainder of the paper proceeds as follows. First, we discuss the incidence of demonetization across the world and in India in particular. Second, we explain how predetermined variation in bank branches, some of which was policy-induced, allows us to statistically identify variation in

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<sup>8</sup>Recent works point to the importance of expectations in conditioning this result (Briggs 2019; De Kadt and Lieberman forthcoming).

Figure 1: A typology of the literature on retrospective voting

<i>Politicians are...</i>	<i>Responsible</i>	<i>Not responsible</i>
<i>Rewarded/punished</i>	Economic or retrospective voting literature (Key 1966; Lewis-Beck 1990)	Sharks/football games (Achen and Bartels 2016; Healy, Malhotra and Mo 2010)
<i>Not rewarded/punished</i>	This paper, some of the literature on corruption (Boas, Hidalgo and Melo 2019)	Natural disasters that are prepared or compensated for (Cole, Healy and Werker 2012; Healy and Malhotra 2009)

*Notes:* Works in shaded cells are inconsistent with standard theories of retrospective voting.

the economic and political effects of demonetization as bank branches vary. We then present our empirical analyses illustrating the economic and political impact of demonetization at the district-level in India. Finally, we conclude by considering the reasons why voters’ materially harmed by demonetization were more likely to support the BJP in these elections. Ultimately, our analysis suggest that the 2016 Indian demonetization had substantial distributional and political effects, and further that its political effects were contrary to the leading theory of economic voting.

## 1 Demonetization in India and elsewhere

Demonetization is an occasional occurrence across the world. One type of demonetization is a sudden change in the money supply in conjunction with hyperinflation, political unrest, or war. These episodes are large, destabilizing shocks to the economy, as in the case of the famous interwar hyperinflation in Weimar Germany (1922–23), Zimbabwe in the last two decades, and Myanmar (1987), where the military government actually triggered massive inflation through a sudden and poorly-planned demonetization program.<sup>9</sup> The second variety of demonetization is the more gradual, planned removal of certain notes and denominations. As in the Indian case, the rationale for this has frequently been to target “black money” and fight corruption and tax evasion. Singapore in 1945, Ghana in 1982 and Australia in 1996 all had slower, planned demonetizations. The Eurozone is also in the process of a gradual, planned demonetization of the 500 Euro note, aimed at fighting

<sup>9</sup>Rahul Menon, “Demonetisation: Zimbabwe, Myanmar, and the USSR have been there, done that, and screwed themselves over,” *Quartz*, November 25, 2016.

illicit activity.<sup>10</sup> Gradual demonetizations of this variety, however, are often implemented for other reasons, including a change in the exchange rate regime. For example, the old notes of Eurozone member-states that remained in circulation at the outset of EMU were eventually demonetized in 2002. Similarly, the United States underwent demonetization in 1873, when the government mandated the removal of silver as legal tender once it adopted the classical gold standard.

The Indian demonetization of 2016 was the third demonetization episode in India's history.<sup>11</sup> The first demonetization took place in 1946, prior to India's independence from Great Britain. The Rs 1,000, Rs 5,000, and Rs 10,000 notes were removed from circulation. A second, similar initiative took place in 1978, 24 years after the small notes had been reintroduced. In both cases, as today, the government cited removal of "black money" as a key reason for demonetization.<sup>12</sup> These past cases only affected a small proportion of the population, because so few people had the notes. Moreover, both past instances were gradual processes, involving announcements and subsequent legislative ordinances.

Past cases of demonetization, in India and elsewhere, have either occurred suddenly under "abnormal" political and economic circumstances, or gradually in "normal" times. In marked contrast, the 2016 Indian demonetization was an intentional, large, self-inflicted policy shock, for which the Modi government eagerly claimed responsibility, despite its clear and negative impact on the Indian economy. Indeed, several features set the 2016 demonetization apart from its Indian predecessors and cases in other countries. As we explain below, each of these features helps us examine the effects of demonetization.

First, the Indian demonetization of 2016 was a rare episode of "demonetization in normal circumstances" (Subramanian 2017). India was not experiencing any financial crisis, economic shock, or political upheaval typically associated with demonetization, each of which could confound estimates of the effects of demonetization had they occurred. Second, the 2016 Indian demonetization was implemented suddenly, in a previously unannounced speech by Prime Minis-

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<sup>10</sup>Jack Ewing, "Europe to Remove 500 Euro Bill, the 'Bin Laden' Bank Note Criminals Love," *New York Times*, May 4, 2016.

<sup>11</sup>Ananya Bhattacharya, "A brief history of India pulling bank notes from circulation," *Quartz*, November 8, 2016.

<sup>12</sup>"Currency recall version 3.0 also has same story to tell," *The Hindu*, November 10, 2016.

ter Modi, rather than through the adoption of administrative ordinances or a prolonged period of public planning and debate. The fact that demonetization was a surprise means that voters will have been unable to anticipate demonetization. Third, unlike the 1946 and 1978 episodes in India, this was also the first time demonetization affected a wide swath of the population, given the widespread use of the demonetized notes. Fourth, in stark contrast to most monetary or financial shocks—such as a large interest rate increase (e.g., the Volcker shock in the US in 1980–82) or a sudden exchange rate realignment (e.g., the Swiss franc revaluation of January 2015)—the 2016 demonetization did not substantially affect the aggregate money supply in India in the medium term. In the immediate aftermath of Modi’s announcement, this was not known. The government did not know what share of demonetized notes would ultimately be deposited at banks, and it had only prepared 25% of the replacement notes in advance. Consequently, the days and weeks after November 8 saw large-scale cash shortages and runs on ATMs. Observers worried about severe impacts to the Indian economy, given that the primary medium of exchange had been destroyed. India is one of the most cash-dependent economies in the world: 80-90% of labor is in the informal sector, and 98% of transactions (68% of value) in India take place in cash (PricewaterhouseCoopers 2015; Subramanian 2017). By comparison, 55% of transactions in the US take place in cash (14% of value). Analysts therefore worried that economic activity, at both the micro- and macro-level, would be substantially and adversely affected by demonetization.

Finally, perhaps the most unique feature of the 2016 Indian demonetization is that it was a massive shock that can clearly be assigned to a party/government and its leader. In contrast to past shocks, such as the Great Depression, banking/financial crises, or sovereign defaults, the public could easily identify exactly who was responsible for the shock. Indeed, the Modi government actively took credit for demonetization, in contrast to most governments in times of economic shock, which actively seek to deflect blame and avoid taking responsibility for the effects of a monetary or financial upheaval. Combined with the 2017 state-level elections that followed directly in the aftermath of the 2016 demonetization in India, this presents us with a unique opportunity to assess the economic and political impacts of demonetization.

Thus, a key reason to study the 2016 Indian demonetization is that it presents a strikingly clear case in which voters “should” punish politicians, in line with retrospective voting theories. Such cases are exceedingly rare, given the propensity of politicians to engage in strategies of distancing or credit-claiming, depending on whether an economic shock has negative or positive economic consequences. Furthermore, the sheer magnitude of the shock makes it less likely that voters will use partisan-motivated reasoning to explain away the demonetization shock (Bisgaard 2015). Consequently, demonetization presents a rare opportunity to test retrospective voting theory in a case where it is most likely to apply (Eckstein 1975).<sup>13</sup> Nevertheless, since the Indian demonetization was a country-wide shock, assessing its overall effects would require a cross-national comparison of countries that experienced the shock (India) with others.<sup>14</sup> A major shortcoming of such an exercise would be that countries differ in substantial, time-varying and frequently unobservable ways for which cross-country regressions (and related methods, such as matching or synthetic control) have difficulty controlling. An alternative strategy, which we follow here, is to examine subnational variation in the political effects of demonetization as its economic consequences vary. It is worth noting that this strategy does not allow us to examine the total effects of demonetization, since all districts were subject to the shock, but rather the relative effects of demonetization across districts.

## 2 Empirical strategy and data

We use a difference-in-difference strategy to estimate the economic and political effects of demonetization. We estimate the following equation:

$$Y_{it} = \alpha + \beta TREAT_{it} + \gamma POST_{it} + \delta TREAT * POST_{it} + \theta \mathbf{X} + \eta_i + \lambda_t + \varepsilon_{it} \quad (1)$$

Our outcomes variables,  $Y$ , are measures of investment activity and, in our main analysis, the % of the vote received by the BJP. The BJP currently governs India, and implemented the demon-

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<sup>13</sup>See Rogowski (2004) for a spirited argument on the usefulness of studying “most likely” cases.

<sup>14</sup>For an analogous exercise examining the electoral effects of fiscal austerity, see Arias and Stasavage (2019).

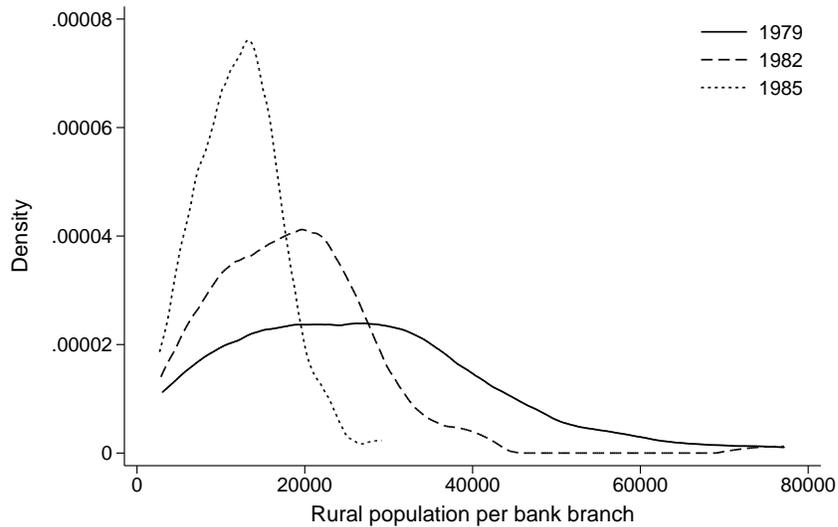
etization policy. *TREAT* is a predetermined treatment variable that will have induced variation in the degree to which districts experienced negative economic shocks due to demonetization. In our main specifications, this is the number of bank branches. Access to banks varies widely across India, with rural areas broadly having less access to credit institutions than urban ones. Districts with more bank branches will have been less affected by the shock. *POST* is a dummy that takes on the value 1 after demonetization.  $\delta$  is the coefficient of interest. This identifies the effect of demonetization as *TREAT* varies. The regressions include vectors of controls appropriate for the economic and political analyses ( $\mathbf{X}$ ), district fixed effects ( $\eta_i$ ) and year fixed effects ( $\lambda_t$ ). To be conservative, standard errors are clustered at the state level.

Although our treatment variable is the predetermined number of bank branches, omitted time-varying factors such as the presence of the middle class (who are thought to be BJP supporters and consumers of financial services) could affect both support for the BJP and bank penetration. To address this possibility, we build on [Kochar \(2011\)](#) and leverage a policy experiment that directed state-owned banks to expand their branch networks in underserved districts. We instrument for our treatment variable—bank branches—with indicators for whether districts were subject to “branch licensing policies.”

From 1979 to 1990, the Indian government adopted a series of policies to address the problem of “unbanked” areas. As part of the Sixth Five Year Plan (1980–81 to 1984–85), Indira Gandhi’s Congress government made poverty alleviation its central objective ([Kochar 2011](#), 255). Along with targeted, subsidized credit to the poor, the government sought to create new rural banks to increase access to credit in India’s poorest rural areas. Between 1979 and 1990, the Indian government implemented three Branch Licensing Policy (BLP) programs (January 1979 to December 1981; April 1982 to March 1985; and April 1985 to March 1990) ([Kochar 2011](#), 255). Under the 1979 law, rural areas with more than 20,000 people per bank branch received additional branches; under the 1982 and 1985 programs, the threshold for new branches was reduced to 17,000 people per branch ([Kochar 2011](#), 256).

The BLPs dramatically increased the number of bank branches in India’s districts between

Figure 2: Kernel density plots for the rural population per bank across India’s districts in 1979, 1982 and 1985



*Notes:* This plot shows the effects of the bank Branch Licensing Policies of 1979 and 1982. Banks were forced to open branches in relatively under-banked districts.

1979 and 1990. From 1979 to 1990, the government authorized the opening of new bank branches in approximately 30,000 “unbanked” rural locations without previous access to credit (Burgess and Pande 2005). Consider Figure 2, which plots the kernel densities of the rural population per bank across India’s districts in 1979, 1982 and 1985. At the end of the period, banks in many more districts served fewer customers. But do the BLPs explain our variation in banks today, i.e., our *TREAT* variable?

To formally investigate the effects of the branch licensing policies, we model the number of banks in 2009 across the 75 districts in our data (that is, *TREAT*) as a function of dummies for the 1979 and 1982 BLPs, the rural population per bank in 1979 and 1982 (per above, whether this figure was above a time-varying threshold determined whether districts were subject to the BLPs), and state fixed effects. Regression 1 of Table 1 suggests that at the margin, exposure to the 1979 BLP is associated with 48% more banks today. Exposure to the 1979 and 1982 BLPs is associated with 18% more banks.<sup>15</sup> This “first stage” regression therefore suggests that the BLP

<sup>15</sup>Since no district was just exposed to the 1982 BLP, the regression does not suggest that this program reduced the number of banks. In our data, 29 districts were exposed to neither BLP program, 6 were exposed to the 1979 program only, and 40 were exposed to both.

Table 1: The effect of Branch Licensing Programs on bank branches

	1
District subject to 1979 Branch Licensing Policy	0.476** (0.140)
District subject to 1982 Branch Licensing Policy	-0.299* (0.116)
Ln rural population per bank, 1979	-0.847** (0.192)
Ln rural population per bank, 1982	-0.0263 (0.342)
State fixed effects	Y
Observations	75
Adjusted R-squared	0.79

*Notes:* The dependent variable is the log number of bank branches in 2009. Standard errors clustered by state. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . See text for details.

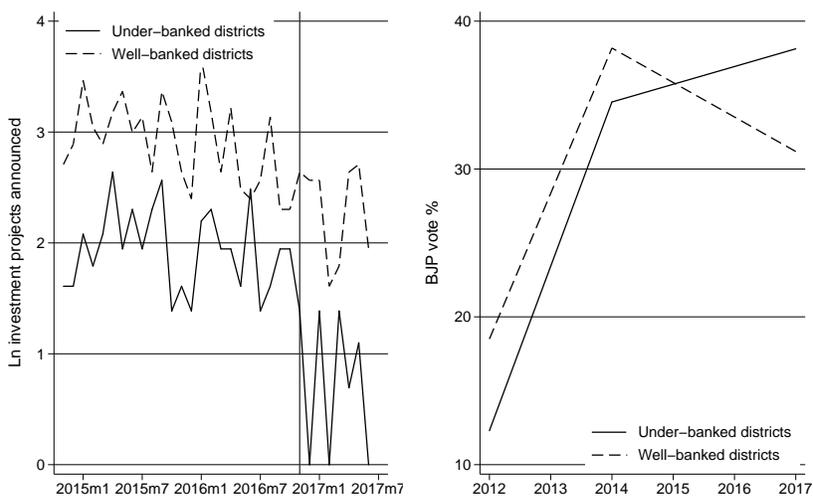
dummies might be strong instruments for *TREAT*. The BLP dummies make for good instruments since they are correlated with the number bank branches today, and since they are likely exogenous to the current BJP vote share. The exclusion restriction is likely to be valid due to the rule-based inclusion of districts in the BLPs, and since the BJP first contested parliamentary elections in 1984.

Our empirical analysis examines the effects of demonetization on investment and the electoral performance of the BJP. The fine grained economic data that we use are for project announcements, and are from the Center for Monitoring the Indian Economy (CMIE) CapEx database, which tracks investments in the economy. The election data are from [Bhavnani \(2017\)](#), and are for elections in the Indian states of Uttar Pradesh, Uttarakhand, Punjab, Manipur and Goa. These states, which have a population of 241 million people, or 20% of India’s population, had elections in the immediate aftermath of demonetization.

We coded data on bank branches from hard copies of the “Basic Statistical Returns of the Scheduled Commercial Banks in India,” a publication of the Reserve Bank of India.<sup>16</sup> We use these data to construct our main treatment variable. We calculate whether districts were subject to the 1979 and 1982 BLPs using data on bank branches, and on rural populations, from the 1981

<sup>16</sup>In earlier years, this publication was called “Banking Statistics: Basic Statistical Returns.”

Figure 3: The economic and political effects of demonetization in under- and well-banked districts



*Notes:* Under-banked districts have below-median banks, well-banked districts have above-median banks.

Census of India. Data on alternative “treatment” variables—the proportion of the population in rural areas and involved in agriculture—are from the 2011 Census of India. We consistently use the 1981 administrative district as our unit of analysis since these districts were subject to the BLPs.

Figure 3 graphically depicts our main results, tracking economic and political outcomes before and after demonetization in under- and well-banked districts. The left panel traces the evolution of investment project announcements, and suggests that demonetization reduced project announcements in under- and well-banked districts, and that it does so to a lesser degree in well-banked districts. The right panel presents the striking result of our paper: although BJP vote shares increased similarly between 2012 and 2014 in under- and well-banked districts, the pattern changes in 2017. Under-banked districts, which appear to experience a worse negative shock due to demonetization, failed to electorally punish the BJP even as well-banked districts did so. In the next sections, we show that these results withstand rigorous analysis.

### 3 The economic effects of demonetization

While the aggregate economic effects of demonetization have been negative, we focus on explaining subnational variation in the effects of demonetization. As mentioned previously, we argue that the negative economic impact of demonetization will have been most experienced by relatively “unbanked” areas. Such districts will have suffered the most due to demonetization since they are the most cash dependent, since the banking system was the channel through which the contractionary effects of demonetization were to be countered (new notes were to be dispensed by banks), and since banks more generally help smooth economic activity. We turn to testing our expectation that under-banked districts particularly suffered due to demonetization next, using the difference-in-difference and instrumental variables difference-in-difference strategies detailed above.

We start by examining the effects of demonetization on the number of projects that were announced in each district-month before and after demonetization. Our data start in June 2014, when the BJP was swept to power in the country’s national elections, and end in June 2017, eight months after demonetization.<sup>17</sup> Regression 1 of Table 2 models the log number of announced projects as a function of a dummy for demonetization, controlling for month fixed effects, state fixed effects and state-month trends. This suggests that demonetization reduced the number of projects announced by 12%.

In regression 2, we employ the difference-in-difference specification described by equation 1 to examine the effects of demonetization on economic activity as the number of bank branches vary. Regression 3 substitutes state with district fixed effects. In regression 4, we switch to our preferred instrumental variables difference-in-difference specification. Note that the  $F$ -statistic for the first stage regression that predicts banks is well-above 10, which reconfirms that the branch licensing policies described do indeed explain a substantial degree of the variation in bank branches today. The last, preferred specification suggests that although demonetization caused a 12% drop in the number of projects announced, a standard deviation increase in banks would attenuate this effect to 8%. In Figure 4, we plot the marginal effects of demonetization as the number of bank branches in-

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<sup>17</sup>These data stop in June since the country suffered another shock, this time due to the replacement of a slew of indirect taxes with a value added tax (the Goods and Services Tax or GST), in July.

Table 2: The effect of demonetization on project announcements as the number of bank branches varies

	OLS 1	OLS 2	OLS 3	2SLS 4
After demonetization	-0.121*** (0.0127)	-0.122*** (0.00928)	-0.123*** (0.0101)	-0.121*** (0.0135)
Ln bank branches (standardized)		0.144** (0.0255)		
Ln bank branches (standardized) x After demonetization		-0.0171 (0.0202)	-0.0165 (0.0205)	0.0370*** (0.00940)
State fixed effects	Y	Y		
District fixed effects			Y	Y
State trends	Y	Y	Y	Y
Observations	1881	1881	1881	1881
Adjusted <i>R</i> -squared	0.09	0.16	0.29	0.28
First stage <i>F</i> -stat. for interaction term				69

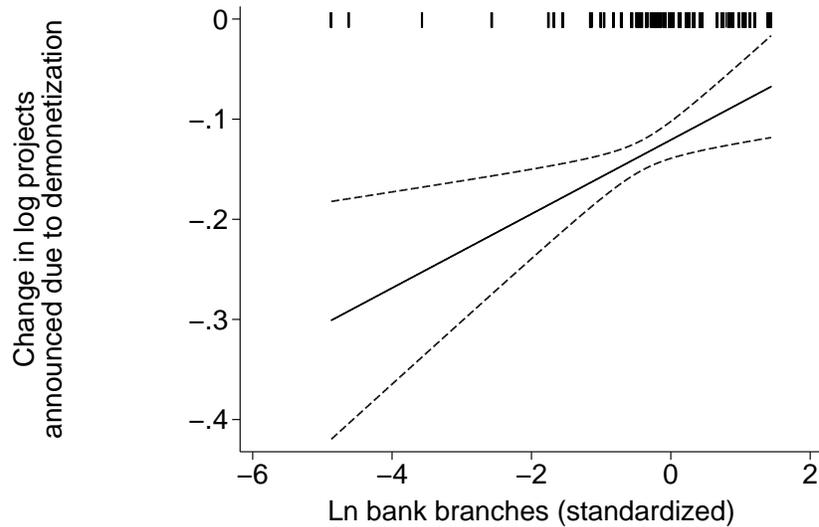
*Notes:* Standard errors clustered by state. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . See text for details.

crease. This plot confirms that although demonetization sharply decreased project announcements, it did so to a lesser degree in districts with banks.

Our results are robust to using the value rather than number of projects announced as the dependent variable (regression 1 of Appendix Table 1) and to truncating our data in January 2017, before the elections that we study below (regressions 2 and 3). [Beyer et al. \(2018\)](#) and [Chodorow-Reich et al. \(2020\)](#) similarly use nightlights data—which are reflective of consumption rather than investment—to show that relatively unbanked districts experienced a more negative economic shock due to demonetization.

In this section, we documented how the negative economic shock due to demonetization varied across the country as the degree to which districts are banked varies. Our purpose was not to estimate the total cost of demonetization (as mentioned previously, this would require us to estimate a different, less credible counterfactual), but simply to demonstrate that the economic cost of demonetization was indeed attenuated in districts with more banks. We next examine subnational

Figure 4: The effect of demonetization on project announcements as the number of bank branches varies



*Notes:* The solid line is the predicted effect of demonetization on the ln of the number of projects announced as the number of bank branches varies, calculated using the coefficients in regression 4, Table 2. Dashed lines are for the 95% confidence intervals. The rug plot depicts the distribution of the standardized value of ln number of bank branches.

variation in the political effects of demonetization as its economic consequences vary.

## 4 The political effects of demonetization

We start our analysis by describing the evolution of the BJP’s vote over the past three elections in the five states that are the focus of our analysis.<sup>18</sup> In the state elections of 2012, the BJP won an average of 15.4% of the vote. The party more than doubled its vote share to 36.3% in the national election of 2014, which allowed it to form the central government in New Delhi. In the post-demonetization state elections of 2017, the BJP’s vote share declined only slightly, averaging 34.7% (the difference in the party’s vote share between 2014 and 2017 was statistically insignificant).

We confirm the mild penalty for demonetization using multivariate analysis by examining the correlation between the % of the vote of the received by the BJP and a dummy for the election

<sup>18</sup>We do not include data from elections prior to this since constituency boundaries changed.

Table 3: The effect of demonetization on the % of the BJP vote as the number of bank branches varies

	OLS 1	OLS 2	OLS 3	2SLS 4	OLS 5	2SLS 6
After demonetization	-2.477 (1.967)	-2.158 (3.239)	-1.864 (1.477)	-1.787 (1.261)	-4.538** (2.000)	-10.25*** (3.724)
Ln bank branches per capita (standardized)		8.610** (2.535)				
Ln bank branches per capita (standardized) x After demonetization		-6.140*** (0.790)	-6.098*** (1.120)	-8.222*** (1.316)	-7.456*** (1.693)	-15.33*** (4.742)
Newspaper circulation per capita x After demonetization					27.91* (16.55)	112.2** (52.65)
Excess rainfall dummy, lagged	0.607 (3.407)	1.819 (2.579)	4.463** (2.191)	4.297** (1.702)	4.819** (2.312)	5.663*** (1.936)
Deficit rainfall dummy, lagged	22.76*** (1.888)	18.02*** (0.954)	17.72*** (2.639)	15.37*** (2.019)	13.62*** (2.422)	0.916 (7.638)
State fixed effects	Y	Y				
District fixed effects			Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y	Y	Y
Observations	225	225	225	225	210	210
Adjusted <i>R</i> -squared	0.68	0.75	0.82	0.81	0.83	0.80
First stage <i>F</i> -stat. for interaction term				13		2

*Notes:* Observations are for 75 districts for three election years. The dependent variable is the % of the BJP vote. Standard errors are clustered by state. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . See text for details.

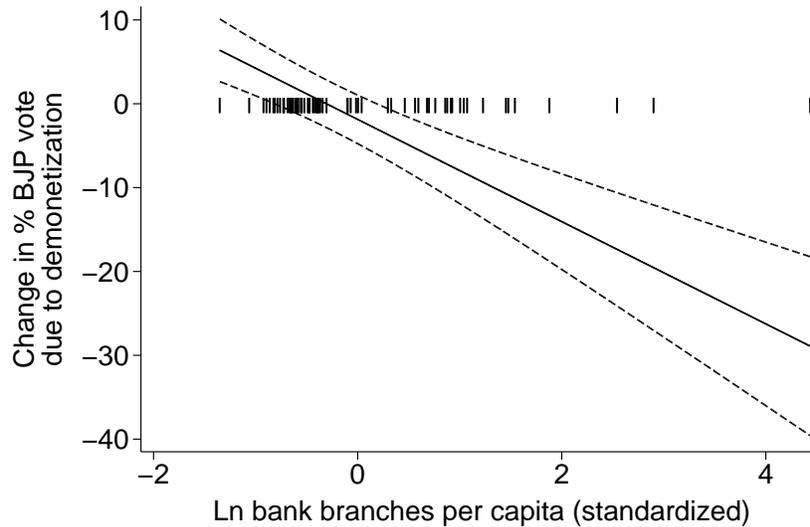
after demonetization, controlling for proxies for economic growth and state and year fixed effects (regression 1 of Table 3).<sup>19</sup> Our proxies for economic growth are, as is standard in the literature on developing countries, dummies for excess and deficit rainfall.<sup>20</sup> Since the omitted category for the year fixed effect is 2014, the regressions compare the BJP's post-demonetization electoral performance in 2017 with its performance in 2014. Consistent with the vote averages reported previously, the coefficient on the post-demonetization is relatively small, negative and is statistically insignificant.

To formally examine how the effects of demonetization on the % of the BJP vote varies with the degree to which districts are banked, we turn to regression 2, where we include our treatment

<sup>19</sup>We do not include controls for the number of candidates and their political or socio-economic attributes since these are post-treatment.

<sup>20</sup>These dummies are set to one if district rainfall departs from the long run average for the district by  $\pm 20\%$ .

Figure 5: The effect of demonetization on the % of the BJP vote as the number of bank branches varies



*Notes:* The solid line is the predicted effect of demonetization on the % of the BJP vote as the number of bank branches varies, calculated using the coefficients in regression 3 of Table 3. Dashed lines are for the 95% confidence intervals. The rug plot depicts the distribution of the standardized value of ln number of bank branches per capita.

variable and its interaction with the after-demonetization dummy. This suggests that although the % of the BJP vote is usually increasing in bank branches this is not the case after demonetization. This result is practically unchanged in Regression 3, which substitutes state with district fixed effects. Figure 5 plots the marginal effect of demonetization on the BJP vote share as bank branches vary, showing that only districts with the most bank branches per capita penalized the BJP for demonetization. Since banks will have attenuated the deleterious economic effects of demonetization, this suggests that the hardest hit districts continued to support the BJP, while districts that were less hard hit somewhat decreased their support for the party. In other words, although there is some evidence of economic voting, it is unexpectedly concentrated in the least affected districts.

The difference-in-difference statistically identifies the effects of demonetization in districts with varying bank branches assuming that BJP vote shares were evolving similarly across districts with varying numbers of branches prior to demonetization. To test this assumption, and since we have two pre-treatment elections (in 2012 and 2014), we conduct a placebo test, to see if banks

were correlated with the change in BJP's vote share between 2012 and 2014. They are not (see Appendix Table 2).

Recall that it remains possible that omitted, plausibly unobservable variables, such as the presence of a middle class, might explain both a district's support for the BJP and the number of bank branches. To address this potential for endogeneity, we instrument for banks using dummies for whether districts were subject to the "branch licensing policies" of 1979 and 1982. As described and shown previously (see Figure 2 and Table 1), these dummies make good instruments since they are significantly correlated with banks, and since they are likely orthogonal to current BJP support. Regression 4 of Table 3 presents the results of the 2SLS difference-in-difference analysis, and confirms that demonetization increased the % of the vote received by the BJP in under-banked districts. The first stage *F*-statistic is well-above 10, which is the rule of the thumb for a strong instrument. Although the BJP vote percentage is increasing in banks, this is less the case after demonetization.<sup>21</sup>

So far, we have shown that although voters generally penalized the BJP after demonetization, they failed to do so in particularly under-banked districts. In the prior section, we showed that under-banked districts were hit hardest economically by demonetization. Therefore, the BJP did particularly well in hard hit districts.

To provide additional support to our interpretation that voters failed to punish the BJP in districts that were the hardest hit by demonetization, we show we get similar results if we proxy for hard-hit districts using two alternative predetermined measures—instead of bank branches—for districts vulnerable to a demonetization shock. We employ the proportion of the population that resides in rural areas, and the proportion of workers employed in agriculture as alternative treatment variables. Our reasoning is that since rural residents and those in agriculture are more likely to be cash-dependent, they are likely to be hit harder by demonetization. Media accounts and new research quantifying the negative impact of demonetization on agricultural prices and trade corroborate these claims (Aggarwal and Narayanan 2017). In Appendix Table 4 we present the results

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<sup>21</sup>The difference-in-difference and instrumental variables results are robust to using the proportion of constituencies where the BJP won a plurality of votes as the dependent variable (see Appendix Table 3).

of these alternative specifications; the marginal effects plots associated with them are Appendix Figures 1 and 2. Consistent with our account, districts that are more rural and have more agriculturalists, that is, those that are likely to have been more negatively impacted by demonetization, fail to punish the BJP for demonetization.

#### 4.1 Possible explanations

Having identified the causal effects of demonetization as mediated by banks, we turn to examining the possible explanations for our findings. Before we do so, it is worth noting that our case selection makes it highly unlikely that a lack of *information*, *saliency* or *voter coordination* are driving our results. Demonetization was a high profile negative economic shock that was experienced by practically all Indians simultaneously, and the state elections studied here were widely perceived as a referendum on the Modi government. Relatedly, *voter myopia* is also unlikely to explain our results, since the elections that we have studied occurred in February and March of 2017, a short three to four months after demonetization. Further, our difference-in-differences specifications and inclusion of district, state, and year fixed effects allow us to rule out predetermined explanations for the null effect of demonetization, including variation in levels of *Hindu nationalism* and levels of *digitization* of the local economy.

The alternative explanations that we need to consider are those focused on variables that changed between the 2012, 2014 and 2017 elections, other than local economic conditions, which we have controlled for using positive and negative rainfall shocks. The possibilities that we consider are that positive media coverage, schadenfruede against the corrupt, and a loan forgiveness program swung the election for the BJP. Due to data constraints, the discussion in this section is more speculative. Our exploration of these possibilities is summarized in Table 4.

Media coverage of demonetization might have convinced voters of the benefits rather than the costs of demonetization. To take this claim to the data, we downloaded all English newspaper articles published in India in the year after demonetization and archived in Nexis Uni with the terms “demonetization,” “note ban,” “note *bandi*,” or “*notebandi*.” We conducted a “sentiment analysis”

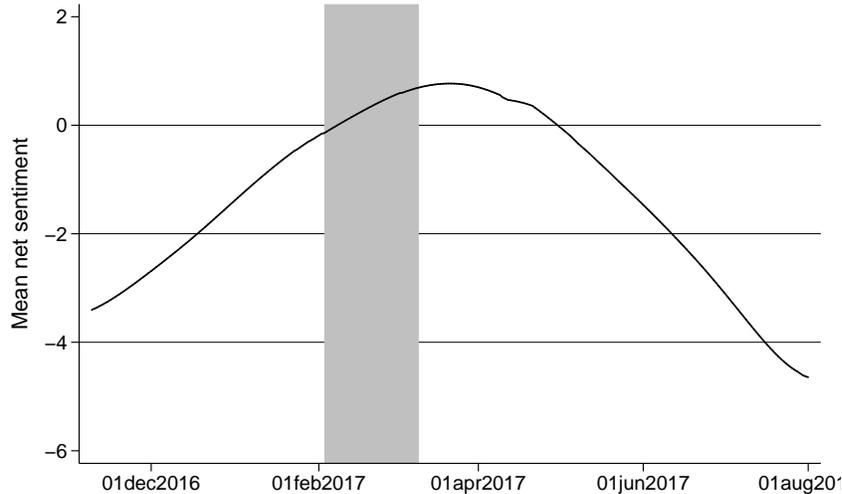
Table 4: Possible explanations for the failure of the hardest hit districts to punish the BJP

Potential explanations	How we rule them out
Voter information, salience, coordination	Case selection—the fact that the shock was large, affected everyone, and was well publicized
Voter myopia	Case selection—the fact that the elections we study were held soon after demonetization
Variation in Hindu nationalism	Empirical strategy—district, state, year fixed effects control for predetermined variation
Variation in digitization of the economy	Empirical strategy—district, state, year fixed effects control for predetermined variation
Positive media coverage	Empirical strategy—district, state, year fixed effects control for predetermined variation; results also robust to the inclusion of the interaction of predetermined newspaper circulation and the after demonetization dummy
Variation in levels of corruption and feelings of “schadenfreude” against the corrupt	Empirical strategy—district, state, year fixed effects control for predetermined variation; results also robust to the inclusion of the interaction of the proportion of 2012 state office candidates charged with financial crimes and the after demonetization dummy
BJP agricultural loan forgiveness promises	Results robust to the exclusion of Uttar Pradesh, where loan forgiveness was promised; results also robust to the inclusion of the interaction of the proportion of workers in agriculture and the after demonetization dummy

of the 5,565 articles that our search yielded (66% of which were published before the elections that we study) using the `sentimentr` package in R. Figure 6 plots the net sentiment of these articles (articles with positive sentiment have a net sentiment score above 0). This suggests that although newspaper coverage of demonetization was initially negative, coverage turned positive in the run up to the state elections, possibly but not necessarily due to government efforts at positive spin. In the Appendix, we report the results of an informal test of these results, wherein we stratify the articles in our corpus into terciles by their sentiment score, and then report the text and sentiment scores of 5 articles in each of the terciles. While not perfect, the sentiment scores do indeed seem to reflect the degree to which the articles are positive or negative towards demonetization.

To examine whether positive media coverage can indeed explain our results, we would ideally have data on how media coverage of demonetization varied across India’s districts. Although we lack these data, we do have district-level data on pretreatment newspaper circulation

Figure 6: Mean net sentiment of demonetization-related articles ( $n = 5,565$ ) in Indian newspapers

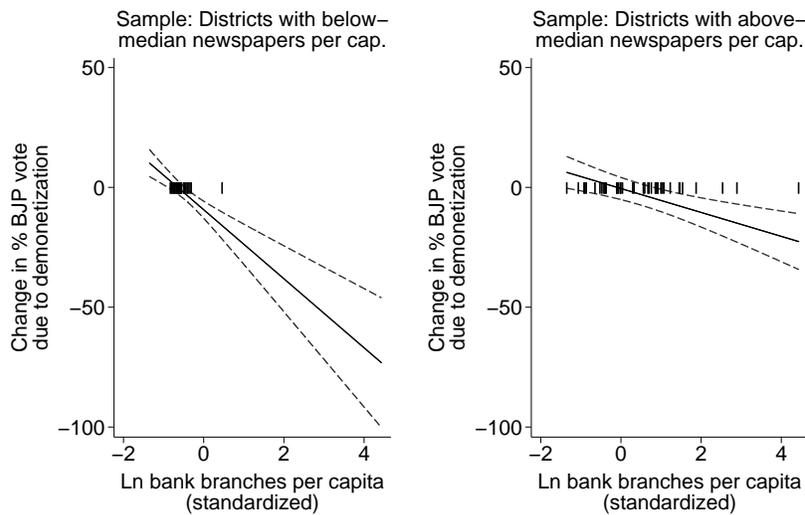


*Notes:* This figure plots the net mean sentiment of articles published in India, and appearing in Nexis Uni with the terms “demonetisation,” “note ban,” “note *bandi*,” or “*notebandi*.” Articles with net positive sentiment have sentiment scores  $> 0$ . State elections were held in phases between February 4 and March 9, 2017 (the shaded region).

per capita in 2009, from India’s Audit Bureau of Circulation. We interact this variable with a post-demonetization dummy, and include it in our preferred OLS and 2SLS specifications (see regressions 5 and 6 of Table 3). The coefficients on this variable are positive, suggesting that newspaper circulation is indeed associated with higher BJP vote share. However, controlling for the effects of newspaper circulation in this manner does not attenuate the estimated effect of the interaction of bank branches per capita and the after demonetization dummy, suggesting that this mechanism does not explain why underbanked districts fail to punish the BJP.

To see this another way, we run our main 2SLS specification on two subsets of our data: districts with low and high newspaper circulation. Figure 7 reports the result of this exercise, showing that although the effect of electoral costs of demonetization (the slope of the fitted line) is attenuated in high newspaper circulation districts (the right hand panel), such costs are practically non-existent in the underbanked districts that have low newspaper circulation as well (see the left panel). This suggests that newspapers do not explain the failure of underbanked districts to punish the BJP, although they might help explain why some well-banked districts do not punish BJP as

Figure 7: The effect of demonetization on the % of the BJP vote in districts with below- and above-median newspaper circulation per capita



*Notes:* The solid line is the predicted effect of demonetization on the % of the BJP vote as the number of bank branches varies. Dashed lines are for the 95% confidence intervals. The rug plots depict the distribution of the standardized value of Ln number of bank branches per capita.

much as they might.

The second possibly time-varying explanation that we consider has to do with corruption. Recall that the BJP argued that demonetization was an anti-corruption measure, designed to root out “black” or untaxed money and punish the corrupt. As a result, voters might have been unwilling to punish the BJP in particularly corrupt districts. Our main specifications control for this possibility using district fixed effects. Nonetheless, reflecting an abundance of caution, we control for a district-level measure of corruption—the proportion of candidates for state office (in 2012) that were charged with financial crimes<sup>22</sup>—in specifications that use state rather than district fixed effects. We also allow the estimated effect of corruption to vary over time (the inclusion of district fixed effects does not cause the interaction term that allows for this to “drop out”). Controlling for these possible confounds does not alter the main result of this paper (Appendix Table 5). Relatively under-banked districts fail to punish the BJP for demonetization, even controlling for the possible time-varying effects of corruption.

<sup>22</sup>Criminal charges are classified as financial if the crimes that people are charged with resulted in the loss to public exchequer. The raw data are from <http://www.myneta.info/>.

The last time- and district-varying possibility that we consider is that in Uttar Pradesh, and possibly in response to demonetization, the state unit of the BJP promised farmers that they would be eligible for a new agricultural loan forgiveness program if the BJP were elected. The BJP has followed through on its promise. So, the hardest districts might have failed to punish the BJP because they expected to benefit the most from loan forgiveness. Prima facie, this explanation seems doubtful because our results obtain in states other than Uttar Pradesh (see regressions 1 and 2 of Appendix Table 6), where agriculturalists were not promised amnesty. Further, loans are likely to be positively correlated with bank branches, and districts with the most bank branches penalized the BJP the most. To be doubly sure, we add a control for the interaction of the proportion of agriculturalists (a proxy for agricultural loans) and the after demonetization dummy to our main specification (regressions 3 and 4 of Appendix Table 6). Our results are robust to this inclusion, suggesting that the hardest hit districts do fail to penalize the BJP, despite the promise of loan forgiveness.

In sum, our research design and the additional tests presented in this section allow us to rule out a wide range of possible explanations for the failure of voters in the districts hit hardest by demonetization to punish the BJP at the polls in the 2017 state elections. Our analysis offers limited evidence that media coverage and framing of demonetization influenced voter behavior, while casting doubt on a range of alternative factors that might explain this outcome. Put simply, neither the “usual suspects” identified in the political science literature (e.g., voter myopia, information, issue salience), nor the main explanations offered by the Modi government or highlighted in media coverage of demonetization (e.g., nationalism, digitization, anti-corruption) explain why the BJP avoided punishment in the electoral districts hit hardest by demonetization, as retrospective voting theory would predict.

## **5 Conclusion**

How do economic shocks affect voter behavior? To what extent are voters engaging in retrospective economic voting in the wake of shocks, as opposed to voting based on psychological or

non-material factors? We explore these important questions in the context of India’s sudden demonetization in 2016, and the subsequent elections in five Indian states in 2017. The Indian case provides a particularly useful test of the effects of negative economic shocks because demonetization was implemented in “normal times” (this reduces the possibility of confounds affecting our results), and since the policy was clearly associated with the ruling and no other party.

Our analysis suggests that demonetization was an economic disaster for the country but not a political disaster for the BJP. Demonetization had a sharp and immediate negative impact on the Indian economy. This negative impact was unevenly distributed across the country. Using a difference-in-differences approach and policy-induced exogenous variation in bank branches, we show that the economic impact of demonetization was felt most acutely in relatively “unbanked” rural areas, where households and businesses are most dependent on cash and were least able to use the formal financial system to smooth their economic activities. We also show that the BJP was not penalized in districts where the economy contracted the most (that is, in places with few bank branches), even as it was punished where the economy contracted the least (that is, in places with the most bank branches). Additional tests allow us to rule out the possibilities that variation in media coverage, corruption or debt relief for farmers explain voting patterns.

These results provide important insights into voter behavior in the wake of major economic shocks. On the one hand, the fact that the BJP vote share reduced after demonetization, including in relatively “well-banked” districts, is consistent with theories of economic voting. On the other hand, the finding that voters in “under-banked” districts—who bore most heavily the brunt of the negative economic impact of demonetization—failed to decrease their support for the BJP in the 2017 state elections suggests that a large portion of the population was motivated primarily by other factors.

Consistent with these findings, survey data from four of the five Indian states studied here suggest that the majority of people viewed demonetization positively rather than negatively, well after demonetization was causing an economic contraction.<sup>23</sup> For Uttar Pradesh, 63.5% of respondents

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<sup>23</sup>Data are from the ABP News–CSDS–Lokniti–postpoll surveys for Goa, Punjab, Uttarakhand and Uttar Pradesh. These surveys were designed to be representative at the state level, and were carried out after the state elections in

agreed with the following statement: “Even though people faced trouble on account of demonetization in the last few months, it will benefit the nation and the people in the coming years,” while 36.5% agreed with the statement, “Not only have people faced trouble on account of demonetization, the nation too has suffered losses.” The equivalent figure for Uttarakhand was 72%, for Punjab 49%, and for Goa 59%. These results further suggest that a substantial share of Indian voters supported demonetization for other reasons, in spite of its negative economic effects. These patterns of support are also consistent with evidence from other cases (e.g., the 2016 Brexit referendum and the voting behavior of rural, poor Americans over the last three decades), in which a substantial portion of the electorate supported candidates, parties, or policies directly at odds with its material interests.

Our findings have important implications for the ongoing debate about the merits of retrospective voting theory. Indeed, as our simple typology illustrated, there are not one but two types of anomalies with respect to retrospective voting. First, voters may reward or punish politicians when they do not “deserve” it (i.e., when they respond to irrelevant facts). Second, voters may *not* punish politicians when they do “deserve” it (in our case, when the economy is performing poorly). In the literature, studies of the former category are common, but studies of the latter are few given the difficulty of clearly identifying such cases. The 2016 Indian demonetization offers a rare opportunity to analyze precisely such a case, in which the Modi government was clearly responsible for the negative economic shock and unequivocally claimed responsibility for its impact on the Indian economy.

That the voters hardest hit economically from demonetization failed to punish the BJP in this “most likely” case for retrospective voting suggests that the theory suffers from more problems than suggested by the existing literature. In light of this, we would suggest that the literature ought turn to examining the question of what, precisely, are the circumstances under which economic voting can occur.<sup>24</sup> This venerable question—central to understanding the promise and limits of

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February–March 2017, but before the election results were announced.

<sup>24</sup>E.g., see Ahlquist, Copelovitch and Walter (forthcoming), which finds evidence of retrospective voting in Poland in the October 2015 parliamentary election, but only among the subset of voters directly exposed to the January 2015 Swiss franc/zloty exchange rate shock through the specific channel of foreign currency mortgages.

democratic accountability—remains open.

## References

Achen, Christopher H and Larry M Bartels. 2016. *Democracy for realists: Why elections do not produce responsive government*. Princeton University Press.

Aggarwal, Nidhi and Sudha Narayanan. 2017. “Impact of India’s demonetization on domestic agricultural markets.”.

**URL:** [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3066042](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3066042)

Ahlquist, John, Mark Copelovitch and Stefanie Walter. forthcoming. “The political consequences of external economic shocks: Evidence from Poland.” *American Journal of Political Science* .

Anderson, Christopher J. 2007. “The end of economic voting? Contingency dilemmas and the limits of democratic accountability.” *Annual Review of Political Science* 10:271–296.

Arias, Eric and David Stasavage. 2019. “How Large Are the Political Costs of Fiscal Austerity?” *The Journal of Politics* 81(4):1517–1522.

Ashworth, Scott. 2012. “Electoral accountability: recent theoretical and empirical work.” *Annual Review of Political Science* 15:183–201.

Autor, David, David Dorn, Gordon Hanson, Kaveh Majlesi et al. 2016. Importing political polarization? The electoral consequences of rising trade exposure. Technical Report w22637.

Banerjee, Abhijit and Namrata Kala. 2017. “The economic and political consequences of Indias demonetisation.” *VoxDev* .

**URL:** <http://voxdev.org/topic/institutions-political-economy/economic-and-political-consequences-india-s-demonetisation>

- Bearce, David H and Kim-Lee Tuxhorn. 2017. “When are monetary policy preferences egocentric? Evidence from American surveys and an experiment.” *American Journal of Political Science* 61(1):178–193.
- Bechtel, Michael M, Jens Hainmueller and Yotam Margalit. 2014. “Preferences for international redistribution: The divide over the Eurozone bailouts.” *American Journal of Political Science* 58(4):835–856.
- Beyer, Robert Carl Michael, Esha Chhabra, Virgilio Galdo, Martin G Rama et al. 2018. Measuring districts’ monthly economic activity from outer space. Technical report The World Bank.
- Bhavnani, Rikhil R. 2017. “India National and State Election Dataset.”  
**URL:** <http://dx.doi.org/10.7910/DVN/26526>
- Bisgaard, Martin. 2015. “Bias will find a way: Economic perceptions, attributions of blame, and partisan-motivated reasoning during crisis.” *The Journal of Politics* 77(3):849–860.
- Boas, Taylor C, F Daniel Hidalgo and Marcus André Melo. 2019. “Norms versus action: Why voters fail to sanction malfeasance in Brazil.” *American Journal of Political Science* 63(2):385–400.
- Briggs, Ryan C. 2019. “Receiving Foreign Aid Can Reduce Support for Incumbent Presidents.” *Political Research Quarterly* 72(3):610–622.
- Burgess, Robin and Rohini Pande. 2005. “Do rural banks matter? Evidence from the Indian social banking experiment.” *The American Economic Review* 95(3):780–795.
- Chandra, Kanchan. 2007. *Why ethnic parties succeed: Patronage and ethnic head counts in India*. Cambridge University Press.
- Chodorow-Reich, Gabriel, Gita Gopinath, Prachi Mishra and Abhinav Narayanan. 2020. “Cash and the Economy: Evidence from India’s Demonetization.” *Quarterly Journal of Economics* 135(1):57–103.

- Colantone, Italo and Piero Stanig. 2018. "Global competition and Brexit." *American Political Science Review* 112(2):201–218.
- Cole, Shawn, Andrew Healy and Eric Werker. 2012. "Do voters demand responsive governments? Evidence from Indian disaster relief." *Journal of Development Economics* 97(2):167–181.
- Crespo-Tenorio, Adriana, Nathan M Jensen and Guillermo Rosas. 2014. "Political liabilities: surviving banking crises." *Comparative Political Studies* 47(7):1047–1074.
- Curtis, K Amber, Joseph Jupille and David Leblang. 2014. "Iceland on the rocks: the mass political economy of sovereign debt resettlement." *International Organization* 68(3):721–740.
- De Kadt, Daniel and Evan S Lieberman. forthcoming. "Nuanced accountability: Voter responses to service delivery in southern africa." *British Journal of Political Science* .
- Dippel, Christian, Robert Gold and Stephan Heblich. 2015. Globalization and its (dis-) content: Trade shocks and voting behavior. Technical Report w21812 National Bureau of Economic Research.
- Duch, Raymond M and Randolph T Stevenson. 2008. *The economic vote: How political and economic institutions condition election results*. Cambridge University Press.
- Eckstein, Harry. 1975. "Case study and theory in political science. I Greenstein, FI & Polsby, NW (red.) Handbook of Political Science." *Reading, Addison-Wesley* .
- Fearon, James D. 1999. Electoral Accountability and the Control of Politicians: Selecting Good Types versus Sanctioning Poor Performance. In *Democracy, Accountability, and Representation*, ed. Adam Przeworski, Susan C. Stokes and BernardEditors Manin. Cambridge Studies in the Theory of Democracy Cambridge University Press pp. 55–97.
- Ferejohn, John A and James H Kuklinski. 1990. *Information and democratic processes*. University of Illinois Press.

- Fernández-Albertos, José and Alexander Kuo. 2016. "Economic hardship and policy preferences in the Eurozone periphery: evidence from Spain." *Comparative Political Studies* 49(7):874–906.
- Fowler, Anthony and Andrew B Hall. 2018. "Do shark attacks influence presidential elections? Reassessing a prominent finding on voter competence." *The Journal of Politics* 80(4):000–000.
- Funke, Manuel, Moritz Schularick and Christoph Trebesch. 2016. "Going to extremes: Politics after financial crises, 1870–2014." *European Economic Review* 88:227–260.
- Goyal, Tanushree. 2019. "Do Citizens Enforce Accountability for Public Goods Provision? Evidence from India's Rural Roads Program.".  
**URL:** <https://ssrn.com/abstract=3378451>
- Guiso, Luigi, Helios Herrera, Massimo Morelli and Tommaso Sonno. 2019. "Global crises and populism: the role of Eurozone institutions." *Economic Policy* 34(97):95–139.
- Healy, Andrew J, Neil Malhotra and Cecilia Hyunjung Mo. 2010. "Irrelevant events affect voters' evaluations of government performance." *Proceedings of the National Academy of Sciences* 107(29):12804–12809.
- Healy, Andrew and Neil Malhotra. 2009. "Myopic voters and natural disaster policy." *American Political Science Review* 103(3):387–406.
- Healy, Andrew and Neil Malhotra. 2013. "Retrospective Voting Reconsidered." *Annual Review of Political Science* 16(1):285–306.
- Hernández, Enrique and Hanspeter Kriesi. 2016. "The electoral consequences of the financial and economic crisis in Europe." *European Journal of Political Research* 55(2):203–224.
- Key, Valdimer Orlando. 1966. *The responsible electorate*. Belknap Press of Harvard University Press.
- Kochar, Anjini. 2011. "The distributive consequences of social banking: a microempirical analysis of the Indian experience." *Economic Development and Cultural Change* 59(2):251–280.

- Lenz, Gabriel S. 2013. *Follow the leader?: how voters respond to politicians' policies and performance*. University of Chicago Press.
- Lewis-Beck, Michael S. 1990. *Economics and elections: The major Western democracies*. University of Michigan Press.
- Lindvall, Johannes. 2014. "The electoral consequences of two great crises." *European Journal of Political Research* 53(4):747–765.
- Margalit, Yotam. 2012. "Lost in globalization: International economic integration and the sources of popular discontent." *International Studies Quarterly* 56(3):484–500.
- Ministry of Finance. 2017. Economic Survey of India, Volume 1. Technical report Government of India.
- PricewaterhouseCoopers. 2015. Disrupting cash: Accelerating electronic payments in India. Technical report PricewaterhouseCoopers.  
**URL:** <https://www.pwc.in/assets/pdfs/publications/2015/disrupting-cash-accelerating-electronic-payments-in-india.pdf>
- Rogowski, Ronald. 2004. "How inference in the social (but not the physical) sciences neglects theoretical anomaly." *Rethinking social inquiry: Diverse tools, shared standards* pp. 75–84.
- Subramanian, Arvind. 2017. Contemporary Themes in India's Economic Development and the Economic Survey: Module 13.1 on Demonetisation. Technical report.  
**URL:** <http://www.iitd.ac.in/CEAIITD/index.html>
- Suri, KC. 2009. "The economy and voting in the 15th Lok Sabha elections." *Economic and Political Weekly* pp. 64–70.
- Vaishnav, Milan and Reedy Swanson. 2015. "Does good economics make for good politics? Evidence from Indian States." *India Review* 14(3):279–311.

Walter, Stefanie, Elias Dinas, Ignacio Jurado and Nikitas Konstantinidis. 2018. "Non-Cooperation by Popular Vote: Expectations, Foreign Intervention and the Vote in the 2015 Greek Bailout Referendum." *International Organization* 72(4):969–994.

# Online Appendix for “The Political Impact of Economic Shocks: Evidence from India’s 2016 Demonetization”

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## Sentiment analysis of demonetization-related articles

To assess media coverage of demonetization, we downloaded all English newspaper articles published in India between November 8, 2016 (the date demonetization was announced) and October 31, 2018, as archived in Nexis Uni with the terms “demonetisation,” “note ban,” “note *bandi*,” or “*notebandi*.” The search was conducted on October 17, 2019, and yielded 5,565 articles. Coverage of demonetization was highest in the days immediately after November 8, 2016 and reduced over time. 66% of these articles in the corpus were published before the elections under study.

We conducted a “sentiment analysis” of the corpus using the `sentimentr` package in R. Briefly, this classifies the words in each article as positive, in which case they are given a score of +1, or negative, in which case they are given a word score of -1. These word scores are then weighted, to account for “valence shifters,” that is, words that amplify or de-amplify positive or negative words. The weighted word scores for the words in each article are summed to create an unbounded net sentiment score for each article. Articles with positive sentiment have a net sentiment score above 0.

To conduct an informal “sniff” test of this sentiment analysis, we classify our articles in to terciles by sentiment score (the sentiment score of the first tercile varies between  $-71$  and  $-5$ ; the second tercile varies between  $-4$  and  $1$ ; the third tercile varies between  $2$  and  $272$ ). We then randomly chose five articles in each tercile, reproduce them and note their sentiment score below. The full set of articles is available on request.

### Five randomly chosen articles with sentiment scores upto $-5$

Ache Din to return once Congress comes to power  
Hindustan  
January 12, 2017 Thursday  
Net sentiment:  $-12$

NEW DELHI, Jan. 12 – Congress vice president Rahul Gandhi directly condemned Prime Minister Narendra Modi on the issue of demonetization on Jan. 11. He also took a dig on the slogan of BJP during 2014’s Lok Sabha election and said that the ‘ache din’ of the public would return in 2019 when Congress comes to power.

In Jan Vedna Sammelan, the Congress vice president accused the government for killing India’s soul. He said that the note ban was implemented without any proper planning. He said that the prime minister was criticized for the act in the whole world.

Rahul Gandhi presided over such a huge conference for the first time on his own, in the absence of Congress president Sonia Gandhi. While addressing the workers in the conference, he accused that the prime minister and RSS were ending prominent constitutional institutes. While mentioning the note ban, Rahul said that in one stroke the prime minister had rendered the hard earned money of the poor as paper waste. Congress had never done something like that in 70 years.

Rahul Gandhi said that the prime minister wants to make a new Hindustan. But he should first tell if Bharat is flawed. Talking about Yoga, Rahul Gandhi said that the prime minister could not do Padmasan. He was also holding the broom wrongly in the cleanliness campaign. Make in India campaign is at a juncture where the sales of cars have dropped heavily.

Congress vice president Rahul Gandhi also advised party leaders and workers not to be scared of BJP. Giving examples of all religions, Rahul Gandhi said that they all propagate not to be afraid

of anyone. He accused BJP that it was scared of the truth and said that BJP always talked about history and future.

Note ban tremor still shocks markets  
The Times of India (TOI)  
November 25, 2016 Friday  
Net sentiment: -6

NEW DELHI: Fifteen days after the withdrawal of Rs 500 and Rs 1,000 notes from circulation, the markets, whether wholesale, retail or jewellery, show no signs yet of regaining the ground they lost when customers started keeping away due to the cash crunch. Since the wedding season is under way, there was some life in the gold shops of Dariba Kalan on Thursday, where the stores had remained idle or shut for over a week. "Shops opened today because they had to sell the items that had been ordered by customers many weeks ago," said Jagmeet Singh, jewellery shop owner. According to Vinit Sagar, general secretary of the Dariba Kalan Jewellers' Association, "When shopowners themselves are unable to extract their money from the banks, they realise that customers too won't have money for purchases." Many jewellers there are concerned about their ability to retain artisans if they are unable to pay them in time.

The trickle-down effect is quite palpable at other normally crowded market. Saris and shawls, the most sought-after items in the wedding season, have seen few takers this time. "We usually get a lot of customers in this season, but this time people are buying only cheaper wares. The market hasn't been this lean in a long time," said Murli Mani, president of Ajmal Khan Road Market Association in Karol Bagh. Traders in Sarojini Nagar Market too reported a fall of around 60% in business. Pramod Sharma, president of Sarojini Nagar Shoppers' Association, claimed that instead of improving, the situation had "got even tighter in the last three days, with people coming with Rs 2,000 notes demanding change". Most ATMs in the locality have been non-functional for three days now. The shopkeepers attribute their woes to the cash flow having reduced and, in turn, curbing the ability of the public to spend on purchases. At Bhagirath Place in old Delhi, Ramesh Aggarwal, who operates an electric lighting shop, explained, "Because ours is a wholesale market, the purchases are large and people are still coming to us with the old notes. However, the purchasing capacity has reduced drastically due to the cash crunch and not many shops are getting customers." This has created difficulties for shop employees. "I have to contribute money for the expenses at home, but I can do that only if I get my salary," said Jatin Kashyap, a salesman. The traders in these markets are anxious, and are fervently hoping, both for their businesses and the needs of their employees, that this dismal state of affairs does not persist till the yearend.

Serpentine lines yet to peter out  
The Pioneer (India)  
December 7, 2016 Wednesday  
Net sentiment: -5

New Delhi, Dec. 7 - People continue to queue outside the banks and ATMs in most parts of the national Capital on Tuesday - the 28th day since the note ban was implemented.

Being commercial hub of the city, Connaught Place has been seeing an unprecedented rush at all its ATMs.

The ICICI Bank's branch in 'A' Block of Connaught Place could be seen catering to 70-80 customers early in the afternoon. Almost as much people were seen crowding outside the adjoining ATM of the same bank.

A relatively less number of people stood in queues outside the Punjab National Bank (PNB) and the State Bank of India (SBI) ATMs in the same block.

The situation was more painful at the PNB's Nangloi branch, where the cash-strapped customers crowded complete length of the footpath outside the building.

The area, which is not known for any major commercial activity and largely inhabited by the people from lower income groups, witnessed a huge crowd thronging the bank. A large part of the crowd comprised small-time fruit and vegetable sellers and women.

The Central Government's bid for a cashless, or less-cash, economy also seemed to be falling apart many customer had to come out of a shop empty handed, since the card swipe machine refused to accept his payment due to 'network failure'.

Cong protest against note ban  
The Times of India (TOI)  
January 19, 2017 Thursday  
Net sentiment: -5

SHILLONG: Members of the Meghalaya Pradesh Congress Committee (MPCC) will 'gherao' the office of the Reserve Bank of India (RBI) here on Wednesday as a mark of protest against demonetisation. Speaking to the media after a meeting chaired by the All India Congress Committee coordinator in charge of Meghalaya, Takam Sanjoy, here on Tuesday, chief minister Mukul Sangma said, "The RBI's integrity has been diluted (by PM Modi)." The party alleged that the RBI had failed to perform its statutory duty towards the citizens of the country and had instead become a symbol of government interference in the running of statutory and constitutional bodies. "The RBI is becoming vulnerable to corruption otherwise why would its officials be arrested?" Sanjoy said, referring to the recent arrest of RBI officials for alleged involvement in conversion of demonetised currency.

High-value deposits under I-T scanner  
The Times of India (TOI)  
March 2, 2017 Thursday  
Net sentiment: -5

SURAT: The Income Tax department has started a surveys on the individuals and firms who have failed to revert to the notices issued regarding the high-value deposits in the banks post-demonitisation. In the launch of the survey, a provision shop at Lambe Hanuman Road was raided after the owner failed to revert to the notice seeking explanation for depositing Rs 35 lakh in old currency in the bank account. Official sources said that over 2,500 notices were issued by the department to those who had deposited scrapped currency above Rs 1 crore in their respective bank accounts. An additional 1,000 notices were served to those who had deposited over Rs 15 lakh in old currency in their bank accounts. Sources said that most of the individuals have deposited over Rs 1 crore in old currencies in the bank account after demonitisation from Vapi, Surat, Vadodara. The highest depositors are from Surat. Around, 20 to 25 cases related to Kishore Bhajiawala are also been scrutinized by the department. The department had sent online notices to the tax

assesses for high value deposit in old currency in the last two months. Sources said that most of the addresses given by the assesses are bogus and that the department has started seeking reply from the respective banks regarding the details of the account holders.

## **Five randomly chosen articles with sentiment scores between -4 and 1**

Cash chat

The Telegraph (India)

November 11, 2016 Friday

Net sentiment: -2

\* In Puri, a group of Spanish tourists faced a lot of trouble. Their tour operator Rabi said: "It would have been better had the government allowed the tourists to exchange cash worth Rs 20,000 a day at least." He said that since tourists bring in revenue to the state, exceptions should have been made for them. "They are on holiday and are looking to have a good time in Odisha. They need more cash than the general public to spend on hotels, travel and food," he said.

\* Even as the banks issued Rs 100 notes along with the new Rs 2,000 ones to customers, some tried to make a quick buck by offering Rs 900 for the old Rs 1,000 note. With people desperate to get rid of the notes, touts were hoping to have a field day. But that did not go according to plan because there were very few takers for the offer. People could be heard saying that they would wait some more to lay their hands on the new notes.

\* The rumour of a chip being fitted in the new Rs 2,000 currency note turned out to be a dud. Those who got hold of the new currency note were seen scrutinising it only to find that it had no such security feature. Some at the SBI's Rasulgarh branch were heard saying that the new Rs 500 note would certainly have this feature because its predecessor was the most misused, which necessitated the need for demonitisation. But people did not get to see the new Rs 500 today. Till the new notes are issued, speculation about the mysterious chip, is bound to linger.

Finance minister, Arun Jaitley says money woes due to demonetization will end by December 31st

New Delhi Times

December 3, 2016 Saturday

Net sentiment: 1

New Delhi, Dec. 3 – Following the note ban in India, which left the country scrambling in the last two months, Finance Minister Arun Jaitley said on Friday that the cash crunch would ease by Dec. 30 with the release of new 500 and 2,000 rupee notes.

Jaitley said, however, that the amount of new banknotes being released would not be the same as that circulating before Nov. 8, when Prime Minister Narendra Modi announced the so-called demonetization to purge the economy of illicit "black money".

Modi, at a stroke, removed from circulation banknotes worth an estimated 17 trillion rupees (\$249 billion). Finance ministry sources say they plan to reissue just over half of this - a task that would take months given the capacity of India's four banknote printing presses.

Modi set a 50-day deadline that runs to Dec. 30 for people to swap or deposit their old banknotes. He has promised the situation would stabilize by then and urged Indians to adopt cashless payment forms such as debit cards and mobile wallets.

“Obviously, one of the advantages of this exercise is going to be that you won’t have the same level of paper currency which existed,” Jaitley told the Hindustan Times Leadership Summit. Officials expect some illicit cash never to be returned and to expire worthless, while other money that is deposited will remain in the banking system. The government’s goal is to encourage the use of cashless forms of payment, a challenge for most Indians who live and work in the informal economy.

“It does create a disruption,” said Jaitley. “But I don’t see the disruption lasting for very long. You may see some impact for a quarter or so.” But Jaitley assured that the GST taxation would go ahead as planned saying “If on Sept 16, 2017, there’s no GST, then there’s no taxation,” he said. “Our intention is to make sure it gets implemented from April 1, 2017.”

Dec tax figures shrug off note-ban effect  
Hindustan Times  
January 10, 2017 Tuesday  
Net sentiment: 1

NEW DELHI, Jan. 10 – Both indirect and direct taxes levied by the Union government showed good growth in December, finance minister Arun Jaitley said on Monday, suggesting the impact of demonetisation on economic activity has been limited.

Most states also reported a rise in value-added tax collections in November, Jaitley said, adding that well-administered states did not see any impact on tax collections. “Statistics and taxation figures are real. This is the money that has come in,” Jaitley said, dismissing reports of closing of businesses as anecdotal.

The rise in excise duty collections in December can be partially attributed to the increase in excise duties on fuel effected in the last financial year, especially the three increases in excise duty effected in January 2016.

Further, since manufacturers with an annual revenue threshold of less than Rs 1.5 crore are exempt from levy of excise, the impact of demonetisation on very small manufacturers may not be captured by the excise collection data. Impact on very small service providers may also not be captured as the service tax threshold limit is Rs 10 lakh.

And a comparison of the monthly tax collection figures indicates there has been a slight moderation in growth in indirect tax collections in the aftermath of demonetisation.

Total indirect tax collections growth moderated to 14.2% in December from 23.1

The growth rate is much lower when compared to the cumulative growth in the first seven months of the fiscal.

As per data released by the finance ministry, indirect tax collections grew 14.2% in December compared with the year ago period.

Of this, while central excise levied at the stage of manufacturing grew 31.6% as compared to the corresponding year-ago period, service tax collections rose 12.4% and customs duty declined by 6.3% mainly on account of a fall in gold imports.

For the April-December period, indirect tax collections grew 25% to Rs 6.3 lakh crore.

While central excise was up by 43% to Rs 2.79 lakh crore, service tax grew 23.9% to Rs 1.83 lakh crore and customs by 4.1% to Rs 1.67 lakh crore. Direct tax collections were also up by 12.01% to Rs 5.53 lakh crore in the nine-month period, as against a growth of 15.12% in the April-November period.

Note ban decision cannot be taken by a single person: Chidambaram  
Political Business Daily (India)  
January 28, 2017 Saturday  
Net sentiment: 1

Kolkata, Jan. 28 – My real quarrel with demonetisation is that a decision of this magnitude, which has enormous consequences, cannot be taken by a single person. The three most important officials of the Finance Ministry—the finance secretary, banking secretary and the chief economic adviser, had not spoken a word in the last 70 days. What does that prove? Either they were not consulted, or if consulted, they disagreed,” former union finance minister P Chidambaram said today.

The Congress leader alleged that even former RBI governor Raghuram Rajan had sent a five-page note to Prime Minister Narendra Modi opposing demonetisation, following which “he was shown the door unceremoniously.” “It seemed that the PM was in a hurry to do demonetisation,” he said.

The senior Congress leader said there was no evidence that majority of the Jan Dhan accounts were used for money laundering post-currency withdrawal.

“Evidences do not point out that there was wholesale use of Jan Dhan accounts for money laundering purposes. Nearly 25 per cent of the JanDhan accounts were having zero balances and in the remaining, the average balance was '27,000,” he said at the Kolkata Literary Meet.

Only a small number of such accounts could have been used for money laundering, he said.

Chidambaram said that as per his estimates, the country’s GDP growth would take a hit of at least one per cent due to the policy.

He said 80 per cent of the units in the Ministry of Micro Small and Medium Enterprises (MSME) sector have been closed due to demonetisation, and it would take months, if not years, for them to recover.

The former Union Minister also dispelled the notion that cash crunch was easing now.

“The cash crunch is not easing. It may ease in the metropolitan cities, but in distant areas, 40 per cent of the ATMs do not have cash,” he alleged.

Chidambaram also hit out at the Election Commission for setting an “unrealistic expenditure target” for candidates contesting the polls.

“For every candidate, the limit is '35 lakh, which is unrealistic and foolish as contesting an election has become a very costly affair,” he said.

He said that because of this, the election campaigning mode had shifted from “overground to underground”, and the EC was responsible for it.

The senior Congress leader, however, supported state funding for polls.

“I fully support the idea of state funding for polls. Even business houses should have trusts set up to fund elections,” he said.

BJP meet to back govt on economic decisions in face of Oppn attack  
Hindustan Times  
September 24, 2017 Sunday  
Net sentiment: 1

New Delhi, Sept. 24 – The BJP’s conclave in New Delhi on Monday will seek to dismiss apprehensions about the state of the economy and reaffirm its commitment to the welfare of the poor and deprived social groups.

More than 2,000 BJP leaders, including MPs and MLAs, will attend an extended meeting of the party's national executive in New Delhi on Monday, the birth anniversary of Sangh ideologue Deendayal Upadhyaya.

The party is likely to adopt a resolution reposing faith in the government for taking "bold decisions" such as recall of high value currency notes and roll out of the Goods and Services Tax, which have been criticised by the Opposition.

Former Prime Minister Manmohan Singh recently suggested the two decisions adversely affected India's gross domestic product figures.

The GDP growth slid for the sixth quarter in a row to hit a three-year low at 5.7% in the June quarter.

However, BJP chief Amit Shah attributed the slowdown to "technical reasons", while finance minister Arun Jaitley said last week that the government was looking for ways to lift economic growth.

BJP sources said the resolution was likely to reiterate that the impact of GST and note ban on growth will be for a brief period and GDP figures will soon become robust.

Prime Minister Narendra Modi, who will deliver the concluding speech at the event, is also likely to touch on these points. He may also address concerns about fewer jobs.

The executive meeting of the ruling party comes ahead of the assembly elections in Gujarat and Himachal Pradesh, where the BJP has set ambitious targets. The party will reiterate its commitment to welfare of the poor and marginalised sections of society, a new vote base that it has tried to build.

At its national council meeting in Kozhikode last September, the BJP had announced that it will observe the birth centenary year of Deendayal Upadhyaya as Garib Kalyan Varsh (year for the welfare of poor).

The celebration comes to end on Monday and the party will review the activities it undertook last year to reach out through programmes such as free LPG to BPL families and loans for Scheduled Castes.

## **Five randomly chosen articles with sentiment scores greater than 1**

UP polls: Congress should have got more seats, says Jitin Prasada  
Mirror Publications  
March 9, 2017 Thursday, Mumbai Mirror  
Net sentiment: 2

New Delhi: Jitin Prasada, the Congress face in Uttar Pradesh, believes that perhaps, the party should have got more seats from ally, the ruling Samajwadi Party.

"No one plays Santa Claus when alliances are formed. We got 100 seats because of what we bring to the table and the value we add to the alliance. We should have, in fact, got more seats, but it is a thing of the past," Prasada told Mirror.

A total of 105 seats were given to Congress. However, SP candidates fought on Congress tickets in 12 seats. In 13 seats, there were friendly contests between the two partners.

Other than Rahul-Akhilesh joint campaigning, there was little cohesion between the cadres of the two parties on the ground. The SP workers, fed on anti-Congressism for long, found it tough to work together.

Also, the jury is out whether the Congress faltered by focusing much of its campaign on demonetisation. The note ban has had a mixed response in UP.

“Let people speak on March 11 (results day),” Prasada said.

‘If note ban can root out black money, then I am all for it’

The Times of India (TOI)  
December 12, 2016 Monday  
Net sentiment: 4

He is an Olympic bronze medal winner, has more than 3,56,000 followers on Twitter and is known to speak his mind. On the sidelines of the festival at the Indian Institute of Management, Ranchi, on Sunday, Yogeshwar Dutt tells TOI’s Dhritiman Ray about wrestling, demonetisation and more. Excerpts:Your outing at this year’s Rio Olympics did not turn out well. How do you see your career from here on?

I am currently focusing on next year’s World Wrestling Championships. At the same time, I am also focusing on my fitness so that I can be in shape and qualify for the 2018 Asian Games. I have let go of the dream of representing India in the Olympics again. First the Narsingh Yadav-Sushil Kumar controversy and then the former’s positive dope test put Indian wrestling in a bad light...The year has been very controversial as a whole for Indian wrestling. Be it doping or qualification, Indian wrestling was put to shame. One player could have represented the country, our medal prospects would have improved. Doping is wrong in any sport. As far as wrestling is concerned, wrestlers do keep a watch on what they eat or drink. But this incident should teach our wrestlers to be more careful about their diet. I hope it does not happen again. Among all the wrestlers in India, you seem to be the most active on social media. You have sent out many tweets supporting the Centre’s demonetisation moveIf this decision can root out black money, then I am all for it. The whole country and its people were suffering from its ill-effects. This is a big step that has been taken by the Government of India and they must have thought a lot before taking it. The country will move forward. I don’t see anything wrong in demonetisation. Tell us about the wrestling league The second edition of the Pro Wrestling League will begin from January 2. Most of the wrestlers in India come from poor families. The league will give them a chance to participate along side international players in their own turf. They will earn money out of it which they can spend on better training.What do you intend to do after you quit wrestling?Who said I am going to quit? My students will take it forward. I have bought a six-acre land in Sonepat in Haryana. I will open an academy there and try to produce good wrestlers who can make India proud in the international arena.Wrestling in India is mostly concentrated in north India. Why can’t other states also produce quality wrestlers?There is a passion for sports in Haryana. There are Akharas in every village. We grew up hearing stories of our fathers and grandfathers practising Kushti. All the kids inevitably take up wrestling although they branch out into different professions later on. The situation has improved after people realized the importance of the Olympics. Wrestling is popular across the country. States like Maharashtra and Madhya Pradesh have a tradition of wrestling but they cannot produce good wrestlers. For that we need proper infrastructure at the grassroot level. The state governments have to create infrastructure and the atmosphere to promote wrestling. The Jharkhand government has come up with a sports academy and a university too is in the pipeline. If approached, will you join the project?Why not? I can go anywhere to promote wrestling and contribute to its development. I will surely take up a coaching role if the Jharkhand government approaches me.

Dimple Yadav’s charm brings women in hordes to Agra rallies held at a short notice

The Times of India (TOI)  
February 9, 2017 Thursday  
Net sentiment: 5

Agra: Despite the presence of Bollywood actors like Jaya Bachchan, it was “Akhilesh ki gharwali” Dimple Yadav, who stole the show in Agra on Wednesday and brought women and young girls in hordes to three of her rallies in Agra held at a short notice on Wednesday. The two-term Kannauj MP, Jaya Bachchan and Vidya Balan were scheduled to campaign for Samajwadi Partys three women candidates in Agra district Anshu Rani Nishad in Bah, Rajabeti Baghel in Etmadpur and Mamta Taploo in Agra Cant on Wednesday but Balan couldnt make it to the venue on time as the programme was finalised only on Tuesday evening.

People, particularly a large number of women, came on tractor-trolleys, buses and even bikes, to catch a glimpse of the “young CMs wife”. Starting her whirlwind tour of the city from the rural segment of Bah, where the party has fielded Anshu Rani Nishad, Dimple engaged with crowds, “Kitne ghante bijli aati hai (for how many hours you get electricity)”, she asked, and the crowds responded “18 ghante (hours)”.

In his Aligarh rally held on Sunday, PM Narendra Modi had attacked the SP government, saying that the industry in the state had closed down due to the failure of the Akhilesh government to ensure power supply. He had claimed that only a BJP government in the state can bring VIKAS: Vidyut (power), Kanoon (law and order) and Sadak (roads) in the state.

Without naming PM Modi, Dimple asked the crowd, “Acchhe din wali sarkar ne kya diya aapko” (what did those who promised good days give you)”. Before the crowd could come up with an answer, she said, “Notebandi, yeh diya hai (demonetization, thats what they have given you).”

Taking a dig at BJP leaders for calling the SP governments laptop distribution scheme “jhunjhuna (childrens clackers), Dimple said, “Humare mukhyamantri ji ne laptop yojana chalayee thi laptop pahuncha ki nahi pahuncha (our CM had started the free laptop scheme. did they reach you or not)?” As the crowd responded cheerfully, “Pahunche (they reached us)”, Dimple said, “They (BJP leaders) failed to realise that these were laptops of hope for the people.”

A cross section of women TOI spoke with at the rallies had a good word to say for both “Akhilesh Bhaiyya” and “Dimple Bhabhi”. “They are doing good work and I like the couple,” said, Neha Verma, a college student. Another student Bharti said, “If Rahul Gandhi too was married, the two young couples could have been a hit everywhere.”

In her address, Jaya Bachhan sought votes for Akhilesh Yadav to ensure that development in the state continues. She said the UP CM was a man of his word and would fulfill all the promises he has made.

Dimple later also addressed public meetings at Etmadpur and Taj View crossing in the city.

Alliance that has struck a chord on ground - Bonhomie between Rahul and Akhilesh reflects among workers of both parties

The Telegraph (India)  
February 12, 2017 Sunday  
Net sentiment: 10

STICKING TOGETHER

New Delhi, Feb. 12: Hoardings across Uttar Pradesh bearing photographs of Rahul Gandhi and Akhilesh Yadav deliver just one message: “UP ko ye saath pasand hai (UP likes this combine).”

It is an exceptional strategy, focusing on two individuals coming together instead of dwelling on political themes. The purpose is to highlight the alliance as what Rahul and Akhilesh stand for is implicit in the subtext.

The key to the success of the tie-up was the chemistry between the workers of the Congress and the Samajwadi Party. Both Rahul and Akhilesh ensured that the unity of purpose permeated to the grassroots. The two frequently demonstrated their rapport and dispatched teams of senior leaders to every district to build bridges between the traditional rivals.

The Congress also sent observers from Delhi for a coordinated approach. Although there were conflicts in some constituencies as both the Congress and the Samajwadi Party have fielded candidates, Rahul told a media conference in Lucknow that “they were not central to the larger coalition”.

A Congress leader expressed surprise at the bonhomie between the workers of the two parties, saying “Fevicol hai, chipak gaya (It stuck like Fevicol). The passion to fight communal forces is common.”

Reports from the battlefield are positive. Asked how they felt while campaigning for the Samajwadi candidate, senior Congress leader Prem Shankar Sharma in Firozabad said: “There is no issue, we were so upset with Narendra Modi’s style of functioning that we could embrace anybody. We had initially begged the high command not to align with anybody, but now we are going door-to-door to campaign for the Samajwadi candidate.”

Another leader, Umakant Pachauri, said: “Many Hindu voters initially didn’t want to support the Samajwadi Party’s minority community candidate but we held small meetings to convince them why it was important to prevent the BJP from coming to power. The upper castes also nursed reservations against the Yadavs but the emergence of Akhilesh as the leader helped our cause. He has discarded the old baggage. Now we are passionately working for Akhilesh so that he returns as chief minister.”

Another Congress leader in Firozabad, Surendra Nagar, said there was “no doubt” even the upper castes believed at one point that BSP chief Mayawati was a “better choice” when it came to law and order. “But this Samajwadi government has been markedly different - there was no kidnapping and extortion. It would have been really difficult for us to campaign for the Samajwadi Party but for the positive image of the chief minister,” he said.

Die-hard Samajwadi supporters, however, don’t appear enamoured of Rahul. Most of them said they had nothing to do with the Congress but welcomed Rahul’s decision of aligning with Akhilesh.

Ajay Yadav, a factory worker, summed up the mood: “Razi-berazi, Rahul Akhilesh ko madad toh kar rahe hain. Yehi badi baat hai (Willingly or by compulsion, Rahul is helping Akhilesh and that’s a big thing).” His colleague Ram Baghel said: “We are obliged to support Rahul in return.”

The elderly Chandraveer Yadav, another worker of the factory who has “hated” the Congress all his life, said Rahul and Akhilesh were “young and symbolised clean politics and hope”.

“We have to change our perception of Rahul and the Congress because of the crucial support they have extended to Akhilesh. Politics is not static and if Rahul and Akhilesh decide to work together to fight Modi, who does only ‘halla (hollow noises)’, we will support the Congress in the Lok Sabha elections too. Unlike Modi, both Rahul and Akhilesh weigh their words and fulfil their promises,” Chandraveer said.

Madan Gupta, a shopkeeper in Agra's Raja Ki Mandi, was more effusive: "Both Rahul and Akhilesh are cool and mature. Their value systems are similar. Together, they form a strong antidote to Modi. All through the notebandi (demonetisation) crisis, it was Rahul who spoke the right things. Now he has shown the wisdom of aligning with Akhilesh. Those who call him Pappu should judge him by his actions instead of going by the propaganda."

Shiva Jindal, a youth who sells books in the same market, said he did not find any "major contradictions" between Rahul and Akhilesh. "They both claim to do politics for the poor and focus on the youth. We wish they stay together for longer as they understand that only jobs and welfare can be good for India. We don't need those who do divisive politics," Jindal said.

There are many who are mocking Rahul and criticising him for joining forces with the Samajwadi Party to stay afloat in Uttar Pradesh. There is no denying that the Congress organisation is in a shambles in the state and the youths have largely deserted the party. However, much of the goodwill Rahul has earned is because of his "bold decision" of forging the alliance, which is also being seen as his positive understanding of social engineering.

UP election 2017: Why getting the SP 'cycle' is Akhilesh Yadav's biggest victory

Hindustan Times

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Net sentiment: 19

India, Jan. 16 – The bitter political feud between Akhilesh Yadav and Mulayam Singh Yadav is now over. The son has defeated the father. And to the victor go the spoils.

Akhilesh's winning the cycle symbol has put him firmly in the 'rider's seat', not just in the Samajwadi Party but in the Uttar Pradesh assembly elections starting on February 11. The Election Commission's decision on January 16 makes Akhilesh the brave new face of the Samajwadi Party. It takes him from legatee to sovereign in the blink of an eye. It indicates that the takeover is now complete. What the cycle means to Akhilesh, and the power that it gives him as he heads to the polls, cannot be overstated.

If there is a single image of Akhilesh that holds a lasting memory, sometimes tinged with hope and sometimes with rueful nostalgia, it is one from the 2012 assembly elections campaign in Uttar Pradesh (UP). In it, Akhilesh, in a white kurta-pyjama, a red-and-white scarf and a red Samajwadi topi, is waving triumphantly while riding a bicycle. Next to him, the peloton is made up of hundreds of similarly clad Samajwadi Party workers. Akhilesh's campaign rallies, in which he covered more than 250 kilometres on a cycle, were credited not just for his party's resounding victory but also his eventual elevation as Chief Minister.

Five years later, some new revelations have been unearthed about Akhilesh over the last two weeks. At a time when UP is gearing up for an election in the backdrop of Prime Minister Narendra Modi's demonetisation decision and a bitter family feud within the Samajwadi Party, the young chief minister has emerged more strong-willed and more politically savvy than pundits had thought he could ever be.

Not only has he shown the fortitude to take on, and then take over, the extended Yadav parivar, he has stood his ground against his father and party patriarch Mulayam Singh Yadav. In October, Akhilesh had beseeched Mulayam to allow him to use the sword he had handed him when he had given him the chief minister's job. Last week, Akhilesh brandished it expertly, cutting down uncle Shivpal Yadav's leadership ambitions and severing Amar Singh from the Samajwadi Party.

What stood out after Mulayam took the hitherto-unthinkable step of expelling his own son from the party on December 30, was how quickly Akhilesh rallied the troops. The groundswell of support from party workers, and most importantly from almost 200 MLAs who parked themselves outside Akhilesh's official Kalidas Marg residence in Lucknow, forced Mulayam to lay down arms. The manner of the takeover illustrated something Mulayam hadn't comprehended - Akhilesh was not just well-liked, he was regarded as a better political bet by people who have their ears to the ground. It showed that the passing of the baton would not happen at a date and time of Mulayam's choosing; Akhilesh had already snatched the baton and sprinted away.

This decisive power shift from father to son has opened up a world of possibilities for UP. It has shown that the result of the upcoming assembly polls is not a foregone conclusion. The BJP, which won 71 out of 80 seats in the 2014 Lok Sabha elections and was hoping to cash in on notebandi to further strengthen its claim, will have to put up with a stiff fight from the incumbent, particularly in the absence of a chief ministerial candidate who can compete with Akhilesh on the personality stakes.

For the first time, a Yadav leader in UP will be heading to the 2017 election with the ability to create a larger coalition than the traditional backward-Muslim vote bank. There have been reports of Akhilesh's willingness to join hands with Rahul Gandhi's Congress and with Ajit Singh's Rashtriya Lok Dal. It's a potentially decisive combination that could skew traditional caste divisions by holding sway over a section of Thakur and Brahmin votes, apart from consolidating the Muslim and backward vote banks. It could also swing some of the Dalit voters who traditionally side with former chief minister Mayawati's BSP.

While this possible gathbandhan works subtly on the ground, Akhilesh's carefully crafted image makeover as a development icon could allow him to cash in on his popularity to appeal to voters independent of rigid caste blocks. Akhilesh is in a position where he can acquire his father's political goodwill, and expand it further with his newly stamped and perfectly timed administrative credibility as the architect of expressways, cricket stadiums, cancer hospitals and the Lucknow Metro. He could change the Samajwadi Party narrative from mutual interest and factionism to a Modi 2014-style promise of progress.

But it's a delicate political game to play. The best chance Akhilesh had of striking a balance between the old and the new was to hold on to his political roots. Roots that can be summed up in the one object he never lost touch with, even when he was distributing laptops and talking of building IT cities - the cycle. The fight over the party's symbol, which went to the EC with both sides claiming to be the real Samajwadi Party, was critical. For, though Mulayam and Shivpal may not be in a position to put up a fight in the state, they could have made things much more difficult for Akhilesh by snatching the party symbol away from him.

Over two-and-a-half decades, Samajwadi Party's cycle has represented a social identity that has grown stronger than the leaders who own it. It brings with it its own brand of loyal supporters who have rarely voted for any other symbol, and a message that holds sway over caste and religious sentiments. Without it, Akhilesh would have lost more than ground recall, he would have found himself without a personal motif - one that he has perhaps nurtured more affectionately and used more effectively than any other leader in India.

Now he's got what he wanted. And, just like that, an already fascinating election battleground has become even more interesting.

## Additional tables and figures

Appendix Table 1: Robustness tests for the economic effects of demonetization

Dependent variable: Sample:	Value of proj. Until June 2017 1	Number of proj. Until Jan. 2017 2	Value of proj. Until Jan. 2017 3
Ln bank branches (standardized) x After demonetization	0.137*** (0.0391)	0.0894* (0.0462)	0.478*** (0.172)
After demonetization	-0.533*** (0.107)	-0.372*** (0.0202)	-3.143*** (0.439)
District fixed effects	Y	Y	Y
State trends	Y	Y	Y
Observations	1881	1620	1620
Adjusted <i>R</i> -squared	0.18	0.28	0.17
First stage <i>F</i> -stat. for interaction term	69	31	31

*Notes:* The dependent variable in regressions 1 and 3 is the log rupee value of project announcements. The dependent variable for regression 2 is the log number of project announcements. The sample for regressions 2 and 3 extends until January 2017, before the elections under study. The data for regression 1 extend until June 2017. Standard errors clustered by state. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . See text for details.

Appendix Table 2: The effect of demonetization on the % of the BJP vote as the number of bank branches varies, placebo test

	1
After demonetization	-2.150 (2.695)
Ln bank branches per capita (standardized)	10.84** (1.914)
Ln bank branches per capita (standardized) x After demonetization	-8.366** (1.826)
Ln bank branches per capita (standardized) x Pre-treatment placebo	-4.455 (3.722)
Excess rainfall dummy, lagged	1.891 (2.151)
Deficit rainfall dummy, lagged	18.02*** (0.951)
District fixed effects	Y
Year fixed effects	Y
Observations	225
Adjusted R-squared	0.76

Notes: Standard errors clustered by state. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . See text for details.

Appendix Table 3: The effect of demonetization on the proportion of constituencies in which the BJP won a plurality of votes as the number of bank branches varies

	OLS 1	OLS 2	OLS 3	2SLS 4
After demonetization	-0.0401* (0.0167)	-0.0343 (0.0330)	-0.0293 (0.0375)	-0.0272 (0.0329)
Ln bank branches per capita (standardized)		0.128** (0.0278)		
Ln bank branches per capita (standardized) x After demonetization		-0.132** (0.0238)	-0.136*** (0.0226)	-0.196*** (0.0411)
Excess rainfall dummy, lagged	0.0526 (0.0733)	0.0668 (0.0602)	0.0759 (0.0724)	0.0713 (0.0568)
Deficit rainfall dummy, lagged	0.199* (0.0740)	0.0916 (0.0475)	-0.00754 (0.0953)	-0.0736 (0.0800)
State fixed effects	Y	Y		
District fixed effects			Y	Y
Year fixed effects	Y	Y	Y	Y
Observations	225	225	225	225
Adjusted <i>R</i> -squared	0.63	0.67	0.71	0.70
First stage <i>F</i> -stat. for interaction term				13

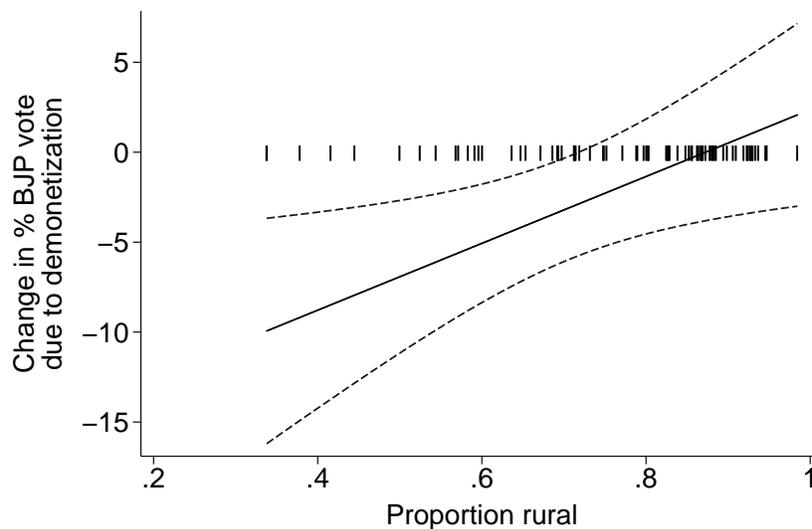
*Notes:* Observations are for 75 districts for three election years. The dependent variable is the proportion of constituencies in which the BJP won a plurality of votes. Standard errors are clustered by state. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . See text for details.

Appendix Table 4: The effect of demonetization on the % of the BJP vote as proportion of the population that is rural and agricultural varies

	1	2
After demonetization	-16.21*** (5.638)	-15.55*** (3.859)
Proportion rural x After demonetization	18.58** (7.702)	
Proportion employed in agriculture x After demonetization		23.80*** (6.593)
Excess rainfall dummy, lagged	5.126** (2.353)	4.720** (2.319)
Deficit rainfall dummy, lagged	24.19*** (2.918)	24.52*** (3.982)
Year fixed effects	Y	Y
Observations	225	225
Adjusted R-squared	0.79	0.80

Notes: Standard errors clustered by district. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . See text for details.

Appendix Figure 1: The effect of demonetization on the % of the BJP vote as the proportion of the population that is rural varies



Notes: The solid line is the predicted effect of demonetization on the % of the BJP vote as the proportion of the population that is rural varies, calculated using the coefficients in regression 1, Table 4. Dashed lines are for the 95% confidence intervals. The rug plot depicts the distribution of the proportion of rural residents.

Appendix Table 5: The effect of demonetization on the % of the BJP vote as the number of bank branches varies, controlling for corruption

	OLS 1	OLS 2	OLS 3	2SLS 4
After demonetization	-5.067 (4.332)	-1.910 (4.624)	-1.550 (2.308)	-0.268 (1.836)
Ln bank branches per capita (standardized)		8.477** (2.517)		
Ln bank branches per capita (standardized) x After demonetization		-6.201*** (1.025)	-6.181*** (1.359)	-8.596*** (1.535)
Prop. candidates charged with financial crimes	-79.68** (23.64)	-6.637 (11.67)		
Prop. candidates charged with financial crimes x After demonetization	61.23 (51.06)	-5.538 (38.02)	-7.122 (36.38)	-34.52 (29.93)
Excess rainfall dummy, lagged	1.160 (3.149)	1.877 (2.613)	4.461** (2.204)	4.288** (1.717)
Deficit rainfall dummy, lagged	24.79*** (2.923)	17.79*** (2.406)	17.35*** (3.645)	13.56*** (2.941)
State fixed effects	Y	Y		
District fixed effects			Y	Y
Year fixed effects	Y	Y	Y	Y
Observations	225	225	225	225
Adjusted <i>R</i> -squared	0.69	0.75	0.82	0.81
First stage <i>F</i> -stat. for interaction term				13

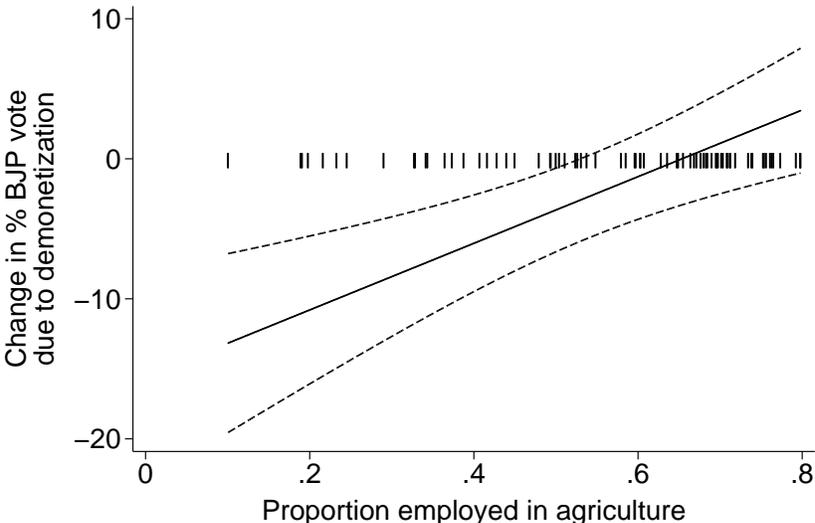
*Notes:* Observations are for 75 districts for three election years. The dependent variable is the % of the BJP vote. Standard errors are clustered by state. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . See text for details.

Appendix Table 6: Could the promise of loan forgiveness explain the fact that under-banked districts fail to punish the BJP?

	OLS 1	2SLS 2	OLS 3	2SLS 4
After demonetization	5.635 (5.540)	13.18*** (2.356)	-2.653 (4.446)	16.96 (13.36)
Ln bank branches per capita (standardized) x After demonetization	-5.551** (2.419)	-12.52*** (2.293)	-5.925*** (1.399)	-14.93*** (4.708)
Proportion employed in agriculture x After demonetization			1.382 (7.327)	-32.70 (22.20)
Excess rainfall dummy, lagged	5.784 (3.360)	1.255 (3.725)	4.464** (2.199)	4.074** (1.729)
Deficit rainfall dummy, lagged	18.79** (7.408)	3.299 (3.369)	17.92*** (2.856)	7.878 (5.966)
District fixed effects	Y	Y	Y	Y
Year fixed effects	Y	Y	Y	Y
Observations	57	57	225	225
Adjusted <i>R</i> -squared	0.67	0.53	0.82	0.77
First stage <i>F</i> -stat. for interaction term		19		2

*Notes:* Regressions 1 and 2 exclude observations from Uttar Pradesh. Regressions 3 and 4 include the interaction of the proportion of workers employed in agriculture and the after demonetization dummy, which proxies for the promise of loan forgiveness. Standard errors clustered by district. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . See text for details.

Appendix Figure 2: The effect of demonetization on the % of the BJP vote as the proportion of workers employed in agriculture varies



*Notes:* The solid line is the predicted effect of demonetization on the % of the BJP vote as the proportion of workers employed in agriculture varies, calculated using the coefficients in regression 2, Table 4. Dashed lines are for the 95% confidence intervals. The rug plot depicts the distribution of the proportion of workers employed in agriculture.