Offshore Capital and Onshore Discrimination: The Biased Effects of India's Anti-corruption Campaigns on Muslim Businesses

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Abstract

Offshore capital flows are a substantively important dimension of international capital mobility. We use leaked data on the ownership of offshore shell companies to estimate Indian firms' propensity to move capital offshore, and we examine how the propensity to offshore varies with the religious identification of a company's board members. We find that when the Bharatiya Janata Party (BJP)'s proportion of seats in a state's legislature increases by 10 percent, the proportion of Muslim-led companies that participate in offshoring declines by approximately 10 percent, while there is little if any reduction in offshoring among Hindu-led companies. We argue that this relationship is best explained by the BJP's anti-corruption initiatives and their much stronger effect on Muslim business owners compared to other ethnic and religious groups. We support this conclusion with an investigation of firm-level mechanisms and a sensitivity analysis of potential confounders.

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The rapid rise of global financial integration has raised difficult questions about how the wealthy's access to offshore tax havens may be a primary driver in growing inequality (Alvaredo et al. 2017). Capital mobility constrains governments, undermining their efforts to redistribute via tax and macroeconomic policy (Bates and Lien 1985; Pond and Zafeiridou 2019; Mosley 2003). In this paper, we show that financial globalization can have uneven effects on intergroup inequality when the politicization of anti-corruption initiatives cuts off access to offshore havens for marginalized minorities.

While we do not dispute the troubling implications of the offshoring of wealth for the distribution of income, we do argue that existing accounts of the movement of capital abstract away from the complexity of domestic politics, obscuring the fact that disfavored groups may be able to use offshore financial havens to protect themselves from discrimination. After all, the participants in financial globalization are not only bearers of national identities, but also those of gender, religion, class, and race, to name only a few salient dimensions. When these identities are politicized and used to justify economic discrimination, offshore integration might offer potential help to minority groups seeking to protect themselves from majority group discrimination. In a similar vein, efforts designed to stop financial offshoring could lead to an increase in discrimination and inter-ethnic inequality when suppression efforts are differentially applied for political reasons.

This paper makes three central contributions that help uncover the ways that financial globalization can intersect with domestic politics. First, we find a way to connect one of the only existing datasets of offshore wealth, the International Consortium Investigative Journalism (ICIJ) Offshore Leaks dataset, with a dataset of the complete financial statements from more than 30,000 Indian private and public companies to allow us to make nuanced comparisons between companies with and without links to offshore financial centers. Second, we develop a two-stage model to permit us to make inferences from the self-selected sample of companies in the ICIJ dataset to the broader population of companies in India with potential offshoring activities. Third, we are able to show that the rise of the Bharatiya Janata Party in India, an anti-corruption Hindu nationalist party, adversely affected the ability of Muslim-run companies to access offshore finance while having a much more limited impact on the offshoring activities of Hindu-run companies.

We find that offshoring among Muslim companies decreases dramatically as the BJP comes to power, which is suggestive of unfairly targeted anti-corruption initiatives hurting the ability of Muslim companies to move assets and profits overseas. This association is surprisingly large, representing a decline of nearly 50% in predicted offshoring for smaller companies with Muslim board members, and robust even to the influence of a very large potentially omitted confounder. While companies with Hindu-affiliated board members also saw a decline in offshoring during periods of BJP rule, the decrease was far less than that observed by companies with ethnically Muslim directors.

As a result, this study shows how financial offshoring interacts with politics and sectarianism in counterintuitive ways. As Muslim businesspeople lose access to lucrative means of protecting their assets from taxes and even expropriation, inter-group inequality between Hindus and Muslims is likely to increase. Furthermore, we found that the association was strongest for Muslim-run companies with less sophisticated financial reports, suggesting that intra-group inequality has also likely increased as the Muslim companies with the most sophisticated operations were still able to find a way around the new restrictions.

1 Theoretical Framework

Our conceptual framework articulates how politically salient, identity-based cleavages motivate some firms to engage in financial offshoring. We bring into dialogue two seemingly disparate lines of inquiry: the political economy consequences of politicized social cleavages and private firms' responses to weak property rights protection. While the first explains how political conflict can raise the salience of some identities, the second provides a framework for discussing the personal connections that firms leverage to shore up their property rights and, more generally, boost profits. We argue that social identities are also a determinant of the strength of a firm's property rights and firm owners' capacity to leverage social connections to protect those rights. Ceteris paribus, minority-owned firms governed by majority-group politicians should face greater threats to their property rights. Social cleavages weaken the efficacy of typical strategies to appease politicians, such as paying rents or allying with other stakeholders against predation by the state. In these settings, financial offshoring provides an exit option that can mitigate the effects of discrimination.

1.1 Social Cleavages

Shared group identity facilitates economic and political exchange by fostering trust, reducing transactions and information costs, and facilitating monitoring (Guiso, Sapienza and Zingales 2009). Homogeneous societies provide more extensive public goods, which can reflect homogeneous preferences, underlying institutions that give rise to homogeneity (Banerjee, Iyer and Somanathan 2005), or social network-based monitoring of collective action (Habyarimana et al. 2007). Common features of political institutions in developing countries, including weak political parties and anemic political competition, can make identity more politically salient whereby shared group identity forms the basis of distributive politics (Chandra 2004; Eifert, Miguel and Posner 2010)

Social cleavages acquire political salience when politicians have electoral incentives to discriminate against minority groups. In Indonesia, for example, democratization heightened electoral pressure for majority Muslim politicians to discriminate against women and religious minority bureaucrats (Pierskalla et al. 2021). Identity-based discrimination increases during elections (Michelitch 2015). Wilkinson (2006) finds that the selective enforcement of law is often based on whether the minority group's vote is necessary for majority group politicians to win elections.

1.2 How do firms cope with weak property rights?

Scholarship on firm-state relations in these environments emphasizes the different ways in which firms leverage social connections to overcome weak environments. Echoing Hirschman (1970) famous trifecta of exit, voice, and loyalty, current research emphasizes three distinct strategies. Loyalty, appeasing the state, takes many forms. Firms leverage their connections to politicians in ways that make them more profitable (Faccio 2006; Earle and Gehlbach 2015; Asher and Novosad 2017; Markus and Charnysh 2017; Szakonyi 2018), reduce tax payments (Chen and Hollenbach 2022), and win public contracts (Mironov and Zhuravskaya 2016). Voice, challenging the state, sees firms defending against predation by the state by forging alliances with like-minded stakeholders (Markus 2012; Johns and Wellhausen 2016) or those who can constrain the state (Frye 2006). Exit, as conceived of existing research, sees firms ceasing operations or being acquired by politically connected owners (Betz and Pond 2023).

Offshore financial activities can be seen as a form of exit that nonetheless allows the asset owner to remain in the domestic economy. As such, it necessarily changes the balance of power vis-a-vis the state. In the case of a predatory state (Acemoğlu and Robinson 2008), offshoring may enable company owners to secure their profits from arbitrary expropriation. In the case of more "legitimate" forms of revenue extraction, offshoring may undermine state infrastructural power and its ability to provide public goods and mitigate the harsh effects of inequality (Piketty and Saez 2014).

While much of the literature with financial offshoring focuses on the potential impacts on legitimate forms of state revenue collection, we believe that we should not assume that offshoring can only affect domestic political economy through reducing tax revenues. Predatory state behavior can result in expropriation of firm assets that does not alleviate inequality but can instead increase it, especially when predation is targeted at minority groups. Financial offshoring could reduce overall tax revenues but also limit corruption of state officials and discriminatory policies that seek to expropriate from vulnerable populations. For these reasons, we believe that we need to have a fuller understanding of the relationship between international activities like offshoring and domestic political-economy research into the political coalitions that underpin regimes.

1.3 Financial Offshoring: Exit for Minority Groups

Our analysis in this paper focuses on financial offshoring through shell companies located in favorable tax districtions that permit owner anonymity, a type of financial flow that has increased remarkably in the last thirty years. A shell company is shorthand for a range of legal entities (corporations, foundations, trusts) used to facilitate offshore capital flows. Given that these entities are located in jurisdictions that do not report the beneficial owner (i.e., the true owner of the shell company's assets), it is very difficult to know how much wealth is parked in offshore tax havens.

Tax havens are jurisdictions that specialize in the provision of financial and business services to non-residents (Hines 2010). Havens compete on low taxes and incorporation costs, and the level of privacy offered. For example, some jurisdictions allow the use of nominee shareholders (e.g. non-beneficial owners) and unregistered bearer shares, which confer ownership on whomever possesses a physical document (OECD 2001). Shell companies are easy to establish despite international conventions designed to curb their illicit use (Findley, Nielson and Sharman 2014).

Funds are often transferred to the offshore entity through dummy transactions such as payment for services and the incorrect invoicing of goods. Once the money is in a shell company it can be used to purchase assets like real estate that are then leased back to the beneficial owner. Banks provide beneficial owners with credit cards that draw on shell company-owned bank accounts. Funds can also be routed back to the home country via tax treaty partners, a practice known as roundtripping.

While it is difficult if not impossible to know exactly which financial transactions represent these kinds of activities, we do know that related party transactions (RPTs) are likely to be involved. RPTs are reported transactions (buying, selling, borrowing, lending) with other firms over which the originating firm has some control or otherwise some affiliation. It is well-known that RPTs are among the most common vehicles for firms to transfer funds to offshore shell companies (Central Board of Direct Taxes 2017). Of course, this does not mean that all or even most RPTs are evidence of offshoring, as they have many legitimate purposes.

Given our limited ability to separate regular from abnormal financial transactions, our study, like most that have looked closely at the issue, relies on a series of leaks of information about shell companies to journalists from law firms that facilitate the transactions. These data, made public by the non-profit International Consortium Investigative Journalism (ICIJ), span a series of data leaks during 2013-2017.² The biggest leak, the 2016 Panama Papers, consists of 11.5 million documents (2.6 TB of data) from the Panamanian law firm Mossack Fonseca, which, at the time, was the world's fourth largest provider of offshore incorporation services. In Figure 1 we show the count of incorporations by date from the combined ICIJ dataset, revealing the explosive growth in these types of legal arrangements.

As we explain later, we are able to use our theoretical priors about the nature of financial offshoring to track it with much more precision than was previously possible. We are not though only interested in describing financial offshoring but also discussing the political determinants of the activity. In the Indian case, and we believe much more commonly than is thought, financial offshoring can be both a shield from arbitrary state expropriation *and* a way for elites to avoid paying their legal share in taxes. While easy access to financial offshoring is likely to undermine state capacity in terms of revenue collection, we also cannot assume that state power is always directed towards altruistic aims. For these reasons, it is imperative that we understand the political-economic ramifications of shutting down this type of financial activity.

The trade-offs are similar to the current debate over the so-called "informal" sector of

²(Bernstein 2017; Obermaier and Obermayer 2017)



Figure 1: Growth of Global Shell Company Incorporation Over Time

Note: Daily count of incorporations from the ICIJ Offshore Leaks database. Red dashed lines denotes the 2000 dot-com recession and the blue dashed line the 2008 global financial crisis.

economies in the developing world. While there is widespread support among international organizations for policies that increase tax collection by bringing more economic activity into the formal sector, analyses of formalization efforts show that they can disproportionately harm marginalized economic actors (Gallien 2020). In a similar way, efforts to end financial offshoring can have unintended effects–or, as we document in this paper, possibly quite intended effects under the guise of rooting out corruption.

1.4 BJP and Anti-Muslim Discrimination in India

In addition to the explicit violence faced by Indian Muslim individuals in the name of religious discrimination (Sharma 2020), Indian Muslim communities disproportionately face economic discrimination and setbacks, leading to far less financial stability than Hindus or other religious minorities. The Muslim population in India tends to work in industries pushed out by liberalization, such as traditional crafts or artisan work, and have a difficult time shifting to more thriving industries due to a lack of accessible training, credit lines, loans, and general education. This inaccessibility is often attributed to government and bureaucratic discrimination on the basis of religious affiliation but is further enhanced by economic discrimination and lack of infrastructure in impoverished areas, where Muslim individuals often must live. Muslims are underrepresented in public service employment, but despite demands otherwise (Allie 2023), they are denied the affirmative action (reservations) granted to other lower castes on the grounds that Muslims do not practice caste (Pandya 2010, 18-19).

Heightened religious tensions magnify the effects of religious identity on economic behavior. Hindu bank branch managers exposed to violent Hindu-Muslim riots as children lend less to Muslims borrowers and exhibit higher default rates on loans to Hindu borrowers, outcomes consistent with taste-based discrimination (Fisman et al. 2020). Atkin, Colson-Sihra and Shayo (2021) find that greater media coverage of Hindu-Muslim violence strengthens households' adherence to religious prohibitions on the consumption of beef (Hindus) and pork (Muslims). Mitra and Ray (2014) find that relative growth of Muslim household income increases rioting whereas income growth of Hindu households has no effect.

The BJP's nationalist agenda exploited these religions tensions to obtain power, overlooking violence against Muslims. In addition to its pro-Hindu stance, the BJP is known for its anti-corruption platform,³ one of Prime Minister Modi's signature policy initiatives.

 $^{{}^3{\}rm See} {\rm https://www.hindustantimes.com/75th-independence-day/politics/corruption-and-accountability.}$

While the clearly biased nature of the BJP would suggest that Muslims would be more likely to be targeted by anti-corruption probes, there is little if any research on the nature and outcome of the BJP's anti-corruption drives so far, aside from noting their broad scope. For example, Prime Minister Modi's website boasts of its role in passing laws allowing the government to track "black money", including offshoring in "Mauritius, Cyprus, Singapore, etc." These laws permit the government to fine a company or individual up to 90% of the value of the account deemed to be offshore or otherwise unacceptable under Indian law.⁴ Of course, the success of these initiatives can be difficult to identify, and the BJP's political opponents like to point out continued scandals and instances of corruption at all levels of government.⁵ Recently, it would seem that the BJP is using corruption investigations to go after prominent opposition politicians, at the very least undermining the even-handedness of its proclaimed anti-corruption credentials.⁶ Given that companies rarely if ever report their financial offshoring publicly, it is difficult to know who has been targeted and investigated by the BJP through its anti-offshoring legislation.

We do also have anecdotal evidence that the BJP has used its clean government image to permit anti-Muslim discrimination. In one recent example, the BJP razed markets run primarily by Muslim business owners, arguing that the stores were illegally constructed because they lacked necessary permits.⁷ The BJP has also gone after shell companies, declaring more than 100,000 registered firms defunct because they were apparently vehicles for money laundering.⁸ While we lack available data to know if these shell company prosecutions were tinged by religious affiliation, the BJP's other actions and pronounced anti-Muslim ideology strongly suggest that their anti-corruption probes are likely to fall more heavily on Muslim businesspeople than members of other, more acceptable, religious and ethnic groups. For this reason, we are interested in discovering if the rise of the BJP is associated with differing

⁴For more information, see https://www.narendramodi.in/modi-government-s-decisive-multi-pronged-action-ag ⁵See https://www.thehindu.com/news/national/karnataka/two-years-of-bjp-governance-is-marked-by-corrup article35618098.ece.

⁶See https://www.ndtv.com/opinion/is-the-bjp-governments-campaign-against-crime-and-corruption-select ⁷See https://foreignpolicy.com/2022/05/19/india-bjp-government-muslims-new-delhi-market/

 $^{{}^8}See \ https://the diplomat.com/2017/09/modis-bumpy-anticorruption-drive/.$

levels of corporate offshoring among India's diverse ethnic and religious groups as the BJP sought to cut off access to offshore financing.

1.5 Hypotheses

Based on our theoretical knowledge about financial offshoring and Indian politics, we have reason to believe that the rise of the BJP could be associated with either an increase or a decrease in financial offshoring by Muslim businesspeople. On the one hand, an anti-Muslim party could lead to an increase in offshoring by Muslim-owned companies if the party encouraged bureaucrats to target Muslims for expropriation. On the other hand, the BJP's efforts to stop financial offshoring could lead to a reduction in offshoring among Muslim companies if anti-corruption policies cut off conduits used by companies to access offshore jurisdictions.

Of course, a secular decline in offshoring by Muslim companies could simply be due to a wholesale improvement in Indian institutions by the BJP. However, if we observe varying rates of offshoring by groups in and out of power, especially between Hindu-owned and Muslim-owned companies, then we would have much stronger evidence that anti-corruption is not the only aim in BJP reforms. Even without being able to observe the precise mechanisms through which offshoring occurs, we should not expect that anti-corruption efforts would fall more heavily on a set of businesses solely due to the religious affiliation of the owners.

This theoretical ambiguity about the expected behavior of Muslim-owned companies leads us to test the following hypotheses:

H1: Rising BJP representation in state assemblies is associated with falling (rising) financial offshoring by Muslim Indian companies.

We can also test mechanisms by examining moderation effects, such as whether rising BJP power seems to affect offshoring by increasing or reducing the liabilities, profits and RPTs of Muslim companies. Knowing what other variables co-vary with offshoring rates can help us discover whether the BJP's influence on corporate strategy is due to changes in companies' financial transactions (suggesting a reduction or increase in access to offshore havens) or due to changes in the profitability of companies from discrimination in other areas like government contracting and tax enforcement. In other words, we want to know whether Muslim companies appear to offshore more or less because they have more or less income to repatriate or whether they have lost the ability to make these transactions:

H2: Falling (rising) financial offshoring of Muslim companies may be moderated by rising (falling) liabilities, profits or by related party transaction reporting as BJP representation increases.

1.6 Research Design

To test these hypotheses with complete confidence, we would want to observe the offshoring transactions of Indian companies both with and without BJP control over government. Of course, we only observe one of these potential outcomes, resulting in the danger that any temporal association between the BJP's rise to power and corporate offshoring is spurious. We adopt a research design to partially mitigate this problem by focusing on specific forms of variation in offshoring patterns that would be most directly affected by the BJP and by explicitly testing for the robustness of associations to the presence of unobserved confounders.

First, we focus in this paper on variation in BJP's control over state legislatures and the offshoring patterns of companies in the same sector in the same state. Narrowing our comparisons in this manner helps address some obvious forms of spuriousness, such as obfuscating the effect of the BJP with imbalance in sectoral representation in a pooled cross-section. In essence, limiting ourselves to within-state variation helps us to isolate associations which are most directly relevant to the research question and avoid making mistaken inferences from baseline differences (Kropko and Kubinec 2020).

Having an appropriate comparison is necessary but not sufficient to interpret an association causally. Even within a given sector in a given state, we do not observe counterfactual rates of offshoring in the presence or absence of the BJP. For that reason, we employ advances in sensitivity analysis to see how strong a potential confounder would need to be to explain away the association we observe. If the association is still strong and precise even with a large confounder–which of course is always a judgment that must be made within the empirical context–then we can conclude that we have a form of partial causal identification. We cannot be sure of the magnitude of the association we observe, but we can be reasonably confident of the sign of the association.

We adopt this method of testing for robustness because the situation does not appear to be ideal for employing a method that relies on estimating local average treatment effects, such as differences-in-differences or regression discontinuity designs. Our treatment is by nature continuous, which makes it difficult to employ difference-in-difference methods, nor do we have any confidence that the parallel trends assumption would hold given that we expect firms to respond to the BJP's rise in heterogeneous ways (Rambachan and Roth 2019). Regression discontinuity in our context would be limited to the results of close elections, which would be significantly underpowered in our context as the treatment is at the state level (Stommes, Aronow and Sävje 2023).

The limitation, of course, is that our chosen method of inferring causality is unlikely to obtain true estimates of the average treatment effect (ATE), only of the sign of the ATE. Our chosen approach allows some bias in exchange for a dramatic reduction in variance compared to methods like RDD; we would prefer to obtain some causal knowledge of which we are reasonably confident rather than a completely "un-biased" yet very noisy estimate from which we are very likely to make type I or type II errors (Little and Pepinsky 2021; Kubinec 2022a).

2 Data

In this section we discuss our methodology for compiling datasets of company accounting records and measuring two latent constructs, the amount of offshoring-type activity among Indian companies and the religious identity of Indian board members. To do so we need a valid measure of offshoring, which we derive from the ICIJ Offshore Leaks dataset, but also ground truth financial reporting and board member identities for companies that may be engaged in offshoring. Our primary data source for measuring company data comes from detailed balance sheet records of Indian firms in the Prowess database. Prowess is widely used in academic research (Mullainathan, Mehta and Bertrand 2002; Alfaro and Chari 2009). The database contains hundreds of variables created from the annual financial statements of public and private firms that collectively account for 70 percent of industrial output and 75 percent of corporate taxes.

Indian firms are required to report on their financial reports any related party transactions (RPTs), buying, selling, lending, and/or borrowing with firms that share ownership, control, or with which key management personnel or their families are affiliated. Until recently, Indian corporate governance laws required such transactions be reviewed and approved by the firm's audit committee but contained loopholes that weakened oversight (OECD 2014). Given the prevnce of concentrated ownership, manager-owners generally face little oversight. Majority shareholders in public firms, which ostensibly have stricter oversight from minority shareholders, also enjoy great autonomy (Mullainathan, Mehta and Bertrand 2002).

However, while RPTs are a potential indicator of moving wealth across companies in a way that can reduce tax and other liabilities, it is difficult to pin down what kinds of RPTs are being employed to engage in activities that are aimed at extracting revenue from companies as opposed to more pedestrian forms of accounting. As rich as the Prowess dataset is, we do not have an indicator which we can rely on to indicate which companies might be engaged in financial offshoring, i.e., moving their income to jurisdictions where it can be safely controlled through shell companies and other vehicles, safe from prying eyes and government officials. The private nature of these transactions mean that, without investigating companies on an individual basis with subpoena powers, we cannot know with reasonable confidence to what extent RPT activities indicate offshoring. For this reason, we turn to ICIJ data leaks from brokers that faciliate financial offshoring as a plausible indicator of the types of accounting that might indicate offshoring.

In the supplementary information section 1 we fully describe the process by which we merged the list of Indian residents who were exposed in the ICIJ data, and we provide a short summary here. First, we identified all ICIJ leaked documents with addresses in India, and then all of the individuals who were connected to these addresses. We then used the Indian Ministry of Corporate Affairs database of boards of directors to manually match each individual to a company ID which we could then locate in Prowess. This process yielded 915 individuals who collectively oversaw 4,587 Indian firms.

In the next stage, we fit a two-stage model to create a predicted measure of offshoring that took into account the selection into the ICIJ data as the ICIJ data is derived from particular service providers and there are undoubtedly many offshoring financial activities it does not track. We employ a two-stage model accounting for selection into service providers in order to estimate a bias-corrected measure of the probability of offshoring in the Prowess data, which we denote $Pr(O_{it} = 1)$ for the estimated probability of offshoring $O \in \{0, 1\}$ for a given firm *i* and year *t* in the Prowess dataset. We use this measure as both an outcome and predictor in the results that follow as it allows us to make statements about the general population of Indian firms in the Prowess data who engage in offshoring financial activities similar to those found in the ICIJ dataset.

We employed a classification algorithm for each of the Indian director names of each company in the Prowess dataset for several different religious categories, including Hindus, Muslims, Christians, Jains, Buddhists and Other. This measure, which we validated with human coders, gives us a proportion of directors of each religious category for each company and allows us to identify which companies could be considered as having Muslim ownership and/or control.

Finally, to account for missing data in the Prowess financial transactions, we created five imputed datasets using a random forest algorithm, and we marginalize our results over these five imputed datasets to account for imputation uncertainty. Each imputed dataset has 30,438 companies with 18 years of financial reports (2000 to 2018). Given that the panel is unbalanced (not all companies exist in all years), the total dataset has 199,479 observations.

2.1 Covariates

For inference we employ regression models of our derived $Pr(\hat{O}_{it} = 1)$ offshoring measure with a minimal set of covariates that are theoretically meaningful to the outcome in order to minimize post-treatment bias and other known issues with over-parameterization. While we are not staking a claim to causal identification via covariate adjustment, there are some factors which must be taken into account to permit a fair comparison across firms. All of these covariates come from the Prowess financial reporting for a given firm year. These include profit before debt, interest and taxes (PBDITA), the share of government ownership in the firm, promoters as a share of the firm, contingent liabilities as a percent of firm worth, the number of board members and the number of related party transactions filed in a given year. We also include state and sector fixed effects in all specifications to force the model to compare companies of the same sector and the same state.

To measure the BJP's rise to power, we record the number of seats held by the BJP and its close affiliate parties in Indian state legislatures. We use state legislatures because we can match companies to states via Prowess data. Because we are interested in the cumulative influence of the BJP in a given state, we take the running cumulative sum of seat shares so that areas where the BJP remains in power longer receive a higher value.⁹ While matching to a lower level of electoral representation is theoretically possible, the corporate address data in Prowess is incomplete and not necessarily of high quality, making a spatial join of dubious quality. In addition, it would be difficult to use some techniques such as sector fixed effects if we limited ourselves to districts of a very small nature, nor is it clear if local representatives have much say about the behavior of Indian financial regulators. As our measure of BJP

⁹The results are quite similar if the yearly count is used instead.

seat share occurs at the state level, state fixed effects will isolate over-time variation in the rise of the BJP only on companies in those specific states.

Because our outcome is a predicted probability $(Pr(\hat{O_{it}} = 1))$ and as a consequence within the (0, 1) interval, we employ Beta regression as our main specification. The Beta distribution is the appropriate distribution for a probability as it can be interpreted as representing the probability of success in a binary trial. Because of overflow and underflow problems due to floating point rounding errors in the logit function, we do have some 0s and 1s in our predicted measure of $Pr(\hat{O_{it}} = 1)$. To deal with these discrete values, which are technically impossible in the Beta distribution as probabilities can never equal 0 or 1, we employ ordered Beta regression, which allows us to correctly model the full distribution (Kubinec 2022<u>b</u>). We note that this model is essentially a drop-in replacement for OLS that respects the bounds of the dependent variable and as such avoids the mis-specification bias of assuming Normally-distributed errors with a bounded and bimodal DV.

For unbounded continuous outcomes like PBDITA, in which we are using our predicted offshoring measure as an independent variable, we use OLS regressions. We combine regression estimates from five multiple imputed datasets using Bayesian inference by pooling the empirical posterior draws.

3 Results

We first report some general descriptive statistics from the measurement model. The proportion of companies that the model estimated as plausibly engaging in offshoring activity, $Pr(O_{it} = 1)$, was significantly higher at 20.3% than the observed number of companies with manual matches to the ICIJ data at 2.4%. The density plot in Figure 2 shows the distribution of firm-level probabilities of offshoring with each line in the plot representing one of the five imputed datasets. As can be seen, there is significant dispersion in the probabilities of offshoring, with most companies showing a relatively low probability of offshoring in a given





year, and a much smaller subset of companies with a very high probability of offshoring. The bimodal nature of the distribution suggests that using a non-linear model like Beta regression will better handle the unique features of the DV. The relatively small amount of imputation error is a reflection of both the quality and quantity available in the Prowess dataset.

An initial test of validity is to examine those companies that the model identifies as likely offshorers but who were not included in our original ICIJ-based sample. Table 1 shows the top 40 most likely domestic companies that engage in some kind of offshoring but which were not matched to in the ICIJ database. Given that most of the identified companies are conglomerates, we reported the highest value of $Pr(O_{it} = 1)$ for any company listed as a part of the group (for rounding error purposes, very high probabilities are listed as 1). This list is not particularly surprising in some regards as international conglomerates like the behemoth Tata Group are at the top of the list. It is interesting to note that Construction is the modal category for many of the conglomerates. Probably the most interesting identified company is Emaar MGF, which is a joint venture between Emaar, a massive Dubai-based real estate developer and MGF, an Indian developer.

Table 1 provides initial validation for our method because all of these groups are sophisticated conglomerates which would have been expected to avail themselves of complicated financial transactions to protect assets and reduce their exposure to domestic taxes. Importantly, we did not include any information in the two-stage selection model to suggest that this was the case, such as by constraining covariates to positively predict offshoring. Given that most of the companies in our data have a probability of offshoring that is far less than 20%, the fact that the model identified these relatively sophisticated and diversified companies as being the most likely offshorers indicates that the model is picking up on patterns in financial activity that should be related to offshoring with positive probability.

However, we note that while the companies with the highest probability of offshoring are large conglomerates, the majority of companies in the data are not large conglomerates. Numerically, the total count of offshoring companies includes many that are not large conglomerates even if the individual firm-level probability is lower on average. To look at firm-level heterogeneity, we plot a LOESS smoothed regression line comparing the reported PBDITA and total assets for companies by different sectors in the Prowess dataset in Figures 3 and 4.

As can be seen, there is substantial heterogeneity by both sector and relative size of the firm. Interestingly, it is not always the case that the largest firms in terms of either assets or profits offshore the most. For some sectors, notably retail and manufacturing that have a large number of private domestic companies, the relationship is decidely U-shaped,

Company	Sector	Type	Probability of Offshoring
Tata Group	Construction	Public Ltd.	1.000
Emaar M G F Land Ltd.	Construction	Public Ltd.	1.000
Omaxe group	Construction	Private Ltd.	1.000
Sahara India Group	Construction	Public Ltd.	1.000
Unitech Group	Construction	Public Ltd.	1.000
G M R Group	Electricity	Private Ltd.	1.000
Shapoorji Pallonji Group	Retail	Private Ltd.	1.000
Edelweiss Group	Asset Management	Public Ltd.	1.000
IndiaBulls Group	Construction	Public Ltd.	1.000
RPG Enterprises Group	Electricity	Public Ltd.	1.000
Lodha Group	Construction	Public Ltd.	1.000
P K Ruia Group	Manufacturing	Public Ltd.	1.000
Ansal Group	Construction	Public Ltd.	1.000
DS Group	Manufacturing	Private Ltd.	1.000
I L & F S Group	Retail	Public Ltd.	1.000
Samvardhana Motherson Group	Manufacturing	Public Ltd.	1.000
Mahindra & Mahindra Group	Manufacturing	Public Ltd.	1.000
Asea Brown Boveri (F) Group	Manufacturing	Public Ltd.	1.000
Ranbaxy Group	Retail	Private Ltd.	1.000
Marg group	Retail	Private Ltd.	1.000
Dalmia Group	Manufacturing	Public Ltd.	1.000
Reliance Group [Anil Ambani]	Electricity	Public Ltd.	1.000
Larsen & Toubro Group	Construction	Public Ltd.	1.000
Flex Group	Manufacturing	Public Ltd.	1.000
Parsvnath Group	Construction	Public Ltd.	1.000
Anant Raj Group	Construction	Public Ltd.	1.000
Om Prakash Jindal Group	Electricity	Public Ltd.	1.000
DLF Group	Construction	Public Ltd.	1.000
Reliance Group [Mukesh Ambani]	Retail	Public Ltd.	1.000
Godrej Group	Manufacturing	Public Ltd.	0.999
Whirlpool (F) Group	Manufacturing	Public Ltd.	0.999
Lanco Group	Construction	Private Ltd.	0.999
GVK Reddy (Novopan) Group	Retail	Public Ltd.	0.999
Adani Group	Retail	Public Ltd.	0.999
NRI	Construction	Private Ltd.	0.999
Jaypee Group	Manufacturing	Public Ltd.	0.999
Jubilant Bhartia Group	Manufacturing	Public Ltd.	0.999
Essel Group	Retail	Private Ltd.	0.999
Moser Baer Group	Retail	Private Ltd.	0.998
IVRCL Group	Construction	Public Ltd.	0.998

 Table 1: Highest Probability Offshoring Companies Without Matches in ICIJ Data



Figure 3: Estimated Rates of Offshoring by Reported Firm Total Assets

Plot shows a LOESS smoothed line for the relationship between reported total assets and the estimated probability of offshoring. The panels show one of the six industries from the Prowess dataset.



Figure 4: Estimated Rates of Offshoring by Reported Firm PBDITA

Plot shows a LOESS smoothed line for the relationship between profit before debt, taxes and appreciation and the estimated probability of offshoring. The panels show one of the six industries from the Prowess dataset.

implying that medium-sized companies offshore on average more than the biggest companies. Furthermore, there is some evidence that reporting negative profits in Figure 4 is associated with greater offshoring than those companies that report zero profits, implying that they may be engaged in bookkeeping to cover up possible expropriation of the firm's value. While fully analyzing these patterns is beyond the scope of this paper, we believe that the diversity of relationships in the data support our theory that financial offshoring of various kinds is a strategy pursued by companies of different sizes and types, not just the international conglomerates shown in Table 1.

We next consider in Table 2 the results of a descriptive regression predicting the prevalence of Muslim-named board members. The outcome in the regression model is the proportion of board members with names we identified as being Muslim in origin. What is noticeable is how our cumulative sum of BJP parliament vote shares is strongly associated with the average number of companies with Muslim board members in a given state. While we cannot infer causality with high confidence, we think it is plausible that the BJP became powerful in areas with companies that had high concentrations of Muslim board members because the presence of Muslim-led companies fueled grievances for the BJP's ethnonationalist and populist agenda. At the very least, we do not think it is very likely that Muslim-affiliated companies helped the BJP rise to power through direct support.

In addition, Table 2 shows that Muslim-affiliated companies tended to have smaller boards and fewer related party transactions. These are averages across significant heterogeneity, so the associations needs to be interpreted cautiously. However, it would seem that, on average, Muslim-associated companies have less complex and more insular financial transactions. Fewer overall board members and fewer related party transactions could mean that the networks they use to move assets to safe jurisdictions are less diverse.

Table 2 also shows that Muslim companies are not different in important respects. They are no more nor less likely to engage in offshoring, and they are equally as likely to be government-owned and report high levels of liabilities. Muslim-affiliated companies do report

	(1)
BJP Seats	0.639
	[0.482, 0.799]
Pr(Offshoring)	-0.072
	[-0.200, 0.355]
Liabilities Net Worth	-0.008
	[-0.044, 0.011]
% Govt Ownership	-0.704
	[-2.755, 1.065]
PBDITA	0.013
	[0.004, 0.022]
No. Board	-0.056
	[-0.072, -0.015]
No. Related Reports	-0.007
	[-0.076, 0.015]
N. Obs.	199479
State FEs	\checkmark
Sector FEs	\checkmark

 Table 2: Associated Attributes of Firms with Muslim-background Board Members

Estimates represent medians and 5% to 95% posterior quantiles. Estimates are pooled from Bayesian regression models run on 5 imputed datasets.

higher PBDITA, though the association is relatively small. As such, a priori we would not expect offshoring to vary between companies with higher or lower numbers of Muslim-named board members. Theoretically, there is no reason to expect that religious background would affect a business owner's propensity to move profits offshore as this would provide equal benefits to the owner regardless of their religious affiliation. Offshore incorporation service providers are especially unlikely to have any need to discriminate based on religious affiliation given the secrecy involved in these transactions.

To test our first hypothesis, we regress the proportion of Hindu and Muslim board members and their interaction with BJP seat share on our predicted offshoring measure, $Pr(O_{it} = 1)$. These results are reported in Table 3 in the Interaction column with additional specifications in the Interaction², InteractionXTime and Interaction + Controls columns. The first column of the table shows the constituent effects of these variables without interactions, revealing that increasing BJP seat share is strongly associated with rising levels of predicted offshoring. When the BJP does not control any seats at the state level, neither Hindu or Muslim board member shares predict offshoring, which matches what we reported in Table 2.

It is important to note that because Hindu and Muslim shares are included explicitly as covariates, the implicit reference group is all other board members, which includes smaller religious minorities and non-Indian names. Separating Muslim and Hindu board members from the baseline allows us to explicitly compare these two groups to each other as we do not have as strong theoretical prior about how offshoring should fare among other minorities and non-Indians. For this reason, we are can interpret our results as showing clear differences between Hindu and Muslim-led companies, not just between Muslim-led companies and the average company in the dataset.

The interaction specifications show that, while offshoring decreases for both Hindu and Muslim-affiliated companies, the association is more than five times greater for Muslim than Hindu companies. In addition, the quadratic models show that the Muslim association is primarily linear. As a result, we know that the effect is not confined solely to those companies with the highest proportions of Muslims among board members. The models that include interactions with time trends reveal that over time Muslims tend to offshore more after the BJP comes to power. This may suggest that the arrival of the BJP is a shock that Muslim companies are able to recover from over time, but the modest magnitudes of these coefficients indicate that the overall negative association remains throughout the sample period.

In the model in which we include our minimal set of controls, the Muslim association grows stronger while the association with Hindu board members declines significantly. As a result, we cannot confidently assert that Hindu-led companies offshored less once the BJP came to power. On the whole, though, the coefficients in Table 3 are negative for the BJP X Hindu interaction, so it is at least plausible that Hindu-led companies offshored somewhat less as the BJP came to power. However, as we noted earlier, the estimated interaction is five times less than that of the Muslim X BJP interaction, and the two variables have the same sign. What is evident is that if Hindu-led companies offshored less, the disparity in





Plot shows the predicted probability of offshoring, $Pr(O_{it} = 1)$, derived from a Bayesian ordered beta regression model that is stratified by the share of Muslim names among a company's board of directors. The estimates are the average of posterior draws with other covariates held at their means. Model coefficients are in Table 3 column "Interaction".

magnitude vis-a-vis Muslims would make any reductions in offshoring rates among Hindu-led companies relatively trivial.

To illustrate the strength of the relationship, Figure 5 shows the predicted probability of offshoring by the ranges of the BJP and Muslim board share variables and employing sample average values for other covariates. We include both constituent variables in the plot because the main effect is a continuous by continuous interaction. The plot also makes clear what the model predicts for the baseline group (non-Muslim non-Hindu board members), which is a modest increase in offshoring rates. The far right of the plot shows the maximum effect in which a company with 100% Muslim board members would observe a decrease in offshoring rates from approximately 65% to approximately 15%, or a 50% decrease. This very strong association represents the maximum observed reduction in offshoring. For companies that have 50% Muslim board members, the decrease is smaller, from approximately 55% to approximately 35%, but still a substantively very large relationship. For these reasons, it is clear that the magnitude of this relationship is alarming, with Muslim-led companies offshoring at much lower rates as the BJP gains seats in the state parliament.

These associations are compelling and would appear to support the hypothesis that the BJP's policy program of countering corruption targeted Muslim businesspeople to a much greater extent than Hindu businesspeople, resulting in a loss to Muslim-controlled companies of a valuable means of protecting their income. However, there are other plausible explanations that we need to explore before we can make such an assertion with any confidence. Offshoring is a process that is highly endogenous to a company's profitability and assets. For example, the rise of the BJP could result in discrimination against Muslim-led companies that would result in lower profits and subsequently less reason for Muslim-led companies to offshore. This would still support the main hypothesis (H1), but would suggest a mechanism different than BJP-led anti-corruption efforts (H2).

In addition, because we did not assign either BJP electoral success or the share of Muslims to company boards, we should be concerned about omitted variables that could confound the relationship. If such a factor existed, then we could mistakenly conclude that the Muslim nature of corporate boards had a causal relationship to offshoring rates, when in fact this religious association was itself a cause of an omitted factor. If this omitted factor was also related to the rise of the BJP and offshoring rates, then we could be manifestly wrong in our proposed explanation.

We will address these alternative explanations in turn using a variety of strategies. In terms of plausible mechanisms, we will determine which firm-level performance measures covary with the BJP X Muslim interaction and could provide a plausible explanation for the offshoring relationship. We will also examine an external factor, changes in the proportion of Muslim victories in court cases, which provides some support for legal action against Muslims as a potential mechanism. To analyze the potential role of an omitted confounder, we perform a sensitivity analysis to see how strong such a confounder would need to be to explain away the relationship we observe.

Before we engage in these modeling exercises, we note that there are some alternative explanations that are prima facie implausible. It would seem implausible to suggest that the association could be explained purely through reverse causality. Names are largely fixed at birth; even if some individuals change names later in life, an extraordinarily high number would have had to change names to provide even a partial explanation of the finding. Furthermore, Muslim-affiliated offshoring probably did not have a role in the BJP's rise to power by further provoking anti-Muslim sentiment. These financial stratagems are designed to evade detection even by rigorous financial oversight, and our measure of offshoring, derived from the ICIJ data, represents leaked financial transactions that no one knew about during the BJP's rise to power as a national party in the 2014 elections; the first leak of such data, the Panama papers, did not come out until the German newspaper Der Spiegel published them in 2016. As such, we think that the treatment is more likely to be the BJP's specific anti-corruption efforts rather than their rise to power per se.

It is important to re-iterate that we also did not have either a theoretical or empirical reason to expect Muslim-led companies to differ from Hindu-led companies in offshoring rates. The models in Table 2 showed that the differences between Muslim-led and non-Muslim companies are modest, and crucially, we did not observe any noticeable difference in offshoring rates. The association with Muslim-led firms was only uncovered when we focused on the over-time variation of BJP seat shares; only when these two factors covaried did we observe a remarkably strong relationship. Theoretically, religious background should not predispose business owners one way or another towards offshoring as we would expect these decisions to be dominated by concerns about the relative costs and benefits to the company's profitability and viability rather than religious doctrine.¹⁰

¹⁰It is true that Islamic finance exists as a way for companies to avoid paying interest on loans, which is banned under some interpretations of Islamic law. However, the financial transactions that enable offshoring are related to the transfer of assets and thus would not be covered under Islamic prohibitions concerning interest. Generally speaking, Islamic jurisprudence and teaching favors financial engineering as commerce

To examine possible moderators of the relationship, we leverage the detail of the Prowess data to look at multiple factors that might covary with the rise of the BJP and Muslim-led companies. We select factors that we know are strongly associated with offshoring rates, based on the results in the right-most column in Table 3. These factors include reported liabilities, PBDITA, government ownership, the size of boards and the number of related party transaction reports. As such, we consider these variables as possible explanations of the robust association between rising BJP vote share and reduced Muslim company offshoring because the BJP's anti-corruption program and known anti-Muslim stance may have affected one of these forms of company performance, leading to consequent changes in offshoring strategies.

Because the effect we want to explain is an interaction between BJP seat share and Muslim board member share, testing for further moderation entails estimating three-way interactions. Given the complexity of including such a large number of interactions in the same model, we instead model each potential moderator as an outcome with the BJP X Muslim interaction as a predictor. Table 4 reports these tests for three possible moderators in columns 1-3. As can be seen, the Muslim X BJP interaction is not significantly associated with government ownership, liabilities or PBDITA, implying that the rising presence of the BJP did not seem to covary with either firm performance or the likelihood of Muslims being included in the boards of government-owned firms. As a result, we have no reason to believe that Muslim-affiliated companies earned less income as the BJP came to power and as a result had fewer available assets to offshore.

In column 4 in Table 4, we model the BJP seat share X Muslim board share interaction directly as the outcome with all of our potential moderators as predictors. We see in this model that the only covariate that shows a strong association with areas with high BJP vote share and high Muslim presence in corporate boards is the number of related party transactions. The association is quite strong as the number of RPTs can reach into the and wealth creation are considered to be a valuable activities for believers to engage in.

	Main	Interaction	$Interaction^2$	InteractionXTime	Interaction + Controls
BJP Seat		1.281	0.957	1.500	0.105
		[1.115, 1.433]	[0.695, 1.223]	[1.302, 1.663]	[0.011, 0.246]
Year				-0.011	
Muslim	-0.117	0.566	0.941	0.608	0.813
in domin	[-0.249, 0.182]	[0.429, 1.013]	[0.638, 1.352]	[0.477, 1.065]	[0.722, 1.399]
$Muslim^2$	[,]	[/]	-0.387	[,]	[]
			[-0.731, -0.075]		
Hindu	-0.033	0.090	0.371	0.127	0.030
*** 1 0	[-0.054, -0.013]	[0.060, 0.119]	[0.261, 0.489]	[0.095, 0.160]	$[0.014, \ 0.055]$
Hindu ²			-0.231		
DID V Voor			[-0.329, -0.142]	0.040	
DJF A Tear				[0.040	
BJP X Muslim		-6.255	-5,700	-6473	-8.001
Dor II Maomin		[-7.429, -5.010]	[-7.578, -4.014]	[-7.618, -5.139]	[-9.245, -6.792]
$BJP X Muslim^2$			-0.754		
			[-2.955, 1.610]		
Muslim X Year				-0.013	
				[-0.037, 0.009]	
BJP X Muslim X Year				0.110	
DID V III da		0.700	0 510	[-0.087, 0.318]	0.045
BJP X Hindu			0.512	-0.734	0.045
BIP X Hindu ²		[-0.902, -0.559]	[-0.322, 1.307] -1.053	[-0.956, -0.465]	[-0.100, 0.139]
Doi A iindu			[-1.725, -0.367]		
Hindu X Year			[11120, 01001]	-0.006	
				[-0.012, 0.000]	
BJP X Hindu X Year				-0.066	
				[-0.121, -0.013]	
Liabilities Net Worth					-0.247
					[-0.302, -0.199]
% Govt Ownership					12.086
					[11.542, 12.527]
PDDIIA					-0.100 [-0.112 -0.102]
No Board					-0.077
1.0. Dourd					[-0.084, -0.069]
No. Related Reports					1.446
					[1.437, 1.457]
N. Obs.	199479	199479	199479	199479	199479
State FEs	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Sector FEs	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

Table 3: Models of Offshoring Measure

Estimates represent medians and 5% to 95% posterior quantiles. Estimates are pooled from Bayesian regression models run on 5 imputed datasets.

hundreds, and the association is very precisely estimated. Given this evidence, the covariate which best provides a possible explanation for the very strong Muslim X BJP seat share interaction is that Muslim companies changed the number of RPTs they filed, which subsequently affected their rates of offshoring. Given that we noted earlier that RPTs are a known method of extracting income from companies, we find this explanation to also be compelling on theoretical grounds.

	Govt. Own.	Liabilities	PBDITA	All
BJP Seat	2.599	0.069	-0.300	
	[2.222, 2.973]	[0.008, 0.130]	[-0.353, -0.245]	
Muslim	-2.001	0.035	0.090	
	[-3.113, -1.083]	[-0.060, 0.131]	[0.002, 0.177]	
BJP X Muslim	3.052	-0.379	0.210	
	[-1.703, 7.947]	[-1.012, 0.261]	[-0.432, 0.835]	
Liabilities Net Worth	-0.603		-0.003	-0.020
	[-1.803, -0.051]		[-0.007, 0.002]	[-0.072, 0.008]
% Govt Ownership		0.621	10.591	0.243
		[-0.402, 1.557]	[9.708, 11.518]	[-1.473, 1.815]
PBDITA	-0.019	-0.003		0.004
	[-0.026, -0.011]	[-0.008, 0.002]		[-0.005, 0.012]
No. Board	0.428	-0.016	0.247	-0.024
	[0.410, 0.448]	[-0.021, -0.010]	[0.243, 0.252]	[-0.039, 0.009]
No. Related Reports	-0.255	0.058	0.104	0.030
	[-0.284, -0.225]	[0.052, 0.064]	[0.099, 0.109]	[0.006, 0.047]
N. Obs	199479	199479	199479	199479
State FEs	\checkmark	\checkmark	\checkmark	\checkmark
Sector FEs	\checkmark	\checkmark	\checkmark	\checkmark

Table 4: Associated Factors with the BJP Seat X Muslim Interaction

Estimates represent medians and 5% to 95% posterior quantiles. Estimates are pooled from Bayesian regression models run on 5 imputed datasets.

As we now know that related party transactions are empirically related to offshoring among Muslim companies, in Table 5 we examine more closely to see if related party transaction patterns could help explain the strong negative association between Muslims and offshoring in BJP areas by including a three-way interaction with both variables and RPTs. The different specifications include other controls individually and collectively to show that the three-way interaction effect between Muslim board members, BJP seat shares and RPT numbers is quite large and consistent across model specifications. Furthermore, the same three-way interaction with the share of Hindu board members shows a very small association of the opposite sign. As such, we believe given our theoretical expectation of how RPTs facilitate offshoring that this is an important factor to explain the seemingly negative effect of BJP parliament seats on Muslim company offshoring. As the BJP came to power, Muslim companies changed the number of RPTs they filed, which would appear to be a plausible explanation for some of the decline in offshoring rates.

However, it can be tricky to easily interpret a three-way interaction effect. For this rea-

	Bivariate	Liabilities	PBDITA	No. Board	All
BJP Seat	-0.074	0.110	0.093	0.116	0.116
	[-0.225, 0.055]	[0.041, 0.267]	[-0.067, 0.232]	[-0.054, 0.252]	[0.002, 0.224]
Muslim	0.782	0.757	0.763	0.753	0.775
	[0.649, 1.378]	[0.646, 1.366]	[0.628, 1.353]	[0.638, 1.350]	[0.678, 1.371]
Hindu	0.068	0.044	0.035	0.037	0.042
	[0.037, 0.093]	[0.020, 0.063]	[0.009, 0.058]	[0.010, 0.061]	$[0.015, \ 0.061]$
Liabilities Net Worth		-0.246			-0.246
		[-0.301, -0.197]			[-0.303, -0.199]
Muslim X Reports	-0.250	-0.295	-0.259	-0.237	-0.264
	[-0.453, -0.052]	[-0.441, -0.096]	[-0.463, -0.053]	[-0.428, -0.035]	[-0.435, -0.086]
Hindu X Reports	-0.008	0.007	-0.054	-0.045	-0.014
	[-0.074, 0.060]	[-0.037, 0.058]	[-0.120, 0.011]	[-0.112, 0.020]	[-0.048, 0.054]
% Govt Ownership					11.968
					[11.279, 12.608]
PBDITA		-0.099	-0.096		-0.104
		[-0.104, -0.094]	[-0.101, -0.092]		[-0.108, -0.099]
No. Board		-0.070	-0.063	-0.086	-0.073
		[-0.077, -0.061]	[-0.072, -0.052]	[-0.095, -0.076]	[-0.080, -0.064]
No. Related Reports	1.524	1.594	1.589	1.577	1.614
	[1.483, 1.563]	[1.554, 1.632]	[1.551, 1.630]	[1.538, 1.617]	[1.559, 1.638]
N. Obs.	199479	199479	199479	199479	199479
State FEs	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Sector FEs	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

 Table 5: Number of Related Party Reports as a Moderator of BJP Seat X Muslim Board

 Members

Estimates represent medians and 5% to 95% posterior quantiles. Estimates are pooled from Bayesian regression models run on 5 imputed datasets.

son, in Figure 6 we plot the marginal effect of BJP seat shares by the percent of Muslims on the board and the number of RPTs filed as separate plots. Each plot represents an increase in one-standard deviation in the number of reports filed per firm. What can be seen is that when less than 300 reports are filed, the effect of BJP seat share on offshoring is negative, meaning that Muslim-affiliated companies tend to offshore less. However, above that threshold the relationship reverses itself. At 1,000 reports filed, Muslim firms offshored at the same rates while non-Muslim companies offshored less. Above 1,000 reports, companies with high proportions of Muslim board members were offshoring at increasingly higher rates as BJP seat share increased.

These quite strong associations suggest that rising BJP influence had profound effects on the ability of Muslim businesspeople to employ financial means to protect and hide their assets. For companies that were occasional offshorers or relatively unsophisticated in their financial transactions, as indicated by lower numbers of RPTs filed, their access to these mechanisms was largely cut off by increasing BJP presence. Only the most sophisticated



Figure 6: Effect of BJP Seat Share on Offshoring by % Muslim Board Members and Number of Related Party Transaction Reports

Plot shows the predicted probability of offshoring, $Pr(O_{it}^{i} = 1)$, derived from a Bayesian ordered beta regression model and stratified by the number of RPTs filed by a given firm and the relative share of Muslim names among the firm's board of directors. The estimates are the average of posterior draws with other covariates held at their means. Model coefficients are in Table 5 column "Bivariate."

Muslim-dominated companies, as indicated by very high numbers of RPTs filed, were able to offshore more as the BJP came to power, suggesting that for those with higher financial acumen, the offshoring route remained a useful way to hide assets from expropriation. An end result of this process is a likely increase in intra-group inequality among Muslims as more sophisticated companies are able to protect themselves while less sophisticated companies are not.

While the RPT association provides an important mechanism for how Muslim-led offshoring declined, we would still like to know more about the decision-making process of Muslim board members and their companies. Unfortunately, the scope of the Prowess data does not include attitudinal measures of company owners that might provide insight into their opinions or on interactions with government officials who could be engaging in anti-Muslim discrimination. We do, though, have access to a comprehensive dataset of Indian court decisions that includes a coding of whether the defendant and petitioner are either





Data aggregated from Indian judicial civil case reporting from 2010 to 2018. Prediction from model with state fixed effects. Model coefficients in Table A4 in the supplementary information.

Muslim or non-Muslim from Bhowmick et al. (2021).¹¹ We are limited, though, in the comparisons we can make as Hindus are not estimated as a separate group and the time span of the data is from 2010 to 2018. While we know the religious identity of named people in the cases, we do not know the names themselves and we lack any other way of merging this dataset with Prowess, so we are limited to looking at associations between the court cases and our BJP seat share measure.

To test for a possible relationship, we calculate for each year the proportion of cases with adverse decisions for Muslim defendants and petitioners. For example, for Muslim defendants we would code a case that was acquitted or withdrawn as a victory, while for petitioners an outcome of a conviction would represent a victory. We restrict the data to criminal cases as we are primarily interested in discrimination related to government agencies. We then predict the proportion of adverse decisions using ordered beta regression models using our BJP seat share measure as the independent variable along with state fixed effects.

The conditional association is shown in Figure 7. As can be seen, we do not observe a $\overline{}^{11}$ We thank the authors for making their complete dataset available to us prior to publication of their paper.

clear relationship with Muslim defendants, but we do see a reasonably strong association with Muslim petitioners. As BJP vote share rises, the proportion of adverse decisions in cases with Muslim petitioners rises from approximately 5% to nearly 20%. The relationship for Muslim defendants is quite noisy, which makes it difficult to conclude if there is a relationship as the uncertainty interval admits both positive and negative associations. Because the dataset is limited to 1,200 observations, we may not have the power to estimate the relationship for defendants. As such, we believe these results provides suggestive, but not definitive, evidence that legal jeopardy might have been a motivating factor for Muslim-led companies to decide to reduce offshoring.

We note too that identifying precisely what led Muslim executives to reduce offshoring is difficult because business owners would always prefer to anticipate rather than experience a negative outcome. It may well have been enough for Muslim business owners to witness the BJP's rise and its anti-Muslim, anti-corruption rhetoric to decide to change their accounting strategies. The BJP made little secret about its core Hindu nationalist identity and its wish to marginalize Muslims. We are also unlikely to learn about businesspeople's decisions via publicly available sources as offshoring, although not technically illegal, is also not an activity that most business owners would want to be known about their company. If they changed financial strategies due to real or perceived BJP persecution, they would be unlikely to report this fact to the press.

As such, the legal evidence is compelling insofar as it might point to a general decline in the ability of Muslims to protect their companies from intrusive government regulators.

3.1 Sensitivity Analysis

Ultimately, we believe that the best way to decide whether this association might be causal or not is to examine how robust the association is to potential omitted confounders. To do so, we make use of recent advances in sensitivity analysis (Cinelli and Hazlett 2020; Carnegie, Harada and Hill 2016) to derive realistic confounders that are similar in scope to our data. In section 2 of the supplementary information we include a full description of our method for doing so, which involves simulating a confounder and re-estimating our model for a range of associations between a confounder, the outcome and the treatment (the Muslim board member proportion X BJP seat share interaction).

In summary, Figure 8 shows how our treatment effect declines given different magnitudes of the association of a confounder between the treatment (y axis) and the outcome (x axis). Only in the top left corner, or when a confounder would need to almost perfectly explain away the association and perfectly predict the outcome, do we see treatment effects that are not of the same sign as what we report. As we showed in Figure 5, our estimated treatment effect can reach as high as 50% or roughly half the possible range of the outcome, which would mean that a confounder would need to be equally as strong in terms of explaining offshoring decisions of Indian companies within a state and within a sector in a given year.

For these reasons, while we cannot causally identify the magnitude of the relationship given potential confounders, we do have reasonable confidence that we have identified the correct sign of the treatment effect given that even a very strong confounder would only explain away part of the association we report.



Figure 8: Estimates of Treatment Effect β_{TO} Given Varying Strength of Confounder U_{it}

Plot shows the estimated treatment effects from re-fitting ordered beta regression models predicting $Pr(\hat{O_{it}} = 1)$ over a grid of possible values for a potential unobserved confounder U_{it} . The y axis of the plot represents fixed coefficient values for U_{it} predicting the treatment T_{it} , and the x axis represents represents fixed coefficient values for U_{it} predicting the outcome $Pr(\hat{O_{it}} = 1)$. The plot aggregates the posterior means of the treatment effect estimate into bands or contours based on their value. A contour of -2 to -4, for example, means that the most likely treatment effect is within that interval.

4 Conclusion

On the whole, these results suggest that the BJP's anti-corruption program and known anti-Muslim bias combined to cut off avenues for companies with Muslim leadership to hide profits and other assets. While this type of behavior is known to be related to tax avoidance and other activities which exacerbate aggregate inequality, there is robust evidence that the uneven targeting of the measures disproportionately affected Muslim communities, likely leading to a rise in inter-group inequality. As majority business owners retain financial privileges that religious minorities do not, they will inevitably obtain an important and difficult-to-detect advantage over their competitors.

The exception to the trend is that the largest and most financially active Muslim companies appeared to be able to shield themselves and their assets, increasing their offshoring activity as the BJP came to power. This trend suggests that the weight of the BJP's anticorruption campaign fell most heavily not only on Muslim companies, but particularly on small and medium-sized Muslim companies which likely had more limited in-house capabilities for creative financial engineering to avoid sanctions. These highly conditional effects show how the interaction of financial offshoring and domestic religious tensions can have unexpected consequences on intra-group and between-group inequalities.

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