Caste-ing Wider Nets of Credit:

A Mixed Methods Analysis of Informal Moneylending and Caste Relations in Bihar

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Abstract

Rural Bihar has seen dramatic shifts in caste and economic relations in the past two decades, and yet few studies have examined how informal credit networks are organized in this new reality. Using a mixed-methods approach that combines extensive survey data from rural Bihar with four years of in-depth qualitative data on the supply and demand side of informal lending, we advance a holistic analysis of credit relations in Bihar. Our quantitative analysis demonstrates that despite the similarity in borrowing purpose, Scheduled Castes (SCs) are less likely to borrow within their kinship network and are charged a higher interest for smaller principal amounts. Evidence from survey data and qualitative interviews rule out market interlinkages or higher administrative costs of processing smaller loans as likely explanations. To explain the changing role of caste, we take an inter-disciplinary approach and borrow from sociological theories of relational inequalities, treating caste-based differentials in credit market outcomes as a dynamic relational problem between caste categories that are reproduced rather than erased over time. Using qualitative data, we demonstrate how, despite more suppliers trickling into the informal credit landscape, caste remains a defining feature, albeit through different causal mechanisms. SCs do not have access to upper-caste lenders through *jajmani* ties or cultural proximity; they also do not have collaterals to offer and rarely benefit from intra-kin lending due to limited SC lenders. These cumulative disadvantages have gradually and systematically sorted them into impersonal, but higher interest markets over time.

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1. Introduction

In India, informal credit is an enduring aspect of the rural landscape. While institutional or formal credit sources such as banks and micro-finance institutions co-exist with informal institutions, there is little evidence that the former has driven the latter out of the market in its entirety or has shifted the equilibrium sustainably. According to a Reserve Bank of India (RBI) working paper, "…of the 20 major states in 2002, as many as 15 have shown a fall in the share of institutional agencies, notable among them are Bihar, Punjab, Haryana, and West Bengal. This indicates that the cooperatives, commercial banks, and other formal financial sector programs in rural areas have not displaced informal sources of credit altogether as 43% of rural households continue to rely on informal finance in 2002" (Pradhan 2013). Many subsequent government reports and papers echo this theme repeatedly. For instance, a more recent RBI working paper documents a strong presence of informal lending and argues that "there is a need to improve access to formal credit for certain segments of the population such as backward classes, the poor and weaker sections of the farmer community" (Rajeev and Vani 2019).

In a country where informal lending has been the declared objective of state intervention for decades, the narrative around it remains surprisingly singular. Informal credit sources, especially home- or market-based moneylenders, are regarded as one of the major contributing factors to rural poverty in India. The popular conception of the primary lender in informal markets – the moneylender – was (and perhaps is) that of a semi-feudalistic upper-caste landlord who would persistently keep the borrower in an adverse situation (Bhaduri 1973; Kumar 2013). However, rural agrarian relations were not semi-feudalistic in northern and eastern India, even in the 1970s (Bardhan and Rudra 1978). Interlinked land, labor, and credit markets defined agrarian relations wherein imperfections in each market reinforce each other and put the lower-caste tenants/borrowers at a disadvantage (Bardhan and Rudra 1978; Bardhan 1980; Basu 1987).

While caste is still a critical social construct, traditional caste-based roles have been challenged recently, and the incidence of lower-caste individuals engaged as agricultural laborers on upper-caste landlords' farms has declined (Kapur et al., 2010). *Jajmani* relations – ties of dependence between upper- and lower-castes through agrarian markets – are considerably weaker today (Srinivas 2003). Land is no longer the only basis of power, and the 'consciousness of caste' is dying down (Beteille 2012). Against the backdrop of evolving caste relations, development and policy practitioners have been forced to revise their thinking and interventions. However, the narrative around informal credit is mostly untouched and very little has been said about how these broader changes have shifted caste relationships within this market.

In this paper, we advance a holistic analysis of the informal credit landscape in rural Bihar by looking at caste through a relational lens. Methodologically, we use a combination of extensive survey data with four years of qualitative data on the supply and demand side of moneylending.

Bihar is an especially relevant setting to explore the role of caste in rural credit markets since it has seen a massive shift in caste relations with a series of progressive movements challenging upper-caste hegemony from the 1960s till the present (Witsoe 2013).

Our survey-based data reveals that SCs still pay a higher interest rate than all other caste categories in the village, with the gap being the highest compared to general category households. This observation can be explained neither by the differential purpose of loan (SCs have largely similar loan portfolio in terms of loan purpose compared to other caste categories), neither can it be explained by the likelihood of default (SCs are no more likely to have an outstanding loan or a different number of outstanding loans). However, a key difference revealed by the survey is that the average loan size for SCs happens to be 11.4% lower than the loan size for other caste groups. While these patterns have long been recognized (Banerjee and Duflo 2010), we document that they are more pronounced for SCs. We also demonstrate that higher per-unit cost of processing smaller loan amounts are likely not driving high-interest rates, and *jajmani* ties are virtually absent within the purview of credit relations.

To unpack the association between caste and loan portfolios, we designed a qualitative survey module and conducted in-depth interviews and focus groups with 220 lenders and borrowers in four villages in Bihar. Our qualitative data reveals a significant shift in the credit landscape from the past few decades whereby there are now multiple lenders in the market. They can be broadly categorized into three: landowners (typically upper-caste), market-based lenders (typically merchants or goldsmiths) and a new class of home-based lenders (usually migrant Other Backward Classes OBCs, some SCs with new money). We find that the role of landowning upper-caste lenders in informal credit markets has reduced substantially. Traditional forms of patronage, based on debt and interlinked dependency, are fading away: debts are rarely sustained over long periods, and even less so over generations. Simultaneously, the caste and class of moneylenders have expanded owing to higher out-of-state migration. Many migrants and new elites, particularly OBCs, and also SCs, use their cash surpluses to invest as loans, especially to SCs.

We find that interest rates are fixed for each category of the lender. Still, they vary significantly across lenders – while traditional informal lenders offer lower interest rates for much larger loans and offer it only to those within their networks, the newer crop of home-based lenders provide smaller loans at higher interest rates and in a much more impersonal market to those beyond their immediate networks. SCs are systematically sorted into higher interest rate markets, while their general category counterparts are still able to access low-interest-rate markets owing to their networks. On the demand side, SC borrowers prefer to borrow from the new class of lenders since this bilateral association is not formed under the shadow of historical caste relations. This sorting of borrowers is also apparent from the survey data that reveals that intra-kin credit ties are weaker for SC borrowers. It is, in fact, for the intra-kin loans that the interest rate differential for SCs is the highest, perhaps confirming that the caste-based interest rate differential is not entirely due to lending by the traditional moneylenders. In other words, caste still plays a

vital role in determining outcomes, but the pathways through which it plays a determining role have shifted dramatically in the past few decades.

These empirical data partially align with and partially challenges the oft-painted picture of rural credit markets. We demonstrate how despite the expansion of a seemingly depersonalized market with more suppliers trickling into the informal credit landscape, caste remains a defining feature, and ties of kinship, neighborhood, and shared caste affiliation remain crucial to debt transactions - albeit through different causal mechanisms. To explain the changing role of caste in credit markets, we borrow from sociological theories of relational inequalities (Tilly 2001). In our explanation, we treat caste not as a static or residual problem or as a fixed attribute of individuals or groups; instead we view caste-based differentials in credit market outcomes as a dynamic relational problem *between* caste categories that are reproduced rather than erased over time (Mosse 2010). For our data in Bihar, this means that SCs continue to experience a higher interest rate, not because of a discriminatory one-on-one relationship between lower-caste borrowers and upper-caste lenders, which we demonstrate has gradually broken down, but rather because structural disadvantages have accumulated on their side for generations leading to persistent inequality of opportunity when it comes to accessing cheap credit using their networks.

The rest of the paper is organized as follows. In Section 2, we briefly discuss the literature on credit markets and ascriptive identities and explain the frame that we will use to interpret empirical results. Section 3 describes data sources and summarizes our methodological approach. In Section 4, we use quantitative data to describe the credit portfolio in rural Bihar while focusing on caste. In Section 5, we use data from detailed qualitative interviews to unpack the patterns documented in Section 4. Section 6 discusses potential policy implications, concludes, and also considers some limitations of this study.

2. Theoretical Framework

Imperfect information about the borrower and a lack of mechanisms to enforce the credit contract are given a central role in the descriptions of credit markets in developing countries. The lender advances a loan against the promise of a return of that amount and an additional interest later. Ex-ante, she has limited capacity to verify the creditworthiness of the borrower. Ex-post, she cannot always ensure that this amount is used for the stated purposes and is eventually repaid.

Under these conditions of imperfect information and limited contract enforceability, the lender can screen the borrowers, monitor their efforts, and enforce the terms of the contracts in the following ways. First, to regulate the riskiness of the loan portfolio, the lender can charge a high-interest rate (Stigler, 1987), or ration the amount of loan (Stiglitz and Weiss 1981). Next, the lender can design loan terms for charging different interest rates to different groups of borrowers (Banerjee and Duflo 2010). Third, she can use contracts in other interlinked markets – land, labor,

and product – to affect the probability of default (Braverman and Stiglitz 1982; Bardhan 1980; Basu 1987; Siamwalla et al. 1990). Finally, she can restrict the pool of the borrowers within her socio-economic network giving rise to a segmented monopolistic arrangement of the market (Aleem 1990; Siamwalla et al. 1990; Udry 1990). Cornell and Welch (1996) extend this argument that the lender would lend within her cultural network since cultural proximity carries useful information about the borrower's creditworthiness. On the demand side, the borrower does not have information about the terms of the contract offered by other lenders in the village, exacerbating the interest rate differential (Aleem 1990).

Therefore, unequal equilibrium outcomes (unequal interest rate in our case) across castes can emerge insofar as these categories act as a proxy for some underlying characteristics of the contract between the lender and the borrower, which are unobservable to the researcher. As discussed in Hoff and Stiglitz (1990), it is vital to distinguish between these outcomes as an enforcement mechanism for SC borrowers (captured by the first three ways listed above) and as a screening mechanism in an imperfect information environment that would sort SC borrowers into markets with different terms of the loan contract.

There is also a vast literature documenting an association between ascriptive identities and the nature of credit market in formal credits market in the United States (Blanchflower et al., 2003; Cavalluzzo and Cavalluzzo, 1998; Cavalluzo and Wolken, 1999; Cavalluzo; Cavalluzo and Wolken, 2005) as well as in developing countries (Raturi and Swamy, 1999; Fafchamps, 2000; Storey, 2004). Patterns from our quantitative data are consistent with this literature in that they document that caste identity is indeed associated with credit market outcomes. In addition to documenting this association between caste and credit market outcomes, this paper also discusses which explanations of the rural credit market organization best fit the description painted by the qualitative data through a caste lens.

In addition to this seminal literature that explores the structure of credit markets in the developing world, this paper also draws from the body of work that examines the role of caste in determining critical welfare outcomes (see Munshi (2019) for a review). For instance, caste-based clientelistic allocations critically determine the patterns of public goods provision (see Anderson, Francois and Kotwal (2015); Besley et al. (2004); Bardhan and Mookherjee (2012)). Also, bilateral agreements in many contexts are shaped by caste identities of the involved parties, including in education (Hanna and Linden, 2012), marriage markets (Ahuja and Ostermann, 2016), distribution of social protection (Sekhri and Nagavarapu, 2016), and irrigation water markets (Anderson, 2011). When it comes to credit markets, Fisman, Paravasini and Vig (2017) analyze the instrumental role of cultural proximity between borrowers and lenders using dyadic data on loan officers in a public sector bank and their borrowers in India. They show that same caste officers offer larger loans with smaller collateral and suggest that these patterns can be explained by the importance of cultural ties in reducing information asymmetries.

This existing body of literature provides us a strong set of explanations that we explore with quantitative data in Bihar in Section 4. However, when it comes to *explaining* caste-based outcomes, this literature has more or less viewed caste as a static attribute of the bilateral or interpersonal relationship between a borrower and a lender, and does not fully examine the changing relationship between caste groups as a whole. In this paper, therefore, in addition to viewing caste as a static identity through our quantitative data, we leverage the richness of qualitative methods to explain the processes and mechanisms behind the evolving credit-caste nexus through a *relational* lens, whereby caste is embedded within shifting intergroup relationships at large.

We supplement explanations from economics with theories of inequality in sociology and anthropology. Whether describing Polynesian clans (Mauss 1952) or describing debt among sovereign nations (Dodd 2014), the sociological literature is unanimous on the proposition that acts of borrowing and lending are much more than pure financial transactions between two parties. They have strong social underpinnings in that they contribute as much to building group solidarity as they do to create inequalities and practice discrimination. In a relational view, inequality emerges from asymmetrical social interactions in which advantages accumulate on one side or the other, fortified by the construction of social categories that justify and sustain unequal advantage (Tilly 2006). Therefore, to fully grasp the variability and change in credit relations, our starting point is the fact that the act of borrowing and lending is constitutive of continuously negotiated and meaningful interpersonal relations and caste networks or social relations are not seen as "affecting the economy from the outside" (Krippner and Alvarez 2007). Therefore, the relevant unit of analysis is not credit per se, but the web of relationships that credit is embedded in, and the nature of lending and borrowing *practices*.

Taken to the context of informal lending in Bihar, we find that a relational lens allows us to embed our explanation for caste-based outcomes within the changing relations between caste groups as a whole, in part due to the weakening of *jajmani* arrangements, but also due to increased migration from rural Bihar and changing nature of relationships between SCs, OBCs and general caste categories (Datta and Mishra, 2011). Leveraging the strengths of mixed methods, we systematically document how while much has changed, the asymmetric social relations that underlie credit markets can still replicate persistently unequal outcomes.

3. Data and Methodology

In this paper, we use two unique datasets to explore the role of caste identity in shaping credit market outcomes in rural Bihar. The first dataset comprises quantitative data on the detailed loan portfolio of a representative sample of 8,989 households from 333 villages covering seven

districts across Bihar.[1] These data come from the baseline survey for an impact evaluation of a World Bank-funded anti-poverty project called JEEViKA between June and September 2011. These data had sufficient representation across caste groups to allow a detailed comparative analysis.

In the quantitative sample, 71.68% of the households were SCs, 15.05% were OBCs, 5.38% were Extremely Backward Castes (EBCs), 3.64% were Muslims, and the rest belonged to the general caste category. 39.13% of households had at least one household member who migrated for work in *Kharif* season.[2] While 48% of SC households worked as agriculture laborer, cultivation and animal husbandry were the most common occupation among the non-SC households. The annual average per capita consumption expenditure was the lowest for SC households (0.85 times the average for other households). Landholding patterns across caste groups also present a similar picture: 83.29% of SC households did not own any land as opposed to the sample average of 71.69%.

In addition to the information on household demographics, asset holdings, livelihoods activities, and consumption expenditure, the baseline survey also collected comprehensive data on the interviewed households' current debt portfolio. The debt module collected information on the five largest outstanding loans taken by the household, where a loan is outstanding if there is principal or interest to be repaid or mortgaged asset to be released. Two loans are considered separate if taken from different sources, at different times, at different interest rates, or with different collaterals. Through this module, we have data on about 17,000 loans that we use to describe the informal loan portfolio and explore the association between caste and interest rates.

In addition to this baseline survey, a qualitative study drilled down on four control villages and was designed to inform the quantitative findings of the impact evaluation from the baseline sample. First, in December 2011, preliminary baseline studies were conducted using several participatory rural appraisal methods to understand the village's layout. Following this, qualitative data were collected in six cycles from 2011 to 2015 from over 1,000 respondents. Every six months, a team of field investigators would visit the villages for a cycle of data collection.

To keep their identity anonymous, we named these villages Ramganj (Madhubani district), Virganj (Muzaffarpur district), Saifpur (Saharsa district), and Shahpur (Madhepura district). Names of all the respondents have also been changed in the discussion below. In Ramganj, general castes (*Brahmin*) were the dominant caste, owned a majority of the land, and occupied most leadership positions in the local government. SCs (*Ram* and *Musahar*) and OBCs (*Yadav* and *Madal*) made up 10% of the population. Agriculture and allied activities, especially

[1] Gaya, Madhepura, Madhubani, Muzaffarpur, Nalanda, Saharsa, Supaul. These districts are in the north-western part of the state.
[2] *Kharif* is an agricultural season in South Asia that lasts from April to October.

cattle rearing, were the main livelihood activities. Virganj was a remote village with limited access to local markets. Muslims (*Pathan* and *Khan*) were the dominant group and owned most of the land in the village. OBCs (*Kalwar*) were the *nouveau riche* group. Many SC (*Ram* and *Paswan*) households in Virganj migrated to Delhi and Punjab for work. The third village, Saifpur, was markedly different for the other villages in that one of the oldest and the most important markets in the district runs along the village, and habitations have grown around it. This market was an important pull factor for the trading communities in the district. The source of livelihoods across castes was market-based, for example, tailoring, running coaching institutions, and bangle making. The dominant caste was OBC (*Chowdhary*). In Shahpur, on the other hand, the nearest market was three kilometers away. The dominant caste was OBC (*Yadav* and *Kurmi*), but Muslims (*Sheikh*) were economically and politically dominant. SCs made up a quarter of the population in Virganj, Saifpur, and Shahpur. For more details on the characteristics of these four villages, see Table A1 in the Appendix.

An initial analysis of the two datasets revealed certain patterns – broader as well as debt-specific. Taken together, these datasets demonstrate that most of rural Bihar still relies on a dense network of informal lending. Despite changing caste relations and churning hierarchies in this context, lower-castes were still disadvantaged, and their borrowing and lending patterns were still markedly different from others. Section 4 presents and discusses patterns based on the quantitative dataset in detail.

To further unpack the findings from the qualitative and quantitative datasets, we designed a small qualitative debt module to understand how debt networks operate in these villages in 2015. This module's main aim was to zoom in on why different castes were paying different interest rates and revealing the specificities of and variations in debt networks in these villages. Having collected data for four years, we had already built a trusting relationship in all four villages – as a result asking questions about the supply and demand of credit, a sensitive subject, was much easier.[3] From January to March 2015, we interviewed the main suppliers of credit, key stakeholders in the village, and frequent borrowers to understand: a) what debt means to different castes and tolas, b) how creditworthiness is determined, and c) how interest rates are set in the village. In each village, we interviewed an additional 50 borrowers and five suppliers, i.e., a total of 220 interviews in the debt module.

We integrated quantitative findings with detailed qualitative data, which yielded insights that neither approach could have produced on its own. With this mixed-methods approach, we have a unique vantage point in that we can compare the loan portfolio of SCs a) to their non-SC counterparts through both the quantitative and qualitative data and b) to their past portfolio through

[3] As Aleem (1990) and Dreze, Lanjouw and Sharma (1997) describe, it is difficult to interviews conduct interviews with informal moneylenders as they fear that collection information may end with the government. Thus, adding the debt module only after the research team has established a relationship various stakeholders in the villages was critical to the success of credit-specific qualitative survey.

the qualitative data. By doing this, we seek to answer questions and reveal pathways and mechanisms that are go beyond what survey data can answer (Rao and Woolcock 2003).

4. Describing the Debt Portfolio

Table 1 describes the debt portfolio for the quantitative sample for the whole sample, and for loans taken by SC households and non-SC households along with absolute differences across the debt portfolio across SC and non-SC households.[4] Large absolute differences in the debt portfolio across the groups of households may be due to differences in their creditworthiness. For instance, a household's wealth profile and its proclivity to engage in risky behavior could be important aspects that would lead to a different loan contract. We account for a rich set of household-level variables to capture the household's creditworthiness and proclivity to take risks. These variables are land ownership, agricultural asset index, livestock index, monthly per capita consumption expenditure, an indicator which is one when the SC household is residing in an SC majority habitation (*tola*), gender and education of the household head and her age and age squared. We also include the number of years for which the loan had been outstanding, the age-rank of the loan in the credit portfolio, and indicators for the history of borrowing for consumption exigencies and their repayment status.[5] Finally, we include village fixed effects that capture the nature of locally available credit sources (formal and informal).

A close look at the debt portfolio for these households shows that once key socio-economic characteristics are accounted for, SC households were not more likely to have an outstanding loan or a different number of outstanding loans. The average loan size for SCs was 11.4% lower than the loan size for other caste groups.

Despite these differences, SCs did not have a debt portfolio that looked substantially different in terms of the purpose of borrowing. Almost two-thirds of all the loans in the sample were taken to meet health needs (49.16%) or buy food (25.12%). The share of loans taken to meet health needs was higher, and the share of loans taken for production purposes was lower for SC households. Note that loans for production make only 3.58% of all the loans in the sample, and the share of loans taken for meeting health needs is only about 4% lower than the average for non-SC households.

[4] Collapsing different caste categories into the binary categories of SCs and non-SCs considerably simplifies the comparison of the debt portfolio of SCs with others within their village. Table A3 in the Appendix describes the credit portfolio across six caste- and religion-categories and the patterns are very similar to those documented in Table 1.

[5] Table A2 in the Appendix describes these control variables in detail. Note that in Table 1, included controls do not include those variables that are also outcomes: source and purpose of the loan and the collateral nature.

Since the quantitative survey did not collect information on the caste of the lender, it is not possible to match lenders and borrowers belonging to the same caste group. A conservative approximation will be to consider relatives, who are a subset of the kin group; a coarse approximation would include friends, neighbors, and relatives. The large proportion of loans taken from friends, neighbors, and relatives in the whole sample is an example of the central role that intra-kin lending plays in this context. These intra-kin credit ties, however, were significantly weaker for SC households. Only 43% of the total number of loans and 41% of the total volume of loans of were taken from their friends, neighbors or relatives as opposed to 54% of the total number and 51% of the total volume taken by non-SC households, and the conditional difference was 6.2% points. If we disaggregate this category of *friends, neighbors, and relatives*, the lower incidence of intra-kin borrowing among the SC households was driven by lower lending by relatives.

While moneylenders accounted for 52.7% of the total volume and 52.08% of the loans taken by SC households, the corresponding averages for the entire sample were 48.50% and 48.07%. Even when we account for differences in the characteristic of SC and non-SC households, the source of loan taken by an SC household was 7% points more likely to have come from a moneylender. Note that the lower borrowing from one's kinship network among SC households was almost one-to-one substituted by higher borrowing from moneylenders (Column 5, Table 1).

About 98% of the loans taken by SCs did not have any collateral attached to it compared to over 92% of the loans taken by non-SCs. Once we account for differences in characteristics of SCs and non-SCs, the level of collateralization shrinks to about a quarter of the original to 1.36% points showing that the bulk of the difference could be explained by differences in the observable characteristics of caste groups. The lower landholding among SCs explains much of the differential. Notably, if the loan was indeed collateralized for SCs, labour or future produce was not given as the collateral for any loan.

*****Table 1 here*****

The patterns described above show that SCs were borrowing as much and for broadly similar purposes as their non-SC counterparts within their village, they took smaller loans, which were more likely to come from lenders they identified as moneylenders. In addition to these differences, do SCs face a different price for credit? Indeed, SCs paid the highest average interest rate on borrowing and were least likely to get an interest-free loan than any other caste group in the sample (Table A2, Appendix).[6]

Of course, these differences could be driven not only by the different socioeconomic profiles of SCs in Bihar but also by the differences in their debt portfolio described above. To explore if the higher interest paid by SCs is robust to the differences in their loan contract, we

[6] Interest rate includes zero-interest loans.

account for the loan's source and purpose, along with the set of controls included to explore conditional differences in Table 1. We also restrict this analysis to the sample of loans from informal sources, which constitute 97% of all the loans given in this sample. As before, we include village fixed effects that capture anything different about the borrower's village, including the local credit supply landscape.

Table 2 describes the association between the borrower's caste and the likelihood of getting an interest-free loan. While including household-level controls considerably reduced the caste gap in the likelihood of getting an interest-free loan, including details of the borrower's borrowing history and the nature of loan contract did not substantially reduce the caste gap, and SCs were 2.5% points less likely to get an interest-free loan.[7] Since SCs typically took smaller loans, the per rupee administrative cost of servicing these loans could be driving this pattern. However, the caste gap is stable when we include the loan size as an additional control variable (column 4, Table 2). In fact, if we allow the likelihood of interest-free loans for SC borrowers to vary by the amount they borrowed, the caste gap closed by only 0.00034% points on average, and is not statistically significant (column 5, Table 2). It is worth mentioning that the lower likelihood that SC borrowers get an interest-free loan was almost entirely driven by the borrowing from their friends, neighbours, and relatives (Table A5, Appendix).

*****Table 2 here*****

While the likelihood that a loan taken by an SC borrower will be interest-free was significantly lower than for non-SC borrowers, loans taken by SC borrowers were also characterized by a higher monthly interest rate. The caste-gap in the interest rate persisted at 4.87% points even when the complete set of controls and the loan size were accounted for (Table 3). Moreover, the interaction between the size of the loan and the caste is statistically insignificant, and allowing the interest rate that SC borrowers pay to vary by the amount they borrowed closed the differential by only 0.06% points (column 5, Table 2). While some of this gap is due to the lower share of interest-free for SC borrowers, it persisted even when we restrict the sample to non-zero interest loans (Table A6, Appendix). SC households also paid a higher interest rate than all other caste groups, with the differential being the highest compared to the general caste households (Table A7, Appendix).[8] While both major lenders to SCs – moneylenders and friends, neighbors,

[7] Table A4, Appendix presents the results for the specification described in column 4, Table 2 for disaggregated caste categories and shows that the caste gap documented in Table 2 is present for comparison with any caste- and religious-category, but is statistically significant only for comparisons with Muslims and General caste borrowers.

[8] To put this interest rate differential in perspective, the difference between the average annual yield of corporate backed AAA (obligor has extremely strong capacity to meet its financial commitments) bonds and junk bonds (obligor is currently highly vulnerable) in the American stock market around the time of the survey was 10 percentage points. The difference in the riskiness of lending to SC households and general caste households would have to be almost 70% of the differential in the riskiness of assured return bonds and non-investment grade junk bonds in volatile post-recession recovery period to justify the persistent interest rate differential.

and relatives – charged SCs a significantly higher interest rate, the differential was the largest for the loans given by the latter (Table A8, Appendix).

*****Table 3 here*****

Therefore, once we account for relevant household-loan level information, the caste gap in the interest rate narrows, but is still economically relevant and statistically significant. Given the nature of quantitative data, we cannot assume that the higher cost of borrowing for SCs is immediately explained by caste-based discrimination. Patterns described in this section show that SCs have weaker intra-kin credit ties; these loans come at an even higher price. The fact that even intra-kin credit is substantially more expensive for SCs suggests that the interest rate differential is likely not driven by interlinkages in other markets. This inference is further bolstered by the fact that if collateralized, the collateral was most likely to be an immediately monetizable asset like land or jewelry and rarely labor or future produce. Also, the higher interest rates charged by the SC borrowers are not because of higher administrative costs of processing smaller loan amounts.

The drawback of using quantitative data to explore credit ties is that the distinction between moneylenders and friends, neighbors, and relatives is nebulous. The respondent may characterize a new lender charging high interest rate but within their kinship network as their friends, neighbors, or relatives. The next section takes this issue head-on and uses data from in-depth interviews with informal lenders in four villages to explain the credit ties that underlie the higher cost of borrowing for SCs.

5. Why is debt costlier for SCs? A Qualitative Deep-Dive

Findings from the quantitative analysis of credit markets in rural Bihar help us delineate some themes that are the starting point for the qualitative analysis - why is it that despite a similar distribution of borrowing purpose, SCs are less likely to borrow within their kinship network, and are charged a higher interest for smaller principal amounts?

We begin this section with an excerpt from an interview with Sitaram Thakur, an old-timer in the business of moneylending in Ramganj. When we approached him, he denied being a moneylender by profession anymore, “Look, these days moneylending as a business has shut down. Everyone has access to banks and bank accounts. I only deal in small money now”. He then went on to talk at length about his lending networks, “I only lend to railway porters anymore. Those are the only guys that come to me and repay with an interest of about 3-5% per month”. On being asked about cases of default he said “Earlier, I had more muscle power, I could extract the principal with interest; now it is not that simple anymore. Now the government is on their side,

and if I do or say anything they can work the Caste Atrocities Act[9] against me. So a lot of people don't give them loans anymore". And when asked how is this business viewed in the village? "Just helping out" he said, indicating that he saw it more as an act of charity than a purely financial transaction. It is worth mentioning that in our interviews with villagers in the four years that preceded this interview, Sitaram Thakur was often described as an altruistic and principled man by his existing network of borrowers. He even advanced interest free loans to those who were already in his network. However, new borrowers considered him to be shrewd and deceitful. They thought of him as a corrupt man who did not care for those who did not belong to his *jati* (sub-caste).

We begin with this excerpt because it illustrates a number of interesting aspects of informal credit transactions in rural Bihar – their social embeddedness most of all, the shifting nature of caste relations and their impact on transactions, and finally the persistent inequalities in informal credit markets. Sitaram Thakur, a general caste lender (belonging to the *Kshatriya jati*), occupies the highest position in the local caste hierarchy. Thirty years ago, Thakur had exclusive control over land and labor and offered *jajmani* or interlinked deals to his borrowers whereby they could work as laborers and also take credit at high interest rates. Along with these interlinked transactions, Thakur also derived power from the use of force (or threat thereof) in the event of a default. His position was further cemented by the fact that inter-village lending was limited.

Thirty years hence, Thakur explains that he does not have that kind of market or muscle power. He has weak social ties with those outside his caste. With the breakdown of the *jajmani* system, he cannot enforce credit contracts through interlinked transactions in land and labor markets. The fact that almost no collateralized loans taken out by SCs were given against labor or future produce in quantitative data further confirms that interlinked transactions are no longer the predominant feature of informal credit markets. The newer agrarian institutions exacerbate the distance between him and those outside his caste category, simultaneously weakening any transactional relationships between them as well, such as the credit ties. Thakur now lends only to those who were already in his network of borrowers. This network also happened to be those of his own caste, which inadvertently leaves out SCs. Inequality emerges, therefore, from asymmetrical social interactions where advantages accumulate on one side, and are fortified by the construction of social categories that justify and sustain unequal advantage.

It is important to note that besides Thakur, there are several other players in the lending market. As he notes, this is no longer the remit of upper-castes and landowners alone. In fact, taken together, there seemed to be three different categories of lenders: upper-caste landowners, market-based merchants and goldsmiths, and a new category of home-based OBC or SC lenders. When it

[9] He is referring to The Scheduled Castes and Tribes (Prevention of Atrocities) Act 1989, popularly known as the POA or Atrocities Act. It is an Act of the Parliament of India enacted to prevent the commission of offences of atrocities against the members of SCs and STs, to provide for Special Courts for the trial of such offences and for the relief and rehabilitation of the victims of such offences.

comes to the second category of informal lenders, they typically enforce the loan contracts by asking for a collateral or a guarantor against the loan. In Virganj, for instance, a *sonar* (goldsmith) when asked about whether people of all castes came to his shop, replied that he does not know if everyone can come to his shop because they do not have gold to give as collateral, but whoever does come to his shop is given a loan: "We are not a relationship-based business, I can give loans to anyone, as long as they have something valuable to give me as collateral". On rare occasions, he lends to those he knows even if they do not have gold – but they must have a guarantor, someone known to the *sonar* already. Since SCs usually do not have gold to give as collateral, nor do they have guarantors known to both them and the *sonar,* very few of his clients are SCs. Recall from Section 4 that while SCs were substantially less likely to have a collateralized loan, the bulk of this difference was explained away by their observable characteristics, especially their weaker economic status. The lack of availability of assets to offer as collaterals is another way through which caste-based inequalities indirectly manifest and persist to the disadvantage of SCs within credit markets. Ultimately, SCs are denied loans by these first two categories of lenders owing to these lenders' preference to lend to those within their kinship networks.

This brings us to the third kind of informal lender in rural Bihar, most of whose borrowers were SCs. Generally, a migrant who resided in Delhi, Punjab, or Kolkata most of the year and lent his newly acquired disposable income. We met with one such individual, Govardhan Yadav, in Shahpur, a small village in the district of Madhepura. Much like the *sonar*, Govardhan Yadav was open about his credit transactions. He gave credit to *all* individuals within as well as outside the village who sought a loan from him. This pattern in itself has led to a dramatic shift in the informal lending market. What used to be a transaction within close-knit and existing social ties (whether kinship or *jajmani*) has now opened up to be a much more impersonal network that goes beyond village borders. Unlike the *sonar*, however, Yadav lent much smaller amounts. As a migrant, he had neither time nor resources to assess the creditworthiness of his borrowers, monitor them, or enforce social pressure in the event of default – all good reasons why he lent smaller amounts but at larger interest rates. His wife conducted most of his transactions in his absence. Yadav represents a newly available line of credit to SC households – which, while easily available, are smaller in amount and have high interest rates. Even the analysis using survey data showed that SCs took loans that were about 11% smaller and had monthly interest rates that were about 4.8% points higher. In every village, there are many informal lenders like Yadav who start lending easily if they have disposable income.

Sitaram Thakur, the *sonar*, and Govardhan Yadav represent three very different types of moneylenders typically seen in rural Bihar. The first category of traditional moneylenders are wealthy, unlicensed, home-based lenders, who deal in money or land collaterals. They lent money at anywhere between 48–60% per annum interest rate. The second category are shopkeepers who are market based, licensed moneylenders – *sonars* and *telis* (traditional lending and business castes) – who set up shop in the main market area of the village. They lent based on the value of

the gold or other valuable item being collateralized, and they charge interest rates between 24–48% per annum. And finally, there is the third category of new small-scale, home-based and unlicensed lenders. These are mostly SCs and OBCs, migrants with newly accumulated wealth who are gradually lending small amounts on high interest rates. Table 4 describes the distribution of these three types of lenders across the four villages.

Far from leveling the playing field, despite the entry of many new lenders, caste-based still inequalities persist. The more traditional informal lenders, being primarily general castes, have more information about general castes – both the *sonar* and Thakur lent mostly to upper-castes. The new moneylending class – OBC and a handful of SC migrants – offers smaller loans to larger clientele beyond their kinship networks. Rather than offering big loans at lower interest rates to their inner circle, they offer smaller loans at high-interest rates to a far larger client base. Overall, despite the greater supply of credit in the market, SCs are now sorted into borrowing from sources that charge higher interest rates like Govardhan Yadav. This sorting of SCs into borrowing from the third kind of informal lender is also related to the finding from quantitative data that SCs are far less likely to borrow from friends, neighbors, and relatives: it is because of a gradual sorting into these more impersonal markets operated by new lenders, and also because SCs are rarely in the category of lenders themselves as shown in Table 4. Moreover, the few within-kin loans that they may access from the third kind of informal lenders are still costlier than any loan they would get from the more traditional sources (Table 4).

*****Table 4 here*****

These three types of moneylenders and their lending practices highlight that Basu's Disneyland monopolist, who offered inter-linked contracts in credit, land and labor markets, is no longer a valid representation of rural credit markets (Basu 1987). Now, there are far many lenders in the market than ever before and interlinkages across markets are virtually absent. In all four villages, very few SCs reported performing agricultural labor on lands owned by upper-castes. Migration and diversification in occupations have meant that both general castes and SCs work a range of different jobs, and traditional clientelistic structures have weakened.

The structure of the informal credit markets that we document closely resembles the landscape described by Aleem (1990) for Chambar in Pakistan. In that setting, since gathering information about the creditworthiness of new borrowers is costly, and borrowers and lenders are tied to each other, the market resembles segmented monopolistic competition. While they could enter the market, new lenders incurred a higher screening cost of building a clientele. In rural Bihar, although the first two kinds of lenders are tightly tied to their borrowers, unlike the lenders in Chambar, new moneylenders do not incur high administrative costs to screen potential borrowers. Instead, they rely on the fact that SCs have limited access to credit through traditional

informal sources. Smaller loans at higher interest rates is how they respond to potentially high default rates.

In order to develop a fuller understanding of how SC borrowers are sorted into the three types of informal credit sources, let us now look at the demand side of credit. Consider the following two quotes from two neighbors in Ramganj – one general caste and one SC:

Researcher: Can anyone get loans in the village?
Respondent 1 (SC): Those who know you will give you a loan. If I ask you for 50 rupees will you give me the money? This Panchayat spreads over 6 km. Not everyone recognizes me here.

Researcher: Can anyone get loans in the village?
Respondent 2 (General caste): I can. From rich people... If someone is sick or if there is a marriage, I can take a loan.
Researcher: And who gives loans here in the village?
Respondent 2 (General caste): Subodh Jha gives, *Mukhiya* (or village president) also gives, Jagannath Jha, Chandu Jha (these are the names of all the general caste, *Brahmins* in the village).

These two quotes are from two men – the former a *Dhobi* (SC), and the latter a *Brahmin* (general caste). The first respondent runs his own shop in the village successfully and is considerably better off than his Brahmin neighbor. However, he is still aware that his ability to raise credit depends on who knows him and his networks. This is one of the fundamental truths of the informal credit landscape in rural Bihar – a household's ability to access cheap depends instead on relations to other households, so much so that people commonly speak of each other's credit-worthiness in terms of their ability to raise money from other people on short notice. The second respondent on the other hand, who is a *Brahmin*, is able to easily access networks of *Brahmins* and other general caste moneylenders and can avail loans at lower interest rates – because his network of kin, men such as Thakur are lending at lower interest rates.

There are two explanations for the shift of SC borrowers towards the third kind of lenders. Some SCs voluntarily seek loans from the new crop of moneylender because it is less humiliating than borrowing from migrants of proximate castes than from general caste moneylenders; face-to-face interactions with the former are simply less humiliating. "We take loans from outside the village and pay it back once we have earned some money. The ones who give the money are from different castes. We take it at about 10 per cent. Nobody gives it for less than that. But the good thing is if we are unable to repay it back, they are less likely to threaten us".[10] Others however claim that they are often rejected for large amounts by general castes and are forced to borrow small amounts from the new moneylenders who seldom make assumptions about their creditworthiness. "We rarely get the required amount from one lender, and are forced to look for

[10]Interview with Lalima Devi, Ram caste, Virganj village

multiple lenders and break up the amount we need into smaller loans from multiple lenders", say *Ansari* (Muslim, SC) women in a focus-group discussion in Virganj. One *Ansari* woman in Ramganj explains one of her loans, "… someone in my family was unwell and I needed 15,000 rupees for an operation. I had to take it from three different people, because no one person would give me so much money. It took me 15 days to arrange the money".[11]

Overall, SCs today have more information about the entire gamut of interest rates across informal lenders and the evidence of explicit caste-based discrimination by a lender by way of offering different packages to different borrowers is limited. And yet SCs continue to face higher interest rates than others in their village. As discussed before, this is an outcome of the asymmetric relations that persist in all four villages – meaningful social interactions continue to be limited within castes, and these interactions generate greater advantages for general castes than SCs. We, therefore, find evidence for segmented monopolistic structure within the same village, one where upper- castes are able to access lower interest rates and larger principal amounts than SCs, who are left with higher interest rates.

6. **Discussion**

In this paper, we combine extensive survey data on about 17,000 loans taken by rural households across seven districts in Bihar with four years of qualitative data on the supply and demand side of moneylending to describe caste-based differences in the rural informal credit markets. The starting point of our research is to understand if and how credit markets in this context have evolved against the background of changing caste relations.

Today, *jajmani* system is no longer an adequate frame of representation for credit relations. The socio-economic profile of lenders in the market has changed and new informal lenders can relatively easily enter the market if they have loanable capital. However, the more things change, the more they remain the same. Despite the monumental changes in land, credit and caste relations, and the fact that there is little direct evidence for overt discrimination by the same lender, SCs still pay substantially higher interest rates and get smaller loans. Evidence from survey data and qualitative interviews rule out market interlinkages or higher administrative costs of processing smaller loans as the likely explanations of this equilibrium.

Instead, we find that ties of kinship and shared caste affiliation remain crucial to credit transactions. While general caste categories continue to benefit from the upper-caste (and lower interest rate) lenders by virtue of intra-kin borrowing or by having the means to offer collaterals, lower-castes suffer multiple disadvantages: a) they no longer have access to upper-caste lenders through *jajmani* ties, b) they do not have access to them through informal social networks between them either (due to the continued lack of cultural proximity between upper and lower castes in

[11]Interview with Anjum Khatoon, Ansari caste, Ramganj village

Bihar), c) they also rarely have collaterals to offer, and d) they do not benefit from intra-kin lending due to limited SC lenders with cash surplus in the market. These cumulative disadvantages have gradually and systematically sorted them into impersonal, but higher interest markets and this explains the caste-based differential in the cost of informal credit.

The coexistence of high-interest rates and smaller principal amounts in informal credit markets has been documented time and again, and even more than fifty years ago (Bottomley 1963). Persistence of this pattern over decades, however, is noteworthy, and its association with caste, striking. Understanding this context and the complexity of shifting inter-caste relations becomes critical, especially when designing anti-poverty interventions with the explicit aim of eliminating informal lending networks. The anti-poverty intervention, JEEViKA, whose baseline survey forms the basis of this paper, in fact demonstrates how grappling head-on with these caste relations and incorporating a strong context analysis within project design can undo deep-seated caste norms, and at least in its first phase, the project began to chip away at structural inequalities within credit markets (Sanyal, Rao and Majumdar 2015).

In its second phase, JEEViKA led to an economically relevant reduction in the interest rates in the informal credit market, but only for *repeat* borrowers and not the new entrants in the credit market (Hoffman et al. 2017). This result suggests that new borrowers who do not have social or physical capital to offer as collateral, much like the SC borrowers in our paper, could struggle to access low-cost credit in the informal credit market, despite the introduction of microcredit interventions like JEEViKA. To explain the muted effect on the program in its second phase, Majumdar, Rao and Sanyal (2017) demonstrate that on the caste front, the project had limited success in challenging existing power structures unlike its first phase. When scaling up from the first to the second phase, the project expanded rapidly and its local staff did not incorporate a contextual understanding of caste-based hierarchies to the extent that it did in the first. As a result, lending practices within the second phase of JEEViKA had started reproducing existing caste norms and inequalities, with upper-caste SHG members getting preferential treatment.

Taken together, findings from this paper, and other associated literature, clearly delineate a need to understand how caste (or other ascriptive identities) operate in the continually evolving reality to inform policy design. Policy interventions that work with the grain, take caste as a structural inequality into account, and grapple with the complex caste relations that form the basis of credit relations, are likely to have deeper impacts.

Admittedly, while our results have relevance for several parts of Northern and Eastern India (which historically had similar *jajmani* institutions and have witnessed changing caste relations in the recent past), but may have limited validity outside. Nonetheless, our results are an essential empirical contribution because Bihar is home to 36 million poor, approximately the size of Canada, and larger than the population of most European countries. Moreover, understanding

the persistence of unequal outcomes in Bihar, is especially crucial because poverty and social inequality have historically been stubborn to concurrent economic growth (Ravallion and Datt 2002).

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Tables

Table 1: Debt Portfolio across loans taken out by SC and non-SC household

	Whole Sample (1)	SC (2)	Non-SC (3)	Absolute Difference (2 – 3) (4)	Conditional Difference (2 – 3) (5)
Number of households	8,969	6,354	2,615		
Number of loans in the sample	17,869	12,943	4926		
Any loan (%)	85.30	86.73	81.86	4.87***	1.13
Number of outstanding loans (up to 5)	2.92	2.90	2.93	0.03	0.01
Amount borrowed	6415.41	5658.18	8401.77	-2740.00***	-958.08***
Purpose of the loan: Buy food (%)	25.63	26	24.65	1.35**	-1.44
Purpose of the loan: health expenditures (%)	49.16	50.18	46.49	3.69***	1.96*
Purpose of the loan: other consumption activities- education, household durables, jewelry, social expenses, housing (%)	20.96	20.85	21.25	-0.4	1.27
Purpose of the loan: productive activities- farming, business, livestock (%)	3.58	2.3	6.97	-4.67***	-1.82**
Purpose of the loan: other activities- migration, repaying old debt (%)	0.67	0.68	0.65	0.02	0.03
Source of the loan: Moneylender (%)	48.07	52.08	37.61	14.47***	6.96***
Source of the loan: Friends, neighbors and relatives (%)	46.02	43.12	53.59	-10.47***	-6.21***
Source of the loan: formal sources- commercial bank, Gramin bank, SHGs (%)	2.76	2.07	4.58	-2.51***	-0.24
Source of the loan: other sources (%)	3.14	2.73	4.22	-1.49***	-0.51
Collateralized loan (%)	3.61	2.20	7.32	-5.12***	-1.36**

Note: This table describes the debt portfolio for loans taken out by SC and non-SC households. The first column presents averages for the entire sample, the second column presents the averages that correspond to SC households, and the third column presents averages for non-SC households. The fourth column reports unconditional difference across the second and the third columns and stars indicate if the differences are statistically significant. The fifth column reports differences while controlling for household-related controls (see Table A1, Appendix) when looking at whether the household has any outstanding loan and the number of outstanding loans it has, and controlling for both household-related controls and loan-related controls that capture the household's borrowing history and potential borrowing networks (see Table A1, Appendix); stars indicate if the difference is statistically significant based on robust standard errors that are clustered at the village level. *** p<0.01, ** p<0.05, * p<0.1

Table 2: Differences in the likelihood of getting interest-free loans across loans taken out by SC and non-SC households

	(1)	(2)	(3)	(4)	(5)
SC	-0.071***	-0.031***	-0.022***	-0.022***	-0.025***
	(0.007)	(0.008)	(0.008)	(0.008)	(0.009)
SC X Amount borrowed (in 1000s of rupees)					0.000
					(0.000)
Observations	17260	16755	16682	16682	16682
R-squared	0.0134	0.0347	0.128	0.128	0.128
Non-SC Average	0.137	0.137	0.137	0.137	0.137
Village Fixed Effects	Yes	Yes	Yes	Yes	Yes
Household-level Controls	No	Yes	Yes	Yes	Yes
Loan-level Controls	No	No	Yes	Yes	Yes
Loan Amount	No	No	No	Yes	Yes

Note: This table describes the difference in the likelihood of getting an interest free loan, across loans taken out by SC and non-SC households for loans taken from informal sources. In addition to the indicator that the loan was taken by an SC household, the first column includes village fixed effects, the second column adds household-level controls (described in Table A1, Appendix), the third column adds loan-related controls (described in Table A.2), the fourth column includes the amount of loan, and the fifth column includes an interaction between the indicator that the loan was taken by an SC household and the amount of loan. Robust standard errors clustered at the level of a village are reported in parenthesis. *** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 3: Differences in annualized interest rates across loans taken out by SC and non-SC households

	(1)	(2)	(3)	(4)	(5)
SC	9.877***	5.511***	4.883***	4.869***	4.805***
	(0.620)	(0.668)	(0.693)	(0.693)	(0.791)
SC X Amount borrowed (in 1000s of rupees)					0.010
					(0.061)
Observations	17250	16745	16672	16672	16672
R-squared	0.0297	0.0623	0.106	0.106	0.106
Non-SC Average	49.28	49.28	49.28	49.28	49.28
Village Fixed Effects	Yes	Yes	Yes	Yes	Yes
Household-level Controls	No	Yes	Yes	Yes	Yes
Loan-level Controls	No	No	Yes	Yes	Yes
Loan Amount	No	No	No	Yes	Yes

Note: This table describes the difference in interest rates, across loans taken out by SC and non-SC households for loans taken from informal sources. In addition to the indicator that the loan was taken by an SC household, the first column includes village fixed effects, the second column adds household-level controls (described in Table A1, Appendix), the third column adds loan-related controls (described in Table A.2), the fourth column includes the amount of loan, and the fifth column includes an interaction between the indicator that the loan was taken by an SC household and the amount of loan. Robust standard errors clustered at the level of a village are reported in parenthesis. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Three Types of Moneylenders and Castes in the Four Villages

District	**Madhubani**	**Muzaffarpur**	**Saharsa**	**Madhepura**
Village	Ramganj	**Virganj**	**Saifpur**	**Shahpur**
Population (2001 Census)	1464 (445 HHs)	2056 (337 HHs)	3546 (715 HHs)	3975 (718 HHs)
Number of hamlets	4	10	10	5
Traditional Moneylenders	Brahmins* (36%)	Sheikhs*, Pathans* (24–48%)	Telis, Marwaris** (36–60%)	Sheikh*
Shopkeepers	Sonar* (24%)	None	Telis**, Marwaris**, Sonar*, PDS dealer (24%)	
New home-based lending	Yadavs** (60%)	Choudhurys** (60%, 120%)	Rams***, Yadavs**, Musahar*** (60%,120%)	Yadav, Halwai** (120)

Note: This table describes the distribution of the types of lenders across the four villages from where qualitative data were collected. Section 3 describes how these villages were selected in detail. The percentages refer to the interest rate offered by these types of moneylenders. Also note that * indicates upper-castes, ** indicates OBCs and *** indicates SCs in the village.

Appendix: Additional Tables

Table A1: Description of Qualitative Villages

District	**Madhubani**	**Muzaffarpur**	**Saharsa**	**Madhepura**
Village	**Bijail**	**Basantpur**	**Mahuapatti**	**Rahua**
Population (2001 census)	1464 (445 HHs)	2056 (337 HHs)	3546 (715 HHs)	3975 (718 HHs)
Number of hamlets	4	10	10	5
Location	Bhagwatipur market is 5 km away and the nearest railway is 15km away.	National highway 28 is 8 km away, on the border of Muzzafurpur neighboring Vaishali district. There is no proper market in the village.	Nearest railway is 45 km away. One of the most important markets in the district runs through this village.	Nearest railway is 14 km away. Proper market (Purnia and Manjaura) is 3 km away.
Caste breakdown	Brahmins (80%), SC (10%), OBC (10%), 1 HH of Fakir	Muslims (47%), Kalwar (3%), SC (25%), OBC (25%)	OBCs (58%), SCs (26%), Muslims (6%), General (10%)	OBC (43%), Muslims (31%), SCs (25%), 2 HHs of general caste
Dominant Caste	Brahmins	Pathan / Khan, Choudhury	Telis, Marwaris, Mandals	
General	Brahmins	Pathan / Khan	Marwaris, Rajput, Sonar	Sheikhs
OBC	Mandal, Yadav, Badhai, Teli	Choudhury, Koeri, Teli	Kalwar, Mandal, Yadav, Badhai, Teli	Yadav, Kurmi, Halwai, Badhai, Kanu, Gorhi, Jaiswal
SC	Dhobi, Ram, Musahar	Ram, Paswan	Dhobi, Ram, Musahar, Paswan	Musahar, Paswan, Ram
Muslim		Pathan / Khan, Fakir, Ansari, Hajaam, Dhuniya	Laheri, Kunjra, Sheikh, Fakir	Ansari, Kunjra, Sheikh
Main livelihoods	Agriculture and related activities (mostly cattle rearing), construction work, daily wage earning, traditionally all caste based. Dhobis were washing clothes (now a handful still are, but most do sharecropping or daily wage labor); Musahars migrants (brick kilns, roof-thatching, agricultural laborers). Rams (textile factories), Yadav, Dhobi and	Agriculture is the main occupation especially for Sheikhs and Kalwars (the two main landowning communities). More than 80% among SCs are migrants (construction sites, sharecropping). Women in SC tolas (esp. Paswans, Ram, Dhuniya) are also engaged in agricultural labor (sowing, weeding, harvesting, etc). Migration among Muslims is less common than Hindus. Dhuniya –	The Mahupatti market, over a century old, runs along the length of the village, and has been an important pull factor for trading communities (like Teli, Suri, Marwari, Halwai). The market is an important source of livelihood (tailoring, gold-smithy, running coaching institutions, private clinic, liquor shop, garment shop), along with agriculture (posia, i.e. rearing cattle on shared basis is a major livelihood). Caste-based traditional occupations, e.g. bangle making, fisheries, making oil, confectionary, washing clothes, etc. are also	Agriculture is the main livelihood means, and turmeric is the main cash crop – others are wheat and corn. Cattle rearing on a shared basis is common among all communities. Migration is common among SCs and Muslims (esp. Ansaris and Kunjras) and they work mostly as casual laborers, masons at construction sites etc.

	Badhai (construction, factories), Brahmins (offices, well-paid jobs and migrate with family unlike others)	tailoring, daily wage labor	common. Migration is also fairly common – especially to Leh, Punjab and Delhi – during rainy season.	
Land ownership	Brahmans own all the land. 25 families own about 10 bighas each. Most of the rest don't have land and mostly migrate to earn a livelihood. Telis have 3-5 bighas, Yadavs have 0.5 bigha. One Mandal family has 10 bighas and the only non-Brahmin with significant agricultural land. Rams have homestead land (but have no documentary evidence of possession). Musahars have it registered in their name –homestead & agricultural – but most of the agri land was captured by Brahmins 50 yrs ago	Sheikhs are the main landlords of this village (not from this village) – there are 2-3 families that own 20-25 bighas each. Choudhurys (new entrants who arrived 70 years ago) own about 3-5 bighas each and some professional moneylenders. 40% of the Khushwaha households also own small pieces of land.	Telis are the main landlords – two Teli families own most of the land. Eventually, Marwaris and Muslims also bought small pieces of land.	The one Sheikh family owns 80 bigha land. After that one Yadav family owns about 70 bighas. The other major landowners are Koeri and a few other Yadavs, at about 5-6 bighas and 4-5 bighas each respectively. Most SCs are landless
Politics	Brahmins hold most PRI positions (note: Mukhiya has never been from this village).	The former Mukhiya were Sheikhs, now reserved for SCs. (note: Mukhiya has never been from this village). Sarpanch (hajaam) however is from here.	Mukhiya from 1977 till 2001 was Sah, then Yadav. In 2006, Panchayat was reserved for women and Yadav's wife became Mukhiya. In 2011, Sah's wife became Mukhiya (note: Mukhiya has never been from this village) Panchayat samiti head (Musahar) however is from here.	GP was primarily Muslim until 2006, when GP was reserved for backward caste female. Kanchan Devi, an educated Gorhi (OBC) woman is now Mukhiya, and disliked by dominant Muslim communities.

Table A2: Description of Control Variables Used

Household-related controls
Demographic characters
Education of the household head (in years)
Age of the head of the household
Age of the head of the household squared
Indicator for any member in the household migrating for work
Wealth and income controls
Land ownership
Asset index: agricultural implements
Asset index: livestock ownership
Per capita consumption expenditure
Loan-related controls
Loan characteristics: Purpose of the loan
Purpose of the loan: Buy food (%)
Purpose of the loan: health expenditures (%)
Purpose of the loan: productive activities- farming, business, livestock (%)
Purpose of the loan: other consumption activities- education, household durables, jewelry, social expenses, housing (%)
Purpose of the loan: other activities- migration, repaying old debt (%)
Loan characteristics: Source of the loan
Source of the loan: Moneylender (%)
Source of the loan: Friends, neighbours and relatives (%)
Source of the loan: formal sources- commercial bank, Gramin bank, SHGs (%)
Source of the loan: other sources (%)
Loan characteristics: Collateral type for the loan
Collateral for the loan: no collateral
Collateral for the loan: land
Collateral for the loan: labour
Collateral for the loan: house
Loan characteristics: Borrowing history and potential networks
Time elapsed since the loan was taken out (in years)
Rank of the loan in terms of its age in the household's borrowing portfolio
SC household resides in an SC-majority *tola*

Note: This table describes the control variables used in various regression models.

Table A3: Loan Portfolio, by Caste

	SC	ST	OBC	EBC	Muslim	General	Total
Total number of households in the sample	6,354	105	1,334	477	314	385	8,969
Total number of loans in the sample	12,943	155	2,613	893	540	725	17,869
Any loan (%)	86.73	73.33	83.36	82.39	81.85	78.18	85.3
Average number of outstanding loans per household (up to 5)	2.93	2.69	2.96	2.87	2.69	2.97	2.92
Average loan amount (in 2009 rupees)	5658.19	5482.58	8958.40	7276.04	6826.01	9636.14	6424.97
Purpose of the loan: Buy food (%)	26	25.32	23.86	25.28	27.75	24	25.63
Purpose of the loan: health expenditures (%)	50.18	50.00	45.48	49.66	48.04	44.41	49.16
Purpose of the loan: productive activities- farming, business, livestock (%)	2.29	3.90	8.16	4.63	3.72	8.68	3.58
Purpose of the loan: other consumption activities- education, household durables, jewelry, social expenses, housing (%)	20.85	20.13	21.89	19.53	20.11	22.22	20.96
Purpose of the loan: other activities- migration, repaying old debt (%)	0.68	0.65	0.61	0.9	0.37	0.69	0.67
Source of the loan: Moneylender (%)	52.08	35.48	37.99	39.64	43.74	29.26	48.07
Source of the loan: Friends, neighbours and relatives (%)	43.12	58.71	53.4	53.04	47.85	58.39	46.02
Source of the loan: formal sources- commercial bank, Gramin bank, SHGs (%)	2.07	2.58	5.11	2.48	2.43	7.36	2.76
Source of the loan: other sources (%)	2.72	3.23	3.5	4.84	5.99	5	3.14
Collateralized loans (%)	2.20	9.03	7.97	4.71	7.04	8.15	3.62
No interest loans (%)	5.59	9.68	12.09	10.53	18.89	20.69	7.82
Average annualized interest rate (%)	61.11	52.70	50.32	50.99	48.81	42.89	57.89

Note: This table describes the loan portfolio for all the outstanding loans in the quantitative sample by caste. The first two rows present the number of households and the number of outstanding loans across caste groups, respectively. The caste categories correspond to the categories presented to the respondent in the survey, and Muslim respondents were not further probed about their caste.

Table A4: Differences in the likelihood of getting an interest-free loan across disaggregated caste categories

	(1)	(2)	(3)	(4)	(5)
ST	0.054	0.027	0.005	0.005	0.006
	(0.038)	(0.040)	(0.037)	(0.037)	(0.037)
OBC	0.054***	0.012	0.006	0.006	0.009
	(0.010)	(0.010)	(0.010)	(0.010)	(0.011)
EBC	0.045***	0.017	0.003	0.003	0.005
	(0.014)	(0.013)	(0.013)	(0.013)	(0.013)
Muslim	0.108***	0.090***	0.082***	0.082***	0.084***
	(0.022)	(0.022)	(0.021)	(0.021)	(0.021)
General caste	0.148***	0.075***	0.068***	0.068***	0.070***
	(0.022)	(0.023)	(0.022)	(0.022)	(0.022)
Observations	17260	16755	16682	16682	16682
R-squared	0.0182	0.0378	0.131	0.131	0.131
Non-SC Average	0.137	0.137	0.137	0.137	0.137
Village Fixed Effects	Yes	Yes	Yes	Yes	Yes
Household-level Controls	No	Yes	Yes	Yes	Yes
Loan-level Controls	No	No	Yes	Yes	Yes
Loan Amount	No	No	No	Yes	Yes

Note: This table describes the difference in the likelihood of getting an interest-free loan across loans taken out different caste categories and indicator for if the loan was taken by an SC household is the base category. Controls include household- and loan-related variables described in Table A1. Robust standard errors clustered at the level of a village are reported.

*** p<0.01, ** p<0.05, * p<0.1

Table A5: Differences in the likelihood of getting an interest-free loan across SC and non-SC borrowers, by the source of borrowing

	(1)	(2)	(3)
	Money lender	Friends, neighbours and relatives	Formal sources
SC	-0.005	-0.034***	0.037
	(0.006)	(0.013)	(0.054)
Observations	8242	7903	474
R-squared	0.152	0.0964	0.0585
Non-SC Average	0.0385	0.199	0.0756
Village Fixed Effects	Yes	Yes	Yes
Household-level Controls	Yes	Yes	Yes
Loan-level Controls	Yes	Yes	Yes
Loan Amount	Yes	Yes	Yes

Note: This table describes the difference in the likelihood of getting an interest-free loan across SC and non-SC borrowers. Controls include household- and loan-related variables described in Table A1. The first column presents the result for loans given by moneylenders, the second column presents the result for loans given by friends, neighbours and relatives and the last column presents the result for loans given by institutional lenders. Robust standard errors clustered at the level of a village are reported.
*** p<0.01, ** p<0.05, * p<0.1

Table A6: Differences in annualized interest rates (excluding zero interest loans) across loans taken out by SC and non-SC households

	(1)	(2)	(3)	(4)	(5)
SC	6.092***	3.987***	3.835***	3.817***	3.584***
	(0.478)	(0.517)	(0.547)	(0.547)	(0.656)
SC X Amount borrowed					0.038
					(0.062)
Observations	15906	15448	15393	15393	15393
R-squared	0.0186	0.0366	0.0397	0.0398	0.0399
Non-SC Average	57.17	57.17	57.17	57.17	57.17
Village Fixed Effects	Yes	Yes	Yes	Yes	Yes
Household-level Controls	No	Yes	Yes	Yes	Yes
Loan-level Controls	No	No	Yes	Yes	Yes
Loan Amount	No	No	No	Yes	Yes

Note: This table describes the difference in the annualized interest rates, excluding zero-interest loans, across loans taken out by SC and non-SC households from informal sources. In addition to the indicator that the loan was taken by an SC household, the first column includes village fixed effects, the second column adds household-level controls (described in Table A2), the third column adds loan-related controls (described in Table A2), the fourth column includes the amount of loan, and the fifth column includes an interaction between the indicator that the loan was taken by an SC household and the amount of loan. Robust standard errors clustered at the level of a village are reported.
*** p<0.01, ** p<0.05, * p<0.1

Table A7: Differences in annualized interest rate across disaggregated caste categories

	(1)	(2)	(3)	(4)	(5)
ST	-9.684***	-7.383**	-5.998**	-6.015**	-5.965**
	(2.971)	(3.102)	(2.986)	(2.985)	(2.995)
OBC	-9.251***	-4.803***	-4.380***	-4.365***	-4.303***
	(0.797)	(0.857)	(0.864)	(0.863)	(0.937)
EBC	-8.110***	-4.853***	-3.903***	-3.886***	-3.827***
	(1.063)	(1.022)	(1.021)	(1.022)	(1.099)
Muslim	-9.052***	-6.860***	-6.179***	-6.165***	-6.109***
	(1.784)	(1.749)	(1.775)	(1.776)	(1.824)
General caste	-15.287***	-7.579***	-7.092***	-7.071***	-7.006***
	(1.591)	(1.690)	(1.642)	(1.641)	(1.693)
Observations	17250	16745	16672	16672	16672
R-squared	0.0319	0.0629	0.106	0.106	0.106
Non-SC Average	49.28	49.28	49.28	49.28	49.28
Village Fixed Effects	Yes	Yes	Yes	Yes	Yes
Household-level Controls	No	Yes	Yes	Yes	Yes
Loan-level Controls	No	No	Yes	Yes	Yes
Loan Amount	No	No	No	Yes	Yes

Note: This table describes the difference in annualized interest rates across loans taken out different caste categories from informal sources of credit and indicator for if the loan was taken by an SC household is the base category. Controls include household- and loan-related variables described in Table A2. Robust standard errors clustered at the level of a village are reported.

*** p<0.01, ** p<0.05, * p<0.1

Table A8: Differences in annualized interest rates across loans taken out by SC and non-SC households, by the source of borrowing

	(1)	(2)	(3)
	Money lender	Friends, neighbours & relatives	Formal sources
SC	4.245***	5.505***	6.470
	(0.856)	(0.978)	(6.606)
Observations	8240	7899	472
R-squared	0.0705	0.100	0.150
Non-SC Average	57.21	45.05	41.26
Village Fixed Effects	Yes	Yes	Yes
Household-level Controls	Yes	Yes	Yes
Loan-level Controls	Yes	Yes	Yes
Loan Amount	Yes	Yes	Yes

Note: This table describes the difference in annualized interest rates for loans taken by SC and non-SC borrowers. Controls include household- and loan-related variables described in Table A2. The first column presents the result for loans given by moneylenders, the second column presents the result for loans given by friends, neighbours and relatives and the last column presents the result for loans given by institutional lenders. Robust standard errors clustered at the level of a village are reported.

*** p<0.01, ** p<0.05, * p<0.1