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The gender of debt and the financialisation of development.
Insights from rural southern India

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Proponents of financial inclusion regret that women do not have sufficient access to credit, while critics of financialization consider that women are too indebted. But little is actually known about women's debt/credit in quantitative terms, mostly because of a lack of data. Based on Indian data disaggregated by sex, this descriptive paper analyses the gender of debt, at the prism of caste and poverty. We find that women are already heavily indebted, borrowing much more than men relatively to their income. Furthermore, iemale debt is predominantly - and markedly more than male – used to make both end meets, while productive investment remains in great part a male privilege. Last, it is in the poorest and the lowest caste households that women manage the highest shares of household debt. From a theoretical perspective, these results underline the gender earmarking of debt and credit, ie the fact that male and female debt/credit do not have the same meaning and use. They also confirm the gender dimension of behaviour, women's behaviour being constrained by their family affiliation, poverty level and caste, which is much less the case for men. In terms of policy implications, these results question microcredit policies: not only microcredit does not tackle the gender of debt, but it may even strengthen it further.

Keywords: gender, debt, poverty, caste, India.

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The gender of debt and the financialisation of development. Insights from rural southern India

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Abstract

Proponents of financial inclusion regret that women do not have sufficient access to credit, while critics of financialization consider that women are too indebted. But little is actually known about women's debt/credit in quantitative terms, mostly because of a lack of data. Based on Indian data disaggregated by sex, this descriptive paper analyses the gender of debt, at the prism of caste and poverty. We find that women are already heavily indebted; although men earn much more, they borrow much less in relative terms. Furthermore, it is in the poorest and the lowest caste households that women manage the highest shares of household debt. Last, female debt is predominantly - and markedly more than male - used to make both end meets, while productive investment remains in great part a male privilege. From a theoretical perspective, these results underline the gender earmarking of debt and credit, ie the fact that male and female debt/credit do not have the same meaning and use. They also confirm the gender dimension of behaviour, women's behaviour being constrained by their family affiliation, poverty level and caste, which is much less the case for men. In terms of policy implications, these results question microcredit policies: not only microcredit does not tackle the gender of debt, but it may even strengthen it further.

1 Introduction

Do women have too much debt or not enough access to credit? Debt and credit are two sides of the same coin, but the choice of terms reflects the ambivalence of the debt/credit dyad: depending on how it is used, debt/credit can sometimes make it possible to stabilize an uncertain situation, carry out projects, project oneself into the future, sometimes increase vulnerability when repayments exceed income capacities, or even push debtors into poverty and destitution.

The debates between opponents of financial inclusion and critics of financialization illustrate this ambivalence. Proponents of "financial inclusion" who are mainly to be found in development organisations, among decision-makers and some economists, demand more credit for women, focusing on credit as a potential tool for business creation, improved access to education and health, enhanced decision-making, physical mobility, and more generally women's "empowerment". Even if microcredit has been strongly criticized and is no longer considered as the miracle recipe, the plea for more credit for women remains valid among a large number

of international organisations (Demirgüç-Kunt et al. (2018), UNCDF (2019)). India, where microcredit has yet grown strongly over the last twenty years, is no exception: women are still considered as credit rationed (Ghosh and Vinod, 2017).

But financial inclusion raises also many critics. Critics mainly look at the "debt" side and worry about the growing hold of finance, both material and symbolic, on production but also daily life, what is now called "financialization". A growing body of feminist scholarship denounces the financialization of social reproduction (ie. any work or activity needed to maintaining existing life and reproducing the next generation) and the fact that it primarily affects women, leading to new forms of control over women's bodies through forced labour for debt repayment and the exacerbation of gender differences in how risks are assessed (Rankin (2013), Roberts (2015), Fraser (2017)). This criticism echoes a historical perspective, which shows that women's debt seems to be a constant of the working classes, not to accumulate and climb the social ladder, but simply to make ends meet and survive on a daily basis (Fontaine (2008), Lemire et al. (2001)).

A missing part in these debates concerns the actual modalities of women's debt, of which little is known, especially from a quantitative perspective. There are many empirical studies on the impact of microcredit[1] but very few closely examine all sources of women's debt (for an exception, see Garikipati, Agier, Guérin and Szafar (2017)). Yet it is now a well-known fact that microcredit is often only a small part of household debt. The pioneering study by Collins et al. (2009), which details the complexity of the financial portfolios of the poor, does not address potential gender differences. On the side of critics of financial inclusion and financialization and its gender dimension, the available analyses are limited to the macro level and are rarely based on precise survey data.

In both cases, the lack of gender-disaggregated data is a major obstacle. At the household level, the determinants of debt are well documented. The propensity to get into debt and face repayment difficulties combine specific circumstances, whether life cycle events or unexpected shocks, but is also marked by social belonging; unsurprisingly, working classes and marginalised communities are more exposed to debt (Westbrook et al. (2000), Kempson et al. (2004), Bridges and Disney (2004), Warren (2004), Del-Río and Young (2005), Worthington (2006), Disney et al. (2008), Brown and Taylor (2008), Heltberg and Lund (2009), Caputo (2012)). Crucially however, the intra-household repartition of debt remains a dead angle, contrasting with a large literature

[1]For a review, see Garikipati, Johnson, Guérin and Szafarz (2017)

about intra-household allocation of income (Pahl (1989), Vogler and Pahl (1993), Zelizer (1994), Nyman (1999), Burgoyne et al. (2006), Vogler et al. (2008)). National financial practices surveys overall bear witness to the tenacity of the unitary household model, albeit severely challenged by the feminist critique (Folbre, 1986b): debts widely are recorded at the household level.

Gendered survey data are thus mostly limited to single women, such as female students and female households' heads. The former are more often in debt and have more difficulty repaying (Belasco et al. (2014), Miller (2017), Schwartz and Finnie (2002), Johnson et al. (2009), Choy and Li (2006)), but it is more difficult to conclude on the women households' heads given their great heterogeneity. Some quantitative studies have still been able to provide quantitative individual-level - and mixed - evidence about the impact of gender on financial hardship (Caputo (2012), Patel et al. (2012), Oksanen et al. (2015), Dunn and Mirzaie (2016)), but gender tends to be more regarded as a control variable than as a variable of interest. Rather, it is history and anthropology that must be looked at to understand the gender of debt. Both argue for the value of an intersectional analysis (the interlocking system of power): when money is lacking, women have great financial responsibilities, including debt (Tebbutt (1983), Parker (1992), Ross (1993), Lemire (1997), Fontaine (2001)). The gender of debt is also found in the use of these debts: here too the data are scarce, and cover mainly microcredits, but it seems that female debts are more often used for social reproduction purposes (Noponen (1992), Garikipati (2008), Deininger and Liu (2013)).

But quantitative analyses of the gender of debt and credit within households are lacking, because of conceptual and methodological impediments (lack of available data). This article, based on first-hand and recent survey data by gender, fills this gap by questioning the gender of debt and credit. We draw on fieldwork carried out in rural southern India, where intensive microcredit and financial inclusion policies have been implemented over the past twenty years. Our quantitative analyses rely on a 2016-2017 survey of five hundred households and one thousand and sixty individuals that was conducted in ten villages in rural Tamil Nadu. We seek to understand who gets into debt, from whom, for what purposes, with which income, and crucially, if these various facets of indebtedness display a gender dimension.

Our conclusion is clear: debt is gendered, in the sense that women's debt does not obey the same constraints and does not have the same meaning as men's. In short, male credits are more often (but not always) credits, used to invest and project themselves into the future. For women, on the other hand, most of the credit is actually debt and is simply intended to make end

meets. More specifically, four main results emerge. First, women predominantly borrow to meet expenditures linked to social reproduction, are far less likely than men to finance investment, and microcredit loans do not depart from this pattern. Secondly, women display far higher debt-to-income ratios, in a context of huge gender discrepancy in income. They account on average for 37% of household debts, for a revenue share of 22%. Third, household affluence is found to be a key driver of female indebtedness. Female borrowers appear to be more concentrated than men in the lower-income households, where household indebtedness rates are the highest and possibilities of support by other household members are limited. Together with the probability of borrowing, the share of household debt supported by women goes increasing with the level of deprivation of their household. In contrast, the probability of taking on debt is stable for men across per capita income levels. Fourth, debt burden is differentiated along the line of castes. Even controlling for discrepancies in household incomes, Dalit women are expected to have on average higher debt shares than non-Dalit women, and to add up both caste and class effects.

The reminder of this paper is organized as follows. The first section presents the data and context, providing a first overview of the gender of debt based on descriptive statistics. The second section moves to econometrics to distinguish the role of gender, class and caste. In a first stage we analyse the drivers of resort to credit for both men and women. In a second stage, we investigate the determinants of the size of household debt share owned by women. The third and last section discusses the results and their implications, both theoretically and in terms of policy recommendations.

2 Data and Context

2.1 Data

The quantitative analyses presented in this paper rely on a household survey (Networks, Employment, Debt, Mobilities, and Skills in India Survey (NEEMSIS))[2] conducted in rural Tamil Nadu, in 2016/2017 by two authors of this paper. Contrasting with other Indian datasources such as the All India Debt and Investment survey, this survey has the rare and valuable advantage of recording debt at the individual level. Located at the border between Villupuram and Cuddalore districts, the studied area is mostly an agricultural zone, counting two industrial towns (Neyveli and Cuddalore) and a regional business center (Panruti).

[2]For more details, see https://neemsis.hypotheses.org/

The survey is the second wave of a panel study. The 2010 first wave randomly selected 405 households in 10 villages and 2 districts, within a stratified sampling framework, on the basis of land characteristics (half of villages are irrigated, the other half have dry lands), proximity to small towns (Panruti (60 000 habitants), Villupuram (120 000), Cuddalore (180 000)), and caste. In each village, the sample was determined to stem half from the Ur part of the village, mostly restricted to upper and middle castes, and half from the Colony part of the village, where mainly Dalits live. Village sizes range from 175 to 500 households. In this first wave, data about financial practices were not disaggregated by gender; we thus exclusively use the second wave. The latter recovered 388 households and randomly selected 104 news households in these 10 villages, following the same method. As some households migrated between the two survey (13% of the recovered households), the final sample is disseminated across 15 locations[3].

Near half the sample (42%) was interviewed after the demonetisation shock that occurred in November 2016. We do not study the effect of this event per se (see Guérin et al. (2017) for an analysis of demonetisation impact with these data), but we control for it in the analysis as disruptive effects on financial practices are likely. Furthermore, although in the data the average number and amount of loans per household were not found to increase with demonetisation, Guérin et al. (2017)'study underlines gendered and caste-based responses to demonetisation. One the one hand, some segments of the population had to borrow to meet cash shortages, and especially Dalits, who had lower cash surpluses; on the other hand, some sources of credit supply reduced (from some microfinance organisations or banks to some small shopkeepers running out of cash) while others thrived (advances of employers trying to get rid of old notes, informal moneylending between neighbhours, cash recycling through women's SHG...).

As far as financial practices are concerned, the survey records all the loans unsettled at the time of the survey, from credit by neighbour to bank loan, and the whole of these debts are studied in this paper. The accuracy of self-reported debt data is obviously a concern. Recall issues, but also social desirability biases, are likely (Zinman (2007), Karlan and Zinman (2008), Brown et al. (2011), Citizens Advice (2003)), and even more for women as they often juggle multiple and sometimes hidden loans (Johnson (2004), Guérin (2014)). Several precautions have been taken here to limit these biases. A good knowledge of the context - the team has been conducting numerous quantitative and qualitative surveys in the region for more than a decade

[3]Ie 13 villages and 2 "areas": in order to ensure a minimal number of observations per location, migrant households who settled in villages less than 5 kilometers away one from another were gathered together in a same area for the analysis.

- allows questions to be formulated in an appropriate way. This includes, for example, the use of specific terms that are less degrading than the generic term "debt" (*kadan* in Tamil), the list of main local lenders, the use of indirect questions, etc. Besides, while the remaining of the household questionnaire was completed by one respondent per household (often the household head), women were interviewed separately for the financial module. A large part of female debt being generally unknown to the rest of the family (the opposite is much less true), this is the only way to obtain data that can be considered reasonably reliable.

2.2 The labour and financial landscape

After deletion of missing observations, our final sample consists in 484 households and 1610 adults. Dalit (or Scheduled Castes, ex-intouchables) and Middle Castes (mostly Vanniyars) are the most prominent social groups[4]. 12% of households are from Upper-Castes (Mudaliyars, Naidus, Reddiyars, Settus), who are progressively leaving for towns. The mean per capita annual revenue[5] amounts to 38481 INR (around 444 euros), and 70% of households are without land (Table 1). As elsewhere in the country, caste is a deep line of differentiation. Only 20% of Dalit households have land, against 40% of non Dalit, and with two times smaller plots on average. Aside land, their assets[6] and per capita income amount on average to half (46%) and two thirds of non Dalit's respectively.

Casual work accounts for a large part of employment (Table 2), which implies not only low but volatile incomes, especially for women. Over-represented in unpaid labour, from social reproduction to activity in family farm or business, women are generally engaged in part-time, subsidiary employment when working for pay: only 13% of female workers make most of their income with regular work, against 33% of men. The National Rural Employment Guarantee Scheme (NREGS)[7] stands for a non negligible source of female labour and income. One third of women engaged in paid employment make most of their income with the program, against 2% of men. The median income of women income-earners corresponds to the 7^{th} percentile of male incomes. Due to this supply of hard and poorly paid labour, women's employment is markedly differentiated across classes and castes (Table 1), more frequent in low-income households, where

[4]Muslims and Christians are in minority in the region (10 households in our sample).

[5]The sum of labour incomes, governmental transfers, and remittances received, divided by the number of household members.

[6]As land value is unavailable in our data, assets include here house(s), household goods, livestock and agricultural equipment value, alongside bank and gold savings.

[7]Launched in 2006, the programme proposes to each household one hundred days of manual employment yearly, on public works such as road and tanks maintenance, at a gender-blind minimum wage rate.

necessity is compelling, and Dalit households, where women face lower mobility and labour restrictions.

Table 1: *Household level variables*

Variables	All	Q1	Q10	Dalit	Middle	Upper
Female-headed[8]	0.09	0.12	0.08	0.11	0.08	0.05
Caste:						
Dalit	0.48	0.63	0.33			
Middle caste	0.40	0.33	0.49			
Upper caste	0.12	0.04	0.18			
Household size	4.67	5.4	4.73	4.92	4.58	3.98
Nuclear family	0.61	0.55	0.77	0.62	0.60	0.55
Home ownership	0.88	0.96	0.77	0.89	0.89	0.76
Assets[1] value (excluding land) (INR)	502794	292018	810607	311529	657832	761220
Land ownership	0.30	0.26	0.31	0.20	0.44	0.26
Among owners: Land size (acres)	2.45	1.10	4.92	1.46	2.64	4.49
Mean per cap. annual income (INR)	37055	6948	109031	30227	42039	48100
Unbanked	0.04	0.02	0.14	0.05	0.04	0.03
Indebted	0.99	1	1	0.99	1	0.98
Mean debt/annual income ratio	2.11	5.95	0.88	1.62	2.38	3.14
Female debt >0	0.77	0.86	0.61	0.80	0.77	0.69
Mean female debt share	0.37	0.42	0.21	0.42	0.33	0.25
Mean female income share	0.22	0.30	0.18	0.28	0.19	0.09
N	484	49	49	234	192	58

Source: NEEMSIS survey

[1] Assets: house(s), household goods, livestock, agricultural equipment, bank and gold savings.

In this context of irregular incomes, resort to debt is generalized (Table 1): 99% of households have unsettled debt. Far from being marginal, the resort to female debt affects three quarters of studied households (77%). Men and women have roughly the same propensity to be in debt: 56% and 57& of male and female adults respectively are indebted at the time of the survey. As a result of massive financial inclusion policies implemented over the last twenty years in the region, 4% of households only are unbanked, and three quarters of adults have at least a bank account (Table 2). Account ownership does not significantly differ by gender, yet female accounts[9] are more often used to receive money from government schemes: NREGA's wages, for instance, are transferred into bank accounts.

[9] Joint accounts are almost nonexistent in our data (1% of adults, see Table 2).

However, bank credit represents only a negligible part of the financial landscape. 84% and 67% of male and female borrowers respectively have resorted exclusively to informal sources of credit (Table 2). However, even if informal finance remains a key feature of rural financial landscape (Nair, 2017), and even if caste remains a powerful regulator of borrowing relationships (Guérin et al., 2013), debt sources have significantly evolved and diversified in rural south-India over the second half of the last century. The profile of lenders, both formal and informal, has however diversified considerably. Pawnbroking, for long a preserve of specific lending castes, has opened up to other communities: in our sample, 75% of female borrowers (4% of males) have contracted some gold loans. Commuting to urban areas also has opened up new opportunities: workers can obtain loans from their workplace, especially from their colleagues, bosses or contractors (19% of male borrowers borrowed from labour relations, only 2% of females). New players have also come in and they have a strong specificity: they target mostly women. While women have always been excluded from any form of formal finance (13% and 5% of male and female borrowers respectively contracted bank loans), this is a real novelty. The feminisation of the market started in the late 1990s, with the Self-Help-Group model[10] (bolstered by active public policy and multilateral agency support) and the growth in microcredit supply, mostly from for-profit organisations[11]. In our sample, 30% of female borrowers resorted to microcredit (through SHG or other institutions).

2.3 The burden of debt

Households are on average indebted to the tune of two times their annual income, and indebtedness is the deepest among the poorest households (Table 1). Within households, the involvement of women in the financial sphere contrasts with their contribution in income: women account on average for 37% of household debts, for a revenue share of 22%. Besides, simple descriptive statistics suggest that Dalit households may rely more markedly on women's credits, along with lower income households: in the lowest decile of per capita income, women's debt share is two-times larger than in the top one (Table 1).

[10]SHG consists of fifteen to twenty women who circulate money amongst one another, and are then eligible for external loans provided by NGOs, banks or non-banking financial companies. In 2010 in Tamil Nadu, it was estimated that almost half families (44%), and almost one fifth (18%) of the female adult population, belonged to at least one SHG (see http://ifmrlead.org/map-of-microfinance) and in 2017, almost one million of SHG had been created in Tamil Nadu (Bharat Microfinance Report 2017).

[11]Former NGOs transformed into private companies, ancient and powerful urban companies considering rural women as a new market niche, or private and international banks providing specific microcredit programmes. With 35 microfinance providers (a dozen in the area under study) and 3,.2 million clients in 2016-17 (Bharat Microfinance Report 2017), Tamil Nadu is one of the leading states in India.

Overall, debt levels reflect the gender discrepancy in income (Table 2). Although men and women have a similar propensity to be in debt, male borrowers have on average 2,2 higher debts than their females counterparts. But they borrow actually far less in relative terms: female borrowers get into debt to the tune of 9 times their annual revenue on average, against 3 times for males (3 and 1 at the median respectively).

Differences in loan sizes stem as well from differences in borrowing purposes. Two measures of loan use are available in our data: the "planned" use (main expenditure item predicted at the time of borrowing) and the "actual" use(s) of the loan, that records how the credit money was actually spent (with possibly multiple expenditure items). While the actual use of the loans is of primary interest, this measure has the drawback of not allowing to weight the different uses (having spent some credit money on a spending item is recorded as a dummy variable equal to 1 whatever the portion of the loan spent, as long as strictly positive) and thus tends to spread the gender differences out. Consequently, we present the results for both planned and actual uses of loans[12] in Table 3.

It appears that investment in productive assets is largely a male prerogative, men accounting for 83% of the loans contracted for this aim in frequency. 10% of female borrowers have contracted at least one loan purposely for investing, against 27% of males (planned use), and 17% of female borrowers have in turn used at least some of their credit money for this purpose, against 27% for men (actual use). By contrast, ensuring family subsistence weights particularly heavily on women's debt. Half (52%) of female borrowers have contracted at least one loan purposely for meeting daily expenses (such as food), against one third (35%) of males. On average, 40% of their total debt was contracted to finance this spending item (planned use), namely double the mens's level (20%). From the side of actual use, 56% of women and 44% of men have finally spent some of their credit money on it.

That women are far more deeply indebted that men, and mostly for making both ends meet, obviously raises the question of men's financial help, and more generally intra-household cooperation. Our data underline that full pooling and sharing of debt is not necessarily the norm. In the survey, help to repayment is available only for a subsample of the loans (53% of the total in frequency), or "main loans". These loans were elicited by the household as the most critical to repay (with a maximum of three "main loans" per household), and are consequently

[12]Planned use was not recorded for gold loans (1.3% of male loans, 39% of females) and advances (3% of male loans in frequency, 0.3% of females). Actual uses were not recorded for advances. Female borrowers who resorted exclusively to pawnbroking (13% of them) are thus not present in the tables presenting planned uses, but included in the tables compiling actual uses.

Table 2: *Individual level variables*

Sample	Variables	Men	Women	Diff	
All	Age	41.1	39.8	1.226	[1.63]
	Education:				
	No school	0.17	0.36	$\chi^2(2) = 84.8^{***}$	
	Primary school	0.35	0.33		
	Secondary or more	0.49	0.32		
	Main occupation:				
	Agri self-employed	0.15	0.03	$\chi^2(5) = 332.8^{***}$	
	Non agri self-employed	0.14	0.06		
	Casual (agri + non agri)	0.26	0.30		
	NREGA	0.03	0.24		
	Regular	0.28	0.10		
	No work	0.14	0.26		
	Mean household per capita income	39892	35295	4597^{**}	[2.79]
	Bank account ownership:				
	Unbanked	0.23	0.24	-0.01	(-0.24)
	Has joint account(s)	0.01	0.01	0.00	(0.19)
	Has individual account(s)	0.76	0.76	(0.20)	
	Mean income	73010	18058	54952^{***}	[13.7]
	Indebted	0.57	0.56	0.01	(0.62)
	N	833	777		
Borrowers	Mean debt	137728	63575	74153^{***}	[7.58]
	Mean number of loans	2.51	1.92	0.59^{***}	[6.35]
	Mean household debt share	0.63	0.40	0.23^{***}	[11.0]
	Mean household income share	0.57	0.18	0.39^{***}	[22.4]
	No income	0.04	0.14	-0.10^{***}	(-5.5)
	If income >0: Mean debt-to-income ratio	2.95	9.29	-6.34^{***}	[-5.07]
	Median debt-to-income ratio	1.11	3.00	1.89^{***}	[6.77]
	Credit sources: has resorted to				
	Informal	0.94	0.92	0.02	(1.18)
	Informal only	0.84	0.67	0.17^{***}	(6.00)
	Informal & microcredit	0.02	0.22	-0.20^{***}	(-9.56)
	Microcredit	0.03	0.30	-0.26^{***}	(-10.9)
	Bank	0.13	0.05	0.08^{***}	(4.59)
	Known person	0.57	0.19	0.39^{***}	(13.1)
	Relative	0.34	0.13	0.21^{***}	(7.80)
	Labour	0.19	0.02	0.16^{***}	(8.50)
	Pawn broker	0.04	0.75	-0.72^{***}	(-31.9)
	Shop keeper	0.01	0.01	0.00	(-0.46)
	Moneylender	0.14	0.12	0.02	(1.03)
	Friend, neighbor	0.15	0.04		
	N	477	434		

[t-stat], (z-stat), * p<0.05, ** p<0.01, *** p<0.001 Source: NEEMSIS survey

not a representative subsample of the debts. However, as their settlement is seen as critical by the household, it seems plausible that a potential bias would be towards an over-estimation of intra-household cooperation. Yet, we find that the borrower was declared as not receiving any

Table 3: *Planned use and actual use(s) of loans - individual level*

	Planned use: Having contracted at least one loan for:				*Planned use:* Mean share of debts in value contracted for:			
	Men	Women	Diff	z	Men	Women	Diff	z
Investment	0.27	0.10	0.16***	(5.36)	0.19	0.08	0.11***	[4.64]
Daily expenses	0.35	0.52	-0.17***	(-4.73)	0.20	0.41	-0.21***	[-7.25]
Health	0.15	0.09	0.06*	(2.39)	0.0768	0.06	0.01	[0.79]
Repay	0.04	0.09	-0.05**	(-2.79)	0.02	0.05	-0.03*	[-2.39]
House	0.20	0.20	0.00	(-0.12)	0.13	0.14	-0.01	[-0.42]
Ceremonies	0.13	0.08	0.05*	(1.97)	0.06	0.06	0.00	[0.11]
Marriage, death	0.28	0.12	0.16***	(5.28)	0.22	0.10	0.12***	[4.78]
Education	0.15	0.15	0.00	(0.28)	0.09	0.10	-0.01	[-0.63]
Other	0.03	0.01	0.02*	(1.59)	0.02	0.01	0.01	[1.29]
N	488	274			488	274		

	Actual use: having at least spent some credit money on:			
	Men	Women	Diff	z
Investment	0.27	0.17	0.10***	(3.91)
Daily expenses	0.44	0.56	-0.12***	(-3.73)
Health	0.19	0.18	0.02	(0.72)
Repay	0.09	0.22	-0.13***	(-5.53)
House	0.21	0.24	-0.03	(-0.96)
Ceremonies	0.20	0.19	0.01	(0.43)
Marriage, death	0.34	0.20	0.14***	(4.86)
Education	0.19	0.20	-0.01	(-0.54)
N	477	434		

[t-stat], (z-stat), * p<0.05, ** p<0.01, *** p<0.001 Source: NEEMSIS survey

help for the large majority of these main loans (Table 4). Although female main loans truly benefit more frequently from an help, female borrowers still are on their own for two thirds (64%) of the main loans.

Our data do not enable a rigorous study of "over-indebtedness", be it at the level of household, and even less at the individual unit, due to the scarcity of observations about intra-household cooperation. A hint of financial hardship however is the resort to debt to settle other debts. Borrowing purposely for repaying debts (planned use) is rare in our sample, and potentially under-estimated, as it concerns only 2% of the loans. However, a clear gendered distinction emerges. 9% of female borrowers have contracted at least one loan to purposely repay a debt, while 4% of males have, and 22% of female borrowers have used at least part of their loans to repay credits, against 9% of males.

Though coherent with the large debt-to-income ratios of women, and with their use of credit for non-productive purposes, this observation deserves some comments. As has been observed elsewhere (Morvant-Roux (2006), Collins et al. (2009)), adjustable repayment schedules give

Table 4: *Help in repayment - "main loans" level*

	All main loans				Those of married borrowers			
	Male	Female	Diff		Male	Female	Diff	
No help	0.71	0.64	0.07*	(2.14)	0.70	0.58	0.12**	(3.10)
Spouse help	0.22	0.23	-0.01	(-0.59)	0.23	0.34	-0.12**	(-3.05)
Own child in house	0.09	0.11	-0.02	(-0.84)	0.09	0.08	0.01	(0.42)
Own child not in house	0.04	0.04	0.00	(-0.22)	0.04	0.04	0.00	(-0.04)
Other help	0.01	0.02	-0.01	(-1.09)	0.01	0.02	-0.01	(-0.97)
N	796	277			743	183		
Share in total loans (freq)	0.51	0.18			0.58	0.14		

(z-stat), * p<0.05, ** p<0.01, *** p<0.001

households some room for manoeuvre when managing their budgets. Female main loans[13] have two times more frequently fixed-terms of repayment than males (47% against 22%), and this discrepancy stems from the resort of women to microcredit. For most informal credit sources indeed (informal money-lending, pawn broking, sale on credit, advances, etc), repayment modalities and duration often, but not always, can be negotiated throughout the duration of the loan. On the contrary, a distinctive characteristic of microcredit is rigidity, with regular and inflexible instalments paid on a monthly basis.

2.4 Women and microcredit

According to our data, 30% of female borrowers have resorted to microcredit (3% of men), encompassing here both loans from MFIs and credits contracted through Self Help Groups (present in every village). Working more often for pay than non-users, women who resorted to microcredit are in large majority casual workers (79%), and regular workers are under-represented among them (2%). They are more frequently self-employed in the non-agricultural sector (12%) than other debtors (8%). Land ownership does not significantly differ between microcredit users and non users, alongside assets. However, microcredit users tend to belong to poorer households than the other female debtors, with a 20% lower mean per capita income (Table 5).

Although individual income of microcredit users does not significantly differ from those of non users, a clear gap in indebtedness rates is observed. Microcredit clients have a mean debt to income ratio amounting to 13 (4.6 at the median), against 7.6 for the other female debtors (2.7). Microcredit debt represents on average half of users' outstanding (46%), and the triple of borrowers' annual revenue (3.4). Besides, three quarters of microcredit users add up their

[13]In our data, variables related to loan flexibility are available for the "main loans" only.

Table 5: *Microfinance users and non users - female borrowers*

Sample	Variables	No users	Users	Diff	
All	Age	40.6	39.4	1.2	[1.04]
	Education				
	No school	0.33	0.34	$\chi^2(2) = 0.06$	
	Primary school	0.42	0.41		
	Secondary or more	0.25	0.25		
	Main occupation				
	Agri. self-employed	0.04	0.02	$\chi^2(5) = 28.1^{***}$	
	Non agri. self-employed	0.08	0.12		
	Casual (agri + non agri)	0.36	0.43		
	NREGA	0.24	0.36		
	Regular	0.10	0.02		
	No work	0.18	0.05		
	Unbanked	0.19	0.02	0.17***	(6.88)
	Household land owner	0.33	0.33	0.00	(-0.18)
	Mean household assets value	543067	440601	102465	[1.33]
	Mean household per capita income	35687	28678	7009*	[2.35]
	Mean own income	20508	15013	5495	[1.90]
	Mean debt	60554	72790	-12237	[-1.34]
	Mean loan number	1.58	2.70	-1.12***	[-9.29]
	No income	0.17	0.07	0.10**	(3.20)
	If income >0:				
	Mean Debt-To-Income ratio	7.64	13.0	-5.34	[-1.87]
	Median Debt-To-Income ratio	2.71	4.60	1.89**	[2.70]
	Mean household income share	0.17	0.19	-0.02	[-0.79]
	Mean household debt share	0.36	0.50	-0.14***	[-4.38]
	Effective use of loans:				
	Investment	0.16	0.20	-0.04	(-1.17)
	Daily expenses	0.50	0.72	-0.22***	(-4.49)
	Health	0.16	0.21	-0.05	(-1.11)
	Debt repayment	0.19	0.30	-0.11**	(-2.48)
	House	0.22	0.31	-0.09*	(-2.07)
	Ceremonies	0.17	0.25	-0.08*	(-1.96)
	Marriage, death	0.20	0.23	-0.03	(-0.85)
	Education	0.17	0.25	-0.08	(-1.73)
	N	306	128		

[t-stat], (z-stat), * p<0.05, ** p<0.01, *** p<0.001

microcredit loan with at least one informal loan (73%).

It is not at stake here to estimate a causal impact of microfinance on indebtedness, or over-indebtedness, in the absence of any counterfactual. It is yet clear that the financial burden of microcredit does not alter the gender of borrowing motives and credit uses. Women who resorted to microcredit did not use their credits significantly more often to finance investments; and they

actually used them even more to cope with daily expenses. Besides they have significantly more frequently used at least part of their credits to repay other loans: 29% against 19% for the other borrowers[14].

We summarize briefly the contribution of these descriptive statistics: while women have a similar propensity to resort to credit than men (being indebted or not), they get into debt far more heavily with respect to their incomes. Their credits are in majority for non-productive uses, oriented towards consumption smoothing and household reproduction. Not only microcredit loans do not depart from this pattern, but women who resorted to microcredit are in addition more deeply indebted than the other borrowers.

Descriptive statistics suggest besides that female debt share tend to be higher in poorer, and Dalit, households. To investigate further the role of class and caste and their interplay with gender, we turn to an econometric analysis of debt at the intensive and extensive margins. In a first stage, we seek to understand who gets into debt; and in a second stage, how social and gender lines of differentiation affect the intra-household repartition of borrowing responsibility - or debt burden -, ie male and female shares of household debts.

3 Disentangling gender, class and caste

3.1 Econometric framework

3.1.1 Being indebted

In a first stage (Table 8, Appendix 1), we investigate determinants of resort to debt on a pooled sample of adult men and women. Our dependant variable is a binary variable indicating whether the individual had some unsettled debt at the time of the survey. We use a Logit model[15], and compare several specifications by adding progressively variables of interest.

Model (1) encompasses a basis of individual, household and village level control variables. Our main variables of interest are gender and caste (being Dalit). We control for individual level characteristics including marital status (dummy for never having been married), age (age and its squared value), education level (no school - the reference-, primary education, secondary or more), and the number of children younger than 16. At the household level, we control for

[14]This result may still be driven by the fact that they contracted more loans and larger amounts, which can mechanically increase their probability to have a positive outcome in our non exclusive categories of actual use.)

[15]Using a Probit does not alter the nature of the results. Results are available from the authors upon request.

the (logged) size of the household, for female headship, and for occurrence of shocks: whether a household member got married in the last 3 years (marriages are very expensive), and whether the household was interviewed after demonetisation. Our variable of marriage is however limited, as it tends to exclude the most expensive: the marriages of daughters (due to the cost of dowries), who generally leave the household after getting married. Villages dummies are included to control for village-level unobserved determinants of financial practices (for instance accessibility of the village, or number and good functioning of Self Help Groups).

In order to document the effect of household deprivation, or class, on debt, we then estimate a second model, (2), that further includes the (logged) annual per capita household income, household land ownership status, and household (logged) asset value[16]. The effect of annual per capita household income is expected to reflect the ability of households to smooth consumption on a routine basis. Assets such as land or immovables can be expected to influence creditworthiness, and tradable assets or savings to act as buffers enabling to deal with major shocks without resorting to debt.

This specification (2) is our main specification of interest. For descriptive purposes, as different occupations come with different credit needs and different creditworthiness, we then investigate the extent to which previously estimated gaps stem from differences in occupational breakdown. Model (3) includes a control for being inserted into paid employment, and model (4) main occupation dummies. Defined as the highest income generating activity during the year, main occupation is recorded in four categories: agricultural or non agricultural self-employment, casual employment (the reference), regular employment, and no paid work. These variables are included in a last stage because occupational breakdown is obviously embedded in the gender, class and caste inequalities that we seek to document. Besides, potential impacts of occupational breakdown - and more precisely insertion into paid employment- are likely to capture several mechanisms that are hard to disentangle. First, they can reflect creditworthiness effects, as earning some income implies some ability to repay debt; but they can also reflect the rigidity of restrictions to mobility and social interactions, which condition the intertion of (poorest and lowest caste) women into paid employment, but is also likely to impact their ability to borrow by making contact with lenders more or less easy or socially tolerable; last, debts can put women to work to repay (reverse causality).

For each model, we then test for intersectionality effects by adding an interaction between

[16]Sum of immovables, livestock, agricultural equipment and household goods value, plus savings (in bank or in gold)

gender and caste (Models (1.C), (2.C), (3.C)) and between gender and per capita household income (Models (1.I), (2.I), (3.I)). Following Abadie et al. (2017), we do not cluster standard errors at the household level, since external validity is not our ambition due to our survey design.

3.1.2 Debt share

In a second stage, on this same sample, we investigate the determinants of household debt share. As our dependent variable is a proportion, we use a Generalized Linear Model with a binomial distribution and a logit link function, or "fractional logit" model (Papke and Wooldridge, 2008). The bounded nature of our dependent variable makes a linear regression inappropriate (Cox (1996), Papke and Wooldridge (2008)), and a Tobit model would be unfitted as the data are not censored, but defined on the interval [0;1] (Maddala (1991), Cook et al. (2008)). Besides, due to our mass point at 0, a logit transformation of our dependent variable would result in a considerable loss of information, while the fractional logit model enables to handle both zeros and ones[17].

Our four first models, (1) to (4), have the same explanatory variables than previously, and models (1C) to (4C), and (1I) to (4I), include in addition an interaction term between gender and caste, and gender and per capita income respectively.

As the intersectionality effects we observe are stronger than in the first part of the analysis, we then add a new set of models which include a triple interaction between gender, caste, and per capita income ((1CI) to (4CI)).

Last, in Model (4IS), we explore the relationship between income share and debt share. Again, our aim here is descriptive: women accounting for a high share of household income are of course different from those who do not in multiple and unobserved ways. As the relationship between income share and debt share is very likely to differ by gender due to the large gender income gap, and as women's income share is correlated to household prosperity and is thus unlikely to have the same implications at different points of its distribution, we include in model (4IS) a triple interaction between income share, gender, and household per capita income.

Table 6 sums up the different specifications, Table 7 in Appendix displays the summary statistics for the selected independent and dependent variables, and estimated coefficient can be found in Tables A, B, C in Appendix.

[17]But it does not allow the limit values to be generated by a distinctive process, and thus does not account for potential selection effects (Baum (2008), Cook et al. (2008)).

Table 6: *Summary of specifications*

	Specifications	**Being indebted** (Logit) All adults	**Debt share** (Fractional logit) All adults
(1)	basis controls	✓	✓
(2)	+ log (per cap. income) + land dummy +log (assets)	✓	✓
(3)	+ dummy for not working for pay	✓	✓
(4)	+ main occupation dummies	✓	✓
(1C - 4C)	(1)-(4) + interaction gender*caste	✓	✓
(2I - 4I)	(2)-(4) + interaction gender*per cap. income	✓	✓
(1CI - 4CI)	(1)-(4) + interaction gender*caste*per cap. income		✓
(4IS)	(4)+ interaction gender*income share*per cap. income		✓

In the following, we present the results in terms of differences in outcome probabilities (for subgroups) and average discrete effects (of variables), following the approach suggested by Long and Mustillo (2018). First, because we are interested in interaction effects, that cannot be evaluated simply by looking at the coefficient on the interaction term when the model is nonlinear (Ai and Norton, 2003). Secondly, this approach, conducted on a pooled sample of men and women, enables to circumvent the identification issue that arises when comparing coefficients obtained over samples splitted by gender. In nonlinear models, coefficients are confounded with residual variation, or unobserved heterogeneity (Allison, 1999): differences in the degree of residual variation across groups can produce apparent differences in coefficients that are not indicative of true differences in causal effects. Williams (2009, 2015) underlines that in practice, it is often empirically impossible to distinguish between differences in effects across groups and differences in residual variability, and thus to make a rigorous choice between a heteroskedastic model[18] and a non-heteroskedastic model with interactions. Long and Mustillo (2018)'s approach avoids this issue by describing differences in outcome probability, rather than in correlation with the underlying latent outcome. Lastly, the latent outcome is not of substantive interest in our case, as our aim is descriptive. It makes thus more sense to study whether the marginal effects of a regressor on the probability of the outcome are the same for men and women than whether the regression coefficients for the regressors are equal[19].

[18]With which differences in effects could be erroneously attributed to differences in residual variability (Williams, 2015).

[19]Since the equality of regression coefficients does not imply that the marginal effects of a regressor on the probability are equal, in nonlinear models.

3.2 Results

3.2.1 Being indebted

"Class", through per capita household income and household assets, is overall not significantly correlated with the propensity to be in debt, all else being equal (Table A in Appendix), which is consistent with the generalization of indebtedness at the household level. The higher the size of the household (and thus the potential number of income earners, or of debt takers), the lower the propensity to be in debt, while the reverse holds for the number of (own) children. Being a woman is consistently associated to a significantly lower propensity to be indebted across all specifications, although this gender effect decreases when controlling for occupational breakdown, notably insertion into paid employment (Table A and 8, column (3)). From the side of occupational breakdown, self-employed individuals (in agriculture or non agricultural business) have the highest propensity to borrow, reflecting plausibly their investment needs and higher creditworthiness. While unemployed or inactive individuals have the lowest propensity to take on debt, casually employed individuals have a higher propensity to be indebted than those in regular employment, as can be expected due to their lower and more volatile incomes.

Although caste and per capita household income are overall unsignificant, results suggest some intersectionality effects, albeit slight.

First, the gender gap differs on the basis of caste (Table 8, columns (1C) to (4C)). Women are expected to have a 9% to 13% lower predicted probability to be indebted than men on average, depending on the specification. The difference is however larger among non-Dalit (between 14% and 19%), and unsignificant among Dalit: on average, Dalit women are thus not predicted to be significantly less often indebted than Dalit men. Significant intersectionality effects between gender and caste are observed when controlling for basis controls and household prosperity (line (2)-(1), columns (1C) and (2C)); but controlling for the differentiated intertion into employment of Dalit and non Dalit women turns these intersectionality effects unsignificant (columns (3C) and (4C)). Yet, these effects are not large enough to lead to a significant difference in predicted probabilities to be indebted between Dalit and non Dalit women.

Secondly, the gender gap depends on poverty level. Figure 1 in Appendix shows that the gender gap in average predicted probability to be in debt is found statistically significant only above, roughly, the median of per capita household income, ie 76 INR per capita daily (0,95€at the market exchange rate). As an illustration, in the 10^{th} percentile of per capita household

Table 8: *Average discrete effects of gender, caste, and per capita household income (computed as the change induced by being in the 10^{th} percentile of per capita household income instead of the 90^{th}) on the predicted probability to be in debt, in percentage points*

	Caste			
	(1c) Change	(2c) Change	(3c) Change	(4c) Change
Being a woman vs a man	-0.079***	-0.079***	-0.053*	-0.056*
	(0.022)	0.022	0.023	0.024
(1) Among women: Dalit vs non Dalit	0.051	0.046	0.035	0.036
	(0.030)	(0.032)	(0.032)	(0.031)
(2) Among men: Dalit vs non Dalit	-0.039	-0.043	-0.037	-0.030
	(0.029)	(0.031)	(0.031)	(0.031)
(2) - (1): Intersectionality	-0.089*	-0.089*	-0.071	-0.066
	(0.040)	(0.040)	(0.040)	(0.040)
Among Dalit: woman vs man	-0.034	-0.033	-0.017	-0.023
	(0.030)	(0.030)	(0.030)	(0.031)
Among non Dalit: woman vs man	-0.123***	-0.123***	0.088**	-0.088**
	(0.030)	(0.030)	(0.031)	(0.032)
*interaction: female*dalit*	✓	✓	✓	✓
	Household income			
		(2i) Change	(3i) Change	(4i) Change
(3) Among women: in the 10^{th} vs 90^{th} percentile		0.086*	0.073	0.058
		(0.042)	(0.042)	(0.042)
(4) Among men: in the 10^{th} vs 90^{th} percentile		-0.071	-0.051	-0.070
		(0.038)	(0.039)	(0.039)
(4) - (3): Intersectionality		-0.157***	-0.123**	-0.128*
		(0.052)	(0.053)	(0.052)
In the 10^{th} percentile: woman vs man:		0.000	0.008	0.008
		(0.034)	(0.034)	(0.035)
In the 90^{th} percentile: woman vs man:		-0.157***	-0.115**	0.120**
		(0.034)	(0.035)	(0.036)
*interaction female*log(per cap. household income)*		✓	✓	✓
main occupation				✓
no paid work			✓	✓
per capita income+assets		✓	✓	✓
basis controls	✓	✓	✓	✓
N	*1610*	*1610*	*1610*	*1610*

Computed with Long & Freeze (2014)'s Spost13 Stata package. Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

income, men and women are predicted to resort to debt at a similar rate on average, while in the 90^{th}, women have a 19% to 35% lower predicted probability to be in debt than men across the specifications (Table 8, columns (2I) to (4I)).

Finally, the level of per capita household income is found to alter women's and men's predicted probability to be in debt in a significantly different way accross all specifications, which implies robust intersectionality effects between gender and poverty, although their strength varies across specifications (line (4)-(3)). How strong are these effects ? With basis and assets con-

trols, women from the 90^{th} percentile of per capita household income are on average expected to be between 17% less likely to be in debt than otherwise similar women living in the 10^{th} percentile (column (2I)), while no significant difference is found for men. Yet when taking into account intertion into paid employment or occupational breakdown, the difference in predicted probabilities between the poorest and richest women turns unsignificant (line (3), columns (3I) and (4I)).

3.2.2 Debt share

This section turns to the analysis of the share of household debts contracted by male and female adults, excluding only the individuals living in households who had no debts at the time of the survey (10 adults). Caste and "class" discrepancies appear markedly stronger when the intra-household reparition of the burden of debt is examined, rather than focusing on the sole debtor status. Estimated coefficients can be found in Appendix, Tables B and C.

The gender gap in predicted shares of debt is found to be negatively correlated to the level of per capita household income (Figure 2 in Appendix), and interaction effects between gender and per capita income are significant across all specifications (Table 9, line (4)-(3)). To illustrate these effects, let's again compare the predicted debt shares of men and women at different points of the distribution. In the 10^{th} percentile of per capita household income, across specifications, women are predicted to have on average 21% to 25% lower shares of debt than otherwise similar (given the observed data at hand) men; in the 90^{th}, the discrepancy rises to 55%, 61%. Poorest women are predicted to have significantly higher shares of debt than richest women, across all specifications: those from the 10^{th} percentile of per capita income are expected to have 47% to 59% higher shares of debt than those from the 90^{th}.

Interaction effects between gender and caste turn out to be significant as well, across all specifications (Table 9, line (2)-(1)). Dalit women are expected to have on average 29 to 39% higher debt shares than non Dalit women. As a consequence, the gender gap in debt shares is also differentiated along the lines of caste. Dalit women are expected to hold on average 29 to 33% lower shares of debt than Dalit men, while the gender gap ranges between 48 and 54% among non Dalit.

These interaction effects between gender and caste may yet be driven by the aforementioned interaction effects between gender and per capita household income (as Dalit women tend to live in poorer households than non Dalit). We thus turn to the results provided by specifications

Table 9: *Average discrete effects of gender, caste, and per capita household income (computed as the change induced by being in the 10^{th} percentile of per capita household income instead of the 90^{th}) on the predicted debt share, in percentage points*

	Caste			
	(1c) Change	(2c) Change	(3c) Change	(4c) Change
(1) Among women: Dalit vs non Dalit	0.071**	0.063**	0.056**	0.058**
	(0.020)	(0.021)	(0.021)	(0.021)
(2) Among men: Dalit vs non Dalit	-0.022	-0.033	-0.027	-0.017
	(0.023)	(0.024)	(0.023)	(0.024)
(2) - (1): Intersectionality	-0.093**	-0.095**	-0.083**	-0.075*
	(0.029)	(0.029)	(0.029)	(0.029)
Among Dalit: women vs men	-0.123***	-0.120***	-0.110***	-0.106***
	(0.023)	(0.023)	(0.022)	(0.023)
Among non Dalit: women vs men	-0.215***	-0.216***	-0.193***	-0.181***
	(0.021)	(0.021)	(0.021)	(0.022)
*Interaction: female*dalit*	✓	✓	✓	✓
	Household income			
		(2i)	(3i)	(4i)
(3) Among women: at 10^{th} vs 90^{th} percentile		0.097***	0.089***	0.085**
		(0.026)	(0.025)	(0.025)
(4) Among men: at 10^{th} vs 90^{th} percentile		-0.076*	-0.060	-0.065*
		(0.033)	(0.032)	(0.032)
(4) - (3): Intersectionality		-0.173***	-0.149***	-0.150***
		(0.038)	(0.037)	(0.037)
In the 10^{th} percentile: women vs men		-0.084**	-0.080**	-0.072**
		(0.025)	(0.024)	(0.025)
In the 90^{th} percentile: women vs men:		-0.257***	-0.229***	-0.222***
		(0.024)	(0.025)	(0.025)
*Interaction: female*log(per cap. hh income)*		✓	✓	✓
main occupation				✓
no paid work			✓	✓
per capita income+assets		✓	✓	✓
basis controls	✓	✓	✓	✓
N	*1600*	*1600*	*1600*	*1600*

Computed with Long & Freese (2014)'s Spost13 Stata package. Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

including a triple interaction between gender, caste, and per capita income (see Table C in Appendix for the estimated coefficients).

When taking into account interaction effects between gender and per capita household income, the average gap in predicted debt shares of Dalit and non Dalit women persists (Table 10, line (C)), while those between Dalit and non Dalit men remains significant (line (D)).

Yet, average interaction effects between gender and caste are this time not robust to a control for occupational breakdown (Table 10, specification (4CI), line (D)-(C)). It appears however that the discrete effect of being Dalit within women is negatively correlated with per capita income

Table 10: *Gender and the combination of caste and per per capita household income discrepancies in predicted debt share*

	Caste and household income		
	(2ci)	(3ci)	(4ci)
(A) Among women: at 10^{th} vs 90^{th} percentile	0.089***	0.089***	0.085**
	(0.025)	(0.025)	(0.025)
(B) Among men: at 10^{th} vs 90^{th} percentile	-0.069*	0.060	-0.065*
	(0.033)	(0.032)	(0.032)
(B)-(A): intersectionality gender class	-0.158***	-0.149***	-0.150***
	(0.038)	(0.037)	(0.037)
(C) Among women: Dalit vs non Dalit	0.049*	0.044*	0.046*
	(0.021)	(0.021)	(0.021)
(D) Among men: Dalit vs non Dalit	-0.021	-0.018	-0.007
	(0.024)	(0.023)	(0.024)
(D)-(C): intersectionality gender caste	-0.069*	-0.061*	-0.054
	(0.030)	(0.029)	(0.029)
(1) Among women in the 10^{th}: Dalit vs non Dalit	0.078*	0.079*	0.080*
	(0.032)	(0.032)	(0.032)
(2) Among women in the 90^{th}: Dalit vs non Dalit	0.020	0.011	0.009
	(0.031)	(0.031)	(0.039)
(3) Among men in the 10^{th}: Dalit vs non Dalit	-0.041	-0.040	-0.023
	(0.037)	(0.036)	(0.036)
(4) Among men in the 90^{th}: Dalit vs non Dalit	0.001	0.006	0.014
	(0.040)	(0.039)	(0.032)
(1)-(3): intersectionality gender caste in the 10^{th}	0.119*	0.119*	0.103*
	(0.048)	(0.047)	(0.047)
(2)-(4): Intersectionality gender caste in the 90^{th}	0.019	0.005	0.005
	(0.048)	(0.047)	(0.048)
Among women: Dalit at the 10^{th} vs non Dalit at the 90^{th}	0.139***	0.129***	0.127***
	(0.031)	(0.032)	(0.032)
Among men: Dalit at the 10^{th} vs non Dalit at the 90^{th}	-0.090*	-0.072	-0.067
	(0.039)	(0.038)	(0.038)
Among Dalit in the 10^{th}: women vs men	-0.033	-0.029	0.029
	(0.034)	(0.034)	(0.034)
Among non Dalit in the 90^{th}: women vs men	-0.262***	-0.230***	-0.223***
	(0.029)	(0.030)	(0.031)
*Interaction: female*dalit*log(per cap. hh income)*	✓	✓	✓
main occupation			✓
no paid work		✓	✓
per capita income+assets	✓	✓	✓
basis controls	✓	✓	✓
N	*1600*	*1600*	*1600*

Computed with Long & Freese (2014)'s Spost13 Stata package. Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

level, turning unsignificant near the median (Figure 3 in Appendix). On average, Dalit women are expected to have significantly higher debt shares than otherwise similar non Dalit women at the 10^{th} percentile of per capita income, but this gap is unsignificant at the 90^{th} (lines (1) and (2)). Last, if interaction effects between gender and caste are significant at the 10^{th} percentile of per capita income (line (1)-(3) in Table 10), they turn unsignificant at the 90^{th} (line (2)-(4)).

It is still useful to compare Dalit and non Dalit women while taking into account the fact that the former are overrepresented among poor households; and that their borrowing behaviour tends thus to fall within both caste and "class" inequalities. As an illustration, Dalit women living in the 10^{th} percentile of per capita income are expected to hold 73% to 88% higher debt shares than otherwise similar non Dalit women living in the 90^{th}. Last, predicted debt shares of Dalit men and women in the 10^{th} percentile are not significantly different on average; while in the 90^{th}, non Dalit women are expected to have 56% to 62% lower debt shares than non Dalit men.

So far, we studied intra-household repartition of borrowing responsibilities while letting aside its relationship with the extent of relative contributions to household income: due to our survey design, this inquiry is indeed severely limited by omitted variables and reverse causality issues, not to mention the fact that comparing men and women at same levels of income shares makes little sense due to a substantial gender income gap. As giving some insights about the links between income and debt may yet be regarded as unavoidable, we quickly paint a broad picture of it in the following, describing within men and women separatedly how predicted debt shares are modulated according to income shares and per capita household income (specification (4IS)).

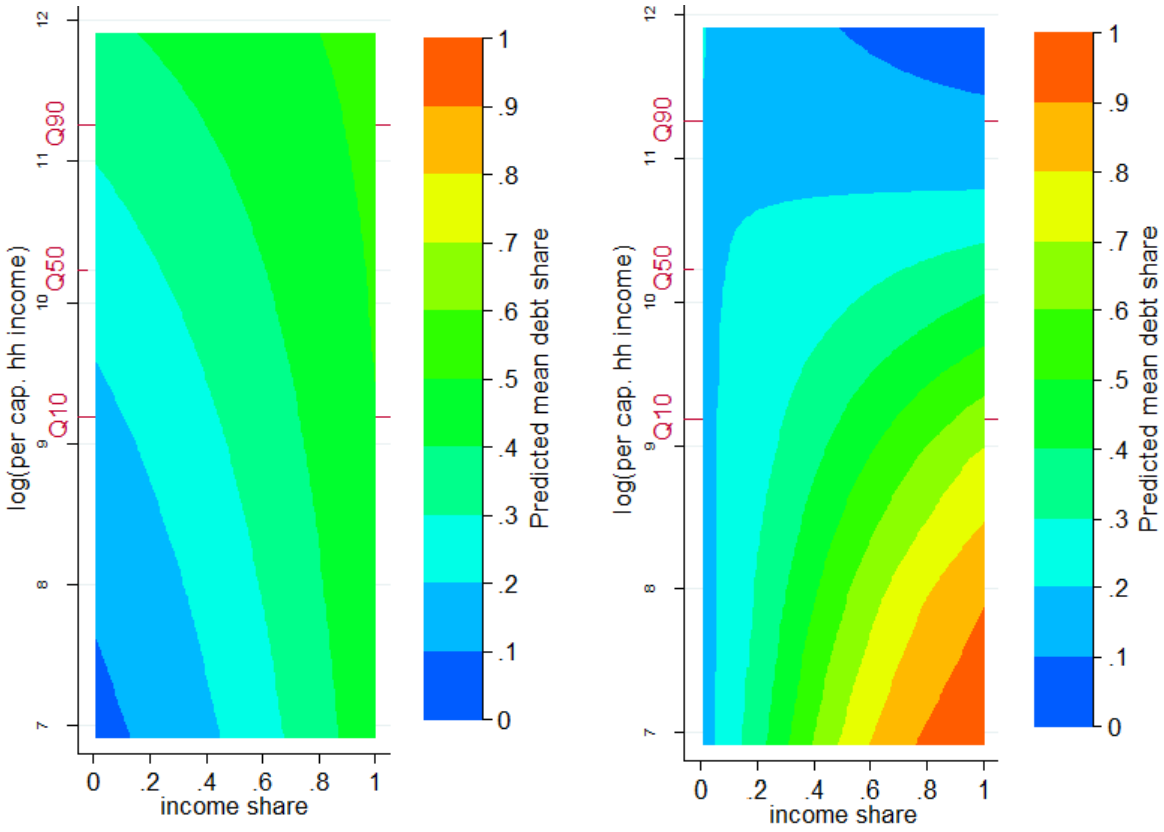
Since our specification includes a triple interaction, between one dummy and two continous variables, a graphic presentation is useful to make the results clearer (for estimated coefficients, see Table C in Appendix). Figure 4 below plots the predicted debt share of men (left section) and women (right section). The x axis is the size of household income share, and the y axis, the level of per capita household income. Each color corresponds to a level of predicted debt share, in increments of 10%: the lowest debt shares are symbolized by coolest colors (shades of blue), and the highest by warmest colors (shades of orange).

A first insight of this figure is that the level of household deprivation seems to determine more strongly women's borrowing responsibilies than the extent to which they earn income. Above roughly the median of per capita household income, women's average predicted debt shares are at best 30%, whatever their shares of income; and women's highest shares of debt are to be found in the poorest households, in the first decile of per capita household income.

Secondly, underlying this pattern, the relationship betwen debt and income shares for women differ depending on the level of per capita household income - and more markedly than for men. For instance, at the 90^{th} percentile of per capita income, women are predicted to hold on average between 10 and 20% of household debts, whatever their income share; while at 10^{th} percentile,

Figure 4: *Contour plot of predicted debt share according to income share and per capita income*

(a) Men (b) Women



the higher their income share, the higher their debt share. In contrast, for men, the positive correlation between income and debt share holds for all levels of per capita household income.

Last, it is among the poorest women that income share and debt share are the most strongly correlated, which can have several interpretations. First, the unobservables driving both women's income and debt shares are likely to be correlated with household deprivation. Secondly, a higher hold of household budget (in the form of higher share of income) may come at the cost of a strengthening of financial responsibilities for women belonging to poor households, while it would be less frequently the case or in a less marked way for women in richer households. Last, women living in poor households (which are also the most indebted) may be more likely to have to engage in paid employment or to increase their labor supply in order to meet debt repayments.

Discussion and Conclusion

As argued in the introduction, the quantification of the gender of debt remains a blind spot of current debates about financial inclusion and financialization. Drawing on the case of rural south India and using a detailed household survey with disaggregated data by gender - something which is still unusual and explains partly the blind spot mentioned above -, this paper aimed at quantifying debt and its determinants. In a context characterized by a highly dynamic financial landscape and the rapid expansion of new credit market tools, we asked whether men and women borrow differently, at different levels, from distinct sources, under specific conditions and for various purposes.

Our descriptive and econometric results are clear: debt is gendered, and on various grounds. Men earn much more, but borrow much less in relative terms. Besides, female debt is first and foremost driven by the characteristics of their household, caste and class, which is not the case for men. Both the frequency and burden of women's debt (measured through their share of household debt) depend heavily upon household's per capita income. It is in the poorest households that women, in spite of their meagre incomes, manage the highest shares of debt. As a consequence, they tend to get into debt in contexts of cash-strapping limiting the support available by other household members, while their debt-to-income ratios indicate a great financial vulnerability. Apart from class, caste is also a deep line of differentiation. Marginalized categories like Dalit women tend to face higher debt burdens than their female counterparts, and this even after controlling for caste discrepancies in per capita income. While this pattern holds after taking into account the different occupational break-down of Dalit and non Dalit women, we observed that the gap is no more significant when controlling for Dalit's higher household income shares. However, this obviously cannot be interpreted as a causal effect of creditworthiness or repayment capacity: households where women earn a larger share of the income are different from those where women do not in multiple and unobserved ways. The deeper implication of Dalit women in household's debt management is indeed likely to be linked to their greater mobility and lower restrictions to social interactions, notably with men, underlying both their larger income shares and ability to enter credit relations. Related to these caste-based variations in valuations and injunctions, Dalit's larger debt burden could also be explained by differences in "structure of social honour" (Velaskar, 2016) between castes, underpinning the higher social acceptability for Dalit women of working for pay but also of contracting degrading debts. Indeed, the use of debt

is also gendered: female's debt is predominantly and much more often than male used to make end meets (explaining why per capita income, more than assets, is found to be determinant), while economic investment remains in great part a male privilege. These differences in borrowing purposes can plausibly trigger gendered economic consequences, typically in terms of financial hardship (as suggested by women's higher propensity to use their loans to repay other debts), but they also have an unequal impact in terms of status. As underlined elsewhere (Garikipati, Agier, Guérin and Szafar, 2017), while borrowing large sums, especially by banks, is honourable and sign of social prestige, "begging" for small amounts to ensure livelihood is seen as degrading (and particularly for men).

Beyond the particularity of our case study, our results have two major theoretical implications. The first concerns the gendered earmarking of debt flows. The parallel with the earmarking of income flows is illuminating here. It was long believed that the use of a monetary equivalent would neutralize social distinctions, including gender distinctions. But in the end, money does not have the dissolving power that the social sciences, economics and sociology, have long attributed to it. Cash flows are interpreted and used in the light of pre-existing social norms and therefore do not have the same meaning, value or use depending on the social belonging of those who use them. Regarding gender, Viviana Zelizer's pioneering work has shown how the process of monetary homogenization of the late 19th century in the United States led to multiple practices of monetary differentiation, aimed at preserving social relationships, especially those of gender (Zelizer, 1994). Other contemporary analyses then confirmed this earmarking process and the consequences in terms of the persistence of gender inequalities. In a number of western countries, while gender equality is being proclaimed and the wage gap between women and men is narrowing, the earmarking of wages makes it possible to perpetuate the model of male breadwinner. Following a long historical process (Scott and Tilly, 1975), female wages are devalued, often qualified as "pin" wages, and more often used for social reproduction purposes (Hochschild and Machung (2012), Hood (1981), Pahl (1989)). This earmarking of incomes makes it possible to maintain the sexual (and hierarchical) division of the roles to which men (and women) are attached.

It seems that this earmarking process is equally valid for the dyad debt/credit. While women have increasing access to credit, it remains confined to specific uses and meanings that reinforce the gendered division of roles: women's debt remains a debt, i.e. a sum of money dedicated to managing daily life, and not to planning or projecting oneself into the future, which is what credit

allows; and it is concentrated in the working classes (poor and low castes). We mentioned in the introduction the ambivalence of the debt/credit dyad. This ambivalence is the very essence of any financial transaction of the debt/credit type: credit refers to the temporary provision of a resource and represents a promise for the future; this promise opens up the possibility of carrying out projects and projecting oneself into the future. At the same time, this credit consecrates the existence of a debt which constitutes its other side, since the resource thus made available will have to be repaid at a later date. The use of the term credit or debt refers to the consequences of the credit/debt dyad on debtors: an emancipating financial transaction will be qualified as credit while an financial transaction limited to survival, and potentially impoverishing or alienating, will be qualified as debt (Peebles, 2010). Echoing the lessons of history and anthropology, our quantitative results show that women are confined to debt, while credit remains mostly a male privilege, and this is even more true when social differentiations are taken into account.

Our results also raise a central question about the gender dimension of behaviour and agency. Feminist research has strongly criticized the "separate self" of economic theory, showing that the hypotheses of self-interest, impossibility of interpersonal utility, and exogenous preferences were in fact implausible (Ferber and Nelson, 2009). As argued by Amartya Sen, the homo economicus of neoclassical theory is a "rational fool": individual behaviour, both male and female, combines self-interest, altruism, commitment, but also obligations and coercion (Sen, 1977). However, due to patriarchal norms, the burden of obligations and coercion is often greater for women, given that it is not always easy to separate obligations and altruism since preferences have a strong capacity to adapt to constraints, and these then resemble free and assumed choices (Kabeer, 1999). Here in our case, are women in debt under pressure from men, who force them to assume these new responsibilities? Or have they internalized this new responsibility as part of their obligations as mothers or wives? Or do they want to take on these new functions to gain decision-making and respect within the family space? It is probably futile to try to separate this intermingling of motivations and constraints. What is certain, however, are gender differences. The fact that female debt is dependent on family income, which is not the case for male debt, confirms the extent to which agency is a gendered process, more relational for women than for men.

Further analysis would be required to examine the consequences of this female debt on their well-being and status. The role of financial inclusion policies - here, mostly microcredit, which represents only one part of women's debt - is difficult to establish rigorously, due to the classical

issue of counterfactual identification (what would have happened without microcredit?), over and above potential selectivity into microcredit. However, the fact that microcredit users face much higher debt-to-income ratios, while their microloans are in large part used for daily household expenses (and this even more than other sources of debt), raises doubt about the capacity of microcredit policies to improve women's financial situation. By targeting almost exclusively women and by imposing rigid repayment modalities that are hardly compatible with low and irregular income, it seems that microcredit providers serve chiefly to strengthen further poor womens responsibilities as budget managers and add to an already overwhelming workload.

Coming to the broader issue of financialization and its gender aspect, a quick walk through history is instructive, and allows to highlight both continuities and changes. We know from the work of Zelizer (1994) that the monetarization of industrialized societies went along with the emergence, or the strengthening, of gender monies. While money was invading daily life, men and first of all women involved in intensive work to keep a differentiation of gender financial practices and circuits. At that time, one also observed the emergence of a strong social norm assigning women a new role: that of a "good manager". Household welfare became closely linked to housewives' financial management capacities: *"from their virtue, universally celebrated [...] depends, it is said, the balance the family budget"* (Perrot (1991), p.101-102, our translation). Being able to manage budgets became a sign of "social competence", and knowing how to spend became an essential to "domestic expertise", or even a "sacred duty" (Zelizer, 1994, p.41). Considered sometimes as a privilege, sometimes as a duty or as an obligation, these responsibilities had varied meanings and implications according to social classes. For the working classes, this heavy responsibility consisted mostly in the obligation to cope with uncertainty and scarcity, forcing women "*to privation in times of shortages*" (Perrot (1991), p.101, our translation). Often underestimated and invisibilised, the crucial role of women in managing scarcity has yet been a pillar of the daily life of the working classes all along the industrialization period. Most of the education they received, coming from social workers and charities, was concentrated around financial management (along with hygienist concerns) (May, 1984).

The present phase of capitalism in the global South is strangely reminiscent of this period. In the case studied here, financialization permeates "the margins" (ie the most deprived sections of the population) through women, both because they are most often budget managers, and because financial providers target them in priority. Given that these two aspects are observed in many parts of the globe, we have good reasons to think that our case study is no exception.

Compared with the industrialization of the global North however, there is one specificity. While at that time most efforts focused on financial education and saving, considered as a liberal virtue par excellence (Ewald (1986), p.71, Zelizer (1994), chap.4), debt is now another key dimension. Women were already facing a permanent paradox, observed across time and space: managing family budgets with parsimony and poor income and furthermore, without controlling income (Dwyer and Bruce (1988), Lemire et al. (2001)). Now they face a new one: managing family budgets with parsimony and poor income, and with increasing debts.

Appendix

Table 7: *Sample summary statistics, by gender*

Variables	Men	Women	Diff	
Indebted	0.57	0.56	0.01	(0.62)
Debt share	0.37	0.23	0.14***	[7.82]
Dalit	0.49	0.49	0.00	(0.03)
Age	41.1	39.8	1.226	[1.63]
Unmarried	0.28	0.14	0.14***	(7.24)
Mean number of children	0.60	0.65	-0.05	[-1.05]
Education:			$\chi^2(2) = 84.8^{***}$	
No school	0.17	0.36		
Primary school	0.35	0.33		
Secondary or more	0.49	0.32		
Main occupation:			$\chi^2(3) = 244.9^{***}$	
Self-employment	0.29	0.09		
Casual employment	0.29	0.54		
Regular employment	0.28	0.10		
No paid work	0.14	0.26		
Share of household income	0.44	0.14	0.30***	[21.58]
Mean household per capita income (INR)	39892	35295	4597**	[2.79]
Mean household asset value (INR)	588088	563293	24795	[0.54]
Household owns land	0.33	0.33	0.00	(-0.18)
Household is female-headed	0.07	0.09	-0.02	(-1.88)
Mean household size	5.23	5.35	-0.12	[-1.10]
Marriage in household within the 3 years	0.45	0.42	0.03	(1.18)
Household surveyed after demonetisation	0.41	0.40	0.02	(0.73)
Localisation:			$\chi^2(14) = 6.1$	
Elanthalmpattu village	0.08	0.09		
Govulapuram village	0.09	0.09		
Karumbur village	0.08	0.09		
Korattore village	0.09	0.09		
Kuvagam village	0.07	0.07		
Manapakkam village	0.09	0.08		
Manamthavizhinthaputhur village	0.11	0.10		
Natham village	0.09	0.10		
Oraiyure village	0.10	0.10		
Poonamallee village	0.005	0.006		
Semakottai village	0.11	0.12		
Sembarambakkam village	0.02	0.01		
Tiruppur region	0.01	0.01		
Villiambakkam region	0.05	0.04		
Walajabad village	0.004	0.004		
Obs	833	777		

*[t-stat], (z-stat), * p<0.05, ** p<0.01, *** p<0.001*

Table A: *Logit estimates for being indebted at the time of the survey. Sample: adult men and women*

	(1) indebted	(2) indebted	(3) indebted	(4) indebted	(1C) indebted	(2C) indebted	(3C) indebted	(4C) indebted	(2I) indebted	(3I) indebted	(4I) indebted
female	-0.479***	-0.476***	-0.317*	-0.333*	-0.748***	-0.746***	-0.541**	-0.549**	4.260**	3.418*	3.631*
	(0.137)	(0.137)	(0.142)	(0.151)	(0.184)	(0.185)	(0.191)	(0.201)	(1.595)	(1.615)	(1.626)
dalit	0.0391	0.0132	-0.00521	0.0237	-0.245	-0.272	-0.232	-0.190	0.0182	0.000111	0.0296
	(0.134)	(0.144)	(0.145)	(0.147)	(0.186)	(0.194)	(0.194)	(0.197)	(0.145)	(0.146)	(0.147)
age	0.289***	0.289***	0.241***	0.239***	0.290***	0.291***	0.243***	0.241***	0.290***	0.244***	0.242***
	(0.0320)	(0.0321)	(0.0336)	(0.0338)	(0.0320)	(0.0321)	(0.0336)	(0.0339)	(0.0321)	(0.0336)	(0.0339)
age2	-0.00313***	-0.00313***	-0.00262***	-0.00264***	-0.00314***	-0.00315***	-0.00265***	-0.00267***	-0.00314***	-0.00266***	-0.00269***
	(0.000332)	(0.000333)	(0.000348)	(0.000352)	(0.000332)	(0.000333)	(0.000349)	(0.000352)	(0.000333)	(0.000349)	(0.000353)
unmarried	-1.658***	-1.666***	-1.720***	-1.645***	-1.654***	-1.663***	-1.719***	-1.645***	-1.730***	-1.769***	-1.697***
	(0.257)	(0.259)	(0.261)	(0.262)	(0.257)	(0.259)	(0.261)	(0.262)	(0.262)	(0.263)	(0.264)
no_school	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
primary	0.716***	0.726***	0.726***	0.734***	0.714***	0.723***	0.724***	0.734***	0.741***	0.737***	0.750***
	(0.169)	(0.171)	(0.172)	(0.175)	(0.169)	(0.171)	(0.172)	(0.175)	(0.172)	(0.172)	(0.176)
secondary_or_more	0.283	0.309	0.410	0.452*	0.272	0.298	0.399	0.447*	0.291	0.389	0.437*
	(0.202)	(0.210)	(0.213)	(0.221)	(0.202)	(0.210)	(0.213)	(0.221)	(0.210)	(0.213)	(0.221)
ln_hh_size	-0.984***	-0.960***	-0.941***	-0.913***	-0.976***	-0.951***	-0.935***	-0.908***	-0.965***	-0.946***	-0.917***
	(0.165)	(0.175)	(0.176)	(0.177)	(0.165)	(0.175)	(0.176)	(0.178)	(0.176)	(0.176)	(0.178)
nb_child	0.355***	0.349***	0.312***	0.297***	0.355***	0.349***	0.314***	0.298***	0.346***	0.313***	0.297***
	(0.0825)	(0.0834)	(0.0844)	(0.0850)	(0.0826)	(0.0835)	(0.0844)	(0.0850)	(0.0837)	(0.0845)	(0.0852)
hh_female_headed	0.431	0.429	0.400	0.437	0.425	0.422	0.397	0.436	0.424	0.399	0.438
	(0.233)	(0.234)	(0.235)	(0.239)	(0.235)	(0.235)	(0.236)	(0.240)	(0.234)	(0.236)	(0.239)
hh_marriage	-0.125	-0.119	-0.146	-0.145	-0.125	-0.118	-0.145	-0.144	-0.116	-0.144	-0.144
	(0.133)	(0.134)	(0.135)	(0.136)	(0.133)	(0.134)	(0.135)	(0.137)	(0.134)	(0.135)	(0.137)
hh_post_demo	-0.356*	-0.355*	-0.314	-0.313	-0.351*	-0.350*	-0.312	-0.311	-0.357*	-0.317	-0.317
	(0.164)	(0.166)	(0.167)	(0.169)	(0.165)	(0.166)	(0.167)	(0.169)	(0.166)	(0.168)	(0.169)
ln_hh_percap		-0.0132	-0.0285	0.0190		-0.0123	-0.0272	0.0203	0.218	0.155	0.218
		(0.0909)	(0.0920)	(0.0938)		(0.0911)	(0.0922)	(0.0939)	(0.120)	(0.121)	(0.124)
hh_land_owner		0.00513	0.0231	-0.0829		0.00626	0.0236	-0.0794	0.00139	0.0199	-0.0854
		(0.153)	(0.155)	(0.160)		(0.153)	(0.155)	(0.160)	(0.154)	(0.155)	(0.160)
ln_hh_wealth		-0.0429	-0.0299	-0.0621		-0.0447	-0.0322	-0.0639	-0.0367	-0.0275	-0.0597
		(0.0806)	(0.0806)	(0.0817)		(0.0806)	(0.0806)	(0.0818)	(0.0808)	(0.0808)	(0.0819)
no_paid_work			-0.904***	-0.949***			-0.873***	-0.928***		-0.844***	-0.896***
			(0.188)	(0.203)			(0.188)	(0.204)		(0.190)	(0.205)
self_employed				0.423*				0.399*			0.408*
				(0.202)				(0.202)			(0.202)
casual_worker				ref				ref			ref
regular_worker				-0.564**				-0.576**			-0.597**
				(0.207)				(0.208)			(0.208)
female*dalit					0.543*	0.544*	0.439	0.408			
					(0.246)	(0.246)	(0.249)	(0.251)			
female*ln_hh_percap									-0.464**	-0.366*	-0.390*
									(0.156)	(0.158)	(0.159)
localisation dummies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
_cons	-3.908***	-3.266*	-2.167	-2.106	-3.810***	-3.155*	-2.103	-2.042	-5.707***	-4.144*	-4.231*
	(0.882)	(1.457)	(1.486)	(1.500)	(0.882)	(1.459)	(1.487)	(1.501)	(1.679)	(1.718)	(1.741)
N	1610	1610	1610	1610	1610	1610	1610	1610	1610	1610	1610
AIC	1680.4	1686.0	1664.3	1650.1	1677.5	1683.1	1663.2	1649.4	1679.0	1660.9	1646.0
BIC	1825.8	1847.6	1831.2	1827.8	1828.3	1850.0	1835.5	1832.5	1845.9	1833.2	1829.1

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 1: *Average discrete effect of being a woman on the predicted probability to be in debt, across per capita household income levels*

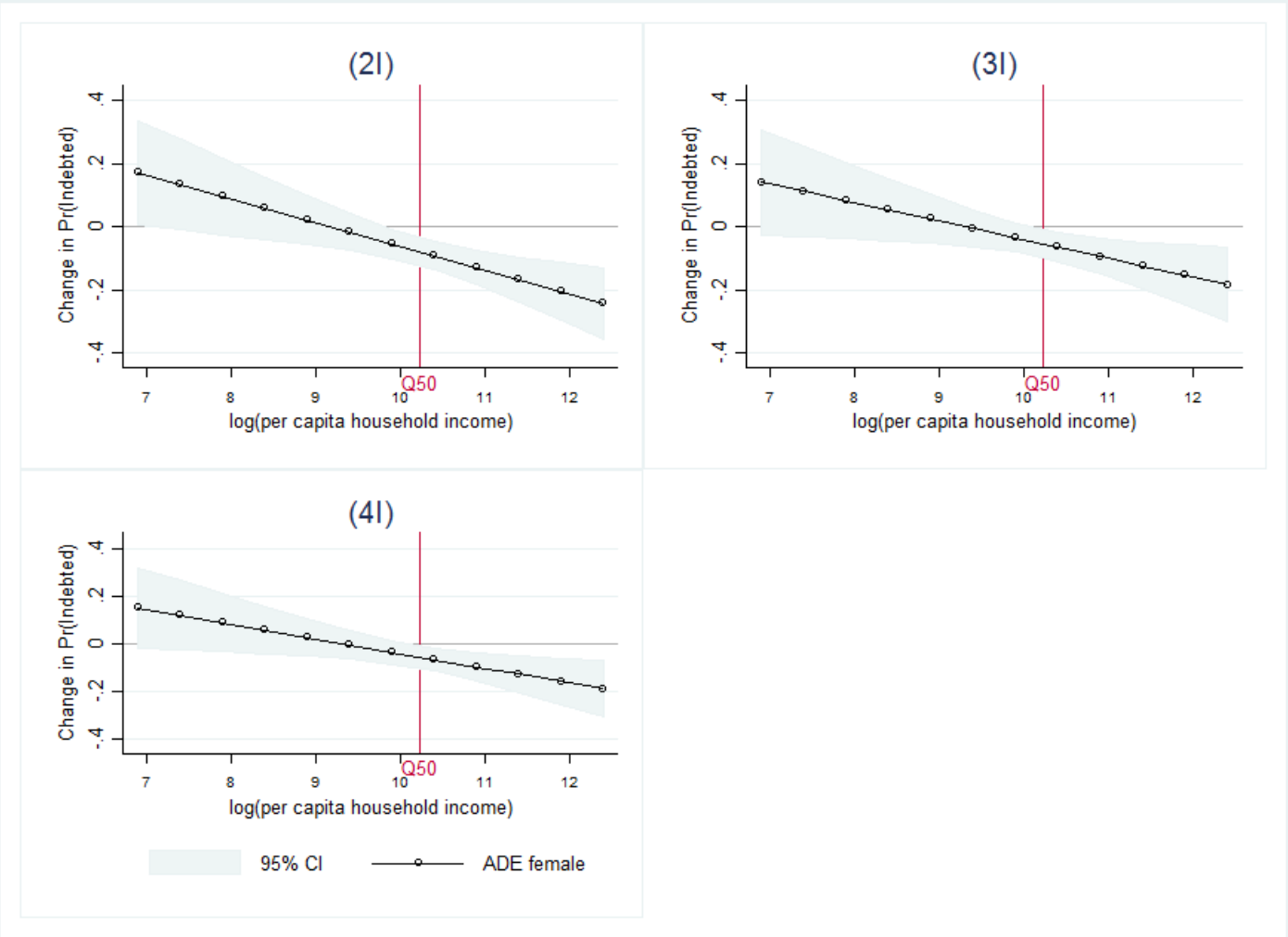


Table B: *Fractional logit estimates for household debt share. Sample: all adults living in indebted households. Specifications (1)-(4), (1C)-(4C), (2I)-(4I)*

	(1)	(2)	(3)	(4)	(1C)	(2C)	(3C)	(4C)	(2I)	(3I)	(4I)
	debt_share	debt_share	debt_share	debt_share	debt_share	debt_share	debt_share	debt_share	debt_share	debt_share	debt_share
female	-1.017***	-1.009***	-0.909***	-0.862***	-1.318***	-1.310***	-1.177***	-1.119***	4.385***	3.745***	3.790***
	(0.0979)	(0.0981)	(0.0989)	(0.105)	(0.132)	(0.133)	(0.134)	(0.140)	(1.141)	(1.130)	(1.132)
dalit	0.151	0.0957	0.0852	0.129	-0.119	-0.176	-0.150	-0.0933	0.0951	0.0874	0.130
	(0.0976)	(0.103)	(0.103)	(0.104)	(0.125)	(0.129)	(0.128)	(0.130)	(0.103)	(0.103)	(0.104)
age	0.247***	0.249***	0.212***	0.205***	0.248***	0.249***	0.214***	0.206***	0.253***	0.219***	0.211***
	(0.0294)	(0.0297)	(0.0303)	(0.0299)	(0.0290)	(0.0292)	(0.0299)	(0.0296)	(0.0300)	(0.0309)	(0.0306)
age2	-0.00255***	-0.00256***	-0.00217***	-0.00212***	-0.00255***	-0.00256***	-0.00218***	-0.00214***	-0.00260***	-0.00224***	-0.00220***
	(0.000310)	(0.000312)	(0.000317)	(0.000313)	(0.000304)	(0.000306)	(0.000312)	(0.000309)	(0.000316)	(0.000323)	(0.000321)
unmarried	-1.395***	-1.408***	-1.398***	-1.353***	-1.377***	-1.392***	-1.390***	-1.346***	-1.470***	-1.457***	-1.412***
	(0.244)	(0.244)	(0.242)	(0.239)	(0.244)	(0.243)	(0.242)	(0.239)	(0.245)	(0.244)	(0.241)
no_school	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref	ref
primary	0.322**	0.346**	0.349**	0.329**	0.318**	0.343**	0.344**	0.327**	0.362**	0.360**	0.341**
	(0.119)	(0.120)	(0.119)	(0.121)	(0.118)	(0.120)	(0.119)	(0.121)	(0.119)	(0.119)	(0.120)
secondary_or_more	0.256	0.319*	0.381*	0.353*	0.244	0.309*	0.368*	0.346*	0.292	0.349*	0.325*
	(0.146)	(0.152)	(0.153)	(0.156)	(0.146)	(0.152)	(0.153)	(0.156)	(0.151)	(0.153)	(0.155)
ln_hh_size	-1.200***	-1.164***	-1.141***	-1.127***	-1.201***	-1.162***	-1.141***	-1.127***	-1.171***	-1.149***	-1.135***
	(0.126)	(0.132)	(0.130)	(0.131)	(0.126)	(0.131)	(0.130)	(0.131)	(0.134)	(0.132)	(0.133)
nb_child	0.275***	0.261***	0.237***	0.230***	0.278***	0.264***	0.240***	0.233***	0.263***	0.240***	0.233***
	(0.0551)	(0.0559)	(0.0554)	(0.0556)	(0.0549)	(0.0558)	(0.0553)	(0.0556)	(0.0557)	(0.0554)	(0.0556)
hh_female_headed	0.740***	0.727***	0.725***	0.709***	0.727***	0.714***	0.716***	0.704***	0.727***	0.726***	0.711***
	(0.172)	(0.172)	(0.167)	(0.169)	(0.172)	(0.171)	(0.166)	(0.169)	(0.168)	(0.164)	(0.167)
hh_marriage	-0.117	-0.103	-0.115	-0.0990	-0.115	-0.101	-0.113	-0.0975	-0.0996	-0.112	-0.0967
	(0.0970)	(0.0976)	(0.0973)	(0.0983)	(0.0971)	(0.0977)	(0.0974)	(0.0984)	(0.0984)	(0.0979)	(0.0988)
hh_post_demo	0.0353	0.0392	0.0827	0.0934	0.0398	0.0426	0.0853	0.0964	0.0485	0.0874	0.0990
	(0.116)	(0.116)	(0.117)	(0.116)	(0.116)	(0.116)	(0.116)	(0.116)	(0.116)	(0.117)	(0.117)
ln_hh_percap		-0.0383	-0.0451	-0.0301		-0.0343	-0.0428	-0.0274	0.199*	0.159	0.176*
		(0.0652)	(0.0645)	(0.0654)		(0.0650)	(0.0645)	(0.0653)	(0.0874)	(0.0859)	(0.0873)
hh_land_owner		-0.0528	-0.0456	-0.145		-0.0587	-0.0505	-0.146	-0.0547	-0.0477	-0.146
		(0.113)	(0.113)	(0.115)		(0.113)	(0.113)	(0.116)	(0.113)	(0.113)	(0.116)
ln_hh_wealth		-0.0675	-0.0676	-0.0948		-0.0692	-0.0694	-0.0961	-0.0689	-0.0697	-0.0969
		(0.0587)	(0.0577)	(0.0579)		(0.0588)	(0.0580)	(0.0582)	(0.0584)	(0.0575)	(0.0577)
no_paid_work			-0.929***	-0.867***			-0.886***	-0.839***		-0.838***	-0.787***
			(0.192)	(0.202)			(0.193)	(0.202)		(0.195)	(0.204)
self_employed				0.434***				0.409**			0.421**
				(0.129)				(0.131)			(0.129)
casual				ref				ref			ref
regular				-0.200				-0.215			-0.223
				(0.144)				(0.145)			(0.142)
female*dalit					0.609***	0.611***	0.532**	0.493**			
					(0.180)	(0.180)	(0.179)	(0.181)			
female*ln_hh_percap									-0.531***	-0.459***	-0.459***
									(0.112)	(0.111)	(0.112)
localisation dummies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
_cons	-4.238***	-3.081**	-2.196	-1.910	-4.118***	-2.984*	-2.115	-1.833	-5.570***	-4.386**	-4.108**
	(0.789)	(1.190)	(1.205)	(1.210)	(0.788)	(1.191)	(1.209)	(1.213)	(1.360)	(1.368)	(1.382)
N	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
AIC	1640.3	1644.9	1632.1	1626.6	1636.2	1640.8	1629.6	1624.8	1635.2	1625.6	1620.2
BIC	1785.5	1806.2	1798.8	1804.1	1786.8	1807.5	1801.6	1807.6	1801.9	1797.7	1803.0

Figure 2: *Average discrete effect of being female on predicted debt share, across per capita household income levels. Specifications (2I) to (4I)*

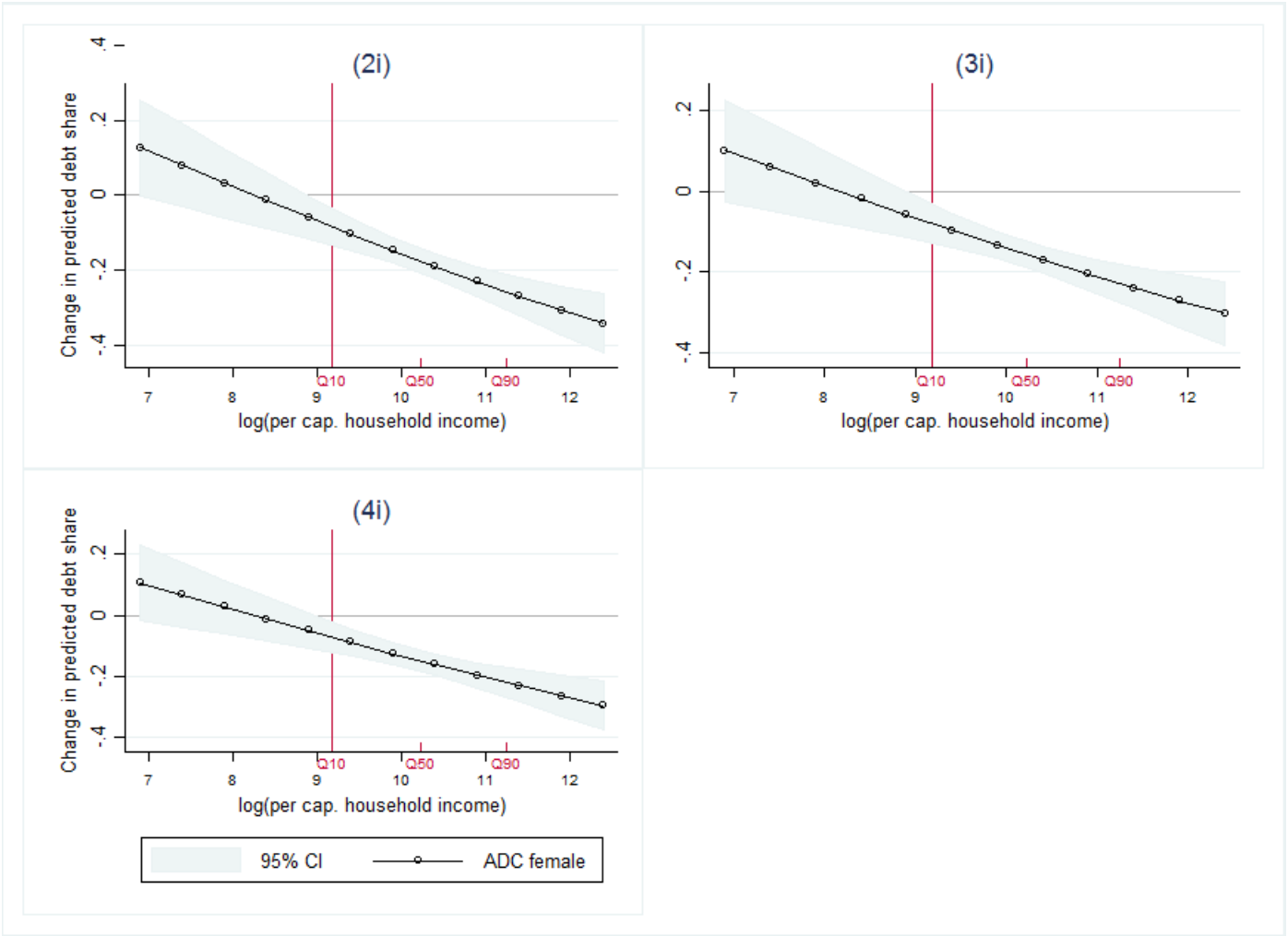


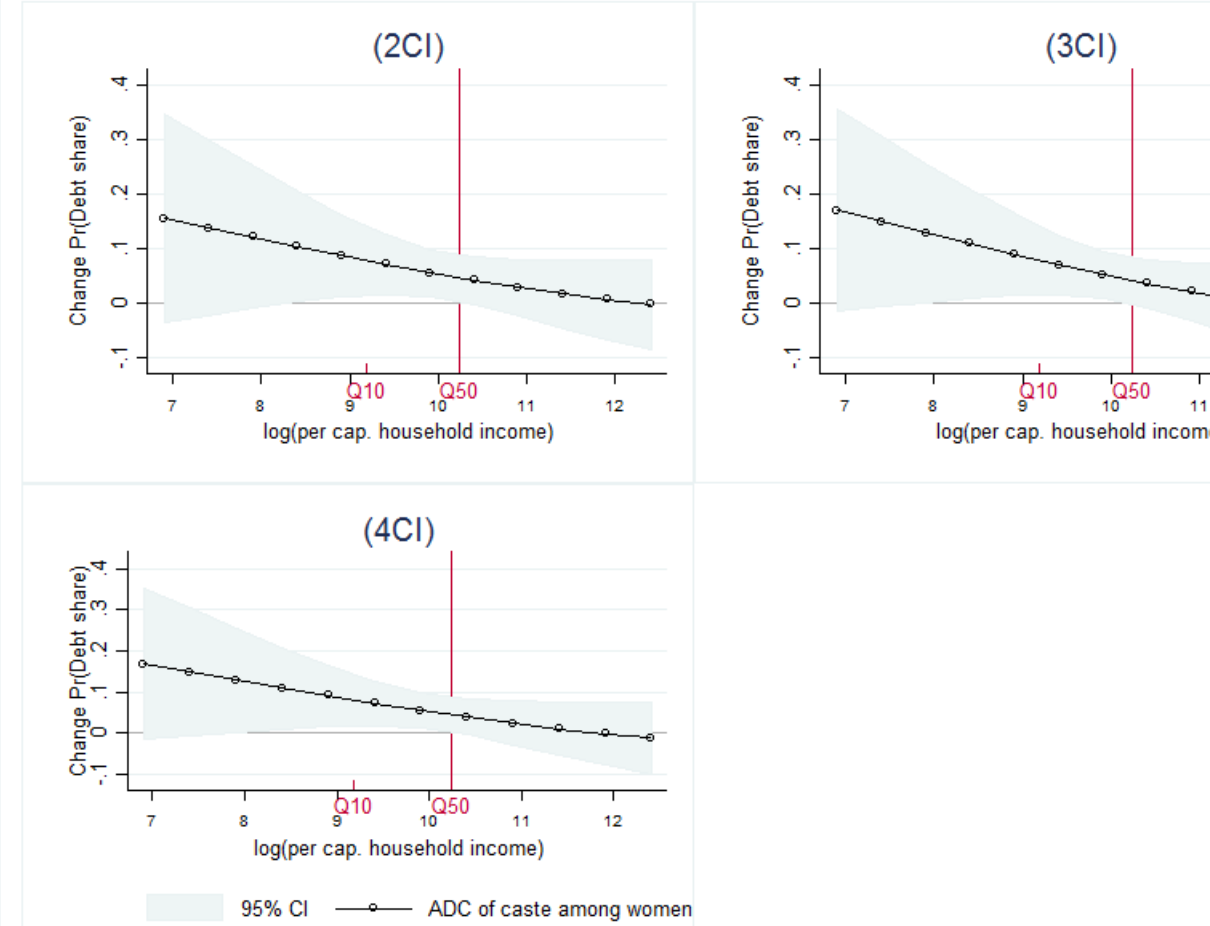
Table C: *Fractional logit estimates for household debt share. Sample: all adults living in indebted households. Specifications (2CI)-(4CI), (4IS)*

	(2CI) debt_share	(3CI) debt_share	(4CI) debt_share	(4IS) debt_share
female	2.316	1.528	1.830	3.566
	(1.500)	(1.477)	(1.496)	(1.906)
ln_hh_percap	0.127	0.0839	0.119	0.458**
	(0.106)	(0.103)	(0.106)	(0.157)
female*ln_hh_percap	-0.351*	-0.263	-0.287*	-0.383*
	(0.145)	(0.144)	(0.145)	(0.185)
dalit	-1.269	-1.360	-0.924	0.107
	(1.651)	(1.623)	(1.632)	(0.107)
female*dalit	3.213	3.680	3.208	
	(2.276)	(2.250)	(2.258)	
dalit*ln_hh_percap	0.113	0.124	0.0864	
	(0.162)	(0.159)	(0.160)	
female*dalit*ln_hh_percap	-0.271	-0.322	-0.280	
	(0.224)	(0.221)	(0.222)	
income_share				5.516*
				(2.357)
female*income_share				12.66*
				(5.059)
ln_hh_percap*income_share				-0.396
				(0.228)
female*ln_hh_percap*income_share				-1.289*
				(0.511)
hh_land_owner	-0.0604	-0.0520	-0.147	-0.154
	(0.114)	(0.114)	(0.117)	(0.119)
ln_hh_wealth	-0.0700	-0.0708	-0.0970	-0.119*
	(0.0586)	(0.0577)	(0.0579)	(0.0561)
age	0.253***	0.219***	0.211***	0.197***
	(0.0296)	(0.0305)	(0.0302)	(0.0294)
age2	-0.00260***	-0.00224***	-0.00220***	-0.00201***
	(0.000311)	(0.000319)	(0.000317)	(0.000307)
unmarried	-1.456***	-1.450***	-1.406***	-1.309***
	(0.244)	(0.243)	(0.241)	(0.235)
no_school	ref	ref	ref	ref
primary	0.350**	0.347**	0.331**	0.342**
	(0.119)	(0.119)	(0.120)	(0.122)
secondary_or_more	0.290	0.347*	0.326*	0.356*
	(0.152)	(0.153)	(0.156)	(0.159)
ln_hh_size	-1.166***	-1.144***	-1.131***	-0.739***
	(0.133)	(0.131)	(0.132)	(0.137)
nb_child	0.266***	0.242***	0.235***	0.162**
	(0.0561)	(0.0557)	(0.0560)	(0.0553)
hh_female_headed	0.717***	0.718***	0.708***	0.635***
	(0.168)	(0.165)	(0.168)	(0.174)
hh_marriage	-0.0982	-0.110	-0.0954	-0.0388
	(0.0983)	(0.0979)	(0.0989)	(0.0992)
hh_post_demo	0.0511	0.0907	0.102	0.0840
	(0.117)	(0.117)	(0.117)	(0.118)
no_paid_work		-0.827***	-0.784***	-0.538**
		(0.193)	(0.202)	(0.202)
self_employed			0.402**	0.236
			(0.131)	(0.137)
casual			ref	ref
regular			-0.226	-0.426**
			(0.143)	(0.146)
localisation dummies	✓	✓	✓	✓
_cons	-4.722**	-3.521*	-3.442*	-7.743***
	(1.530)	(1.527)	(1.556)	(1.908)
N	1600	1600	1600	1600
AIC	1637.3	1628.0	1623.3	1594.2
BIC	1820.1	1816.3	1822.3	1798.5

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Figure 3: *Average discrete effect of being Dalit, within women, on predicted debt share, across per capita household income levels. Specifications (2CI) to (4CI)*



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