

DVARA RESEARCH

ESTIMATING ELIGIBILITY FOR THE FRESH START MECHANISM UNDER IBC, 2016

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Abstract

The provisions for insolvency, bankruptcy and fresh start for natural persons as contained in the Insolvency and Bankruptcy Code (IBC) 2016 are expected to shift the paradigm of the Indian consumer credit market. This paper attempts to capture the impact of one such remedy, the *Fresh Start Process* by estimating the number of eligible consumers and the debt they hold. Empirically, it was observed that there has been a shift in the distribution of number of credit accounts with outstanding less than INR 35,000 (the debt ceiling for fresh start) in the last five years, especially for SCBs, and presently only 2.21 million credit accounts of Schedule Commercial Banks (SCBs) and 0.79 million clients of Micro-finance Institutions (MFIs) would qualify under the Fresh Start eligibility criteria based on income and debt profile. The analysis further shows the debt-at-risk (combined exposure of the financial sector that may have to be written off) amounts to INR 59.24 billion. Though these numbers seem significant, reading them in context of the overall exposure of the banking system and the micro-finance sector reveals that when the provisions of Fresh Start are notified the credit sector is very likely to withstand its impact. The paper also situates the empirical observations amidst a discussion of the extant statutory provisions and expected hurdles in the implementation of the remedy.

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1. Introduction

The Insolvency and Bankruptcy Code (IBC), 2016 is a landmark legislation with far-reaching implications for individual borrowers and corporate debtors. This working paper discusses the possible financial (especially credit) system-wide ramifications if the *Fresh Start*² (FS) provisions as contained in the Part-III of the IBC, are to be notified in its present form³. Presently, there are concerns whether the scale of consumers seeking refuge under the FS provisions will be unsustainable for lenders and the lending ecosystem. Further, the only literature on the subject, a paper by Dr. Renuka Sane paints a dire picture of anticipated outcomes if the code were to be implemented as is. However, her conclusions are not justifiable by the data present in the public domain, and her analysis contains some weaknesses⁴.

This paper develops on the singular piece of literature and presents an estimation of the number of eligible individuals under the various qualification criteria for the FS and discusses potential barriers that may prevent even eligible individuals from applying for the remedy. In the present form, an individual (debtor) applying for FS under IBC must satisfy four economic criteria⁵, as specified in sections 80(2)(a)-80(2)(c) and 80(2)(e) of the IBC. These include the income criterion (debtor must have annual income not exceeding INR 60,000), the asset criterion (aggregate value of debtor's assets ought to not exceed INR 20,000), the debt criterion (eligible debt owed by the individual must not exceed INR 35,000) and an extension of the asset criterion, where under for a debtor to be eligible, they must not have ownership of a "dwelling unit". Further, the IBC seemingly⁶ specifies that these criteria should be jointly applied (See Figure 1).

These definitions, however, leave significant scope for interpretation. In the case of the income criterion, it is unclear which income streams would be considered as income. The perils of the present state of vagueness may be captured in the case of an individual who operates a proprietorship. For such a party, all revenues from the business venture would constitute personal income and would, therefore, make them ineligible for the remedy. While this is in tandem with the principles of accounting (since a proprietorship is a non-limited liability entity), the exclusion may impact individuals who are perhaps in most need of the remedy. Similarly, it is unclear whether direct benefits transferred by the government will be considered as income. The asset criterion presents another dilemma: it is unclear whether the resale value of the asset or its acquiring value is to be considered. The criterion which looks at the ownership of a dwelling unit is a quagmire, to say the least since the treatment of structures that are not wholly residential but are used for residential purposes (e.g. a hut on agricultural

²Section 80 of Part III of IBC, 2016 outlines a quasi-bankruptcy process, named *Fresh Start* (FS) for individuals with minimal assets, debt, income and without ownership of a dwelling unit. FS is described as a quasi-bankruptcy process because there is no need for the applicant to go through lengthy debt resolution process, and upon the issue of the FS order, all qualifying debts of the individual are discharged.

³Part III of the IBC is yet to be notified, thus despite being on the books, any and all remedies, processes, etc. are unenforceable.

⁴Dr. Renuka Sane (2019): *Fresh Start Process*-IBBI publication titled "*Insolvency and Bankruptcy Code: A miscellany of Perspectives*"

⁵Section 80(2) of IBC, 2016 enumerates 7 criteria for eligibility for FS. However, only four of the criteria are economic while the other three are procedural. These procedural criteria involve evaluation if there are remedies that were availed/ are being availed under IBC by the debtor.

⁶Although the clauses are connected with "and", the jurisprudential interpretation of such connectors is fickle.

land used as a dwelling unit and storage shed concurrently) will pose ambiguities that the insolvency professionals will have to navigate.

FIGURE 1: Visual Representation of the Economic Criteria for Fresh Start Eligibility



Source: Author's representation of the Provisions in IBC

These definitions are expected to be further clarified once the subordinate legislations under the IBC covering FS are formulated. Therefore, in the present case, analysis may only be carried out using an *as-is* interpretation. Further, the lack of availability of data on all of the criteria exacerbates the hurdles in obtaining an accurate estimate. Thus, this paper only focuses on ascertaining the eligibility based on two criteria, the debt and asset criteria. The analysis, therefore, yields a ceiling on the number of eligible individuals for FS, which is expected to be revised downwards upon the inclusion of the income and dwelling unit criteria.

2. Review of Literature

The only literature on the subject is Dr. Renuka Sane's article titled "Fresh Start Process" in the IBBI publication titled "Insolvency and Bankruptcy Code: A miscellany of Perspectives" (Renuka Sane 2019). Dr. Sane estimates that 23 million accounts across banks, and another 23 million accounts across micro-finance lending institutions would become eligible for the FS. Dr. Sane's analysis was mostly driven by the summary observations presented by the RBI, Industry reports for MFIs and the NSSO in their "Key Indicators of Debt and Investment in India" document⁷. Since the data sources are inadequate in themselves to reach a conclusion, she is compelled to make some assumptions. The veracity or the robustness of these assumptions are not discussed in detail since, given the paucity of data available in the public domain, it would be an onerous task to do so. However, upon studying the cited data, one might draw a set of conclusions that is different from Dr. Sane's. These are discussed next.

The first estimation presented in Dr. Sane's article concerns the banking system. The estimation relies on data released by the RBI, but there it seems that she commits a couple of interpretive errors. The first error is evident from the claim that "*banks in India had given loans of less than Rs. 25,000 to 36.5 million accounts in 2017-18, with total outstanding in this category of Rs. 400 billion*". This conclusion is prima-facie inaccurate since the data from RBI⁸ mentions only the number of active accounts with outstanding less than INR 25,000. This means that the data does not correspond to loans sanctioned in the period highlighted, but loans that were active in that period (which may have been sanctioned at an earlier period and are active).

Although the above error does not have an impact on the estimations, the next one does. This error emerges from the fact that all occupational categories were included in Dr. Sane's calculations. The RBI data clearly mentions that personal credit accounts with outstanding less than INR 25,000 were only 8.45 million, and there were 15.91 million agricultural accounts. Assuming all credit to the agricultural sector was to individuals and not corporates, the total number of individual accounts would stand at 24.36 million out of which only 21.58 million accounts would be unsecured (following the same assumptions as in the article). Now, if one is to replicate the approach adopted by Dr. Sane, where "*10% of the remainder of accounts are considered unsecured*", the final number of qualifying accounts would stand at 21.86 million accounts instead of 23.5 million as reported in the article. This overestimation of 8% occurs due to the inclusion of credit extended to industrial, trade, and other sectors. Further, the article concludes the estimation for banking sector exposure at this step, which is onerous since it does not include a discussion (or an acknowledgment) of the other factors that determine eligibility of an individual for the FS process.

The second estimation presented in the article concerns micro-finance borrowers. If one were to assume that the un-cited claim of 65% of the micro-finance borrowers being below poverty line (BPL) holds; then the estimation seems fair. However, as discussed in the case of the first estimation, this estimation excludes any discussion on asset ownership (other than that of the dwelling unit).

⁷Key Indicators of Debt and Investment in India, NSSO 70th Round, January — December 2013. Accessible at: http://www.mospi.gov.in/sites/default/files/publication_reports/KI_70_18.2_19dec14.pdf

⁸Table 5.4 of Basic Statistical Return, Reserve Bank of India

This may lead to over-estimation, since generally the women in the household tend to be the primary owners of gold/silver and other bullion assets, which will, in turn, reduce the number of eligible candidates from the estimated 23 million. Further as acknowledged by Dr. Sane, the estimation does not capture the actual number of accounts with debt outstanding less than INR 35,000, perhaps due to the unavailability of data in the public domain, which is also expected to lead to over-estimation.

The third estimation carried out in her article, which is done using the All India Debt and Investment Survey (AIDIS), suffers from one significant error. The article relies solely on the summary statistics presented in the report titled *Key Indicators of Debt and Investment in India* and not the underlying data to arrive at the estimations. This leads to over-estimation in almost all cases. Further, the claims presented in the article are not an accurate representation of the report. For example, in the penultimate paragraph of the section, Dr. Sane claims “*this (observations from statement 3.2 of Key Indicators of Debt and Investment in India, NSSO 70th Round, January — December 2013) suggests that at most bottom two deciles of households in India would be eligible for the FS*”, this lacks a nuanced reading since the data⁹ suggests that only a select number of households from the first decile of rural households would qualify for the FS and all households and a select number of households from the first and second decile of urban households respectively would qualify for FS. Thus, her calculation based on the claim that 50 million households qualify through the asset criteria would lead to an overestimation.

Further, Dr. Sane uses the average incidence of indebtedness (Iol) of cultivator households (46%) to obtain that 23 million households qualify for FS. This is erroneous because of two reasons. First, this Iol (of 46%) is not representative of all rural households and completely excludes urban households, where the national averages for Iol among rural and urban households stand at 31.44% and 22.37% respectively¹⁰. Second, the national average Iol is much higher than the average Iol for the asset owning decile classes that would qualify for FS. Iol for the first decile (based on asset ownership) of rural households is 19.62% with the average debt per indebted household standing at INR 49,874, which is higher than that of the FS ceiling¹¹. Further, the Iols for the first and second deciles of urban households stand at 9.34% and 14.64% respectively with average amount of debt per indebted household being INR 59,808 and INR 81,587 respectively, which are significantly higher than the FS debt ceiling. This observation stands at loggerheads with Dr. Sane’s second assumption of 20% indebtedness atop the already over-estimated 50 million eligible households (based on asset criteria, as discussed in the earlier paragraph). Thus, it is safe to conclude that the second estimation that 10 million households qualify for FS also suffers from over-estimation errors.

This paper attempts to rectify the identified errors by not relying on the summary statistics of the datasets and by attempting to harmonise the insights obtained from one dataset to those obtained from another.

⁹See Statement 3.2 of Key Indicators of Debt and Investment in India, NSSO 70th Round, January — December 2013. Accessible at: http://www.mospi.gov.in/sites/default/files/publication_reports/KI_70_18.2_19dec14.pdf

¹⁰See Statement 3.4 of Key Indicators of Debt and Investment in India, NSSO 70th Round, January — December 2013. Accessible at: http://www.mospi.gov.in/sites/default/files/publication_reports/KI_70_18.2_19dec14.pdf

¹¹*Ibid.*

3. Analysis based on AIDIS data

The first exercise carried out to estimate the approximate number of qualifying individuals for the FS process uses the AIDIS data. In this case, the unit of analysis is the household. This deviation¹² from the provisions of the IBC becomes necessary because the dataset only has individual-level data pertaining to debt, while the data on asset ownership is available only at a household level. Thus, the estimation is expected to suffer from unavoidable errors while estimating the number of eligible individuals and the estimation of the total debt-at-risk¹³. This error emerges since IBC prescribes that the applicant (an individual) should be considered as the unit of analysis. However, since the estimation uses the household as a unit of analysis, it is possible that in certain cases the individuals' assets would be significantly less than the households' assets. Thus, there may be individuals who qualify for FS from households that are declared non-qualifying. To exemplify, assuming a household has 5 members, and only one member owns all the assets in the household, say amounting to INR 1 million. This clearly disqualifies the household under the asset criterion, however, under the extant provisions of the IBC the four remaining members of the household would still qualify for FS.

Further, given the ambiguity in the definition and the inclusion of the informal debt as well under the IBC, a total of 12 scenarios were formulated. These scenarios represent different interpretations of the asset criterion (4 differing interpretations) and the debt criterion (3 differing interpretations).

For the asset criterion, the first interpretation estimates the number of eligible households by assessing all assets owned by the household. The second interpretation assumes that the evaluation process excludes productive assets of the household. The third interpretation assumes that the value of the residential unit is excluded while ascertaining the eligibility of the household for FS. Finally, the fourth interpretation excludes all productive assets, jewellery, and residential assets. The exercise to construct these various interpretations is carried out since there is explicit exclusion of "excluded assets"¹⁴ in the clauses pertaining to FS, which is seemingly odd since "excluded assets" are assets that are protected from attachment to the bankruptcy estate of a debtor filing for bankruptcy. Although the FS process is categorically different from bankruptcy, these assets are included in the model given the outcome of the FS process is virtually identical to the bankruptcy process in case of a low-asset debtor¹⁵.

¹²The IBC mentions that the unit of analysis for an individual applying for the FS process would be the "debtor" herself (i.e. an individual). Since the estimation is carried out at a household level, this is deemed as a deviation from the IBC.

¹³debt-at-risk is a term used in the paper to demarcate the debt that institutions may have to write-off in an if all eligible debtors apply for FS.

¹⁴Excluded assets (defined under section 79(14) of the IBC) are assets that are protected from attachment to the bankruptcy estate of a debtor filing for bankruptcy. These include assets that are productive assets essential for the employment of the debtor (section 79(14)(a) of the IBC), single dwelling unit (section 79(14)(e) of the IBC), jewellery (section 79(14)(c) of the IBC), and other select types of financial and durable assets.

¹⁵The outcomes under the FS process and bankruptcy process are identical barring one aspect, the application fee for the remedy. This is illustrated in the case of an individual who owns only assets that are included in the definition of "excluded assets". If such an individual was to file for bankruptcy, then there would be no asset that may be attached to the estate, and thus, neither would the creditor recover any amount from the sale of the said estate (since there would be no estate), nor would the Insolvency Resolution Professional be able to recover her fee. Thus, the only expense that such an individual would incur, if applying for bankruptcy process is the "application fee", which at the moment has not been decided by the IBBI.

In the case of the debt criterion, three different interpretations are adopted. In the first interpretation, all unsecured debt from all types of creditors (from the formal sector and informal sector) are considered. In the second interpretation, all sources of debt are considered except money lenders. In the third interpretation, only formal sector debt is considered to evaluate the qualification of a household under the debt criterion. These interpretations are considered since it is a near-impossible feat to impose the rulings of the *Adjudicating Authority* in cases of informal debt. This hurdle occurs since it is likely that unregulated lenders, like friends and family, professional money lenders, etc. may continually harass a debtor despite a discharge order. The issue is also more likely to occur since in its present form, the IBC is silent on any remedy that such a debtor (who is being harassed by the creditor, despite the order of the adjudicating authority) has. The households thus qualifying under the combined analysis (across 12 different interpretations) is presented in Table 1 which represents the A 4 (asset criterion) X3 (debt criterion) matrix.

TABLE 1: Debt & Asset Criteria Combined Analysis

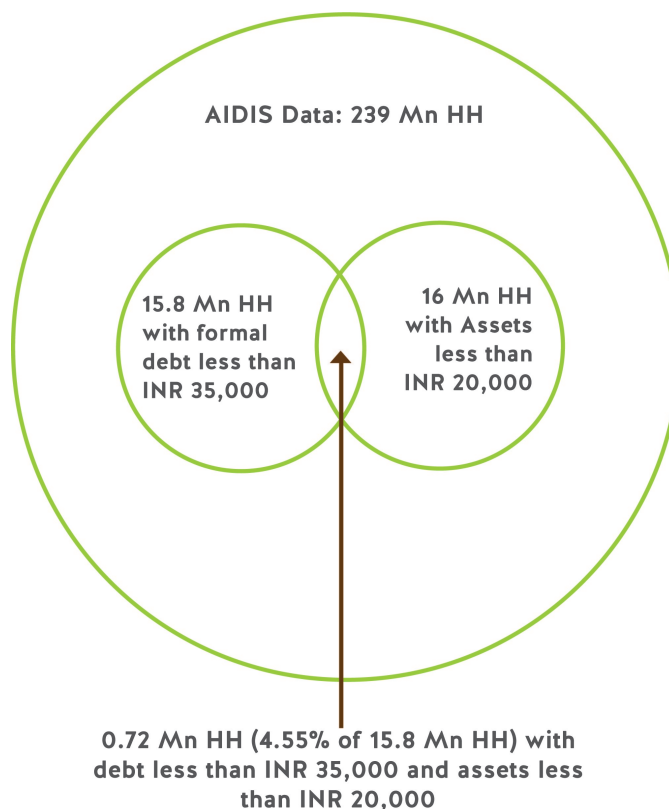
| Percentage % of Households in with | Total Financial Debt >0 but < INR 35000 | Total Financial Debt Excluding Money Lenders >0 but < INR 35000 | Total Financial Debt Excluding (Money Lenders and Friends & Family) >0 but < INR 35000 |
|---|---|---|--|
| All Assets < INR 20000 | 0.38% | 0.30% | 0.19% |
| Asset, Excluding Productive <INR 20000 | 0.41% | 0.32% | 0.19% |
| Assets, Excluding Residential <INR 20000 | 2.09% | 1.49% | 0.82% |
| Assets, Excluding Productive, Jewellery, Residential <INR 20000 | 4.07% | 2.98% | 1.86% |

Although, the earlier discussed estimation methodology is adequate to obtain the ceilings from the AIDIS data, another estimation is also carried out (using the dataset) to obtain the ratio of households that satisfy both the asset and debt criteria to the households that only satisfy the debt criteria (See Appendix-1 for the details of households qualifying under each criterion separately). It is estimated that in 2013, only 0.9 million households had debt (both informal and institutional), but not exceeding INR 35,000 and owned assets whose value did not exceed INR 20,000. Similarly, only 0.72 million (Mn) households held institutional debt and assets within the IBC eligibility criteria¹⁶ (since the average number of individuals holding debt these qualifying households were found to be 1.19, 0.85 Mn individuals would be eligible for FS).

¹⁶This estimation likely suffers from over-estimation error, since upon inclusion of informal debt in many cases the individual (household) would have cumulative (informal and institutional) debt outstanding more than the debt threshold. To exemplify, assuming an individual holds two different loans, with the institutional loan having an outstanding of INR 30,000 making it eligible for discharge in isolation. However, if the same individual holds an informal loan amounting to more than INR 5,000, she would not be eligible under the debt criterion, since the cumulative outstanding would exceed INR 35,000. For the purposes of this calculation, such individuals are considered eligible, since it is often difficult to establish that an informal loan exists on the book due to the general lack of paperwork and documentation surrounding them.

Thus, within the AIDIS dataset, the ratio of households meeting the institutional debt and assets cri-teria to that of households which only meets the institutional debt criteria stands at 4.55% (See Figure 2).

FIGURE 2: Visual Representation of Number of Qualifying Households



Source: Author's Calculation based on AIDIS (NSSO 70th Round Data)

This estimation forms the bedrock for drawing relationships between the richer AIDIS data (given it includes two of the five criteria) and the more recent data from RBI and CIC (which only includes data on debt outstanding). The exercises hereafter are carried out to obtain a more updated estimate of the eligible number of applicants for the FS Process. The following exercises assume that the asset ownership and debt holding pattern of the population has not changed between 2013 and 2018 or 2019, thus, the earlier estimated ratio when combined with recent data would firstly result into valid estimations, and secondly be informative from a policy perspective.

4. The case of Scheduled Commercial Banks (SCBs)

The data obtained from Table 5.4 of Basic Statistical Returns of SCBs in India (RBI), last accessed as of 03 November 2019 is used for the estimation. For consideration of debt, all direct and indirect agricultural loans are considered, since within the considered limits the Reserve Bank of India permits banks to extend credit without any security¹⁷. Further, given the multiplicity of product types and lack of disaggregated data, estimating accurately the number of unsecured agricultural credit accounts and their outstanding is difficult. Thus, for the sake of simplicity and to ensure that there is no under-estimation, all direct and indirect agricultural accounts are classified as unsecured. Subsequently, credit card debt and 50% of “*other personal debt*” are considered, since it is unclear which category of products have been classified under the “others” category (see Appendix-2 for elasticity analysis of (the number of qualifying accounts and debt-at-risk with respect to the proportion of accounts considered under the “others category)). Finally, since the scope of FS only includes unsecured loans, no secured debt (for example, home/auto mortgages) is considered.

In this approach, the reported classes of debt (by the RBI), designated as, *Class-1*: INR 1-24,999.99 and *Class-2*: INR 25,000 to 199,999.99 are used to estimate the total number of qualifying accounts according to the debt criterion solely. Given the nature of the distribution of accounts in the various reporting classes (see Figure 2), a linear fit model is considered to obtain the number of accounts qualifying under the debt criterion. The linear fit model assumes that there is linear growth in the number of accounts between the reported class’ upper- class limits of INR 24,999.99 and INR 199,99.99) (see Table 2 and Figure 3). This assumption thus allows us to compute the number of accounts with debt not exceeding the IBC specified limit of INR 35,000 (the debt criterion).

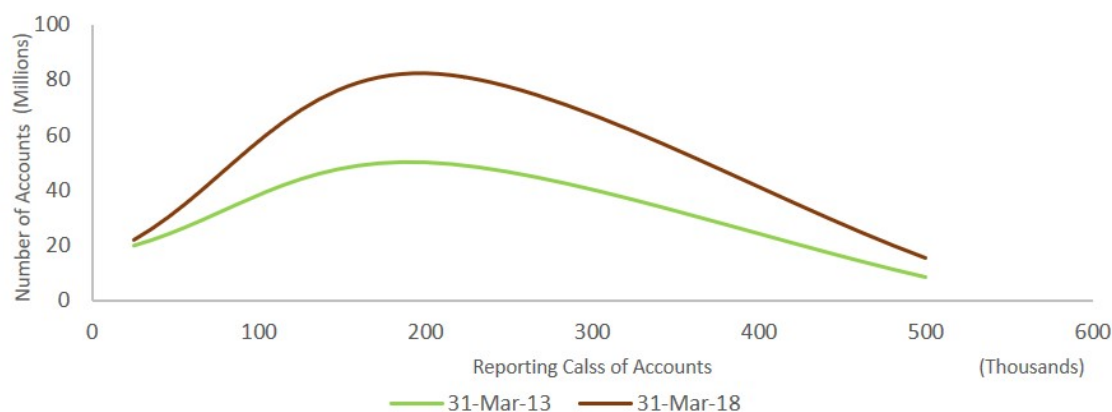
The average outstanding for such qualifying accounts is assumed to be INR 30,000, i.e. the central observation between the reporting class’s lower limit and the debt ceiling under IBC. This may also be stylised as the class-median of a constructed class with its range between INR 25,000 and INR 35,000. Whereas for *Class-1*, the average outstanding is reported in the dataset obtained from the RBI, and was used as is.

Using the linear model, the total number of accounts/individuals¹⁸ with debt outstanding (as on 31 Mar 2018) not exceeding INR 35,000 is found to be 48.68 Mn. Assuming the ratio of households meeting the institutional debt and assets criteria to that of households which meets only the institutional debt criteria continues at 4.55%, the total number of households that would qualify for FS under a combined debt and asset criteria is estimated at 2.21 Mn. Further, assuming one member from each such household is indebted, the number of individuals eligible for FS under the combined debt (from scheduled commercial banks) and asset criteria is estimated at 2.21 Mn. These estimates thus result in debt-at-risk amounting to INR

¹⁷See RBI notification on Credit Flow to Agriculture — Agricultural Loans — Waiver of Margin/Security Requirements, dated June 18, 2010, accessible at: <https://www.rbi.org.in/Scripts/NotificationUser.aspx?Id=5732&Mode=0>

¹⁸The data from the RBI only highlights the number of accounts, and it is likely that an individual may have more than one account, thus total number of individuals would be lesser than the number of accounts. However, for simplicity, no overlap factor was considered. This absence of an over-lap factor is likely to also introduce an over-estimation bias.

FIGURE 3: Distribution of number of accounts across various reporting classes



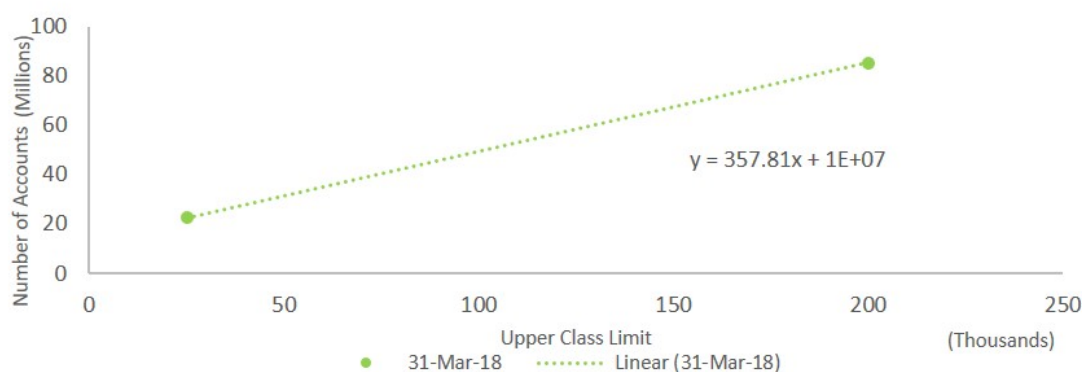
Source: Author’s Calculation based on data from RBI

TABLE 2: Linear Estimation Results:

| Class Limit (Upper) | | Number of Accounts |
|---------------------|-----------|--------------------|
| | | FY 2018 |
| INR 25,000 | | 22,551,305 |
| INR 200,000 | | 85,168,536 |
| Estimation Results | Slope | 357.81 |
| | Intercept | 13,605,986.9 |

Source: Author’s Calculation based on data from RBI

FIGURE 4: Linear Estimation Plot



Source: Author’s Calculation based on data from RBI

48.43 billion (Bn). To contextualise, INR 48.43 Bn represents 0.055% of total banking sector advances (excluding off-balance sheet exposures).

Before proceeding to the next section that discusses the case for micro-finance institution, it is important to re-iterate that these estimations do not represent the expected number of applicants and are expected to be an over-estimation for even the number of eligible debtors

for the FS process. This over-estimation occurs due to the unavailability of any data source that captures all criteria (asset, income, debt, homeownership), thus leading to usage of just two criteria for the evaluation. Therefore, when the income and homeownership criteria would be added, the estimated results are expected to be further deflated.

5. The case of Micro-finance institutions

This final round of estimations focuses on the maximum potential impact of the FS provisions on the micro-finance sector. The approach studies the debt outstanding from all micro-finance institutions excluding SCBs¹⁹ and uses PIN code level data on debt outstanding from a credit information company (credit bureau). The data source used had three class intervals which were of interest to the analysis, *Class-1*: INR 1 to INR 9,999, *Class-2*: INR 10,000 to INR 24,999 and *Class-3*: INR 25,000 to INR 49,999. Akin to the case of RBI, the estimations are relatively simple analysis is only limited to Class-1 and Class-2. In case of estimation of number of active clients (clients hereafter), qualifying under the debt criterion in Class-3, the class has to be split into two. The first constructed class interval representing debt outstanding between INR 25,000 to INR 35,000 and another for INR 35,000 to INR 49,999.

Further, there were 5.24 Mn, 12.01 Mn and 94 thousand clients in Class-1, Class-2 and Class-3 respectively. Thus, the number of clients in Class-3 represents a mere 5.4% of total clients (in the three classes combined), which suggests that the impact of inclusion of accounts with debt outstanding in the second constructed interval²⁰ would be negligible. Although such inclusion is expected to result into a more robust estimate, it is avoided due to the paucity of data which would render any accurate splitting of the class an impossible task. Therefore, all clients in Class-3 are considered to qualify for the FS (under the debt criterion).

To estimate the debt-at-risk, it is assumed that the distribution of clients with respect to their debt-outstanding follow a normal distribution, within their class intervals. Thus, the class median (central observation within the class) of each debt-outstanding class (Class-1,2 and 3) is taken as the mean debt outstanding per client within the respective class²¹. Thus, the mean outstanding for all clients in Class-1 is arrived at to be INR 5,000. Similarly, for Class-2 and Class-3, the mean outstanding for the clients in the respective classes are arrived at to be INR 17,500 and INR 30,000. Class-3 represents a special case, since the class width is INR 25000, thus median for the class is INR 37,500 instead of INR 30,000 as discussed earlier. However, since the qualifying debt limit is of INR 35,000, class median for a constructed class between INR 25,000 to INR 35,000 is considered to calculate average debt, thus debt-at-risk.

Before discussing the results from the estimation, it is important to highlight a few expected sources of error. The first error arises due to the assumed average debt. In this case, when the approach to consider class median as the average debt is adopted for all classes, the average debt per account (from all reported classes in the dataset, and not just the classes that have been discussed earlier) is estimated at INR 26,491, which is significantly higher than the overall average reported in the dataset of INR 20,373. The second error, as discussed earlier, may arise due to the inclusion of all accounts from *Class-3*.

¹⁹Only institutions holding the NBFC-MFI license issued by the RBI and other NGO-MFIs were considered for the analysis due to the exclusion of micro-finance debt issued by SCBs, which was covered in earlier section.

²⁰The two constructed classes discussed here are the classes that would have been obtained after splitting of reported Class-3. Thus, constructed class-1 would comprise of clients with outstanding between INR 25,000 to 35,000 and constructed class-2 would comprise of clients with INR 35,000 to 49,000.

²¹Even if one assumes that the distribution of accounts within each reporting class is uniform, the mean outstanding in such cases would be equal to the class median.

Thus, considering only micro-finance debt, it is estimated that 17.3 million individuals (as on 31 March 2019) with active micro-finance debt (84.2% of all individuals with active micro-finance debt) satisfy the debt criterion, although there are significant variations across states (see Appendix-3). Further, institution-level variations in the proportion of debtors to that of debtors qualifying for FS are also expected since a preliminary glance at the data on clients of a rural financial institution with operations predominantly in southern India show that only 60.59% clients (as on September 2018) have debt less than INR 35,000 compared to the geo-geographical average²² exceeding 95%.

Finally, assuming that the earlier discussed ratio of households qualifying under the debt criterion and households qualifying under the combined asset and debt criteria remains constant, the number of individuals with active micro-finance debt who would qualify under the combined asset and debt criteria is estimated at 0.79 million individuals.²³ Table 3 summarises the number of accounts or individuals that may qualify for FS under various scenarios and the total cumulative debt holding in such cases.

TABLE 3: Qualifying Profiles for FS and their Cumulative Debt Outstanding

| Case of Scheduled Commercial Banks (as on 31 Mar 2018) | | Case of micro-finance borrowers (as on 31 Mar 2019) | |
|--|-----------------|--|-----------------|
| Number of qualifying accounts under combined asset and debt criteria | 2.21 Mn | Number of active clients under the combined asset and debt criteria | 0.79 Mn |
| Cumulative debt outstanding of the qualifying individuals under combined debt and asset criteria | INR 48.43 Bn | Cumulative debt outstanding of the qualifying clients under combined debt and asset criteria | INR 10.81 Bn |

Source: Author's Calculation based on data from RBI and CIC and AIDIS 2013

²²Geographical Average is obtained from the CIC data, discussed in the section earlier.

²³Assuming only one individual from a given household is a borrower.

6. Discussion and Conclusion

The cumulative debt outstanding considering loans extended by SCBs and micro-finance debt of qualifying individuals stand at approximately INR 59.24 Bn. When looked at individually, the banking sector's debt at risk represents only 0.055% of their total exposure. In case of micro-finance institutions, the gross-loan portfolio (GLP) of the industry stands at 682.07 Bn²⁴, thus the debt-at-risk for the sector is only 1.58% of its GLP. This suggests that upon the implementation of the FS process there may be a system-wide shock to the financial sector. Although the impact of such a shock is an independent research question, answering it is beyond the scope of this paper. However, cursorily, if one looks at the banking sector's historical non-performing assets, the quantum of the shock seems manageable. Further, for micro-finance institutions who presently have higher than the regulatorily required capital reserves, such a shock seems mitigable.

Further, these estimated outstanding and the number of qualifying borrowers is expected to see revisions. A biased-up revision (leading to a higher number of eligible borrowers) may be caused due to the assumption that only one borrower per household is indebted. Simultaneously, the biased-down revision may be caused if the assumption that an individual does not hold more than one account is proven incorrect. Furthermore, biased-down revision is also possible, since asset ownership is expected to see a rise from the levels reported in 2013, which has been considered a constant for analysis. Apart from these economic factors, significant number of qualifying individuals may not apply for the remedy under the *Fresh Start* process due to behavioural impediments.

The classic case which may be used to explain the behavioural impediments is that of micro-finance, wherein an event of default, the social ties of the borrower with her micro-finance group members get strained. The resultant loss of social capital has been cited by academicians and practitioners alike to explain the low default rates in micro-finance credit. This loss of social capital may percolate beyond the micro-finance group and hinder other social ties, as evidenced from the literature on bankruptcy stigma²⁵. Further, most low-income households with access to formal credit depend heavily on it for consumption smoothing²⁶.

²⁴Annual Report (2019) of MFIN. Accessible at: <https://mfinindia.org/mfin-publications>

²⁵Rafael Efrat (2006): *The Evolution of Bankruptcy Stigma* Accessible at: <http://eial.tau.ac.il/index.php/til/article/download/595/558>; Barry Scholnick (2013): *Bankruptcy Spillovers between close neighbors*. Accessible at: <https://www.aeaweb.org/conference/2014/retrieve.php?pdfid=159>

²⁶Manfred Zeller (1999): *The Role of Micro-Finance for Income and Consumption Smoothing*. Accessible at: <https://www.microfinancegateway.org/sites/default/files/mfg-en-paper-the-role-of-micro-finance-for-income-and-consumption-smoothing-feb-1999.pdf>; Paul Gertler, et. al. (2008) Do microfinance programs help families insure consumption against illness? Accessible at: <http://faculty.haas.berkeley.edu/levine/papers/Gertler%20Levine%20Moretti%20banks%20insure%20WP.pdf>; Asadul Islam and Pushkar Maitra (2008): Health Shocks and Consumption Smoothing in Rural Households: Does Microcredit have a Role to Play? Accessible at: <https://www.nzae.org.nz/wp-content/uploads/2011/08/nr1215133257.pdf>

Therefore, the likelihood of these borrowers to initiate FS process, which may inadvertently restrict their capacity to avail low-cost formal²⁷ credit in the future²⁸ reduces. Finally, once notified, the cost, time requirement, etc. associated with the application for FS may also impede the willingness of an individual. Despite these factors, it is also possible that the number of applicants may be greater than the number of eligible individuals, as estimated in the paper. Even if one is to assume complete accuracy of the estimate, an unlikely scenario, as has been discussed earlier, a greater number of applicants may still apply and qualify for FS if individuals decide and are presented with an opportunity to “game” the system. This risk of “gaming” arises since the targeted population for the FS are low-income households, which are often characterised by informal employment that shields their income from any scrutiny due to the predominance of a cash-based economy. Further, it is an impossible feat to establish ownership of durable assets of the household to any specific individual in the household. Therefore, it is an easy task for an individual to claim that their income and assets are within the FS eligibility limit, whereas it is an arduous task for the resolution professional to refute the veracity of such claims. Such disparate standard-of-proof may lead to individuals using the remedy even in cases when they do not qualify for the same. Thus, it is pivotal for policymakers to curtail all possible avenues to *game* the system, while ensuring that the eligible borrowers are not excluded from the scope of the remedy.

In summation, it is expected that upon notification, the *Fresh Start* mechanism under the IBC may not lead to as many applicants as may be expected from a statistical analysis of the various criteria outlined therein. Furthermore, singular reliance on the criteria enumerated in IBC may be onerous, since it is extremely difficult to ascertain the income and asset ownership pattern especially in low-income households engaged in the informal sector. Further, the scope of *gaming* may lead to unintended consequences. Therefore, it may be prudent to refine the qualification criteria for *Fresh Start* to ensure the efficacy of the process is intact. Finally, the remedy to the financial distress, especially in low-income households might not necessarily lie solely in ex-post remedies such as *Fresh Start* or loan waivers, and an ex-ante approach like ensuring suitability²⁹ of credit through credit affordability and repayment capacity assessments of the borrower are undertaken before disbursement, should be adopted.

²⁷Although microfinance credit is priced higher than its analogue which is offered to middle- and high-income household, its pricing is still considerably lower than the informal sector options available to low-income households.

²⁸Since credit information companies are required to keep the record of default for 7 years, an individual in default who may apply for FS, might find no formal sector lender who may be willing to lend to her.

²⁹A more comprehensive analysis on the necessity of suitability and recommendations to operationalise it is present in the *Universal Conduct Obligations for Financial Services Providers Serving Retail Customers* [Deepti George (2019)]. Accessible at: <https://www.dvara.com/research/wp-content/uploads/2019/05/Universal-Conduct-Obligations-for-Financial-Services-Providers-Serving-Retail-Customers.pdf>

Appendix- 1: Qualifying HH under each different definition of asset and debt criteria

The asset criterion for *Fresh Start* under IBC states that, “the aggregate value of the assets of the *debtor* does not exceed twenty thousand rupees”. Under the literal interpretation, the maximum number of households that may qualify are 16.15 Million (Mn), representing 6.73% of all Indian households. However, if one is to apply the same principle of excluded assets, as in case of bankruptcy, 83.64 Mn (34.87%) households would qualify. Similarly, if one is to only exclude assets that are productive, while including residential assets and jewellery, the number of households (HH) that qualify under the asset criterion would be 16.74 Mn (6.98%). The following table summarises the number of households that qualify for *Fresh Start* when different interpretations of the asset criterion is used (exclusively).

TABLE A1.1: Qualifying Households under various definition of asset criterion

| Remarks | Asset Criterion | |
|--|---|----------|
| Considering All Assets | Number of HH with assets less than INR 20,000 | 16.15 Mn |
| | % of HH with assets less than INR 20,000 | 6.73% |
| All Assets Excluding Productive Assets | Number of HH with assets less than INR 20,000 | 16.74 Mn |
| | % of HH with assets less than INR 20,000 | 6.98% |
| All Assets Excluding Residential Assets | Number of HH with assets less than INR 20,000 | 48.89 Mn |
| | % of HH with assets less than INR 20,000 | 20.38% |
| All Assets Excluding Productive Residential Assets & Bullion | Number of HH with assets less than INR 20,000 | 83.64 Mn |
| | % of HH with assets less than INR 20,000 | 34.87% |

Source: Author's Calculations based on AIDIS 2013 Data

Similarly, when the debt criterion is used exclusively, under the literal interpretation of Section 80(2)(c) of IBC, 26.55 Mn (11.07%) households were found qualifying. However, given the difficulties associated with proving debts from money lenders and other informal sources, including friends and family, excluding these, the number of households that qualify for *Fresh Start* under the debt criterion are 15.80 Mn (6.59%). The following table summarises the various approaches and the number of qualifying households, when the debt criterion is used exclusively under various definitions.

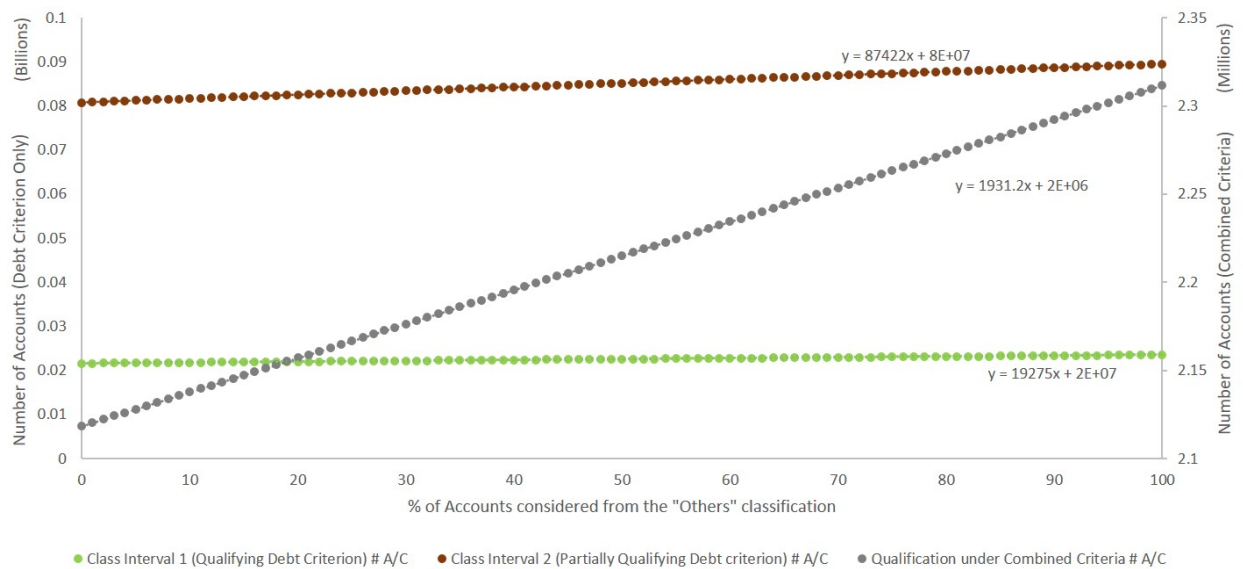
TABLE A1.2: Qualifying Households under various definition of debt criterion

| Remarks | Debt Criterion | |
|---|---|----------|
| All Financial Debt | Number of HH with Debt, but less than 35000 | 26.55 Mn |
| | % of HH with Debt, but less than 35000 | 11.07% |
| All Financial Debt Excluding Money Lender Debts | Number of HH with Debt, but less than 35000 | 22.45 Mn |
| | % of HH with Debt, but less than 35000 | 9.36% |
| All Financial Debt Excluding (Money Lenders and Friends & Family) | Number of HH with Debt, but less than 35000 | 15.80 Mn |
| | % of HH with Debt, but less than 35000 | 6.59% |

Source: Author's calculations based on AIDIS 2013 Data

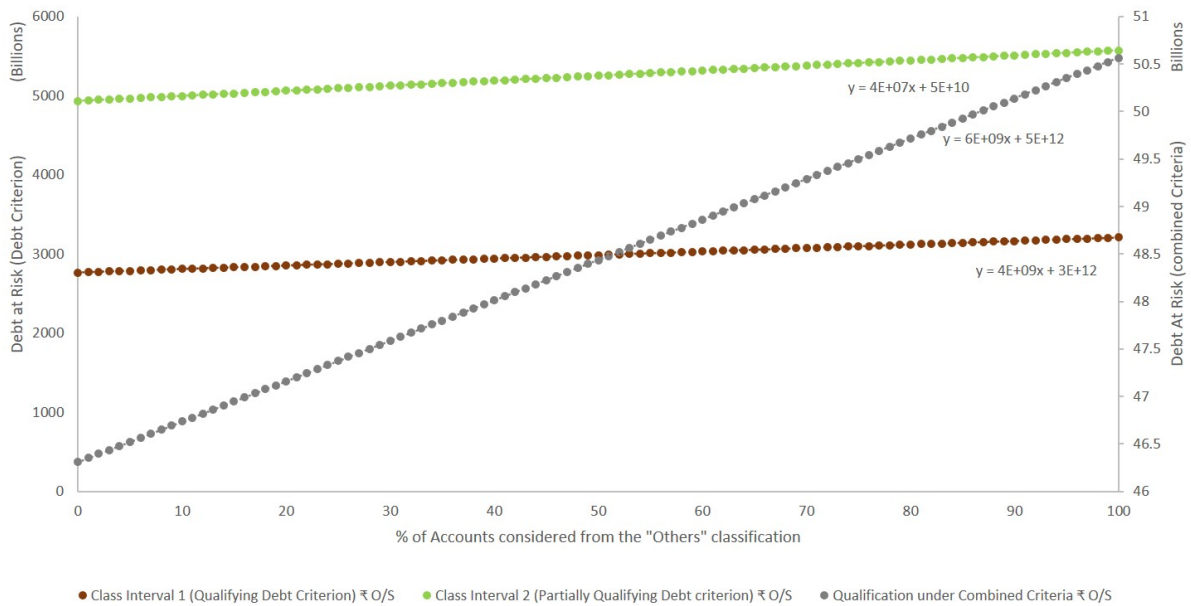
Appendix- 2: Scenario Analysis for the Classification of “other” Account Types

FIGURE A2.1: Variation in number of Accounts Selected and Qualifying under Combined Debt and Asset Criteria



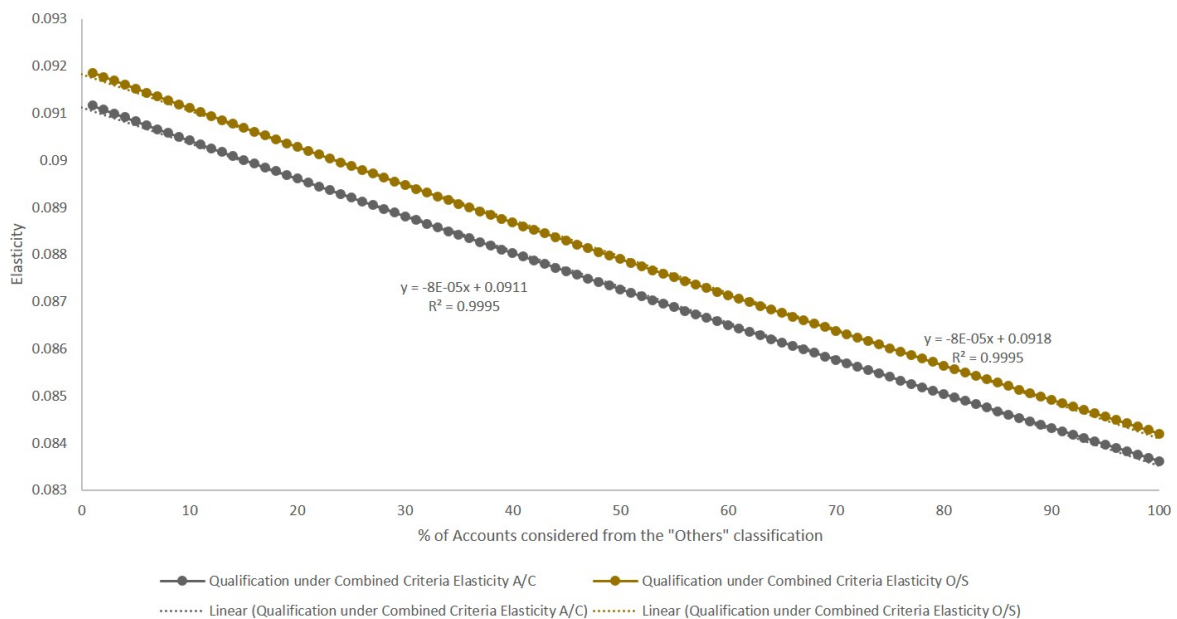
Note: The number of qualifying accounts under the combined criteria is plotted on the secondary axis
 Source: Author’s Calculation based on RBI Data

FIGURE A2.2: Variation in Debt at Risk for Selected and Qualifying Accounts under Combined Debt and Asset Criteria



Note: The amount outstanding under the combined criteria is plotted on the secondary axis
 Source: Author's Calculation based on RBI Data

FIGURE A2.3: Elasticity of Qualifying Accounts and Debt-at-Risk with respect to included accounts from "other" category



Source: Author's Calculation based on RBI Data

Appendix- 3: Micro-finance Debt Profile

TABLE A3.1: Active clients with debt not exceeding INR 50,000 as a proportion of total active clients

| State | Total Number of Active Clients | Number of Active Clients with Debt Outstanding less than INR 50,000 | % of active clients with debt outstanding less than INR 50,000 |
|---------------------------|--------------------------------|---|--|
| Andaman & Nicobar Islands | 341 | 340 | 99.71% |
| Andhra Pradesh | 53849 | 51329 | 95.32% |
| Arunachal Pradesh | Data Unavailable | | |
| Assam | 1217906 | 650821 | 53.44% |
| Bihar | 1648447 | 1350066 | 81.90% |
| Chandigarh | 3822 | 3131 | 81.92% |
| Chhattisgarh | 465186 | 435823 | 93.69% |
| Dadra & Nagar Haveli | 1534 | 888 | 57.89% |
| Daman & Diu | 14 | 14 | 100.00% |
| Delhi | 30518 | 20105 | 65.88% |
| Goa | 13389 | 11452 | 85.53% |
| Gujarat | 691636 | 653466 | 94.48% |
| Haryana | 262799 | 240637 | 91.57% |
| Himachal Pradesh | 2016 | 1873 | 92.91% |
| Jammu & Kashmir | 101 | 32 | 31.68% |
| Jharkhand | 283145 | 247884 | 87.55% |
| Karnataka | 1267139 | 1209187 | 95.43% |
| Kerala | 833959 | 799627 | 95.88% |
| Madhya Pradesh | 1078005 | 978197 | 90.74% |
| Maharashtra | 1251969 | 1140109 | 91.07% |
| Manipur | 8047 | 6644 | 82.56% |
| Meghalaya | 11101 | 5289 | 47.64% |
| Mizoram | 2684 | 1071 | 39.90% |
| Nagaland | 7798 | 4762 | 61.07% |
| Orissa | 1643403 | 1527215 | 92.93% |
| Pondicherry | 50918 | 50215 | 98.62% |
| Punjab | 302892 | 288078 | 95.11% |
| Rajasthan | 760376 | 689056 | 90.62% |
| Sikkim | 14291 | 8352 | 58.44% |
| Tamil Nadu | 3657699 | 3569989 | 97.60% |
| Telangana | 22957 | 20508 | 89.33% |
| Tripura | 284874 | 145877 | 51.21% |
| Uttar Pradesh | 1211482 | 1074431 | 88.69% |
| Uttarakhand | 90315 | 64856 | 71.81% |
| West Bengal | 3486101 | 2099627 | 60.23% |
| India | 20660713 | 17350951 | 83.98% |