

**WORKING PAPER NO: 519**

# **Distortions in Land Markets and Their Implications for Credit Generation in India**

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Year of Publication – June 2016

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### **Abstract**

Ideally land and buildings ought to be preferred collateral for lenders in India, as in many other countries, due to the ease of valuation and disposal of land in the event of default. Data shows that land is a collateral in a large proportion of loans in India, yet the several structural, regulatory and information-driven distortions that afflict Indian land markets force lenders to adopt conservative policies ex-ante, impacting both the availability of credit and the collateralization of land. We examine some of these distortions and highlight their significance to the current debate on reforming bankruptcy framework in India. The first part of the paper discusses structural, regulatory and informational gaps that limit lenders' ability to lend against land as well as recovery after default. In the second part, we propose some opportunistic and structural reforms in the land markets that could effectively monetize land in credit markets.

**Keywords:** land collateralisation; mortgage; credit; bankruptcy reform

## 1 Introduction

Credit markets work imperfectly because lenders do not have all the information that borrowers have on their ability and intent to repay. Lenders address this informational asymmetry through contracting, by using explicit and implicit information to ex-ante screen borrowers with a higher ability to repay (Allen (1981)), through covenants to restrict the nature and use of funds (Demiroglu and James (2010)) and through close monitoring ex-post to maximize the likelihood of repayment (Von Pischke (1991) and Dowd (1992)).

Lenders also protect their investments by explicitly requiring borrowers to post collateral to cover losses in case of a default.<sup>1</sup> Collateral serves *two* key purposes: one, it acts as a check on borrowers' actions and reduces agency and monitoring costs for lenders,<sup>2</sup> and second, it protects lenders from exogenous shocks that could impact borrowers' ability to repay. Collateral requirements create a high hurdle for borrowers with high default probabilities, leading to higher efficiency in credit allocation : only better quality borrowers come forward to seek credit (Tybout (1983 and 1984), Besanko and Thakor (1987)). These mechanisms allow credit markets to function normally without either undue credit rationing or excessive cost of capital that may cripple investment activity and economic growth.

Assets provided as collateral have certain desirable characteristics. Lenders prefer assets whose ownership and value are easily determinable, while borrowers prefer assets where there is minimal disagreement in valuation with lenders. Moreover, lenders require collateral that are liquid and can also be disposed of quickly in case of default. Binswanger et al. (1986) call this feature of collateral as "appropriability" – the ability to liquidate collateral with minimal loss to lenders. Only an appropriable collateral can serve as a meaningful deterrent on borrowers. Aside from desirable features, the cost of collateralization – the cost incurred by borrowers and lenders in the provision and acceptance of a collateral and in its subsequent disposal on default– also matter. High marginal cost of collateralization increases expected cost of capital and lowers loan-to-value ratio (Barro (1976), Chan and Kanatas (1985) and Benjamin (1978)).

In most countries, lenders prefer land as a collateral as it is easy to locate and identify, easy to value and has reasonable liquidity. It also does not experience depreciation which impairs most assets that are collateralized. The maturity of the land market, the quality of property rights as well as the various environments - legal, information, economic and social - determine the marginal costs of collateralization for the lender.

The Indian land market, though old, is in an early stage of evolution as a modern market. Land assumes a unique position among Indians and is widely sought after as cultural norms favour land ownership across all sections of the society. More than 65% of rural and urban Indians own land and property, and a large proportion of loans to individual and corporate entities utilize land as collateral. However, several aspects of the market are structurally weak and inefficient and inhibit credit development. Issues related to title, multiple strata of markets, record keeping and lack of coordination amongst agencies dealing with land markets form the crux of this issue. As a result of this, lenders are unable to 'appropriate' the asset after default, or monetise it quickly on recovery. According to a 2001 study by McKinsey, land market distortions cost India around 1.3 percent in annual GDP growth.<sup>3</sup>

Indian lenders (mainly banks) have rationally responded to these structural issues by adopting conservative credit policies to protect profitability at the cost of credit availability. Interestingly, despite this conservative approach, defaults have risen in recent times and are threatening the capital adequacy and survival of several large formal lenders in the country. Clearly, land should not have been one of those collaterals facing these issues given its attractiveness in India.

The paper is structured as follows: We examine the state of the Indian land markets in Section 2 and highlight aspects that limit credit provision and recovery after default. Section 3 describes the issues related to inappropriability of foreclosed land with special emphasis on process issues that make selling land difficult even when it is otherwise liquid. We propose simple opportunistic reforms and deeper structural reforms in Section 4 followed by our conclusion in the last section.

## **2 Land as a Collateral in India**

### **2.1 Heterogeneous land markets**

It is important to emphasize that there is nothing called an 'Indian land market.' Land, under the Constitution of India (Seventh Schedule), is predominantly a State subject.<sup>4</sup> Indian land markets, therefore, are not a homogenous whole, but a series of State land markets with different levels of rights over land ownership, usage and revenue.

The heterogeneous nature of various states' land markets has important implications on the ability to transact in land freely. Since each state is able to frame policies to manage its own land markets, the rules and regulations that govern agricultural and urban land are different across different Indian states. The lack of a standardized market introduces difficulties in the provision of land-based credit, especially across state boundaries, as will be discussed later in the paper.

### **2.2 Credit against land in India**

Land ownership plays an important economic and cultural role in India across both rural and urban households. The NSSO (2013) suggests that land constitutes 73 percent of the total asset base of rural households (with buildings adding another 21 percent). Urban households, comparably, own almost 92 percent of their assets in land and buildings.

With such a high ownership of land, it is not surprising that land forms the largest collateral for Indian households. Aside of land owners, tenants - mostly informal - also seek credit for land usage (e.g., crop loans for cultivation) though the underlying land is not used as collateral. We abstract from this type of credit and focus mostly on credit made against land for this study.

Land forms the primary means of credit access for rural cultivator households and for small businesses.<sup>5</sup> Among urban households, the difference in land ownership amongst self-employed and others is stark: self-employed households hold about 77 percent of their assets in land while other urban households hold only 39 percent in land (NSSO, 2013). The higher land ownership among self-employed in the urban areas, and among

cultivator households in the rural areas brings clearly the importance of land in accessing credit for business and agricultural operations.

Institutional lenders in India accept land as collateral while non-institutional lenders usually provide more unsecured, short-term loans for immediate and personal credit (Rajeev et al. (2011)). Landowners, especially the small and marginal farmers, seek informal source of financing because they do not have proper title deeds to pledge their land. But their land continues to remain as an implicit collateral as they often get pressurized to sell it by aggressive moneylenders upon default.<sup>6</sup>

Formal institutional lenders, such as banks, provide a variety of loans against land and buildings. Farm and non-farm loans are provided against agricultural holdings of rural land.<sup>7</sup> Homestead and operational land holdings may also be collateralised for meeting household expenditure and other non-farm expenditure. Urban households typically borrow against their land for expenditures on housing, health and education. Personal loans against property - for education, health and marriage- by both rural and urban households form the bulk of retail loans against land and buildings.

Credit is also provided to households for financing the purchase of their homes (mortgage financing), secured against the property so purchased. Loans for direct purchase of land are usually not provided since these are considered speculative in nature. However, loans for purchase of land and subsequent construction of a house on the same land are considered as housing loans and are provided accordingly. The combined gross bank credit to housing sector including priority housing was around Rs. 5,400 billion in the year 2014-2015.<sup>8</sup> However, mortgage financing in India is still at a very low level as a percentage of its GDP<sup>9</sup>; and mortgage penetration is still at an abysmal 13 percent across India (National Housing Bank (2014)).

In corporate India, firms routinely collateralise their land holdings to finance projects. Short term loans such as working capital loans are rarely financed against land but long term capital purchase and term loan financing often use land or plant and machinery as a collateral. Real estate and associated firms collateralise their operational holdings in land and buildings. Construction loans are provided against land on which the construction takes place. Loans to the real estate development sector are classified as

'sensitive sector lending' and are capped at levels set by the RBI; non-banking finance companies (NBFC) actively fund firms that may not have access to the formal banking sector.

Lending against land and building by banks and non-banking financial institutions is regulated by the Central Bank. The Reserve bank of India's guidelines on loans against property define the maximum loan-to-value and debt-to-income ratios.<sup>10</sup> These guidelines also specify, at times, the maximum exposure of scheduled commercial banks to large value home loans, to commercial real estate loans, and to priority sector home loans.

Our estimates based on the RBI's Basic Statistical Returns (2014) indicate that nearly 50-60 percent of all retail loans are indexed to real estate as collateral in one form or the other.<sup>11</sup> About 80 percent of all corporate debt is secured, of which about 50 percent of all term loans are collateralised against land and buildings (Bhole and Mahakud (2004), Guha-Kasnobis and Bhaduri (2002)). Among agricultural loans, more than 80 percent of all loans have land as collateral. The extent of loans against land availed with the informal and unorganised lending sectors is small and is around 10 percent though land is often the first asset to be used to repay outstanding debt (Rajeev, et.al. (2011)). In short, land is a heavily used collateral to obtain credit in Indian markets.

### **2.3 Collateralisation of land**

Lenders evaluate several factors before accepting land as collateral. These include:

- Does the land belong to the borrower? (Clean land titling)
- Is the land properly identifiable in the land & property records maintained by the State?? (Clear land mapping/record keeping)
- Has the land been already pledged with other lenders or are there legal dues attached to the land? (Full disclosure of liens and encumbrances)
- Do the constructions/settlements that are on the land adhere to local laws? (Legal constructions)
- Is the value of land sufficient to cover the loan in case of distress? (Easy and transparent valuation)

- If there is default, can the land be sold to recover dues owed easily? (Quick and inexpensive land sale after default)

We discuss each one of them below:

### **2.3.1 Land Title**

The land titling system in India is based on “presumptive” titles as opposed to “conclusive” titles that validate ownership.<sup>12</sup> Title is presumptive in the sense that the person in possession and paying the tax for the land/property to the revenue authorities is the presumed owner. This is also the legal position as per the Indian Evidence Act, 1872. While this satisfies the requirements of the governments in raising revenue against land ownership in case of land transactions, the onus is on the property owner to establish her indefeasible title if there is a question regarding ownership.

Impairment of title could occur in multiple ways. As per the prevalent laws in many states, tenants who are able to demonstrate long periods of occupancy can claim reversionary rights on the land.<sup>13</sup> In certain cases of HUF lands, all dependents to the head of the family need to sign off in case of a sale to a third party before title can be transferred in full. The onus, therefore, is entirely on the buyer to not only check for clean title but also for unfettered occupancy rights.

Because there is no state guarantee on titles or a private title insurance system, the ability to claim legal recourse from the seller becomes important.<sup>14</sup> Sale contracts typically have a clause where the seller agrees to indemnify the buyer against title defects. Once there is a title dispute, the case filed in the various courts can drag on for years, if not decades. A study by McKinsey suggests that as much as 90 percent of land parcels in India are subject to legal disputes over ownership.<sup>15</sup>

The lack of guaranteed title leads to inefficient credit markets. When borrowers collateralise property with impaired title, lenders face the risk of not being able to recover their credit exposure in case of default. Costs of due diligence are prohibitive and private markets for title guarantee or insurance do not exist. Indian lenders have, therefore, rationally responded to this uncertainty by protecting themselves ex-ante with credit rationing and through off-contract solutions like personal guarantees.



### 2.3.2 Quality of land records

Multiple governmental agencies are responsible for maintaining records related to land. For example, the Survey and Settlements Department, Revenue Department and the Registration Department all keep records related to various aspects of land – location, physical characteristics, responsible party for discharging tax liability related to the land, encumbrances etc. Lenders spend time and effort in obtaining an integrated view of all aspects of the property due to the silo-based nature of work of these agencies and the lack of standardized, interlinked information collected by each department.

The quality of land records also varies from State to State. While some states still have manual registration, others maintain computerized records of registrations, and still others have a property ID system for unique enumeration of properties, leading to more efficient title searches. The nature of records may also differ for land that represent personal holdings, for common land (government or village lands) and for lands that have been distributed as part of various land-distribution schemes.

Lenders face other issues due to the inter-state differences in documentation standards and lexicography. The set of documents required for registration of properties varies from state to state, and each state has its own lexicography, sometimes even in terms of measurements and units. Information asymmetry is compounded by access issues: State land registries can only be accessed from specified nodes within the state. Information on land related disputes and pending litigations is also accessible only locally. As long as the lender and the borrower operate within a single administrative jurisdiction of a State, the effect of these issues may be marginal. However, the lack of standardized land related data across jurisdictions can increase the marginal costs of collateralization substantially for lending across state borders.

Apart from macro level variations in land records across states, the quality of micro level information on individual land parcels may also vary within each state. Parcel identification is the process of uniquely identifying the coordinates of land parcel - it maps the physical contours of the parcel to the one described in the records. There are several challenges faced by a lender in determining the exact contours of the land that is being collateralized:

- a. Infrequent updates of cadastral survey maps: Cadastral maps are updated infrequently for most regions in the country because of fiscal reasons or for political exigencies. For instance, the last town planning survey and settlement map for the city of Bengaluru was created in the early 1970s. Subsequent revisions have only been on a piecemeal basis despite the tremendous growth of the city. This does not give an integrated view of the land and built environment to capture planned as well as unplanned, organic development.
- b. Lack of coordination of multiple agencies involved in cadastral surveys: Where partitions of land are created subsequent to the cadastral surveys, these need to be updated in the geo-referenced cadastral maps. However, the sheer volume of transactions and the inability to update these manually without technology means that revenue and cadastral records are at variance. GIS based technology for geo-location and geo-tagging parcel information is only now being taken up in urban areas, and that too, mostly in major cities.
- c. Lack of integrated information related to the land: Apart from cadastral and revenue records, lenders also require information on flooding risk, seismic zone and ecologically sensitive areas, which is unavailable at present.

### **2.3.3 Prior liens and encumbrances**

Due to the complex nature of laws governing land transactions, there are multiple legal entities and laws under which land can be alienated or encumbered, but there is no single nodal agency to track these encumbrances. Mortgages that create a charge on the land are registered. The Central Registry of Securitisation Asset Reconstruction and Security Interest of India (CERSAI) was recently set up to record all mortgages against property. However, CERSAI does not include reconstruction loans outside the provision of the SARFAESI Act, loans given out by entities other than banks,<sup>16</sup> and loans prior to 2011, when it was set up.

Furthermore, not all land related contract-based transactions are required to be compulsorily registered; sale agreements on land, which indicate the intent to alienate to a counterparty, need not be registered. Under Section 18 of the Registration Act, 1908, registration of documents such as court decrees, land orders, partitions, leases, mortgages, power of attorney transactions on land is not mandatory, but is left to the

discretion of the State. Informal credit market transactions are also, ipso facto, not documented anywhere.

Some examples of transactions that could impair the ability to collateralize land include:

- a) Agricultural land that is bought by non-agriculturists is untenable as collateral since the original transaction is invalid: in most cases, agricultural land can only be alienated to agriculturalists.
- b) Similar is the case with SC/ST lands that cannot be alienated to non-SC/ST owners, but which may have been sold to third parties with or without their cognizance. In this case, all subsequent transactions are declared null and void.
- c) The nature of hereditary/Hindu undivided family land lends itself to a different set of complexities. All co-parceners (in case of HUF) and joint-owners/heirs- including, for example, married daughters living elsewhere- who have legal claim on the land have to be identified and need to sign off during a sale to a third party. There are numerous anecdotal cases where heirs who were not part of the sale transaction later claim partial ownership and apply for legal recourse.

All this precludes an ability to have a single comprehensive view of all liens over the land due to the large number of formal/informal credit markets, instruments and contracts that can alienate land rights in favour of various participants. While ownership may be traced through the record keeping system of registrations to a certain extent, the presence on non-registered liens makes it impossible to keep track of the multiple parties who may have liens to the land.

#### **2.3.4 Legality of the developments on land**

Even if the title, encumbrances, liens, leases and other ownership aspects have been verified and found to be in order, the property itself may suffer from impairment as collateral because of the violations of the law regulating the developments and construction on the land.

Most urban areas have Master plans that determine the zoning regulations, impacting the type, nature and height of structures that can be built in a certain location.

However, these Master Plans are rarely followed due to the large informal land economy, creating zoning violations (where the nature of the zoning regulation may not have been complied with) and development control regulation violations (where the norms for built environment have been violated). It is estimated that at least 80 percent of structures across Delhi suffer from either zoning violations or DCR violations (DDA 2008). Similar numbers are not available across different cities in India but are believed to be similar in order of magnitude.

The violation in development process impacts the collateral value of the property since banks and formal lenders can only provide loans against the 'regular' part of the structure and not against areas under violation. This causes two issues: firstly, there is a difference in perception of valuation between the borrower and the lender, leading to higher transaction costs in resolving the valuation; in some cases, the 'irregular' part of the construction may lead to substantial reduction in value for the 'regular' part of the structure as well, leading to substantial reduction in the collateral value.

It is difficult to obtain formal sources of funding for irregular structures, fostering a dependence on informal sources of financing. This impacts LTV exposure of informal financiers, and creates a vicious cycle where higher informal sector lending incentivizes irregular built up areas. Of course, periodic but selective regulatory amnesties (like Akrama-Sakrama in Karnataka) also increase moral hazard risk and may pose risk to lenders who have lent prior to the violation.<sup>17</sup>

### **2.3.5 Land valuation**

Valuation is the process of ascertaining the value of the (collateralized) asset. The value of the collateral decides the quantum of credit that is disbursed and loss given default.

The valuation report is an exhaustive exercise that considers geographic information, including geo-tagging of property, actual physical verification of the property contours and verification of legal documents. The end goal of the valuation exercise is to ascertain whether the risk-adjusted value of the land is sufficient to cover the value of the loan in case of default. To achieve this, the valuer obtains market values of similar parcels and extracts heuristic information for each component of the valuation.

Appraisal, unfortunately, is only a best estimate of value in an opaque market. Buyers, sellers, governments, lenders and appraisers all have different sources of information, with different estimates of value. It is generally believed that the high incidence of black money leads to transactions being registered at values way lower than market prices. Government estimates of market values are substantially lower than the actual market value of transactions as well. The opacity of land prices, combined with the thinness of the market, make it difficult to extract any kind of meaningful signals on price information.

Valuation is a one-time activity, and appraisals are based on prices at the time of loan origination. There are no forward looking estimates of valuation based on growth assumptions, and though the RBI guidelines provide for risk-adjustment at the gross level for the lender, this is rarely translated to valuation of the individual properties which stack up in the risk bucket. Mid-term loan valuations are not mandatory, so credit risk exposure is never properly assessed until it may be too late.

The Appraisal exercise requires a high level of judgment of a skilled appraiser and by the lender. Differences in opinion between two appraisers lead to significant differences in valuation, and the lender takes the valuation risk. Lenders rationally respond to this price opacity and judgement calls by decreasing LTV ratios, leading to inefficient credit markets.

### **2.3.6 Land appropriability after default**

Collateral protects the lenders exposure only when there is quick and costless appropriability (disposal) of the asset in case of default. Upon default (and after exhausting other methods for recovery), the lender must be able to seize the collateral quickly and sell it without significant loss in value. Inability to do either impacts the attractiveness of the collateral in the first place.

The formal process used to recover loan dues depends on the specific mechanism adopted after default. In India, recovery process can be set in motion by either the borrower or lender using (in addition to using civil courts under the Code for Civil Procedure)<sup>18</sup>:

- Lok Adalats, or
- Debt Recovery Tribunals (DRT), or
- the SARFAESI Act (meant to provide relief to lenders without using courts or Tribunals)

Most number of resolutions go through Lok Adalats (as they are meant to ensure speedy settlement) though they represent only a small percentage of value under dispute. The opposite is true for cases under the SARFAESI Act. Recoveries are also the highest under the SARFAESI Act as it favours lenders over borrowers. Section 35 of the SARFAESI Act provides overriding powers for the Act over all other mechanisms to recover loans, making it more preferable among formal lenders, especially in recent times. Unfortunately the Act applies only to banks and financial institutions and not to other creditors such as those holding secured corporate bonds. Similarly it does not resolve problems of already encumbered collateral or collateral with no clear marketable title.

Despite these alternatives and a clear intent to speed up the recovery of dues, the actual process to seize and sell collateral remains tedious, costly and difficult to enforce for lenders.

1. Since either of the contracting parties can initiate default proceedings, borrowers use forum shopping to select mechanism that favours them at the expense of the lender. Regulatory loopholes such as filing writs under the High Court or under the Appellate Tribunal to stall and buy time are commonly exploited to the detriment of the lender. . Most DRT cases take several years to closure and the backlog requires extensive staff hiring to clear them.
2. Recent Supreme Court rulings also limit powers of a lender on collateral usage. For example, a bank or a financial institution cannot evict tenants of collateralised property under the SARFAESI Act.<sup>19</sup>
3. Borrowers take advantage of poor record keeping (including lack of geo-tagging) to claim agricultural land status ex-post to void proceedings under the SARFAESI Act as the Act does not apply to such lands.
4. Lenders need help from a variety of institutions, including government agencies such as the Police and the District Magistrate office, to seize collateral without

impinging on borrowers' rights or causing grievances. Though lenders seek to complete recovery quickly with minimal time and cost impact, they need to consider borrowers' desire to accurately value the collateral as any residual balances after settling lender's dues accrues to the borrower.

Independent valuers are used to set the reservation price for the seized collateral, which is usually at a discount to market values as the collateral is sold on an 'as-is' basis. Lack of scientific valuation methods for distressed properties means that discounts are more heuristic than scientific, and most properties get sold eventually at the reservation price despite having competitive bid auctions.<sup>20</sup> There is also increasing divergence in borrowers' and lenders' valuations as the asset goes into recovery mode that could slow down the recovery process (Benjamin (1978)). In addition, the presence of black money in land transactions, especially in high value land parcels, limits lenders' ability to monetize collateral when their exposure is the greatest.

The inability of collateral to fully compensate lenders on default, or 'impaired collateral appropriability,' has hidden costs:

- a. Since collateral provides the lender a means to reduce information asymmetry, there is a reliance on other mechanisms if collateral is impaired. These mechanisms may include referral based lending, dependence on heuristics and lending based on cultural networks that may lead to fuzziness in credit-decision making.
- b. Lenders demand higher margins on impaired collateral, leading to lower loan-to-value ratios and under-provision of credit. Marginal costs of collateralization increase. The lender invest in external expertise such as legal and valuation professionals, increasing processing time at the time of provision and recovery. Such costs add to the cost of credit for borrowers.
- c. The above issues summarize some of the challenges faced by lenders as they assess the ability of land to be used as collateral. Now we turn to potential solutions that would mitigate some of these challenges.

### **3 Solutions to Current Issues**

Improvements in and reform of institutional structures that deal with title, lien and encumbrance information, accurate valuations, and timely and low-impact cost recovery etc. will lead towards making land a better collateral. Given the high investment in land and property, reforms that target collateralisation of land and property will definitely lead to higher productive efficiency in Indian markets. We discuss both structural reforms which are longer term in nature as well as some short-term opportunistic reforms below.

#### **3.1 Structural reforms**

Clearly, there are many reforms that have already been identified, and are in the process of implementation. Some of these lacunae in title and encumbrances have been a recurring theme amongst state actors and lenders alike, and steps are underway to reform the way title is provided by the state. Land related disputes account for about 60 to 70 percent of all civil litigations while a McKinsey study suggests that as much as 90 percent of land parcels in India are subject to legal disputes over ownership.<sup>21</sup>

The recommendations from the Central Government's Title certification Task Force recognizes the need to modify a variety of existing laws before a land titling system can be put in place. The Draft Land Titling Bill (2011), seeks to provide for the establishment, administration and management of a system of conclusive property titles by the government through registration of immovable properties, and is based on the Torrens system used globally.

The Torrens system embodies three principles: (1) The mirror principle, indicating that the Register of Titles mirrors reality exactly, (2) The curtain principle, suggesting that there is a curtain over the past and that a register entry in the Register of Titles is conclusive evidence of the title at present and the past need not be investigated and (3) The assurance principle, which guarantees indemnification by the State agencies on errors in the Register of Title. The Land Title Certificate issued to the land/property owner under this system will serve as a certificate of full, indefeasible, and valid ownership in the court of law.



Though this approach seems ideal it is far from being practical as it is legislation intensive and expensive. The GOI estimates pegged this number to be around Rupees 5,700 crores in 2008.<sup>22</sup> By contrast, digitization of textual and cadastral land records (see below), full computerization of registration and integration of these processes besides providing easy access would cost far less and allow for robust private insurance system to step in to mitigate title risks. Interestingly, even in countries that follow Torrens system of state guaranteed titles, there is an increasing trend for lenders to seek private title insurance (Zasloff (2011)).

Other proposed reforms include amending the Registration Act, 1908, to make it imperative to register *all* transactions that can alienate, or create use, access or ownership rights to land. This will go a long way in providing a single view of all encumbrances with reference to ownership.

Some other structural reforms that have been proposed include:

- **Digitisation of land records** in a single, standardised format across the various departments that handle data related to land and GIS mapping of all land related data - physical parcel data, revenue data, property tax data, planning permissions and updates to land ownership, etc. Digitisation could lead to dematerialization of land ownership records and lower transaction costs, similar to what happened in India's securities markets in the 90s.
- **Overhauling the litigation in land** with reduced timelines and fast-tracked courts and judicial process reforms to handle litigations in property, and investing in alternate dispute resolution mechanisms.
- **Rationalizing stamp duty** owed when there is a transfer of interest in immovable property. Reducing the burden of stamp duty would encourage transactors to register all legitimate rights in transfer of immovable property.
- **Streamlining the property registration system and reducing costs** (the property registration process in India takes 62 days, and costs - including stamp duties - on average 7.7 per cent of the property value, the highest amongst all BRICS countries<sup>23</sup>) would reduce burden on land market participants and may, in fact, increase revenues and reduce the use of black money. This would need to

go hand in hand with reforms that make all land related transactions mandatory to be registered.

- **Recording of ownership of apartments and commercial premises in multi-storeyed buildings** to be taken up urgently. When the Transfer of Property Act, 1882 was enacted there was no concept of ownership of an apartment (flat), commercial or an industrial unit in a multi-storeyed structure constructed on land. Most of the urban and metropolitan areas have now such structures but there is no uniform law governing ownership rights in such portion of a building. Since land is a state subject, each state is currently adopting different procedures to recognise such rights.<sup>24</sup> Further there is no registration system to record ownership rights of a person in any flat or apartment with particulars of such specific property. There is a need to introduce such system by making uniform law recognising property rights in such built environment.
- **Allowing access to credit security information** to the public, similar to encumbrance searches at the revenue department level.
- **Streamlining the process to seize collateral under SARFAESI Act.** Despite empowering lenders, the SARFAESI Act requires intervention by several governmental agencies that could slow down the seizure of collateral upon default. Shortening the process by explicitly setting turnaround times and eliminating loopholes such as acknowledgement of the delivery of notices by borrowers may require amendments to the Act.

The suggested land-related reforms of the Committee on Financial Sector Reforms<sup>25</sup> of the Planning Commission, Government of India, include:

- Full computerization and integration of land records
- Full cadastral mapping of land
- Settlement of land disputes.
- Compulsory registration of all transactions.
- Elimination of restrictions on land markets
- Remote and easy access to registration procedures and to land records.
- Standardization of forms and computerization of land offices.
- Reduction of stamp duty.

Apart from these structural reforms that would require time, political capital and financial cost outlay, there are a clutch of smaller, opportunistic reforms that lenders

can pursue to decrease information asymmetry in land, mainly with reference to valuations. These are discussed below.

### **3.2 Opportunistic Reforms**

Much of the opportunistic reforms that lenders can pursue comes from the internal processes and from publicly available information that can be collected and analysed in a smarter way. In essence, these opportunistic reforms are low cost, high value reforms that lenders can pursue independently while they wait for structural reforms.

#### **a. Creating a central repository of bank valuation data**

Valuers are the eyes and ears of the lenders on the ground, and they provide high-quality micro-and macro-level data on each land parcel and property. In the absence of publicly available land and property price data, valuations of land for mortgage provides a rich source of credible data.

One way to use valuers' data efficiently is through the creation of a shared technology portal that captures all valuation data – both current and historical - on transactions solicited by formal lenders. The portal would collect all available documentary and valuation evidence related to a single property across various points in time, across banks and branches.

This allows the banks to capture potential price changes including the degree of speculation in land prices, in a geo-referenced framework, and perform analytics on credit exposures by administrative jurisdiction or location.

Such a valuation repository serves two main purposes: (1) It provides regular credible price information that lenders can use to implicitly mark to market their collateral values and (2) it allows to create a list of properties that have had prior transactions and documentary evidence, thereby grading risk on properties 3)It allows lenders to have benchmark values, especially of land located in areas where the lenders have no prior exposure to.

In addition, it forces standardization (discussed separately below) of valuation practices across lenders and ensures that dubious valuations can be identified quickly before loans are committed. Along with CERSAI data, this valuation data will reduce marginal costs of collateralization and hence increase credit availability in the long run.

b. Standardizing data collection through a uniform data dictionary

There are varied state-specific documentary requirements for immovable property, and lenders and valuers spend immense time and effort customizing their loan processes for each state. A uniform data structure that has standard nomenclatures and formats of attributes across different states is necessary. The uniform document dictionary will create a common minimum documentary library used across all lenders, which will assist in providing better valuation reports and better analysis of price information.

An important evolution worth mentioning is the Uniform Mortgage Data Program (UMDP) in the US, which has standardised the inputs into valuation reports through a Uniform Appraisal Dataset (UAD) to provide common requirements for appraisal and loan delivery data. The UAD is a standard format for submission of appraisal reports to the lenders and the government sponsored entities such as 'FannieMae' and 'FreddieMac.'

This data dictionary allows banks to collate property price information and obtain a single view of all manners of risks surrounding land-related loans. This is an excellent innovation worth following in markets like India where real estate prices are opaque and large welfare losses are associated with lack of price transparency.

c. Providing easy access to governmental data including on approvals, surveys and other land-related information

Electronic provision of governmental data is already under way in several states under the various e-governance initiatives. However the cost of digitizing large amounts of historical data in a searchable electronic format is not trivial. While fiscal constraints have prevented the provision of such data in public domain, one quick solution could be to scan existing government documents and display them as images. Lenders can use existing software that could convert images to searchable documents thereby tremendously reducing the information asymmetry that prevails today.<sup>26</sup>

d. Link CERSAI to credit decisions

Another opportunistic reform worth pursuing is the creation of a ranking system for clean lands within the CERSAI such that, over time, there is a quality signaling of land and property that has undergone the rigorous property checks of Banks and financial institutions.

Anecdotal evidence suggests that banks are trusted by customers to uncover any deficiencies in title that they are privately unable to uncover. This is due to the inherent procedures of the bank to and its ability to navigate stakeholders in the title identification process. Over time, mortgaged property and property that has been evaluated by the lenders' credit process are likely to have a higher quality of title. Maintaining a database of such 'clean' properties with internal ratings, allows the process to become easier for these properties the next time they enter the credit process for any other transaction.

#### **4 Conclusion**

Land, as well as built property, in India is a highly sought after collateral for lenders, given its tremendous demand and value to Indian households. However, its ability to generate credit to its owners is limited by the structural weaknesses in the land market that operates under a myriad of rules and regulations that vary from state to state. In this paper, we examine some of these weaknesses and propose some structural and opportunistic reforms that would mitigate them.

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## Notes

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<sup>1</sup> Larr (1994) defines collateral as "an asset that upon liquidation is adequate to cover most or all of the lender's risk exposure including principal, accrued interest and collection costs"

<sup>2</sup> See, for example, Bernanke and Gertler (2015) and Rajan and Winton (1995).

<sup>3</sup> McKinsey Global Institute (2001).

<sup>4</sup> Land figures in Entry 18 of List II (list of items to be regulated by the States) which deals with "land, that is to say, rights in and over land, land tenures including the relation of landlord and tenant, and the collection of rents; transfer and alienation of agricultural land; land improvement in agricultural loans; colonization." Entry 45 of the same list discusses aspects of "land revenue, including assessment and collection of revenue, the maintenance of land records, survey for revenue purposes and record of rights, and alienation of revenues," and Entry 49 of the same List further goes on to mention "taxes on lands and buildings." Certain items like the acquisition and requisition of property fall under the Concurrent List that provides powers to both the Union and State governments to make laws.

<sup>5</sup> Rural households use their cultivable land as collateral for agricultural loans, and their homestead land (land not used for cultivation) for household expenditure. We are more interested in the former than in the latter in this study.

<sup>6</sup> See "The NABARD's Task Force on Credit Related Issues of Farmers (2010).

<sup>7</sup> Credit is also provided to tenants who don't own land but are given access to it by owners to cultivate. These loans usually carry the underlying crop as collateral. We do not focus on such land use credit as our main focus is on the use of land as collateral. However, it is important to highlight that the lack of legal tenancy system impacts productivity, and hence the value of the land, as tenants have no access to formal credit markets. Owners encourage informal tenancy through short duration oral leases and frequent rotation so that tenants remain ineligible for permanent occupancy rights under most State laws.

<sup>8</sup> [https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/048T\\_SHE130914L.pdf](https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/048T_SHE130914L.pdf).

<sup>9</sup> Reproduced from Trends and Progress of Housing in India 2013, accessed at [http://www.nhb.org.in/Whats\\_new/Report-on-Trend-and-Progress-of-Housing-in-India-2013.pdf](http://www.nhb.org.in/Whats_new/Report-on-Trend-and-Progress-of-Housing-in-India-2013.pdf).

<sup>10</sup> Based on Housing Finance Master Circular DBOD No. Dir. BC.17/08.12.001/2013 accessed at [https://rbi.org.in/scripts/BS\\_ViewMasCirculardetails.aspx?id=8118](https://rbi.org.in/scripts/BS_ViewMasCirculardetails.aspx?id=8118).

<sup>11</sup> From Basic Statistical Returns of Scheduled Commercial Banks in India - Volume 43, March 2014- reading from the following tables: Table. 1.9 - Outstanding Credit Of Scheduled Commercial Banks According To Occupation; Table No. 1.11 - Percentage Distribution Of Outstanding Credit Of Scheduled Commercial Banks According To Population Group And Occupation.

<sup>12</sup> The poor state of land titling in India stems from inadequate regulatory framework that does not require verification of title even when land is transacted upon. The Indian Registration Act of 1908 is a law relating to "registration of documents" and "not

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registration of land or title". The Transfer of Property Act, 1882, does not require verification of ownership, or of the property. The Indian Evidence Act, 1872, needs to be amended before Revenue records can be taken to be conclusive rather than presumptive.

<sup>13</sup> The Rent Control Acts protect the rights of lessees or renters in urban areas while Tenancy Acts provide security to farmers who are involved in cultivating crops in lands occupied by them for years through an informal arrangement with landlords. The current debate on legalization of land leasing revolves around strengthening the security of land ownership for land owners which in turn would provide security of tenure to the tenants. Legalization/ formalization of land leasing would help improve tenant farmers' access to credit, insurance and input use and consequently productivity of leased in land.

<sup>14</sup> Three states – Rajasthan, Andhra Pradesh and Karnataka – created plans for guaranteeing titles directly or indirectly through title insurance schemes that were never implemented.

<sup>15</sup> McKinsey Global Institute (2001) suggests this number anecdotally without citing the actual source.

<sup>16</sup> Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002.

<sup>17</sup> For example, several lenders in Bengaluru were found to have financed construction and provided housing loans on buildings that were found to be on lake beds later on.

<sup>18</sup> We are not considering cases where debt gets restructured after default.

<sup>19</sup> See Supreme Court ruling in Vishal Kalsaria v. Bank of India and Others (January 2016).

<sup>20</sup> Based on our estimates from examining recovery rates for a large public sector bank.

<sup>21</sup> See S. Ramanathan (2011), Habibullah, W. and M. Ahuja (2005) and McKinsey Global Institute (2001).

<sup>22</sup> The Hindu (August 31, 2008).

<sup>23</sup> As per the World Bank's Ease of Doing Business (2015) report, accessed at <http://www.doingbusiness.org/~media/GIAWB/Doing%20Business/Documents/Annual-Reports/English/DB15-Chapters/DB15-Report-Overview.pdf> on 18 Jan 2016.

<sup>24</sup> In Maharashtra and Gujarat, the right of an individual to own a flat is recognized as membership of a co-operative Housing Society which owns the land and building constructed thereon. In Karnataka and Tamil Nadu, the ownership right is divided in two, the undivided interest in the ownership of land and the ownership of the flat/apartment itself. Accordingly two separate documents are executed.

<sup>25</sup> From A Hundred Small Steps, Report of the Committee on Financial Sector Reforms (2009) set up by the Planning Commission, Government of India.

<sup>26</sup> If existing software is not capable, the huge demand from lenders and other stakeholders may spur innovation among technology firms to come up with a product that is capable.