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generation in India**

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Abstract

Land and buildings are a preferred collateral for lenders in India due to its ease of valuation and disposal in the event of default. Yet several distortions afflict Indian land markets that make this exercise non-trivial. These distortions - some structural, some regulatory and some information driven - are costly and have far reaching implications on credit availability as lenders adopt conservative policies ex-ante to mitigate these costs. We examine some of these distortions in the Indian land markets in this paper 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 liquidate after default. In the second part, we propose some opportunistic and structural reforms in the land markets that could enable borrowers to effectively monetize land in credit markets.

Keywords: Land as collateral, collateral registries, land titles, prior liens and encumbrances, valuation, state vs. central government

JEL Code: G21, G28, G33, K11, Q15, R3

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Distortions in Land Markets and Their Implications to Credit Generation in India*

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Abstract

Land and buildings are a preferred collateral for lenders in India due to its ease of valuation and disposal in the event of default. Yet several distortions afflict Indian land markets that make this exercise non-trivial. These distortions – some structural, some regulatory and some information driven – are costly and have far reaching implications on credit availability as lenders adopt conservative policies ex-ante to mitigate these costs. We examine some of these distortions in the Indian land markets in this paper 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 liquidate after default. In the second part, we propose some opportunistic and structural reforms in the land markets that could enable borrowers to effectively monetize land in credit markets.

JEL classification codes: G21, G28, G33, K11, Q15, R14, R3, R52

Keywords: Land markets, Indian land market distortions, Indian banking, collateral, bankruptcy, land reforms, land regulations.

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 and actions such as screening borrowers ex-ante with an higher ability to repay using explicit and implicit information (Allen (1981)), using covenants to restrict the nature and use of funds (Demiroglu and James (2010)) and 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.¹ Collateral serves *two* key purposes: one, it acts as a check on borrowers' actions and reduces agency and monitoring costs for lenders,² 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 as only better quality borrowers come forward to seek credit (Tybout (1983 and 1984), Bester (1987) and Besanko and Thakor (1987)). These mechanisms allow credit markets to function normally without 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.³ 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 high 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.

In this paper, we try to explore the attractiveness of land as collateral in India and its impact on credit provision. 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. However, several aspects of the market are weak structurally and do not help the market perform efficiently in resolving the basic demand supply imbalance. Some of these effects are manifestations of the land policies followed by governments over time, that have oscillated between provision of inalienable land rights and large scale land acquisition through eminent domain to fuel industrial development. According to a 2001 study by McKinsey, land market distortions cost India around 1.3 percent in annual GDP growth.⁴

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.⁵

While poor due diligence before and after loan provision remains a major reason, the “inappropriability” of the collateral or the inability to monetize it quickly on default, and the inability to preserve collateral values, also have significantly weakened lenders’ positions. Clearly, land should not have been one of those collaterals facing these issues given its attractiveness in India. Yet, we do see distortions in land markets affecting even the liquidity of a foreclosed land.

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.⁶ 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 70th round of the NSSO (2013) suggests that, in rural areas, land constitutes 73 percent share of the total value of assets (with buildings on them adding another 21 percent). The numbers are not that different for urban India as urban households own almost 92 percent of their assets in land and buildings.

With such a high ownership of land, it is not surprising that Indian households use land as their predominant asset to borrow against. 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.

Rural households use their cultivable land as collateral for agricultural loans, and their homestead land (land not used for cultivation) for household expenditure. Urban households typically borrow against their land for expenditures on housing, health and education. Among urban households, the difference in land ownership amongst self-

employed and others is stark: self-employed households own about 77 percent of their assets in land while other urban households own 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.⁷ 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.⁸

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.⁹ Homestead and operational land holdings may also be collateralised for meeting household expenditure and other non-farm expenditure. 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). These loans are secured by the property for which the loan was issued. 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 is around Rs. 5,400 billion in the year 2014-2015.¹⁰ However, mortgage financing in India is still at a very low level as a percentage of its GDP¹¹; 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. Because 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) are also active in this segment, especially to fund firms that may not have access to the formal banking sector.

Lending against land and building by banks, financial institutions and non-banking sectors 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, guidelines on valuation of property etc.¹² 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.¹³ 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, Vani and Bhattacharjee (2011)). In short, land is a heavily used collateral to obtain credit in Indian markets.

2.3 Process of 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 State records of transactions pertaining to land and property? (Clear land mapping/record keeping)
- Has the land been already pledged with other lenders? (Full disclosure of liens and encumbrances)
- Do the constructions/settlements that are on the land adhere to local laws and whether all legal dues have been properly paid (Legal developments)

- Is the value of land sufficient to cover the loan in case of distress? (Transparent land 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.¹⁴ 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. While this satisfies the requirements of the governments in raising revenue against land ownership and on land transactions, the onus is on the property owner to establish her indefeasible title if there is a question regarding ownership.

In cases where ownership documentation is sparse or maintained badly, further complexities could arise for the buyer if the land has been occupied by tenants. Tenants who are able to demonstrate long periods of occupancy can claim reversionary rights on the land that would be upheld in many states.¹⁵ 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. Bipartite contracts between the buyer and seller 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.

It is not surprising that land titles are frequently contested in Indian land markets. A study by McKinsey suggests that as much as 90 percent of land parcels in India are subject to legal disputes over ownership.¹⁶ When titles are hard to establish, lenders face the risk of borrower not being the owner of the collateral as well as the risk that the title may not get easily transferred to the lender in case of borrowers’ default. Under current laws, reversionary interest in disputed land goes to the prior owner, and subsequent owner is only liable for cash compensation. This means that buyers who

buy in good faith get the cash value of the disputed property plus charges if any, but the property itself reverts to the seller. Given the lack of transparency in land prices (discussed later), this could mean that the compensation to the buyer could be considerably less than the true market values. This is in contrast with systems prevailing globally where land reverts to the subsequent owner under specific performance and cash goes to the prior owner.

Moreover, liquidity of lands with contested titles may also prove problematic for lenders. 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 Revenue Department, the Survey and Settlements 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. Unfortunately, most of these agencies work in silos and carry information that may be in conflict with each other, especially when they do not update at similar frequencies. Furthermore, the structure of information collected and managed by these different departments is widely varying and it is difficult to integrate this data to obtain a single view of the property under collateral. Lenders, therefore spend time and effort in obtaining an integrated view of all aspects of the property.

The quality of land records also varies from State to State. Growth of technology has spurred some states to maintain computerised records, which make it easier to extract registrations based on addresses and survey numbers of the property. Some cities have a property identification system (Property ID) which allows for easier identification of liens on property. 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. For instance, the Khata and the Patta denote ownership documentation in Karnataka and Tamil Nadu respectively that contain very different information fields and lexicography. Even the

units in which measurements of lands are provided is different (acres, hectares, square, etc.) across the country. Very often, one cannot even access a State land registry unless it is from identified locations or access points within the State.

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 and easy access can increase the marginal costs of collateralization substantially for lending across state borders.

In addition, the quality and access to legal records across different court systems is also poor. It is costly for lenders to get all information about disputes on land as well as about pending litigations on the borrowers.

2.3.3 Prior liens and encumbrances

The complexity of laws governing land transactions means that there are multiple legal entities and laws under which land can be alienated or encumbered, but there is no single nodal agency on all the processes and transactions that can encumber land. The Central Registry of Securitisation Asset Reconstruction and Security Interest of India, or CERSAI, was recently set up to record all mortgages against property in one place but it does not include reconstruction loans outside the provision of the SARFAESI Act or loans given out by entities other than banks such as the informal lenders.¹⁷ It also does not mandatorily include all loans issued prior to 2011, the year when CERSAI was set up.

Furthermore, not all land related contract-based transactions are required to be compulsorily registered; sale agreements on land, which indicates 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 not documented anywhere.

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

a) Agricultural land that is bought by non-agriculturists without following the proper procedures for land use conversion. Collateralization of such land is untenable as the original transaction is invalid due to the restricted nature of transactions permitted in agricultural land.

b) Certain lands such as SC/ST lands that cannot be alienated to non-SC/ST owners, but these may have been sold to third parties with or without their cognizance. In this case, all subsequent transactions are declared null and void due to the restricted nature of permitted transactions in such land.

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 daughters 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 viewpoint of all liens that are present on the land, due to the large number of formal/informal credit markets, instruments and contracts that can alienate land rights in favour of various market 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 Parcel Identification

Parcel identification is the process of uniquely identifying the coordinates of collateralised land parcels. Where up-to-date survey maps of land as well as planning zone information is available, parcel identification is easy. But this is not the case in most parts of the country. 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 may not be updated back in the geo-referenced cadastral maps. While provisions exist on paper to integrate revenue records and cadastral maps, this is rarely followed in practice due to the sheer volume of transactions and the inability to update these manually. 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. Lack of coordination essentially ensures staleness of at least some parts of the information contained in these surveys.
- c. Lack of integrated information related to the land: Lack of all relevant land related information such as flooding risk, seismic zone and ecologically sensitive areas in one place increases the marginal cost of collateralization for lenders.

2.3.5 Legality of the developments on land

Even if the title, encumbrances, liens, leases and other ownership related information is obtained, the property itself may suffer from impairment as collateral because of the legality of the approval process.

Master plans made by the development authorities determine the zoning regulations, impacting the type, nature and height of structures that can be built in a certain location. The large informal land economy implies that there are lacunae in terms of 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.

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.

Secondly, irregular structures are more often financed by informal sources that are hard to keep track of. While loan-to-value (LTV) ratios for irregular structures are likely to be lower than for regular structures from formal lenders,¹⁸ the informal credit providers may not make this differentiation and may be willing to accept higher LTV's, and therefore, provide higher credit. This leads to higher informal sector lending, and incentivizes irregular built up areas. Of course, periodic 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.¹⁹

2.3.6 Land valuation

Valuation is the process of ascertaining the value of the collateralised asset. The valuation of the asset forms the basis on which the lenders loss given default is calculated. The valuation report is one of the most comprehensive documents on the state of the property since the appraiser 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 information based on his experience and his training, for each component of the valuation.

Certain issues with the appraisal process are highlighted below:

- a. Transactors, governments, lenders and appraisers have different sources of information, and therefore, different estimates of value. 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. Lenders rationally respond by decreasing LTV ratios,

leading to inefficient credit markets, and the higher the price opacity, the lower the loan provided.

- b. Lenders undertake valuation exercise more as a one-time activity. Appraisals are based on prices at a certain point in time at the time of loan origination, and provides a certain most likely value that does not incorporate scenarios of growth. Also, there are no forward looking estimates of value based on growth assumptions, which enable lenders to evaluate the asset over time. Risk adjustment for valuations are not provided. In fact, 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.
- c. Lenders, who make loans across multiple geographies, and appraisers, who work close to the ground collecting detailed transaction information, are in a good position to analyse the value of the parcel. However, the appraisal function used is usually heuristic in nature and requires a high level of judgement of a skilled appraiser. The lack of scientific methodologies in valuing parcels means that there is a large judgement call made by the appraiser and by the lender.

2.3.7 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:

- Lok Adalats, or
- Debt Recovery Tribunals (DRT), or
- the SARFAESI Act

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. Most DRT cases take several years to closure and the backlog requires extensive staff hiring to clear them. 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. 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.²⁰

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. Also 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.

Despite regulatory support, 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. Such dependencies can cause delays or may bring unnecessary interference especially when politically connected borrowers are involved. 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.²¹ 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. The loan-to-value ratio that may be provided against collateral reduces, leading to under-leveraging of assets. When lenders require higher margins due to undefined title of collateral, borrowers need to provide higher levels of collateral, thus impacting their ability to credit-worthiness. This leads to a system of under-provision of credit due to ill-defined rights.
- c. Marginal costs of collateralisation increase. The lender has to invest in a legal team, a team of appraisers and external agents who can evaluate the suitability of the collateral and its valuation. Marginal costs of collateralisation involve not only the financial costs of evaluating collateral, but also the processing time spent on providing credit and on recovery at the time of default. Such costs are eventually borne by the borrowers.

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

Institutional structures on title, on lien and encumbrance information, on accurate valuations, and timely and low-impact cost recovery all 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.²²

The recommendations from the Central Government's Title certification Task Force has dealt with various aspects of land title deficiencies in detail, and has provided certain prescriptive remedies. It 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), framed as a response to these lacunae, addresses some issues though structural changes of this magnitude would take time. The Bill 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. The cost of establishing Torrens style title system requires heavy fiscal outlays. The GOI estimates pegged this number to be around Rupees 5,700 crores in 2008.²³ By contrast, digitization of land

records (see below) and 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:

- **Digitization 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.
- **Overhauling the litigation in land** with reduced timelines and fast-tracked courts 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. While work to rationalize duties across states has had good success, there are still many loopholes that allow parties to avoid payment of these charges. Ensuring that all transactions related to the transfer of immovable property – whether as a result of a decree or order of any Court or scheme of amalgamation of companies or dissolution of partnership – pay stamp duty would facilitate that all legitimate rights in immovable properties to be duly recorded as well.
- **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 countries²⁴) 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.²⁵ 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 Reforms²⁶ 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, the data stream that is created by the valuers, and the mortgage data available with the bank itself, is a rich source of data that can be tapped.

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. Such data could include standardized geo-spatial information along with independent valuation without compromising on confidentiality. This is similar to the central repository of mortgage level information held by CERSAI except that it contains valuation information. Such a valuation repository serves two main purposes: (1) It provides regular information on valuation changes that lenders can use to implicitly mark to market their collateral values and (2) It allows lenders to have benchmark values, especially of land located in areas where the lenders have no prior exposure to.

It will provide, in a digitized form, all the 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.

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

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. Earlier, similar to India, appraisal reports in the US varied widely in the information content, the narrative and in the abbreviations used, causing delays in loan processing. The UAD has now created a standard format for submission of appraisal reports to the lenders and the government sponsored entities such as 'FannieMae' and 'FreddieMac.'

Also, where different states have different documentary requirements, it is difficult to create a standardised set of requirements for each lender. 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.

This data dictionary allows banks to create the basis for the valuation portal that could contain all the valuation data over time and space, with ability to rapidly process properties' valuations, and analyse price information. 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.²⁷

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. Banks and financial institutions are trusted to do their property documentation checks really well - in fact, 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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End Notes

¹ 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"

² See, for example, Bernanke and Gertler (2015) and Rajan and Winton (1995).

³ Barro (1976) suggests that lenders are generally conservative and have lower valuations for collateral than borrowers.

⁴ McKinsey Global Institute (2001).

⁵ Unlike in the West, India has seen limited defaults on mortgages where land is the primary collateral, partly due to ultraconservative lending policies and partly due to land price appreciation making defaults costly for borrowers.

⁶ 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.

⁷ See Rajeev, Vani and Bhattacharjee (2011).

⁸ See "The NABARD's Task Force on Credit Related Issues of Farmers (2010).

⁹ 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.

¹⁰ https://rbidocs.rbi.org.in/rdocs/Publications/PDFs/048T_SHE130914L.pdf.

¹¹ 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.

¹² 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.

¹³ 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.

¹⁴ 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 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.

¹⁵ 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.

¹⁶ McKinsey Global Institute (2001) suggests this number anecdotally without citing the actual source.

¹⁷ Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002.

¹⁸ Formal lending institutions typically do not lend when there are major violations but they do lend for lesser violations.

¹⁹ 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.

²⁰ See Supreme Court ruling in Vishal Kalsaria v. Bank of India and Others (January 2016).

²¹ Based on our estimates from examining recovery rates for a large public sector bank.

²² See S. Ramanathan (2011), Habibullah, W. and M. Ahuja (2005) and McKinsey Global Institute (2001).

²³ The Hindu (August 31, 2008).

²⁴ 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.

²⁵ 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.

²⁶ From A Hundred Small Steps, Report of the Committee on Financial Sector Reforms (2009) set up by the Planning Commission, Government of India.

²⁷ 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.