Master Class: Extending Access to Housing Finance for Low Income Earners

Mini Session: Housing Finance Course for Sub-Saharan Africa – CTU/Wharton, January'21

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Growing Pressure on Affordable Housing Sector in Sub-Saharan Africa

- Strong urban growth
- Increasing land/house prices in urban areas
- Incomes not keeping track with cost of housing
- Limited access to housing finance
- =>Stagnating formal affordable supply

⇒ Broad segment of urban households suffers from inadequate housing

⇒ Not just the very poor

⇒ But low and lower-middle income households

⇒ And both informally and formally employed workforce

We All Agree That Extending Housing Finance Is Critical to Solve the Problem

- Increase household ability to pay for housing
- Improve existing housing/sanitation; health impact
- Leverage household savings + private sector funds
- Expand formal mass housing production; to rent or own
- Increase housing transactions and household mobility

Housing finance for the “underserved” population can no longer be viewed as a small niche market

It is at the core of the solution

Vision: Move towards an Integrated Housing Finance System

- Deepening **Mortgage Markets** for creditworthy households/ small landlords with secure tenure

- Scaling up **Micro-finance for housing**

Integrate these housing finance markets to allow mobility– Improving economic status=== responding to labor market

Micro-finance loans → Mortgage loan

Build credit record

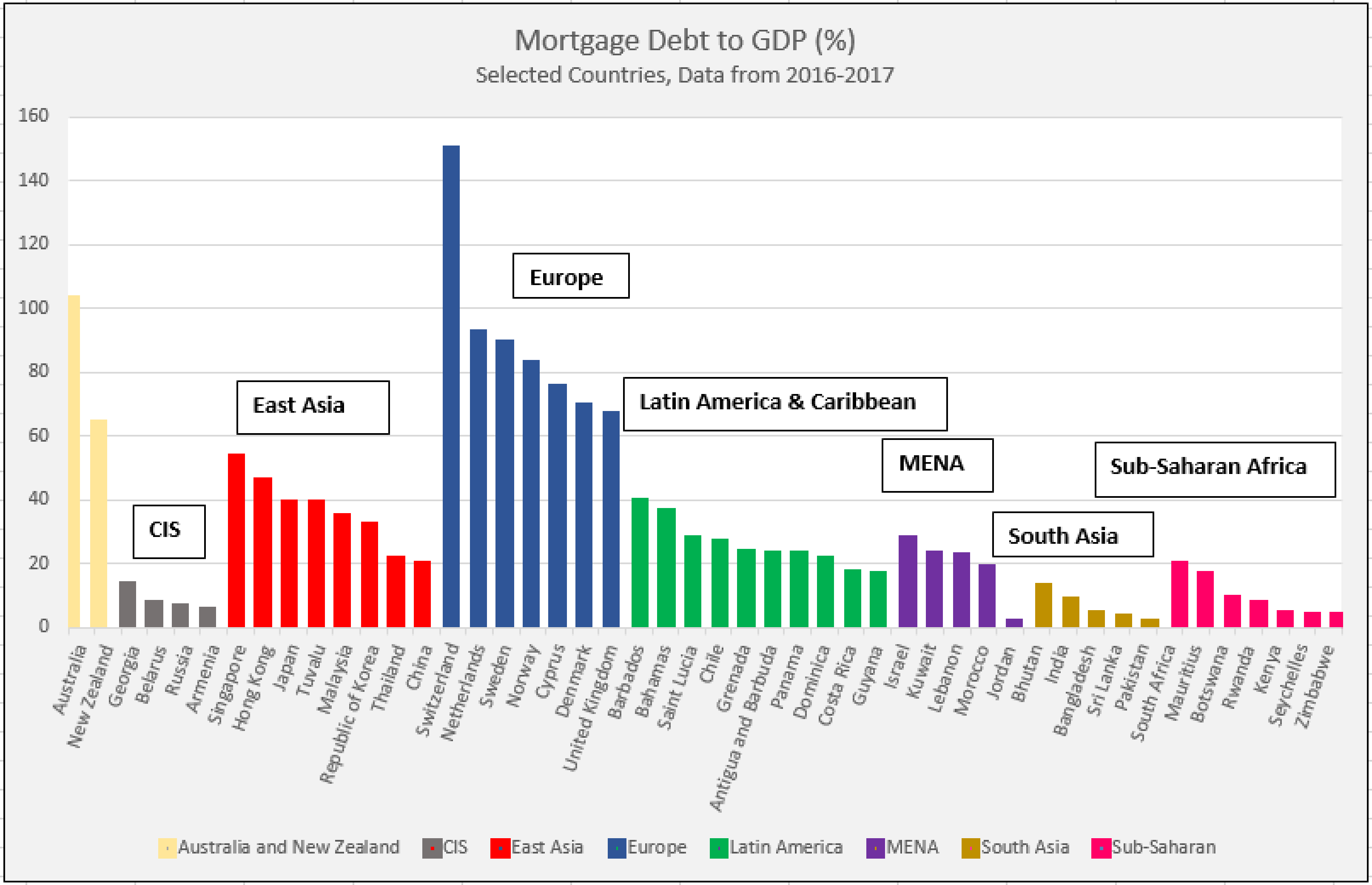
Roadmap for today's lecture

1. How to Push out the Mortgage Finance Frontier without Subsidies
    - Addressing lender risks and costs
    - Dealing with household constraints
2. How to scale up microfinance for housing
    - Addressing funding constraints
    - The technical assistance conundrum
3. The role of subsidies (if time permits)
    - Incentives to lenders
    - Household subsidies

NB: we will not talk about supply side issues/finance

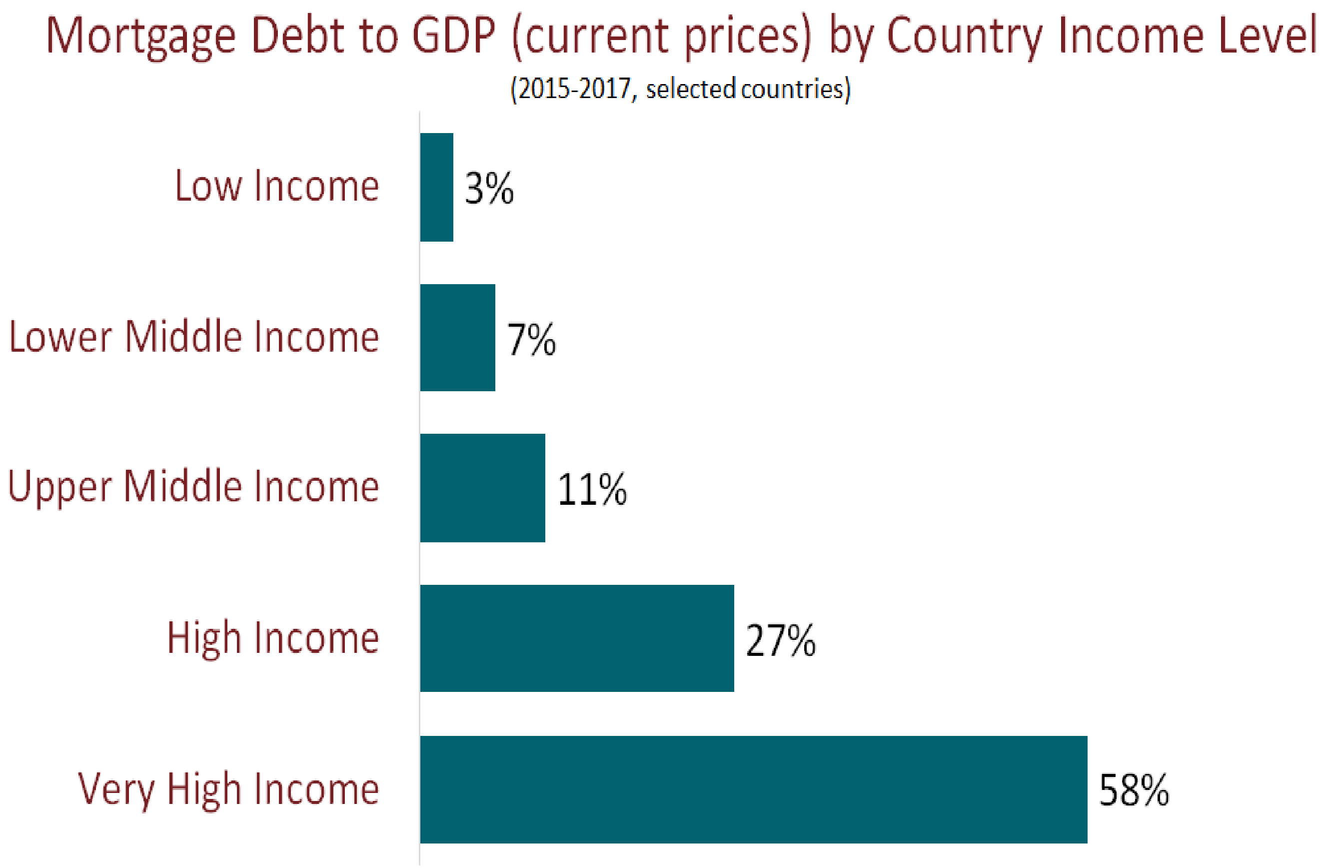
1. Pushing out the Mortgage Frontier

Mortgage Markets in SSA are Small



www.hofinet.org

Mortgage Markets Grow with GDP/cap….



Source: www.hofinet.org; 111 countries included; Mortgage debt to GDP defined by total amount of home mortgage loans outstanding at the end of year as % of GDP (current); Low to High income categories based on 2017 World Bank classifications; Very high income where GNI per capita > $30,000 (Atlas method, 2017);

www.hofinet.org

But Innovations and Good Policies Can Address Constraints and Expedite Growth…

A. Policy and Market Failures

- Macro-economic volatility and its memory – **improving**
- Impaired property right system– digital technology - **progress**
- Government or private housing finance institutions have excessive market power/ hinder expansion- **recognized**

B. Incomplete Credit Markets – Focus of this lecture

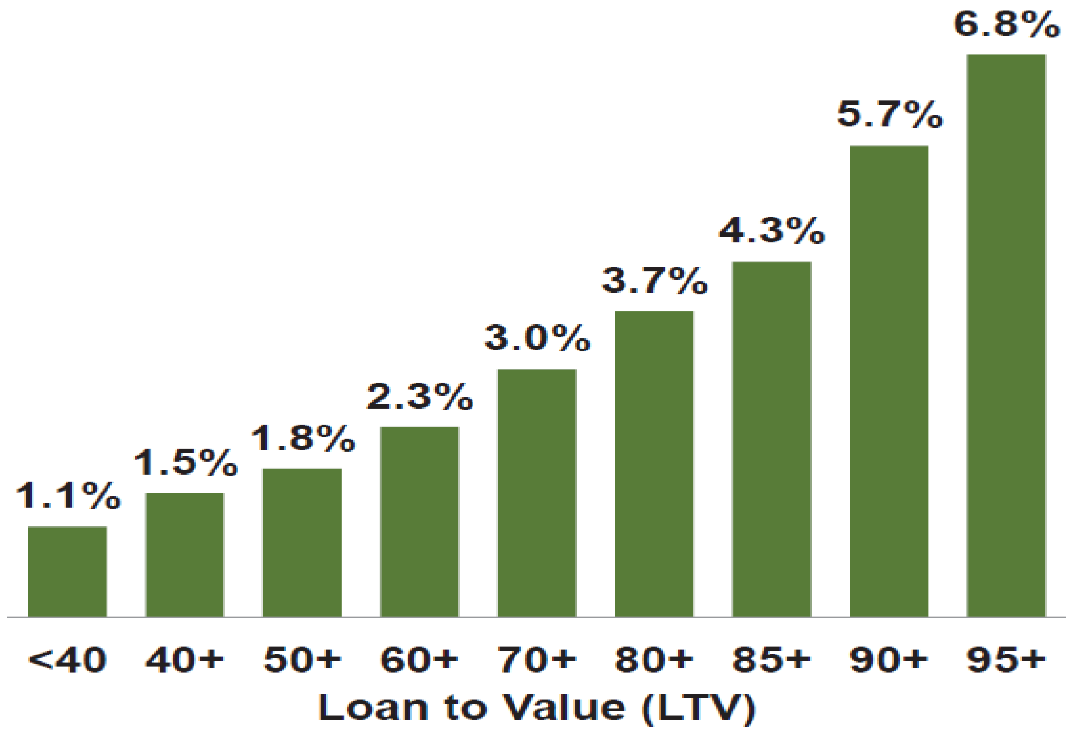
- Risks and costs too high to reach households at the frontier: lower income/ informally employed/ with imperfect collateral
- Lack / asymmetry of information
- Household Incomes/savings too low relative to cost of house/mortgage (may require subsidies)

Credit Risk – Major Concern for Lenders

- Mitigation summary:
  - Lower probability of default:
    - Lower LTV- savings programs
    - Improve data on house values in lower-income neighborhoods
    - Modest DTI- e.g., new BIS Consumer Lending guidelines
    - Prudential regulation on lending standards
    - Credit information/bureaus; support digital payment systems
  - Lower Loss Given Default :
    - Speedy foreclosure procedures
    - Remove legal constraints to repossession of property
    - Mortgage insurance

Lower Probability of Default
A. Loan-to-Value and Default Probability

- Default probabilities grow exponentially as LTV increases
- High LTV loans are more volatile in times of economic stress
- Mortgage insurance is often used to alleviate high LTV risk



Source: Fitch Ratings RMBS Seven-Country Default Average (2010 & 2011)

B. Underwriting With a View to Lower Income/ Self-Employed Customers

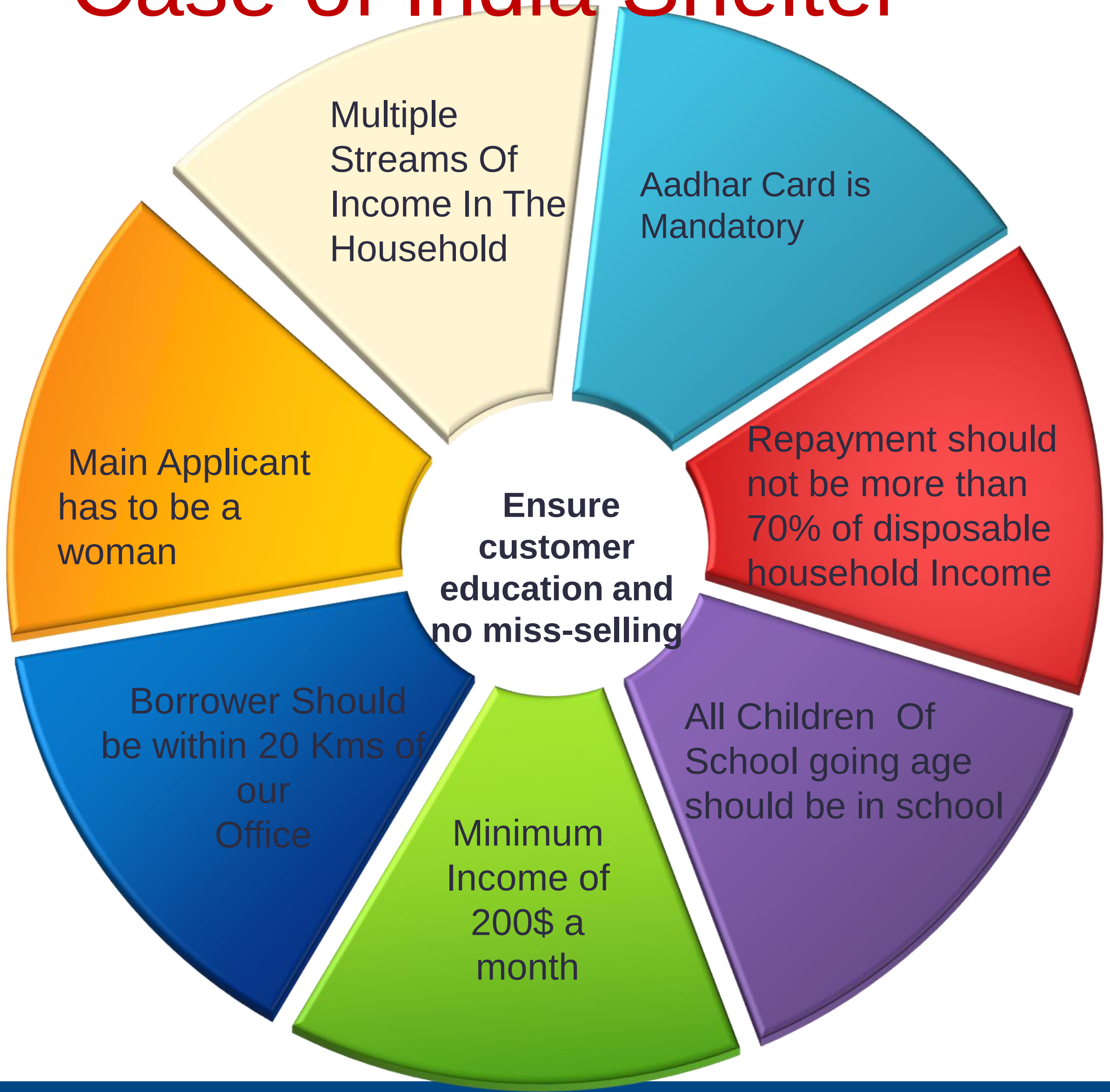
- Digital, fintech innovations + personalized surveys to underwrite income + employment –
  - FICO in US; HFC’s in India
  - LenddoEFL and Cignifi loan scoring for EMDC
- Mortgage education for first-time borrowers – role for government - credit regulator?
- Innovative technology for valuing/appraisal of unconventional housing (Google Earth)
- Have regulators approve non-coordinate survey based land registration systems (drone based “mapping” – Zambia recently did that

Credit Score: Data From a Smartphone

Underwriting informal customers: Case of India Shelter

- Started with interview-based underwriting - details allowed estimation of repayment obligation
- Leveraged income data to develop income/occupation matrix across locations
- Example: taxi-drivers in section of Bangalore
- Move to paperless processing + score development + credit decision-making for majority of cases
- GIS used to supplement collateral appraisal

Underwriting informal customers: Case of India Shelter



C. Use Flexible Mortgages Dealing with Irregular Income

- Amortization schedule which allows for harvests, bonuses, seasonal work, festivals – extra bullet payments, missing payments
- Allow early repayments
- Build in some scheduled overpayments or upfront savings (in escrow) to allow for some missed payments – type of self-insurance
- Accept alternative collateral; incl pension savings

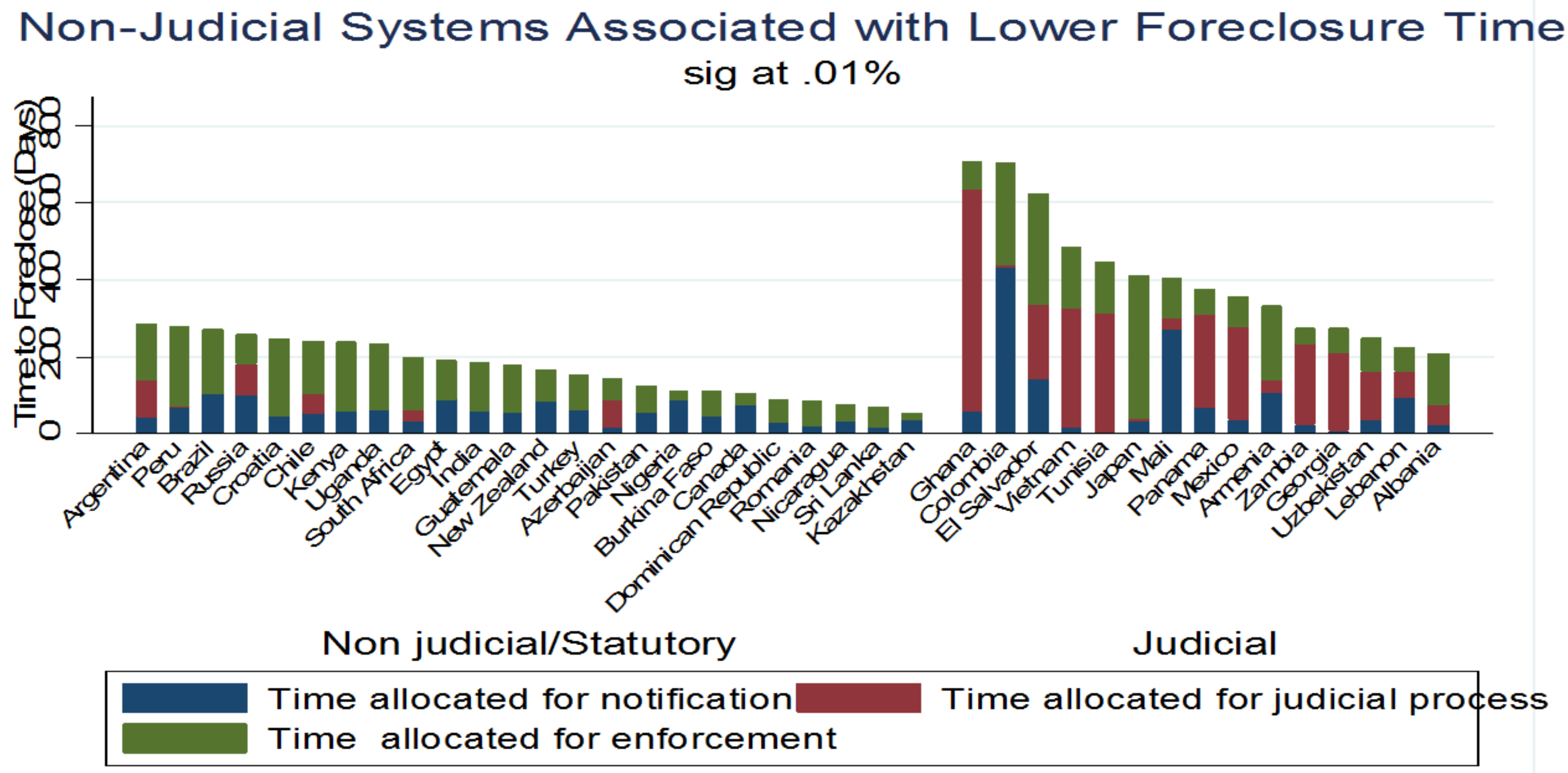
D. Community-Based Mortgages

- Three components to the mortgage payments:
  - Land
  - Services
  - Superstructure– individual if ownership-based

  community based payments
- Includes Public-Private-Community Partnership
- Basis for Community Land Trust (CTL) applications
- Keeps control of land transfers (limit gentrification)
- Successful in slum upgrading in the Philippines, Costa Rica, about to be introduced in Brazil; applied in US
- CTLs lower both Probability of Default and Loss Given Default

Lower Loss Given Default

A. Move to non-judicial systems of collateral enforcement



Source: Safavian, Mehnaz, Maximilien Heimann and Mariya Kravkova. (2008) Financing Homes: Comparing Regulation in 42 Countries. World Bank

B. Trust-deed Mortgage or Similar Instrument

How it works:

- Term as long as mortgage—15 to 20 years
- Deed is transferred to third party; with provision that deed transfers to buyer upon full payment of loan
- Receivables can be refinanced or securitized

Benefit

- In case of default, title is transferred to lender; security for the lender; ease of repossession
- Avoids cost of registering mortgage; protects borrower

Example

- Brazil adopted this in the late 1990; b/c of judiciary bias in favor of borrower in case of delinquency

C. Develop Credit Insurance

- Formal public-private mortgage insurance
  - Allows for higher Loan-to-Value ratios*, or lower interest rates; reduces reserve requirements
  - Can include various credit and collateral risks (e.g., risks related to lengthy land titling process)
  - Expensive when "defaults" and "loss-given-default" are high, e.g., HLGC in South Africa, Indonesia

- Closed deposit accounts to make up missed payments (e.g., informal sector) – borrower saves upfront ~6 monthly payments in special account- individualized MI

Mortgage Insurance: How it works

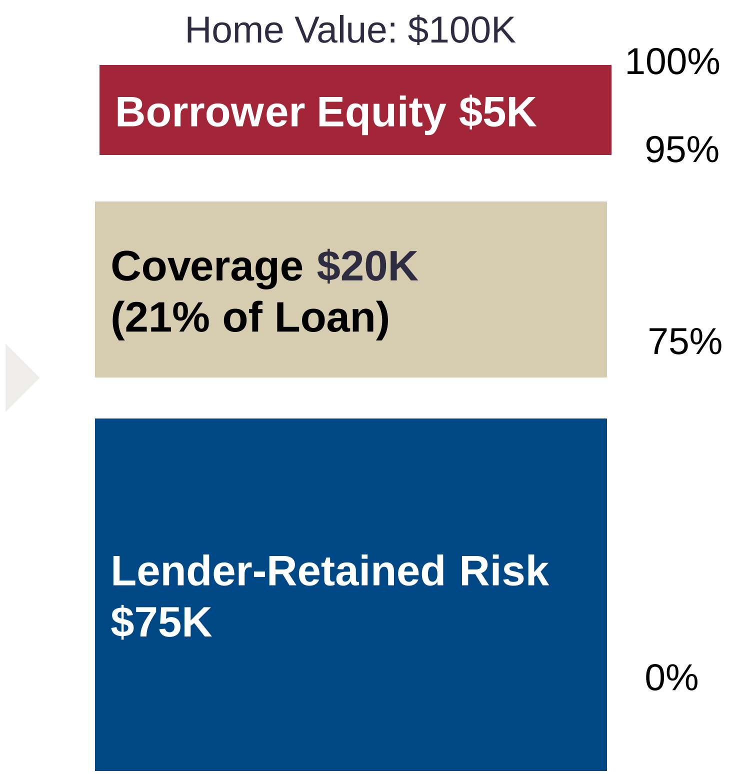
Example

Assumptions

Borrower Equity	$5,000
Original Mortgage	$95,000
Original Property	$100,000

Maximum Claim Amount:

21% X 95,000 =	$20,000



Source: AIG United Guaranty.

In Short, Mortgage Lending can be Extended …

- …. for middle /lower income groups and for informally employed in most countries
- by concerted efforts to improve laws, competition, technology applications, instruments and procedures
- Requires cooperation across different ministries, central banks and industry representatives
- Requires high-level political will and leadership
- Who will take the lead?
- Each country’s housing finance system is unique => reforms will be path-dependent

2. Scaling up Micro-finance for Housing

Large Proportion of Households/Property Are Non-Mortgageable

- Collateral: Non-Lienable, e.g.
  - Not registered, registered but thin-market, underserviced area, unstable house-values– ---
- Household: Low or Non-verifiable Income/ savings, e.g.,
  - Low-income but salaried? Affordability main constraint
  - Middle-income but self-employed? Can savings/expenditure records show ability to save and repay?
- Other constraints
  - High cost of smaller mortgage, e.g., for upgrading of house
  - Qualifying paperwork too complex

But Low-income Households Create "Usefully Large Lump Sums" – Savings - And Put Them Towards Housing

Housing is the second-largest use of lump sums (Collins et al. 2009)

- Mainly financed by savings and incremental buying
- Once people have a house and land, few want to use it as collateral

Housing microfinance could bring greater efficiency and scale to the sizable investments the poor already make in their homes

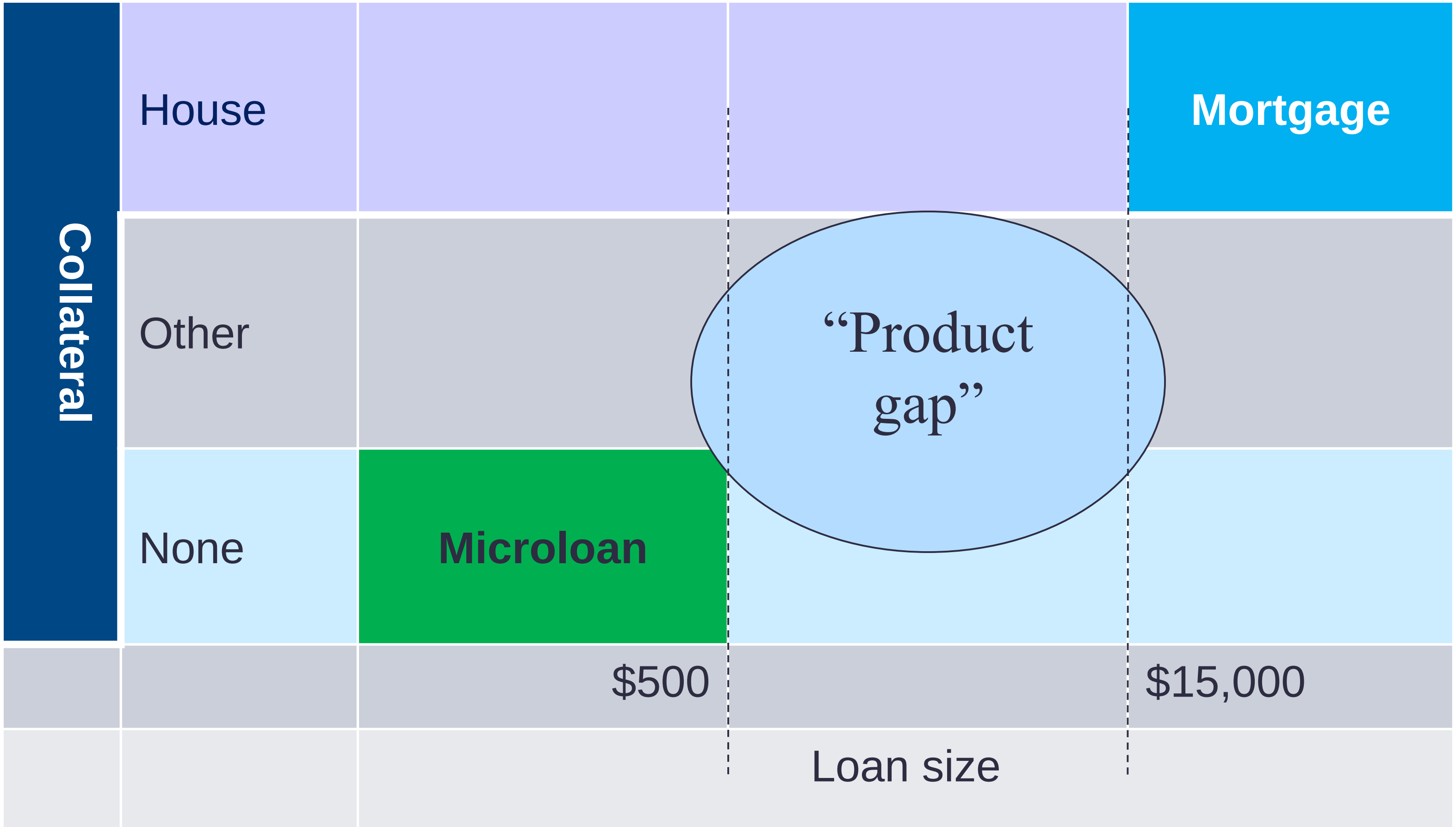
Common: Short-term (<5 years) *Non-Secured* Housing Finance

- Loan underwritten on basis of repayment capacity (savings record, previous history of micro-loan) and repayment mechanism (pay-roll, remittances)
- Use of social control mechanisms:
  - group-based systems with savings fund- but does not work well in fluid urban communities
  - workplace-based systems with savings fund for unexpected late payments
- Suitable for incremental building or extension/ improvement of existing housing –walls, roof, bathroom, utilities, solar, title purchase

Comparing Mortgages & Microloans: Example

	Mortgage	Microloan
Collateral	Secured by property	Unsecured; some: ‘peer collateral’ in groups
Term	Typically 10-20 years	Typically 1-5 years
Rate	COF + margin (2-6%) Bad debt: 0.5%	Micro: 1.2%/month Consumer: 5%/month

Neither Mortgages nor HMF Can Meet All Housing Finance Needs: Convergence of Mortgage and Microfinance



How to turn a fixed installment of $50-$160 pm into loan of $1,500 - $8000 over 4-8 years?

Microfinance Housing Loan Portfolios Remain Small in Scale

- Less than 2% of lending portfolio of $45billion of microfinance institutions is allocated to housing (2017)
  - But 10% to 20% of Microenterprise loans are used for housing
- Main Barriers to Scaling up:
  - Lack of long-term funding
  - Required interest rate high, limits affordable loan size
  - Lack of secure tenure - property rights that are “lienable”
  - Insufficient technical capacity to develop mini-mortgage or housing micro-finance products

Target Return on Equity is Bases of Interest Charged

Factors determining interest rates are therefore:

- **Expected ROE from funders**
- Cost of funding, e.g., deposit funding helps keep funding cost down, but few MF institutions are deposit-taking
- Operational cost structure
- Equity capital as % of total capital- leverage
- Level of cash held
- Bad debt- NPLs

Effects on Demand for HML:

- Higher interest rates lead to lower demand for housing loans
- Higher credit risk of certain customers impacts ROE, leads to rationed lending, i.e. to salaried HH, titled property (even if no liens are involved)
- Extending building assistance to customers is costly; cannot be carried by most lenders

Philip De Jager on South Africa, CAHF 2013

Promising Innovations: Medium-term housing loans without a lien

- Non-lien based medium term loans are increasingly used
- "Special Housing Loans" 7 to 10 years term
- Paid out to conveyancers/builders
- At lower rates than regular microloans (lower cost/loan)
- Not yet offered at scale in SSA; more common in Latin America
- Credit risk high when house is sold before loan is paid off
- Some form of interest in the property has to be registered as security even if not a mortgage --

Promising Innovations: Wholesale Lending through Secondary Housing Finance Institutions

- Several liquidity facilities-
  - SHF in Mexico, NHB in India**,**TMRC in Tanzania, PMRC in Pakistan
- Debt Funds such as Habitat for Humanity's **MicroBuild**
- IFIs such as IFC, equity or debt funding

Source: James Hokan

Promising Trends: Micro-Finance Lending Activities Integrated in National Credit Bureaus

- Microfinance institutions are better regulated
- And increasingly required to enter their credit activities into the official credit bureaus' data bases
- Allowing micro-credit users to build up a credit record
- Which facilitates accessing mortgages in the banking sector (at much lower rates)
- Rwanda is a good example of this trend
- An integrated housing finance system allows much needed mobility in the housing market/housing ladder

Vision: Move towards an Integrated Housing Finance System

- Deepening **Mortgage Markets** for creditworthy households/ small landlords with secure tenure

- Scaling up **Micro-finance for housing**

Integrate these housing finance markets to allow mobility– Improving economic status=== responding to labor market

Micro-finance loans → Mortgage loan

Build credit record

3. Do we need Subsidies and for whom?

How Do We Know Housing Subsidies are Needed?

Start from Sound Problem Diagnosis

- Diagnose country's housing problems– quantify problems by income, geographical-, housing segments, etc.
- Analyze reasons for market "failure or incompleteness"
- Create common vision, objectives, principles for gvt. strategy
- Determine needed actions by private or public sector
- Define which problems can be solved by legal, regulatory, institutional reforms
- Decide on broad need for household subsidies or subsidies to the housing finance system for different segments
- Adjust to budgetary limitations

Simple Example of Segmentation of Underserved Population

Middle-income:

- Does this segment have access to market produced/ mortgage financed housing at current market rates?
- Can existing units be easily transacted?
- Is there a supply of both rental and ownership housing?

If not what are specific constraints? How can these be addressed by regulation? Are subsidies needed?

<65th %

<50th %?

Low-income:

- How is this segment housed? Rent/Own? Formal/Informal?
- What formal housing is produced? Is it sufficient to keep informal housing from increasing?
- Is there a formal rental market?
- Is there an effective upgrading program?

What works and what not? Reasons? Are new subsidies needed or reform of existing subsidies?

<40th %?

<30th %?

<20th %

Why Not Just Help the Poor? Or only serve Middle Income Households so housing can filter down?

- If the middle income group is not served by formal market it captures subsidized housing for the poor
- Only serving middle incomes and hope housing filters down from middle to low income households does not fulfill need for low-income housing in most markets
- Household increase at the low-income level is too high; upward filtering requires access to finance , etc.

➔Often both low and middle income require support to fill gaps in housing market => comprehensive approach

"Sure, we need affordable housing—just so long as it doesn't come at the expense of unaffordable housing."

A Helpful Way to Look at Subsidies

“A subsidy is an *incentive* provided by government to enable and persuade a certain class of producers or consumers to do something they would not otherwise do, by lowering their opportunity cost or otherwise increase the potential benefit of doing so” (adapted from US Congress, 1969).

→ *A Subsidy is about changing behavior of households or housing and loan producers…….*

Housing *Finance* Subsidies What Subsidies for Which Problems?

Two Broad Types of Housing Finance Subsidies

1. Household/consumer subsidies to increase affordability:
   - Assist in accessing finance
   - Help pay for a minimum acceptable house
2. Subsidies to improve efficiency of housing finance system- mortgage or micro finance

But many options within each type depending on the precise problems

1. Household Subsidies

A. Interest-rate Subsidy: most frequently used

Many variants:

- Cap on interest rates (Kenya) – stops mortgage lending when binding => ineffective
- Deduction of interest payment from income tax
  - Inefficient incentive to expand home-ownership at the margin
  - Regressive (income, regional) if not capped; examples of US (poor) and UK (phased out)
- Reducing effective rate through subsidies to market lenders, or government banks or special funds

Interest-rate Subsidies thru Lenders (2)

- Term: Mostly Life of loan
- Delivery: cash payment to lender, or through subsidized funding (from special funds, central bank funding)

Pros

- Simple to understand, relatively simple to implement

Cons of life-of-loan IR subsidies

- Inequitable if not gradated by income; cannot be accessed by low-income households w/o access to HF
- Inefficient if for life of loan
- Could bear interest rate risk, and not efficient in secondary mortgage market transactions
- Cost to govt unpredictable b/c of inflation

B. Most Flexible and Efficient Household Subsidy: Direct Demand Side Subsidy

The state provides a sum of money to help pay for the purchase of a house, a loan or in kind equivalent

- Can be limited to new housing/specific schemes
- May be applied to down-payment, closing costs, loan amount /balance, mortgage insurance premium, or even to monthly payments for a set period.
- Examples: Chile pioneered this; Russia, Hungary, Ecuador, Costa Rico, Mexico, Brazil, India, Egypt

Reasons:

- Improves purchase power and/or access to finance by addressing savings or credit constraints of the borrower

Demand Subsidy (2)

Pros

- Cost is transparent and budgeted (political problem); administratively efficient
- Allocation can be made transparent and progressive i.e., increases for lower income households

Issues

- Often linked to “non-market” new housing schemes, with debatable resale value/ neighborhood risk
- May require “non-market” mortgage finance during inflationary times, e.g., Egypt

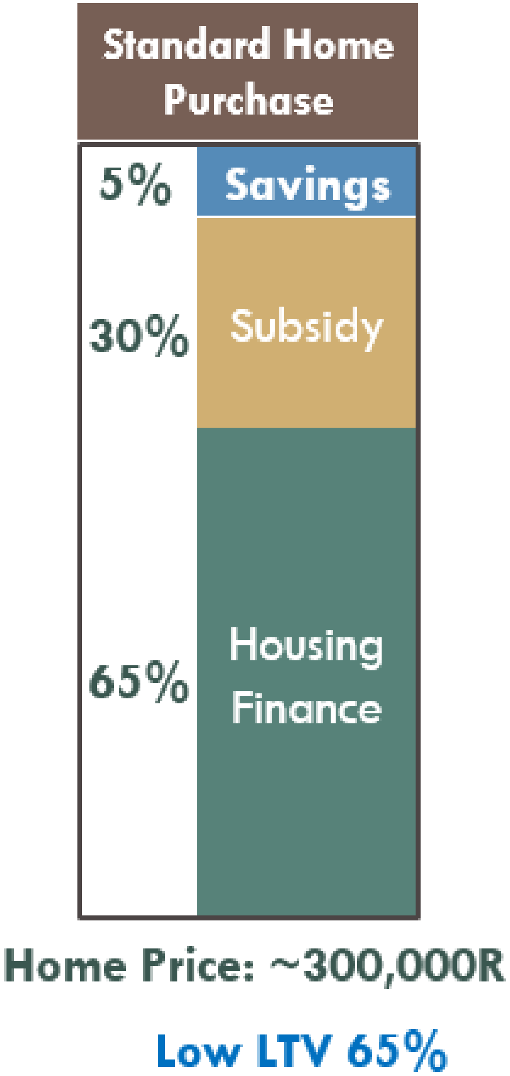
Example of a Down-payment Demand Subsidy Linked to Finance (3)

- Down-payment by household ~ 5% to 10% of house-value; income/ proxy for non-fixed income + creditworthiness assessment

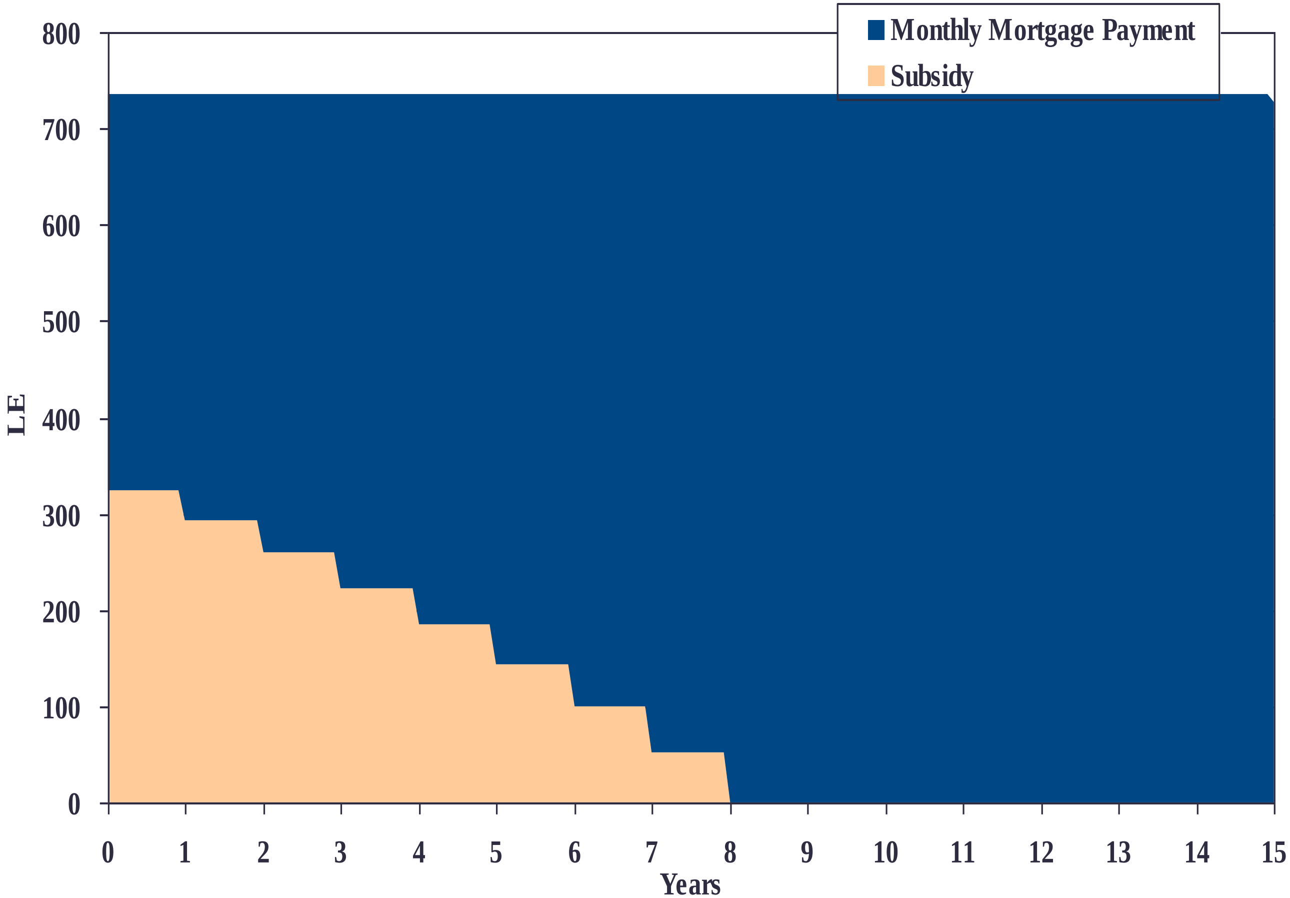
- Down-payment subsidy non-fixed income and salaried households, scaled by income ~ 20% to 30% of house-value (subsidy<loan amount)

- A loan; maximum a household can afford – ~50% to 70% from a lender of choice; mortgage or micro-loan at market interest rate

- Cheating on income to get higher subsidy should results in lower loan amount and lower price/quality house



Example of Demand Subsidy as a Monthly Payment Buy Down – Fixed Monthly Installments



Notes: Mortgage Rate set at 15%
Based on initial monthly household income of LE 1,250
Monthly payment fixed at 33% of Income in year 8
Annual Income growth set at 7.5%
Subsidy fills affordability gap in first 8 years

Limitations of Most Finance-linked Household Subsidies

- Often regressive when tied to size of loan (negative impact on income distribution if mortgage-linked subsidy is main national subsidy)
- Focus on formal mortgage finance excludes large section of population–
- Cannot easily be applied to micro-loans b/c of interest rate structure
- Different types of subsidies required for informally employed and hh with incomes below ~30th percentile
  - Serviced lots/upgrading
  - Rental options – too often overlooked as viable option

2. Subsidies to the Housing Finance *System*

Should be targeted to specific problem:

- Are funding costs too high and can that not be solved through improving efficiency; example high inflation?
- Is government support needed to open up new funding channels, e.g. capital market funding?
- What specific risks can the private sector not yet handle? A/LM & liquidity risks, credit risks? And can these be addressed by policies/regulations?
- Are transaction costs too high for lenders to serve certain segments of the population? Informally employed? Are subsidies needed or can taxes be reduced?

Support to Housing Finance Systems Comes in Many Forms Depending on the Problem

- Government Grants and guarantees
- Tax breaks on capital market instruments
- Labor tax funds - low interest savings funds
- Below market rate debt
- Below market equity
- Government credit insurance
- Operating subsidy (e.g. on servicing cost to informal sector)

Subsidies to Housing Finance Systems are Difficult to Design: *Cause Distortions*

- Design of such types of subsidy should:
  - Limit the period in which change has to occur/ phase out
  - Calculate short and long-term costs and risk to government/ run scenarios
  - Have an on-budget subsidy allocation, where possible
  - Avoid possibility of "skeletons", hidden future cost to government
- Increase competition to access subsidies where feasible
  - Expand pool of lenders by leveling playing field across govt. and private lenders
  - Use auctions for govt. subsidy programs linked to finance
- Be complementary to policies to increase sector efficiency: e.g., mortgage law; consumer protection law, regulations about sharing of credit information, foreclosure process

4. What have we learned?

How Can We Expand Access to Housing Finance for Under-served Households?

We discussed 4 complementary ways:

- Many opportunities to improve efficiency, de-risking, and product options provided by the mortgage market
- Current innovations that extend non-secured housing credit
- Providing finance-linked subsidies to households at the margin who can access a housing loan with help of a subsidy
- Using system subsidies to improve efficiency and reach of housing finance system—with caution

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