STRUCTURED FINANCE ASSOCIATION

Issuance of Mortgage-Backed Securities in Kenya

February 2022

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Section 1. Executive Summary

Securitization is as old as time; examples of securitization can be found at least as far back as the 18th century. The farm railroad mortgage bonds of the mid-nineteenth century were among the first examples of mortgage-backed securities in the United States. Currently, the US securitization market is the largest in the world with outstanding ABS estimated to be over $12 trillion, and it has completely revolutionized the US economy to where it is today. For instance, securitization has been instrumental in providing lower-cost loans for homes and automobiles, low-rate student loans, capital to purchase equipment and finance apartment buildings and malls, to mention just a few.

Securitization, when executed correctly, can be an important part of the financial system, helping to create jobs by providing the financing and liquidity necessary to build infrastructure and help businesses grow and innovate. Just as the US has reaped the benefits of securitization, Kenya has a lot to gain in embracing securitization and more specifically Residential Mortgage-Backed Securities.

Currently, Kenya has a housing shortage of about 2 million dwellings, which is growing at a rate of around 200,000 per year. Although 50,000 new residences are built each year, this does not have a significant impact on demand. Moreover, mortgage uptake is also low due to high interest rates. To address the low mortgage uptake, the government has provided the Big 4 Agenda blueprint. The Big 4 Agenda promises to deliver 500,000 affordable units to Kenya's 47 counties and to reduce the cost of homeownership by 50%. To achieve this, the government has started laying down the necessary infrastructure including the establishment of the Kenya Mortgage Refinance Company (KMRC). KMRC will play a key role in financing the primary mortgage market with low interest rates which will translate to significantly lower mortgage rates for the average Kenyan homeowner. To develop funding to finance its mandate, KMRC is poised to actively participate in the capital markets through the issuance of bonds and term notes.

This paper delves into three topics, first, the mechanics of a KMRC securitization as another plausible channel to raise capital financing, with reference to the US RMBS model, which is currently dominated by government sponsored agencies (GSEs) Fannie Mae and Freddie Mac that play a primary role in issuance of RMBS in the secondary market. Then it reviews South Africa's first RMBS by the South Africa Housing Loans (SAHL) company that was conducted in 2001 with partial guarantees from the International Finance Corporation (IFC) and was quite successful in the capital market, twice oversubscribed. The South African model provides a comparative approach, being the most advanced securitization market in Africa, from which KMRC could draw an example for an auspicious issuance. Finally, this paper also provides recommendations that may assist and inform policy in the implementation of this market in Kenya.

Section 2. Background

What is Securitization?

Before diving into the mechanics of securitization it is crucial to define securitization. Securitization can be defined as the process through which illiquid assets or groups of assets are pooled together and packaged into debt securities that are then sold to investors. Investors of the debt securities receive interest and principal payments from the cash flows generated by the underlying assets. Securities backed by mortgage receivables are called mortgage-backed securities (MBS), while those backed by other types of receivables are asset-backed securities (ABS). To differentiate residential from commercial mortgages in these securities, RMBS is used to refer to securitizations of mortgages from the residential sector.

In essence, securitization represents an alternative and diversified source of finance that allows the borrowing institution, the originator to eliminate assets from its balance sheet and replace it with cash, thus improving its liquidity position to support expansion or reinvestment in its business operations. In the case of banks, this improvement in their balance sheet ratios results in capital/regulatory relief that brings lower rates to borrowers because the banks have sufficient liquidity to lend out. Lastly, it offers securities to investors based on how much risk they are ready to take on.

Types of Assets to be Securitized

Generally, any diverse pool of assets with a predictable stream of current or future cash flows can potentially be securitized. Over the years, as the securitization market has grown and become more sophisticated, the variety of assets to be securitized has also increased. The most common types include credit card receivables, auto loans and leases, mortgages, student loans, and equipment loans and leases. Less uncommon types of assets include franchise loans, taxi medallion loans, state tobacco settlement payments, stranded utility costs, and royalty payment streams.

Figure 1: Assets to be Securitized

Examples of Securitized Assets	
Aircraft leases	Manufactured Housing Contracts
Auto Loans (Prime and Sub-prime	Mortgages (Residential and Commercial)
Auto Leases	Railcar Leases
Boat Loans	Real Estate
Credit Card Receivables	Recreational Vehicle Loans
Dealer Floorplan Loans	Royalty Streams
Equipment Leases	Stranded Utility Costs
Home Equity Loans	Trade receivables
Marine Shipping Container and Chassis Leases	Truck Loans

Source: Moody's

The Securitization Process

The securitization process can be quite complex, but in its simplest form a corporation/originator, with loans or other income-producing assets, will pool and package select assets from its portfolio. It then sells this asset pool to a Special Purpose Vehicle (SPV). The SPV is a legal entity whose primary goal is to buy the pool of assets from the originator with cash raised through the issuance of ABS backed by the pooled assets. The assets purchased from the originator make up the SPV's balance sheet, while the ABS issued serves as its liabilities.

What is particularly attractive to investors is that the pooled receivables are transferred to the SPV in a manner that qualifies the transaction as a "true sale"[1]. This means that if the originator files for bankruptcy, the asset pool and its corresponding cash flows are untouchable by the originator and its unsecured creditors, and since the cash flows from the asset pool are totally dedicated to paying off the bond, the investors are protected.

For repayment of the ABS, the investor looks exclusively to the cash flows created by the asset pool, as well as credit support "built into" the deal, and there is no legal recourse to the originator. In many cases, however, the originator will provide key structural protections to support the transaction. The credit enhancement makes the transaction more attractive to investors and decreases the cost of borrowing for the originator/borrower. Finally, the SPV is responsible for the issuance and sale of the

[1] https://www.lawinsider.com/dictionary/true-sale

securities to investors in either a private placement or public offering. The SPV applies the funds received from the investors to finance the acquisition of the receivables.

Description of the Structure

The diagram above depicts a typical structure of a true sale securitization. In a true sale securitization, the originator, a bank selling mortgages for example, will pool these loans and sell them to the SPV. Once the loans have been sold to the SPV, the SPV will in most cases seek the services of a trustee who will be responsible for the collection and disbursement of cash flows as specified in the pooling and servicing agreement. The trustee also ensures that all parties comply with the stipulated agreements. To reduce the credit risk to the investor and to get better terms of repaying the debt, the originator will seek to provide internal and external credit enhancement to support the transaction. Internal credit enhancement refers to activities built into a transaction to increase creditworthiness.

The most basic form of internal credit enhancement is overcollateralization, when the underlying collateral is worth more than the security. Because the underlying collateral has a significantly higher value, an investor can be confident in the event of a default. Credit tranching, on the other hand, is a hierarchically organized structure in which cash flows are paid out according to priority; the senior tranches have the first right to cash flow, while the junior note classes are paid last. Conversely, losses are debited in ascending order with the lowest ranking tranche, equity noteholders, taking the first hit while senior noteholders are last on the paradigm. On the other hand, external credit enhancement refers to third party employed measures to back up the internal credit enhancements so as improve creditworthiness, examples include surety bonds and letters of credit.

Once the credit support and a high credit rating have been achieved, the SPV may decide to enlist the services of an 'arranger', usually an investment bank. One of the primary roles of the arranger is structuring and pricing the securities to be issued. The arranger also performs due diligence on the assets to be securitized to ensure they meet the standards provided. In addition, the arranger is also responsible for the marketing and distribution of the issue. Finally, the SPV offers the securities to investors in the capital markets and utilizes the funds received from the investors to purchase the receivables.

Key Players in Securitization

1. **Originator** — Typically, this is the entity that, in the normal course of business, generates receivables. In some instances, the originator purchases assets or claims from third parties to securitize them at a later stage. In such transactions, the originator is often referred to

as the sponsor. Originators include the captive finance companies of the major automakers, commercial banks, thrift institutions, computer companies, airlines, manufacturers, insurance companies, and other finance companies. Moreover, the originator works closely with the underwriter or placement agent and with the rating agencies in structuring the transaction, preparing documents, also providing significant opinions at the initial stages of the transaction.

2. Special Purpose Vehicle (SPV) — An SPV, or a special purpose entity (SPE), can be described as a legal entity created by a firm to carry out some specific purpose or a series of circumscribed transactions. SPVs have no other purpose than to carry out the transaction(s) for which they were established, and they have no authority to make substantive decisions; the regulations that govern them are laid out in advance and will carefully limit their activities. An SPV has no employees and no physical location. The SPV must be legally independent of the originator so that it is highly unlikely that it will become subject to bankruptcy proceedings initiated by the originator. The assets are dedicated to paying off the bond and the originator has no access to them. In short, they are "ring-fenced" and off limits to the originator who generated them. The SPV is responsible for issuing securities to investors to fund the purchase of the receivables from the originator. The securities are typically bonds or notes and may be issued in several structured tranches. The tranches are different classes of securities within the transaction, each with different payment priorities and features (such as interest rates) as previously described. Depending on the company's preference and the circumstances of the transaction, the securities may be privately or publicly issued.

3. Servicer — The servicer is the entity that comes in after the transaction closes and begins to collect principal and interest payments from obligors, administering the portfolio for the life of the bond. In most transactions, the originator also acts as servicer, although this will not always be the case. Servicing can also include default management and collateral liquidation. The servicer is typically compensated with a fixed fee under the servicing agreement.

4. Arranger — An arranger is typically a financial institution (e.g., investment bank) appointed by the originator to design and create the securitization framework. An arranger determines the structure of the risk profile of the receivables to create different tranches of security. An arranger may also set up the SPV and design credit enhancement and liquidity support for the transaction. The arranger runs the deal and brings all the different parties together

5. **Credit Rating Agencies** — The credit rating agencies are responsible for evaluating the company's creditworthiness and whether the SPV can effectively pay interest and principal to investors depending on the performance of the cash flows of the underlying assets. The rating is given after a thorough statistical analysis of the probability of default and the consequences of such default on the SPV's capacity to meet the payment commitments for the securities. Rating agencies play a pivotal role in the securitization process as the ultimate appraiser of the underlying pool of collateral. Investors depend on the credit rating report to make informed decisions on which companies and securities to purchase.

6. **Credit Enhancement** — The principal role of credit enhancement is to provide reassurance to investors that the SPV will honor the payment obligations when they fall due. Credit enhancement greatly improves the risk profile and marketability of the bond to be issued because investors usually demand very high investment grades for asset-backed securities (ABS). Credit enhancement can either be internal and external, and it is not uncommon to see more than one in a single structured finance transaction. Internal credit enhancement is provided by the firm and the most common types include subordination, over-collateralization, and excess spread. External credit enhancement, on the other hand, is provided by third parties and includes guarantees and first loss investments.

7. **Investor** — Investors comprise financial institutions, insurance companies, pension funds, hedge funds, companies, and high net worth individuals. Investors buy the SPV's securities based on their risk/return preferences. Tranching allows investors to diversify their portfolios by purchasing securities with varying seniorities and yields. Investors' value the market liquidity of securities because it allows them to sell the securities in the capital markets rather than holding them until maturity.

History of the Residential Mortgage-Backed Securitization Market

The US securitization market is the largest and oldest in the world. Currently, there are two types of MBS issued in the US, agency MBS and non-agency MBS. Agency MBS are created by government or quasi-government agencies, while non-agency are created by private entities. RMBS was developed as a tool for a more inclusive financial market and to remove barriers to homeownership. After the Great Depression, the US was a nation of renters with only 10% homeownership nationwide. Home loans were very different then, 50% down payment on loans of 10 years or less with enormous balloon payments near the end of the loan, which put them out of reach to all but a very few homeowners.

With the New Deal in 1934, the government created agencies to make mortgage loans more accessible first by insuring them (with the FHA) which encouraged longer-term loans, then by buying them (with Fannie Mae) which increased capital in the mortgage market, and then by securitizing them (with Ginnie Mae) which opened the mortgage market to new investors. The first RMBS was issued in 1970 by Ginnie Mae (which was formed when congress split the Federal National Mortgage Association (Fannie Mae or FNMA) into two separate corporations.

Congress passed the Emergency Home Finance Act in 1970, which established the Federal Home Loan Mortgage Corporation (Freddie Mac) to help thrifts manage interest rate risk by purchasing their mortgages, this further expanded the secondary mortgage market. Fannie Mae and Freddie Mac were also given authority to buy and sell federally insured or guaranteed mortgages under the Act. The first conventional loan securitization was issued by Freddie Mac in 1971.

Markedly, during the 1970s, bankers and lawyers created increasingly sophisticated securitization frameworks and the agency residential mortgage-backed securities (RMBS) grew rapidly as different methods and products developed. A critical component that catalyzed the process was the enactment of the Tax Reform Act of 1986. It allowed Collateralized Mortgage Obligations (CMOs) to be issued in the form of Real Estate Mortgage Investment Conduits (REMICs), which had tax and accounting advantages for issuers and for large institutional and foreign investors. The act also eliminated what had been double taxation; the tax of income earned at the corporate level by issuers in addition to the tax on dividends paid to securities holders. A REMIC[2] created an important distinction for balance sheet lenders, permitting them to structure a security offering as a sale of assets. The ability to package assets off-balance sheet offered regulatory capital relief for lenders and greatly increased capital available to fund growing consumer loan demand.

Likewise, non-agency RMBS issued without the government guarantee experienced remarkable growth over the years. In 1977, the first type of non-agency pass-throughs, called private-label pass-throughs, were issued by Bank of America. The RMBS market continued to register exponential growth in the early 2000s peaking in 2005-2006, particularly in the issuance of non-agency subprime mortgages. However, due to poor underwriting policies and lax regulation, 2007-2008 saw a collapse in this market and onset of the Global Financial Crisis (GFC). Despite corrective regulations going into place after the GFC, the participation of banks in non-agency MBS has been very low. They have steered clear of this market, paving the way for private lenders.

[2] A Real Estate Mortgage Investment Conduit (REMIC) is an entity which is utilized to pool loans and issue mortgage-backed securities (MBS), or commercial mortgage backed securities (CMBS). First authorized by the Tax Reform Act of 1986, REMICs can be organized in several different ways, including corporations, trusts, or partnerships.

Role of US Government Mortgage Enterprises in the Securitization Market

Government agencies such as Ginnie Mae and quasi-governmental agencies such as Fannie Mae and Freddie Mac have been integral to the US mortgage securitization market since their inception. As we have noted, Fannie Mae and Freddie Mac are 'Government Sponsored Enterprises' or "GSEs", while Ginnie Mae is a government-owned corporation within the Department of Housing & Urban Development (HUD). The MBS issued by these three institutions are 'agency' MBS. Fannie Mae and Freddie Mac continue to dominate the secondary mortgage market in the U.S, with their annual share of the total MBS market having averaged 70 percent between 2009-2020. If Ginnie Mae is included, the government share of MBS goes up to 92 percent (SIFMA, 2019).

The primary role of the GSE's is to support the US home mortgage system by providing more liquidity in the secondary market for mortgages. The mortgages that the GSEs buy must meet strict criteria and these loans are called "conforming loans." After purchasing loans from banks and mortgage companies, the GSEs either hold the mortgages in their portfolios or aggregate (pool) them into MBS, which are then sold to institutional and individual investors including mutual funds, endowment funds, hedge funds, insurance and pension funds in the capital markets. Fannie Mae guarantees it will pay the principal and interest on the mortgage-backed securities monthly, agreeing to pay the investor even if the borrower defaults. Fannie Mae also receives fees, called guarantee fee from financial institutions in exchange for taking on loan risks.

Figure 3: US RMBS – Agency and Non-Agency

Source: Vinod Kothari Consultants

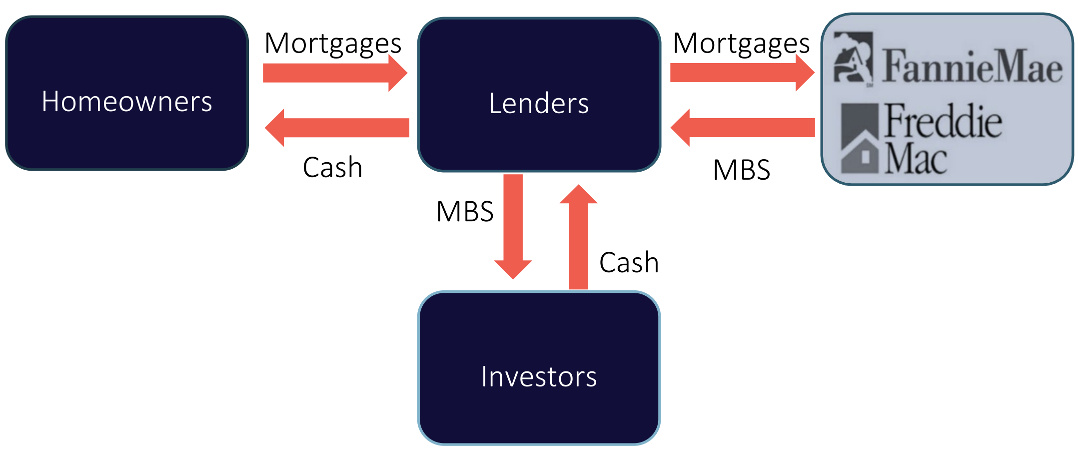
How do they work? Overview of Fannie Mae's /Freddie Mac's Sale Processes

Lenders having mortgage loans that fit the GSEs criteria have two options for selling them to Fannie Mae or Freddie Mac. First, a licensed mortgage lender delivers a pool of mortgage loans in return for

Fannie Mae MBS secured by these loans in a single-family lender swap transaction. The lender has the option of keeping the Fannie Mae MBS or selling them to investors in the capital markets. Second, the lender sells the mortgages for cash to Fannie Mae or Freddie Mac, who will then securitize and sell the resulting MBS to investors. In both circumstances, the mortgage is packaged as part of an agency MBS, and lenders receive funds that they can use to create more loans, so boosting the housing finance market's liquidity. Additionally, Fannie Mae guarantees that each MBS will make timely principal and interest payment. The mortgage servicer (mostly banks and mortgage companies) also retains a portion of the interest payment as a fee for servicing the loan.

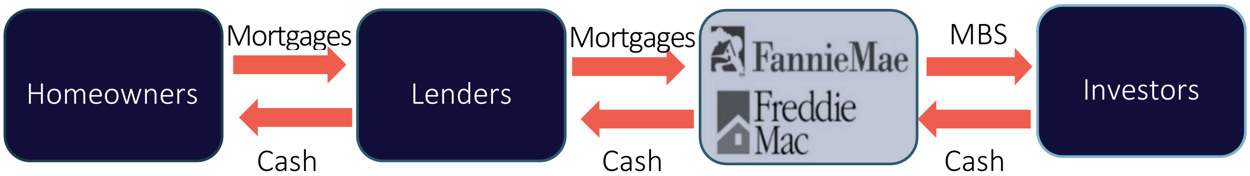
Fannie Mae offers a variety of debt securities, either short term or long term in nature. The Discount Notes and Benchmark Bills programs cover the majority of the company's short-term liquidity needs. These programs provide investors with extremely liquid, high credit-quality assets with maturities ranging from 24 hours to 360 days. Fannie Mae also offers long term securities in the form of non-callable or callable debt. The non-callable securities have maturities of 2, 3, 5, and 10 years and they are big bullet offerings that provide the market with greater efficiency, liquidity, and traceability. Fannie Mae also issues callable debt to diversify its investor base by catering to borrowers that prefer callable debt to bullet debt. Fannie Mae is effectively purchasing a call option from these investors and compensating them with a higher yield than comparable maturity bullet securities. Additionally, Fannie Mae's debt products can be used as collateral in repurchase transactions with the Federal Reserve Bank as well as trading and hedging tools. (FHFA)

Figure 4: Lender Swaps Mortgages for Enterprise MBS



Source: FHFA

Figure 5: Lender Sells Mortgages to an Enterprise for Cash



Source: FHFA

State of Kenya's Real Estate Market

The Kenyan real estate sector has grown enormously in recent decades, and is a major contributor to Kenya's robust economic growth, accounting for 10.5 percent of GDP in 2000, and now sits at an average of 13.8 percent. This has been primarily fueled by stable GDP growth, averaging 5.4% over the last 5 years against a Sub-Saharan average of 4.1%. The growth is concentrated in the middle class, translating to an increase in disposable income and hence greater consumer purchasing power. Growth has also brought an increase in government spending on infrastructure projects such as upgrades of key airports, expansion of utility connections, and improved roads. These projects have converted areas in the country that were previously viewed as ghost towns into thriving commercial and residential areas.

Even though the growth of the real estate sector has been remarkable, Kenya is still facing an acute housing shortage. Kenya's current housing shortage is estimated at 2 million dwellings and is growing at a rate of around 200,000 per year. Although 50,000 new residences are built each year, this does not have a significant impact on demand. The shortage can be attributed to a myriad of factors, including the high cost of housing units, the high cost of land for construction, the low level of income, and the limited access to affordable long-term financing (CBK). According to the annual residential mortgage survey in 2020, conducted by the Central Bank of Kenya, the outstanding mortgage loan portfolio stands at Ksh.232.7 billion, with only a meagre of 26,971 in mortgage loans issued in the primary market. This can be ascribed to the high-interest rates, which presently stand at 11%.

Nevertheless, the government is cognizant of the constraints affecting the growth of this sector and is addressing these challenges through the housing pillar of the Big 4 Agenda. Under the Big 4 Agenda, the government is expected to deliver at least 500,000 affordable homes across Kenya's 47 counties and reduce the cost of homeownership by 50%. The government has started laying down the necessary infrastructure to achieve this mandate and one example is the Kenya Mortgage and Refinance Company (KMRC) established in 2018.

The Role of KMRC in Kenya's Housing Market

The KMRC was incorporated 19 April 2018 as a non-deposit taking financial institution to provide long-term funds to primary mortgage lenders—banks, microfinance banks, savings and credit co-operatives (SACCOs)—at low interest rates which will in turn increase the availability and affordability of mortgage loans to Kenyans. It's a public-private partnership (PPP) firm formed by the government of Kenya and represents the affordable housing pillar of the government's Big 4 Agenda. KMRC was authorized to begin lending in September 2020 by the CBK. KMRC (also referred to as 'The Company') is subject to regulation and supervision of the CBK with Capital Markets Authority providing oversight for its bond issuance operations. The Company is owned by the government (20%) and the remaining (80%) is divided between 8 commercial banks, 11 SACCOs and 2 development finance institutions (Shelter Afrique and IFC). The Company is expected to comply with the CBK's regulations regarding Mortgage Refinance Companies (2019).

The 2019 Central Bank Act defines the requirements for licensing a Mortgage Refinance Company's operational activity as follows:

- Refinancing or purchasing of eligible mortgage loans;
- Investment in debt securities issued by the government of Kenya or any guaranteed debt;
- Extending finance to primary mortgage lenders for refinancing of eligible mortgages;
- Issuing bonds, notes, and other financial instruments for purposes of meeting its objectives;
- Other activities may be prescribed by the Bank from time to time.

How KMRC and Other Major Participants Can Benefit From RMBS Securitization

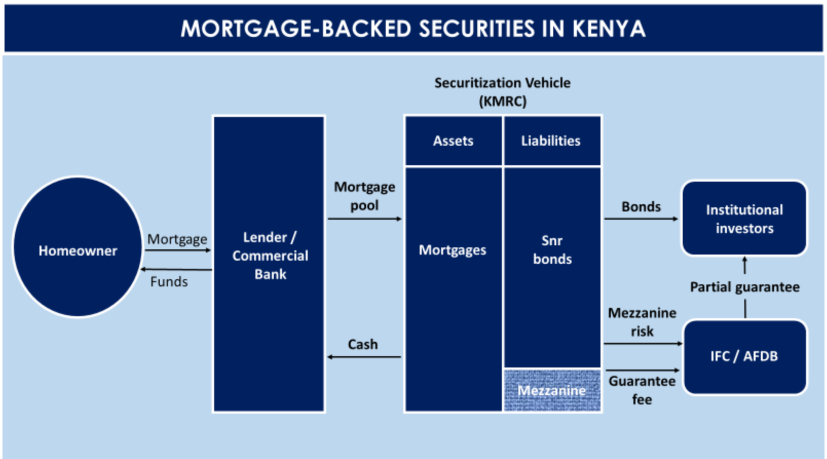
According to the Central Bank Act, KMRC will be funded primarily through debt, equity, and subordinated financing from international development partners. While this funding may be a step in the right direction, KMRC could go further. It has the potential to shore up its lending resources as a wholesale lender by considering securitization as another plausible channel to inject liquidity into this market. Due to underlying macroreasons the interest rates are presently quite high, making it hard for most Kenyans to take up mortgages. If well structured, a KMRC securitization might offer the solution to this stumper.

The benefits of securitization to stakeholders cannot be overemphasized, Firstly, tapping into the capital markets will provide KMRC with more funds to lend out to the primary mortgage lenders, hence increasing liquidity and this is likely to lower the interest rates charged on residential mortgages to single digits as envisioned by the government. Furthermore, KMRC could also benefit from lower interest rates on its bonds if the transaction has good credit enhancement, Secondly, if the securitization is issued successfully, and more funds trickle down to the average person to purchase and own a home, not only does the government come closer to realizing the Big 4 Agenda, but with its track record evident to the electorate, this could also be a political success, as well. Thirdly, investors can diversify their fixed-income portfolios by investing in RMBS, moving away from traditional concentrations in government, money market, and corporate debt securities. Also, RMBS offered by a government-regulated entity also provides some level of comfort.

Further, it offers investors the opportunity to optimize their portfolios, investing at different risk tranches depending on their risk/return appetite. Fourthly, in a true sale securitization, the originator (commercial bank) moves the assets off the balance sheet[3], assisting in the improvement of the pertinent balance sheet ratios. If the proceeds of the securitization are utilized to repay existing liabilities, for example, the originator's leverage may be reduced which in turn offers regulatory relief. As previously stated, in the US the first mortgage-backed securities were issued by government agencies. They had a significant impact on the broader housing market, allowing more Americans to obtain mortgages at very low-interest rates. Similarly, recognizing that securitization is an essential source of core funding for the real economy, Kenya has the potential to reap the fruits of a well-instituted and regulated securitization market. Similar to the US agency MBS model, this paper is proposing that KMRC should act as a securitization vehicle in pooling, packaging mortgages and issuing pass-through MBS with a guarantee from a third party (such as International Finance Corporation and African Development Bank) to improve the risk profile and ultimately the attractiveness of the bond above.

[3] Assets such as loans are removed from the balance sheet and replaced with cash from the securitization.

Figure 6: Model of a KMRC Securitization



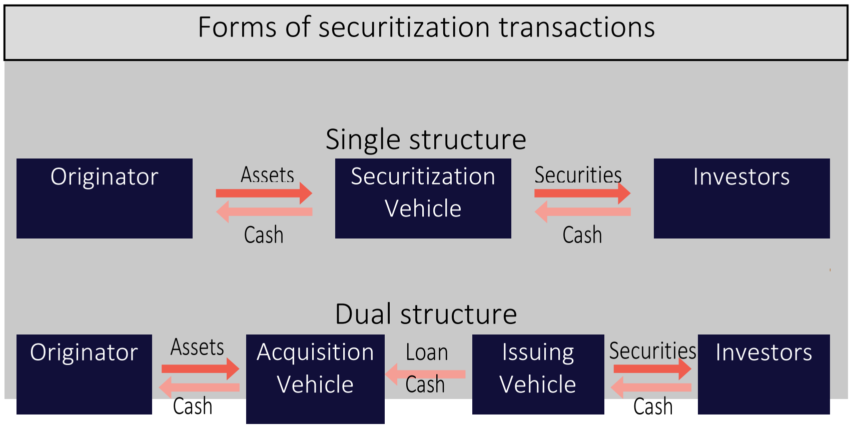
Source: IFC/ author

The Structure of the Transaction

The high-level structure discussed below does not proport to be an expert and exhaustive model of a potential KMRC securitization transaction. Rather it provides a general overview of how it could be structured based on the author's perspective. However, development finance institutions, such as the International Finance Corporation and African Development Bank, can add more value in the structuring and placement of the transaction given their experience with similar initiatives in other emerging markets.

Securitization transactions can be structured in two forms, either as a single structure or as a dual structure, as demonstrated in the schema below. In the single structure, the securitization vehicle purchases the assets and issues the securities from one SPV, whereas in a dual structure two or more vehicles are formed. The first will function as "acquisition" vehicles, purchasing assets or risks and funding them with loans given by an "issuing" vehicle, which will issue securities to the market. The acquisition vehicles in a dual structure can be constituted in either the originator's jurisdiction or the country where the transferred assets are located. However, this paper proposes a single structure securitization would be most suitable given its simplistic nature, the country dynamics, and structural characteristics of the transaction.

Figure 7: Forms of Securitization



Source: PWC

Kenya's securitization should also be developed with definitions and clarity, similar to regulations recently adopted by the European Union (EU). By harmonizing the rules, and making non-EU investors obligated to comply with them, the European Commission (EC) has not only clarified the regulations but also applied them evenly. For example, the new regulations specify that all securitizations must originate the underlying loans with the same credit-granting criteria that is used to determine non-securitized lending. Also, the risk retention requirement has been extended to non-EU investors and must remain at 5%, clarifying the process by which an originator, sponsor, or original lender, can agree to the allocation of responsibility between themselves, and stating that in the absence of agreement, responsibility will rest with the originator. This is the level of clarity and transparency that Kenya's securitization regulations should be aspiring to.

As a starting point KMRC, as the securitization vehicle, must have set guidelines on the criteria of loans that they are willing to buy from the commercial banks. Therefore, the underwriting associated with such loans must meet KMRC's guidelines to the letter. In the US model, Fannie Mae and Freddie Mac have provided distinct guidelines on these loans, commonly referred to as 'conforming loans'. Only loans of a certain size and credit quality are eligible for uptake by the GSEs. This helps to set standards for the markets and to encourage banks to standardize their loans, which helps securitization and consumers as well.

Once the identification procedure is done and dusted, the selected conforming loans are then sold to KMRC, which will serve as the securitization vehicle. The transaction between the originator and KMRC should be by an outright sale, where the assets are completely removed from the originator's (lenders/commercial banks) balance sheet via a true sale transaction. Additionally, as we mentioned earlier in the US context, Fannie Mae buys these loans in two ways, either by Lender Swap

Transaction or by cash. This paper proposes the latter because the Swap market is currently underdeveloped in Kenya.

Following this, KMRC will convert these assets into various types of pass-through securities. As the name suggests, the issuer (KMRC) or servicer of mortgage pass-through securities collects monthly payments from mortgagees whose loans are part of a pool and "passes through" the cash flow to investors in the form of monthly payments that include both interest and principal repayment. Typically, the collateral mortgages backing a passthrough security have the same loan type (fixed-rate, level, payment, ARM, etc.) and are similar enough concerning maturity and loan interest rate to allow for the cash flow to be projected.

A pool can be made up of thousands of mortgages or just a handful. Borrowers' monthly mortgage payments include interest, scheduled principal repayment, and any prepayments. Once KMRC purchases these securities, it will be exposed to the credit risk of the underlying mortgages. To mitigate these risks, KMRC should charge a fee to the lenders, to cover the credit risk and other costs incurred when they acquire these loans. In the US context, Fannie Mae and Freddie Mac charge this cost to the lenders before buying the loans and the fee is known as a guarantee fee[4]. Therefore, the monthly cash flows and coupon rate will be lower than the monthly flows of the underlying mortgages by an amount equivalent to the servicing and guarantee fee. The pricing of the guarantee fee is determined by the Federal Housing and Finance Authority (FHFA) which is the regulatory agency responsible for Fannie Mae and Freddie Mac.

When the pass-through securities are offered to the market, the proceeds of their sale will be used to reimburse KMRC for having purchased the loans from the lenders. The securities should be constructed in such a way that their maturities coincide with the maturities of the collateral mortgage loans underlying the securities. Collections by KMRC of the cash flows from these assets will allow redemption and interest payments of the securities. A KMRC collection account can be domiciled at the Central Bank of Kenya.

As previously defined, the role of the servicer is to collect the payments. This role, generally given to the originator (bank), receives a commission. Thus, the main task of the securitization vehicle, in this case KMRC, is to structure the deal, raise proceeds by issuing pass-through securities, and to arrange for payment of interest and principal to the investors. The securities should also have internal credit enhancement to increase the credit quality of the securities and ratings. It should include the use of supporting tranches, overcollateralization, and yield spreads.

[4] "A guarantee fee is a sum paid to the issuer of a mortgage-backed security. These fees help the issuer pay for administrative costs and other expenses and also reduce the risk and potential for loss in the event of default of the underlying mortgages." (Scish, 2008)

If the securities are to be publicly issued, then they require a good rating from a credible rating agency. Investors put a lot of faith in the assessment of rating agencies before deciding which securities to invest in. In addition to the internal credit enhancement, the issues could also benefit from a guarantee by third-party guarantor institutions such as International Finance Corporation, African Development Bank and GuarantCo. This would enhance the creditworthiness of the securities in terms of timely payment of principal and interest payment. With a good rating and a guarantee, issued either to the public or for private placement, the securities would be attractive investments and readily acceptable to investors for uptake.

A Comparative Approach: South Africa's First RMBS

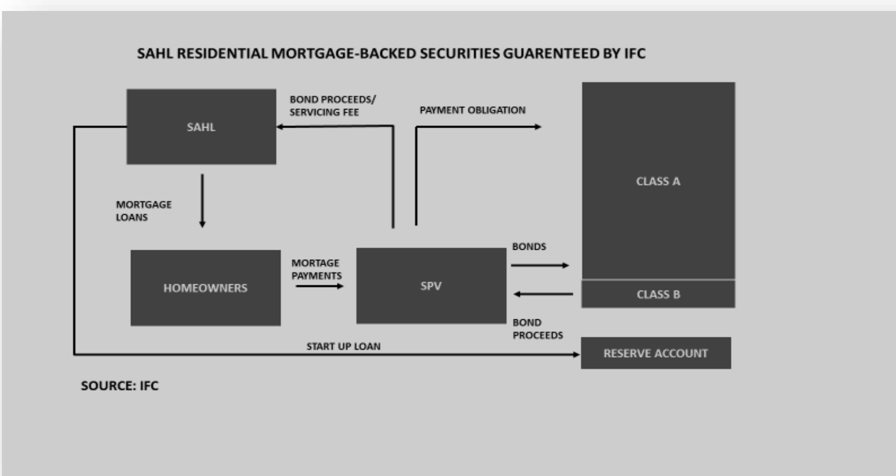
Before 2001, the securitization market in South Africa was almost non-existent due to several underlying constraints that hampered the growth of this market. First, the banking industry was hesitant to securitize because they did not believe that the advantages outweighed the costs. For instance, they claimed that the lack of liquidity and low tradability of the corporate bond market, which was closely tied to securitization instruments, was a possible issue for investors and that, as a result, investor appetite for asset-backed securities would be low. The banks also blamed the slow expansion of securitization on a lack of trust in rating agencies in the region. Additionally, the local banks' had a weak understanding of the benefits of securitization in terms of capital efficiency. They believed that they had sufficient capital and hence saw little need to use financial engineering methods. In general, there was a lack of understanding of the full economic benefits of securitization at the time.

Second, regulatory constraints also hindered the growth of the securitization market. This was particularly the case with the Banking Act, which had two conflicting provisions. Under the Act, securitization was regulated by two separate government notices which created uncertainty amongst originators and especially amongst banking originators. The Bank Act was also not explicit on whether a bank would fulfil multiple roles in a securitization transaction. However, in 2001 there was an amendment of the securitization regulations that somewhat demystified the operation of a securitization transaction and also allowed banks to fulfil multiple roles in a securitization transaction. By broadening the definition of what constitutes a securitization transaction, corporations and banks were able to use securitization as a tool to easily raise funds for their financing needs.

With the new securities regulation in place, and the increased awareness on the use of securitization to provide regulatory capital relief for originating banks and its potential benefits, the South African securitization market experienced accelerated growth between 2001 and 2005, paving the way for the first RMBS issuance in the country by the South African Home Loans company (SAHL). SAHL was incorporated in South Africa in 1999 and was owned by Peregrine Holdings Limited, Chase JP Morgan, Standard Bank, International Finance Corporation (IFC), International Bank of SA, Banque Nationale De Paris, and Dresdner Bank.

It was the first non-bank to challenge the big banks' mortgage monopoly in South Africa, and securitization was at the heart of its business model. SAHL's strategy was to provide affordable home loans at a significant discount, rivalling what the conventional banks were offering. This strategy was driven by a securitization-based financing model, which ultimately led to the development of the housing finance sector in the country. By these developments, SAHL made it more affordable for an average South African to own a modest home due to the significantly lower interest rates.
As of 2001, SAHL had processed 15,000 loans worth R 5 Billion of which R 2 Billion had already been approved. The model involved securitization of 6,462 residential mortgages and the issue consisted of a USD118 million (92%), AAA-rated senior tranche (Class A) and USD 10 Million (8%), BBB rated subordinated tranche (Class B). The notes were running for 23 years and have a callable feature (IFC). The bonds were sold to roughly 20 South African investors, including fund managers and some banks, and were twice oversubscribed. The success of the bonds can be attributed to partial guarantees from the IFC, this to a large extent boosted the risk profile of the bonds and their attractiveness to investors. Furthermore, there were also other macro factors that contributed to the overall success and growth of the RMBS market in South Africa such as strong banking laws and the amendment of conflicting clauses in the securities regulation under the banking act, also an independent central bank and South Africa's vibrant and sound financial markets.

Figure 9: SAHL Residential Mortgage-Backed Securities Guaranteed by IFC



Source: IFC

Key Considerations in Developing the RMBS Market in Kenya

- Currently, Kenyan's Bank Act has no provisions governing securitization where banks are the originators. Pertinent issues such as off balance sheet securitization, capital adequacy requirements, risk weightings of retained risk tranches by banks, ability to select assets for sale, ability of the banks to take up multiple roles in a securitization transaction, etc., all need to be incorporated into Kenya's legal and regulatory framework. As noted in the South Africa model, the amendment of the South African Bank Act concerning securitization transactions by the South African Reserve Bank for originating banks was a major enabler in the successful implementation of the RMBS market. Therefore, Kenya's Bank Act may need to be amended to support growth of RMBS in Kenya.

- Having a sufficient number of mortgages of predictable quality is a critical precondition for mortgage securitization, this necessitates the existence of a functioning real estate based financial system in which the banks can easily build a loan portfolio to sell off to KMRC. Therefore, banks need to begin building a sizeable portfolio of mortgage loans which can easily be securitized. The ability to build this pool will depend on getting Kenyans interested to buy homes and take out mortgages. One of the reasons that the agency RMBS model was so successful in the US market was because Americans understood the benefits of owning a home. The average citizen desired to take up a mortgage. The government policy establishing Fannie Mae and Freddie Mac supported that desire, expanded the housing finance sector, and allowed more Americans to purchase a home. Likewise, it is imperative for Kenyans to have deep understanding and the drive to own a home. This can be done through educational outreach campaigns by KMRC to member institutions and to the general public. When Kenyans are better informed about the mandate of the KMRC, and some of the ongoing projects that KMRC has facilitated, Kenyans who meet the mortgage eligibility criteria will line up to take up mortgages under the affordable housing model.

- Another key consideration is whether banks are willing to sell off these loans to KMRC for cash, or is it a portfolio they wish to hold in their books. This calls for dialogue between KMRC, Central Bank of Kenya and commercial banks.

- To promote a safe and liquid securitization market, it is paramount to have standardized guiding principles on credit evaluation and collateral procedures that will directly increase the efficiency of the primary markets for new mortgage originations. The principles should be fairly simple, transparent and easy to implement as opposed to complex and opaque structures that may end up stifling the growth of this market. KMRC should offer capacity building to member institutions on the underwriting of mortgages and how to harmonize standardization of mortgages practices and procedures. The EU's 2019 regulations (previously mentioned) create a framework to promote "simple, transparent, and standardized'' securitization and offers an example for KMRC.

- The capacity to sell the securities, as with any bond product, will be determined by the macroenvironment, including interest rate levels and stability. If the macroeconomic environment is not favorable, the securitization market will struggle to develop.

Section 3. Conclusion

Since their inception in the 1970s, government agencies in the US mortgage securitization market have continued to provide considerable benefits to the housing sector of the U.S economy. They continue to support housing activity by providing the primary mortgage market with adequate, low-cost liquidity through the issuance of mortgage-backed securities. This in turn, increases the liquidity of the secondary mortgage market and decreases mortgage borrowers' interest rates. As noted earlier, one of the factors impeding homeownership in Kenya is the high-interest rates for mortgages, hence, most Kenyans prefer to rent as opposed to owning a home. The government is well acquainted with the underlying constraints and is strongly committed to addressing these challenges through the establishment of the KMRC.

As much as the KMRC will receive funding from development partners, and also issue notes in the capital market, securitization could be an additional avenue to raise this capital. The securitization structure provided in this paper suggests the issuance of simple pass-through residential mortgage-backed securities with KMRC as the securitization vehicle. Assistance from the IFC to refine the structuring, placement, and guarantee of the securities will go a long way in ensuring a successful issuance. Notably, this was the case for South Africa's first RMBS, where IFC played a key role in the structuring and placement of the issuance.

As Nelson Mandela said, "It always seems impossible until it is done." Securitization is an area that has not been fully tried and tested before in Kenya and there is still reluctance from certain market players on implementation of this market. This impression is a remnant of the negative impact of the Global Financial Crisis (GFC) which resulted from lax regulations governing the US securitization industry. However, with new regulations in place, immense benefits to homeowners are arising from securitization in the US as championed by Fannie Mae and Freddie Mac. Securitization has the potential to bring similar benefits and greater financial prosperity to Kenya, if actualized in a robust and well-regulated market.

Recommendations

The following factors would assist in the development of the residential mortgage-backed securities market in Kenya to international standards.

1. Developing regulations governing securitization should incorporate lessons learned from the US after the GFC to prevent systemic risks to the financial sector.

2. As noted in other jurisdictions, such as the US, banks play a key role in the securitization market because they have both the quality of loans and the required portfolio size to carry out an effective securitization. To grow this market in Kenya, banks and all stakeholders need to be on board with supporting the initiative. And this will depend on getting Kenyans interested in taking out mortgages.

3. This paper proposes that KMRC take a similar role as that of the US GSEs (Fannie Mae and Freddie Mac) in the issuance of RMBS. At the moment, the commercial banks have an 80 percent majority ownership in KMRC with the government at 20%. The proposal is for the government to have a controlling stake within the law to mitigate against potential conflicts of interest.

4. Similar to the Ginnie Mae, Fannie Mae, and Freddie Mac structures in the United States, government guarantees on the mortgage-backed securities issued by KMRC would certainly assist in generating sufficient trust and volume in the market. For now the government may be constrained and not able to provide full guarantees to back a KMRC securitization, However, third party guarantees from International Finance Corporation, African Development Bank and GuarantCO would increase the attractiveness of the bond. For instance, Kenya's inaugural green bond, issued by Acorn Holdings and guaranteed by GuarantCO, was oversubscribed. This shows investor appetite for these new products.

5. As noted earlier, Fannie Mae's RMBS can act as collateral in REPO transactions with the US Federal Reserve. Similarly, if these securities have a government guarantee in Kenya, then the pass-through securities by KMRC can be used as collateral in REPO transactions as well, hence improving liquidity and further strengthening the capital market development in Kenya. However, this new development may require an amendment of the Bank Act to include RMBS as eligible collateral for REPO transactions

6. Develop capacity among originators, investors, arrangers, servicers. Often, the lack of strong institutions, like back-up servicers to support the deal, brings down the ratings in emerging markets.

Section 4. Annex

Summaries of Kenyan and South African Laws

The annex provides a summary of relevant laws on securitization in the two countries. The summary does not purport to be a comprehensive analysis of the respective securitization laws.

South Africa

In South Africa, there are three main regulations governing securitization, the Bank Act 94 of 1990 in Government Notice 2, Government Gazette 30628 of 1 January 2008 (Securitization Regulations); the Financial Market Act; and the Currency & Exchanges Act. The regulations published in the Bank Act underscore the role and status of the SPV. Under the regulation, the SPV is exempt from the obligation to register as a bank provided that the transaction is implemented as per the required conditions.

The Bank Act stipulates the 'true sale' requirements (conditions for the disposal of assets from the originator to the issuer SPV). It also incorporates conditions relating to credit enhancement facilities, liquidity facilities, and ownership and control of the issuer SPV.

The Financial Market Act 19 of 2012 provides a framework that governs the licensing and operation of financial exchanges, as well as trading conditions and market infrastructure regulations. The Financial Markets Act regulation, published in Government Notice 98, Government Gazette 41433 of 9 February 2018, addresses the regulation of unlisted over-the-counter derivatives and the licensing and regulation of clearinghouses and trade repositories.

The Currency and Exchanges Act 9 of 1933 stipulates that if securities are issued to non-resident investors, the Financial Surveillance Department of South African Reserve Bank must be duly notified, and approval obtained before issuance if the following two conditions apply

- The non-resident investors are not related parties to the issuer SPV (which is likely to be the case, given that the shares in the issuer SPV are owned by an independent trust).
- The securities are either issued in South African Rand and bear interest at a rate that exceeds the relevant base rate for that currency as published by the SARB plus 2%.

Other legislation touching on securitizations includes:

The Companies Act 71 of 2008 (Companies Act) that governs and regulates the establishment of the Issuer SPV and applies to all companies in South Africa.

The Insolvency Act 24 of 1936 (Insolvency Act) that also has certain provisions regarding securitization. By and large, it governs the proceedings on the insolvency of persons residing in South Africa.

Kenya

Issuance of ABS is presently governed by the Capital Markets Authority. Securitization regulation is mainly captured in the Capital Markets Act and Capital Markets (Asset-backed Securities) Regulations, 2007 and more recently by the CMA Policy Guidance Note, 2017. The Capital Market Act defines ABS as “any securities including promissory notes,” but excluding shares or entitlements under a collective investment scheme. It also defines key nomenclature such as originator, issuer, securitization, and more, in the context of conventional practice. The Regulations 2007 allows for the securitization of not just tangible and intangible assets, but also future assets (International Comparative Legal Guide). According to Section 30K of the Regulations 2007, such assets must create cash flows, be legally originated, must not bear any third-party encumbrances, and must conform with all other Act conditions. It also guides true sale agreements and their interpretation. The Regulations2007, establishes the legal framework of securitization transactions but, despite their apparent robustness, they have been overshadowed by time. Also, some inconsistencies have been observed between the Regulations 2007, and the Guidance Note 2017.

Some sections of the regulations 2007 have also been repealed to provide more clarity to issuers. For instance, Regulation 27 imposed an irrational requirement that the CMA notify the Minister of Finance of its decision to approve or deny an ABS issuance application before alerting the applicant. Given Kenya's bureaucratic history, any transaction participants would be wary of this invitation of government intervention (Mutegi, 2016). The Regulations 2007 has been counterintuitive and to a large extent has delayed the issuance of ABS in Kenya. Due to this lapse in regulation, CMA drafted and published the ABS policy Guidance Note, 2017, which was created using the Authority's powers under sections 12A and 30Z of the Capital Markets Act. Section 30Z authorizes the Authority to publish guidelines on the form and structure of a special purpose vehicle (SPV), as well as asset-backed securities documentation requirements. Section 12A empowers the Authority to issue guidelines to regulate capital market activities and products. It also provides important clarifications of areas where the Regulation 2007 was deemed unclear.

Other legislation touching on Securitizations includes:

Income Tax Act

To encourage the issuance of ABS, a variety of tax incentives have been implemented over time. One of the most notable is the 2005 exemption for any income generated on asset-backed securities. Additionally, interest payments to the investors generated from the underlying assets are also exempt from tax. (Mutegi, 2016).

Stamp Duty Act

Stamp duty was specifically exempted in Legal Notice No. 105 of 2015 for transaction documents issued in connection with securitization and approved by CMA. This exemption lowers transaction costs, making ABS issuance a more attractive financing option for originators.

Insolvency Act

If the purchaser of the receivables has both legal and equitable ownership, a seller's insolvency should not interfere with the purchaser's ability to collect, transfer or otherwise deal with the purchased receivables. Further, a purchaser who is deemed to be only a secured party rather than the owner should also not be affected by the seller's insolvency if the security interest is registered under the Movable Property Security Rights Act, 2017 (International Comparative Legal Guide, Securitization, 2019).

Section 5. References

1. Mutegi, J. (2016). Regulation of asset-backed securities in Kenya: a comparative analysis.

2. https://www.fhfa.gov/

3. https://www.sifma.org/

4. https://www.fhfa.gov/PolicyProgramsResearch/Research/PaperDocuments/SYSTEMIC%20RISK.pdf

5. https://www.centralbank.go.ke/uploads/banking_sector_annual_reports/1375903848_Bank%20Supervision%20Annual%20Report%202020.pdf

6. https://content.next.westlaw.com/2-501-2997?__lrTS=20200814104329703&transitionType=Default&contextData=(sc.Default)&firstPage=true