Philippine Institute
for Development Studies
Surian sa mga Pag-aaral
Pangkaunlaran ng Pilipinas

Policy Notes

ISSN 1656-5266

No. 2013-20 (December 2013)

Strengthening mortgage-backed securitization in the Philippines: The role of the National Housing Mortgage Finance Corporation (NHMFC)

Daisy S. Dulay and Marife M. Ballesteros

With stricter risk management for banks and financial institutions and the need to address the housing gap of nearly three million units annually, strategies that will provide long-term funds and expand home finance specifically to the low- and moderate-income households are essential to ensure the sustainability of housing finance. One potential option is to develop mortgage-backed securitization (MBS) to strengthen the private securities market and the capital market. So far, the Philippine mortgage loans-to-GDP ratio is only about 10 percent, which is considered small based on standards of existing mortgage systems. In advanced economies, housing mortgage depth is between 30 and 75 percent.

This *Policy Note* discusses the role of the National Home Mortgage Finance Corporation (NHMFC) in developing securitization in the country. The NHMFC is the major government corporation created to operate as a secondary mortgage institution but this mandate has not been fully implemented in the past 30 years as NHMFC operations have been diverted to loan origination. With the approval of the Securitization Act of 2004 and improvements in the financial sector, opportunities to engage in securitization have opened up. The NHMFC has taken this opportunity to undertake securitization as a strategy to expand home finance.

Overview of NHMFC's history

The NHMFC was created in 1977 by virtue of Presidential Decree 1267 that gave it the mandate to develop and operate a secondary market for home mortgages. This mandate was patterned after the United States (U.S.) Fannie Mae and Freddie Mac that back then were considered the models for home finance securitization. The NHMFC was

PIDS Policy Notes are observations/analyses written by PIDS researchers on certain policy issues. The treatise is holistic in approach and aims to provide useful inputs for decisionmaking.

The authors are, respectively, Vice-President for Operations and Securitization, National Home Mortgage Finance Corporation (NHMFC), and Senior Research Fellow, PIDS. This *Note* benefited from the comments of NHMFC President Dr. Felixberto U. Bustos. The views expressed are those of the authors and do not necessarily reflect those of PIDS or NHMFC or any of the study's sponsors.

operating relatively well before 1984 in performing its mandate of buying home mortgages originated by private financial institutions and eventually selling them to the public as Housing Participation Certificates.

However, the financial crisis that hit the country in 1984–1986 caused interest rates to shoot up from 30 to 40 percent, making it impossible for the NHMFC to operate viably because housing loan interest rates were fixed at nine percent. By the end of 1986, NHMFC and other government-controlled housing finance institutions were given a fresh mandate under Executive Order (EO) 90. EO 90 provided for an integrated home finance program for the middle- to low-income home buyers (members of the three pension funds) through the Unified Home Lending Program (UHLP). Specifically, the NHMFC mandate was expanded to include origination, utilizing long-term funds from the Social Security System (SSS), the Government Service Insurance System (GSIS), and the Home Development Mortgage Fund (HDMF), in addition to purchasing home mortgages originated by both public and private financial institutions and private developers.

The UHLP, however, was suspended in 1996 due to low repayment rates and huge amount of uncollected loans. Loan collection efficiency was estimated at only 60 percent. Delinquent accounts for over three months represented 63 percent of total accounts. This problem left the NHMFC with an outstanding debt balance of PHP 46 billion with SSS, GSIS, and HDMF. The economic slowdown in 1998 created further difficulty to implement an aggressive asset recovery program. This situation forced the NHMFC to undertake a financial rehabilitation program in 2002, which included a restructuring of its debt obligations with the funders and a disposition and liquification program of its delinquent portfolio.[1] This situation also caused the NHMFC to redirect its operations to its primary mandate of secondary mortgage institution.

The financial rehabilitation undertaken resulted in a financial turnaround. Starting 2005, the NHMFC posted a positive net income after more than 10 years of insolvency and a negative balance sheet. This is remarkable as it was done without any government bailout. It also shows that it is possible for an insolvent organization to do a financial turnaround through a total portfolio management approach.

In 2007, NHMFC laid the building blocks for its transformation into a secondary mortgage institution (SMI). The organization was streamlined from an 850-plantilla organization to a lean 300 personnel. The training and gearing of its internal systems and processes for secondary mortgage operations also enabled NHMFC to issue its first securitization in 2009, which was a success and twice oversubscribed. It was awarded the "Best Securitization Deal for 2009" by the *Asian Asset Magazine* in January 2010 in Hong Kong. In 2012, NHMFC offered its first retail and publicly listed MBS in the country. The same issue was given the "Most Innovative Award" in 2012 by the Philippine Dealing Exchange in Manila.

Framework for a good securitization process[2]

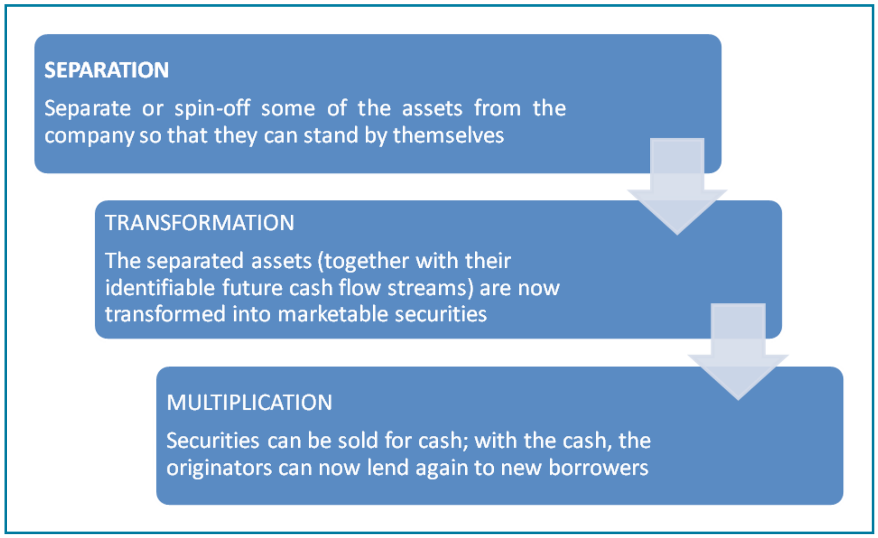
Securitization is the process of legally isolating existing asset pools or future-generated assets

[1] This is the first bulk nonperforming loan sale in the country.

[2] This framework is courtesy of NHMFC President, Felixberto U. Bustos, Jr. It was presented at the SHDA and CREBA National Developers Convention, September 26, 2013, Fairmont Hotel, Makati City, Philippines.

away from the company where the receivables originate. Figure 1 illustrates the process of securitization.

Figure 1. The securitization process



Source: Limlingan (2000) in Bustos (2013)

In particular, the key factors for an SMI such as NHMFC to function efficiently are: (1) initial capital; (2) extraction rate; and (3) turnover rate.

- *Funding* or capitalization. This refers to the equity capital infusion necessary for the SMI to undertake and grow its business. The funds will be used to meet start-up costs and operational activities. Initial capitalization requirement is usually substantial given the role of the SMI as a central refinancing platform. The U.S. Federal Home Loan Mortgage Corporation (Freddie Mac) was provided with an initial funding of USD 100 million while Hong Kong Mortgage Corporation had an authorized capital of HKD 3.0 billion. Ideally, a liquidity facility, such as SMI, would be a stand-alone institution but its long-term future should be with the private sector, that is, future funding should be raised through the market.

- *Extraction rate*. Extraction rate is the amount or value that has been generated from a securitization transaction less any and all transaction or friction costs. Generally, these are the funds that can be readily utilized for future/subsequent securitizations. Extraction rate is not the same as recovery rate as this fund grows over time and ensures sustainability in housing finance.

The extraction rate is affected by: (a) the supply of securitizable accounts (or the asset pool); (b) the quality of the asset pool/accounts; and (c) the creation/availability of investors, particularly the development of a professional market for subordinate tranches.

- *Leverage*. This is the ability of the SMI to use its securitized instruments or its operations as a support mechanism for financial capital to ensure continuous liquidity in the market (for the investing public). This necessitates the existence or development of the following: (a) faster due diligence processes (which include the presence of standardized and simplified forms for borrowers, originators, and lending institutions alike) and (b) streamlined review and due diligence processes for the lending institutions. The aforementioned measures would ensure the quality of the assets/mortgages originated and included in the asset pool for securitization. Other processes that are essential include the sharing of credit files, and standardization and sharing of valuation parameters/standards and data.

Aside from these factors, securitization would need a partnering arrangement whereby the SMI provides for a risk-sharing approach with banks and other institutions in all the securitization activities going on. This implies that any and all issuances should be rated investment-grade and of low risk but with a stable yield.

NHMFC securitization experience

Between 2009 and 2012, NHMFC has undertaken two securitization issuances called ***Bahay Bonds 1*** (***BB1***) and ***Bahay Bonds 2*** (***BB2***). BB1 represents NHMFC's first securitization issue. This issue is valued at PHP 2.06 billion backed by more than 12,000 prime residential mortgage loans, which are the best quality loans in NHMFC's portfolio (Table 1). These loans have not been restructured and loan payments were consistently up to date with a collection efficiency rate at the time of issue of about 98 percent. BB1 was offered only to institutional investors (mainly banks).

Table 1. Key characteristics of asset pool that collateralized NHMFC BB1 and BB2

Cut-Off Date	BB1 (December 31, 2008)	BB2 (December 31, 2008)
Number of loans	12,408	3,364
Total original balance (PHP)	2,060,898,053.43	718,806,606.66
Total current balance at cut-off date (PHP)		603,744,442.46
Average original loan amount (PHP)	217,141	213,676.16
Average current loan amount (PHP)	167,987	179,472.19
Maximum original balance (PHP)	393,750	393,750
Minimum original balance (PHP)	100,000	81.50
Weighted average original LTV	80.88%	82.74%
Average increase in original valuation of the underlying properties	2.1 times	n.a.
Weighted average current LTV	33.34%	30.35%
Weighted average original term (years)	24.7	18.49
Maximum original term (years)	25.0	25.0
Minimum original term (years)	11.0	n.a.
Weighted average stated remaining term (years)	8.8	8.83
Maximum stated remaining term (years)	4.6	
Minimum stated remaining term (years)	1.0	
Weighted average interest rate	13.02%	11.98%
Maximum interest rate	16.00%	16%
Minimum interest rate	9.00%	9%
Cut-off date	December 31, 2008	March 31, 2012

Source: NHMFC

BB2 was issued in 2010. The bonds are valued at about PHP 604 million backed by more than 4,000 current and restructured NHMFC UHLP accounts. Unlike BB1, BB2 was offered to the general public. This was the first retail asset-backed security or ABS (denominated at PHP 5,000) offered and listed at the Philippine Dealing Exchange (PDEX).

NHMFC installed several risk-mitigating mechanisms to ensure the protection of investors from potential defaults. These are:

- Tranching or a subordination structure. The subordination structure effectively provides for an overcollateralization of the issue. There are two classes of BB1 notes: (a) senior notes rated AA by PhilRatings, a rating company accredited by the Bangko Sentral ng Pilipinas (BSP) and (b) subnotes, rated BBB+ by PhilRatings. Subnotes have been sold to the public and retained by NHMFC. Senior notes have the first priority in payments and, in cases of defaults or prepayments, they will be the last to be affected.

Meanwhile, BB2 consists of three tranches: (a) senior note A sold to the public; (b) senior note B sold to institutional investors; and (c) subordinated notes held by NHMFC and rated BBB+ by PhilRatings. Both senior note A and senior note B were rated AA by PhilRatings.

- Liquidity reserves equivalent to nine months of what is due the senior note holders.
- Commingled reserves equivalent to three months of what is due the senior note holders.
- Provision of a sovereign guarantee through the Home Guarantee Corporation (HGC) on timely payment of loans. The HGC provides a guarantee in

the form of debentures in case of default on the installment payments. The debentures shall pay the full principal component of the expected installment plus interest component of up to 11 percent per annum of the defaulted assets that are allocated to senior notes. HGC does not cover losses of the assets allocated to subordinated notes.

- Creation of a seller-restricted account (which comprises all the excess spread due the subnote holder/NHMFC)[3] that is not released to NHMFC until the senior note holders are fully paid. This account is technically a sinking fund that provides an added layer of security to the senior note holders. The sinking fund was created specifically for BB2 due to the lower quality of assets in the pool (i.e., some mortgages were restructured).

A key issue in the development of MBS in the country is the high execution cost of this undertaking. The cost consists of one-time upfront fees (or fixed costs) and recurring costs. Using the NHMFC experience, MBS execution costs amounted to a total of 5.96 percent and 4.89 percent of the portfolio amount for BB1 and BB2, respectively (Table 2). The upfront cost for BB1 is higher at 3.45 percent based on the portfolio size.

In both MBS transactions, NHMFC allocated funds for reserves (liquidity, commingled reserves, sinking fund) as an added layer of security. The combined expenses or costs of the securitization process amount to about 18 percent of the portfolio size for BB1 and about 20 percent for BB2. This provides an extraction rate of only about 70 percent (Table 3). However, reserves are considered reflows, which eventually go back to the funds. The greater concern in securitization is to reduce the operating costs to increase the extraction rate.

NHMFC expects that as it continues with its securitization activities, the above costs should go down. It is important to note that the high transaction or friction costs (particularly for the BB1 issue) is both a function of a learning cycle and legal requirements. Since the transaction is a first issue, the NHMFC endeavored to follow a simple, basic structure and to be fully compliant with the Securitization Law of 2004. As it fully matures, it envisions that certain friction costs may be reduced further as it can perform the same without the need for other third parties. Transaction costs also decline as templates are developed and standardized.

Generally, the perception of high risk is associated with the MBS and this is evident from the regulation and controls provided by the BSP and Insurance Commission in the investment of banks and insurance companies in MBS. The BSP further limited bank investments in MBS unless with a sovereign guarantee. Likewise, MBS is not in the list of automatically admitted assets eligible for purchase by insurance companies. Investment in MBS requires prior approval from the Insurance Commission. This was done for BB1.

The support of the national government is needed to develop any ABS. In other countries, MBS issued by government-controlled SMIs enjoys similar privileges as government securities.

[3] In particular, the current low interest rates afforded NHMFC excess spread. Average interest rates on NHMFC-originated loans during the period 1987–1996 were highly subsidized with a weighted average of 12 percent compared to the market rates of 16 percent–24 percent in the same period. Currently, interest rates range from 4 percent to 8 percent, which provides an environment to convert UHLP mortgages into bonds or notes that can be traded in the open market.

Table 2. National Home Mortgage Finance Corporation: *Bahay Bonds 1 and 2* summary of transaction costs

Cost Item	Amount	% Portfolio Size	% Issue Size
Bahay Bonds 1			
Financial advisory fee	16,111,543.65	0.78%	0.92%
Rating fees	1,792,000.00	0.09%	0.10%
Underwriting fees	28,232,087.31	1.37%	1.61%
Auditing fee	2,240,000.00	0.11%	0.13%
Legal fee	3,947,020.56	0.19%	0.23%
Registration/Filing fees (exempt. fee)	612,312.50	0.03%	0.03%
Guarantee fee (half of p.a. P14M) 1st	7,000,000.00	0.34%	0.40%
PDex listing fee	200,000.00	0.01%	0.01%
Tax reserve (documentary stamp tax)	10,304,490.27	0.50%	0.59%
Miscellaneous and printing	700,000.00	0.03%	0.04%
Total upfront cost	*71,139,454.29*	*3.45%*	*4.07%*
Special purpose trust	1,430,500.00	0.07%	0.08%
Trustee	650,000.00	0.03%	0.04%
Custodian/Paying agent/Registrar	250,000.00	0.01%	0.01%
Servicer	20,608,980.53	1.00%	1.18%
Rating fees (monitoring fee)	446,000.00	0.02%	0.03%
PDex listing fee (maintenance fee)	98,000.00	0.00%	0.01%
Annotation costs	21,292,128.00	1.03%	1.22%
Guarantee fee (half of p.a. P14M) 2nd	7,000,000.00	0.34%	0.40%
*Total recurring cost**	*51,775,608.53*	*2.51%*	*2.96%*
Liquidity reserve	164,871,844.27	8.00%	9.42%
Commingle reserve	82,435,922.14	4.00%	4.71%
Total reserves	*247,307,766.41*	*12.00%*	*14.13%*
Bahay Bonds 2			
Arranger/Underwriter	9,413,219.80	1.56%	2.24%
5 percent withholding tax	470,660.99	0.08%	0.11%
2 percent withholding tax	188,264.40	0.03%	0.04%
Rating agency	1,008,000.00	0.17%	0.24%
Guarantor	1,680,000.00	0.28%	0.40%
Listing agent	224,000.00	0.04%	0.05%
Out-of-pocket expenses (e.g., road shows, advertising)	695,075.86	0.12%	0.17%
SEC (filing fees)	291,793.20	0.05%	0.07%
Documentary stamp tax	3,018,723.00	0.50%	0.72%
Miscellaneous cost**	1,358,287.50	0.22%	0.32%
Total upfront cost	*18,348,024.75*	*3.04%*	*4.37%*
Rating agency	560,000.00	0.09%	0.13%
Guarantor	3,360,000.00	0.56%	0.80%
Listing agent	56,000.00	0.01%	0.01%
Registrar and paying agent	302,800.00	0.05%	0.07%
Trustee and safekeeping agent	450,000.00	0.07%	0.11%

Table 2 (cont'd.)

Cost Item	Amount	% Portfolio Size	% Issue Size
Special purpose trust	400,000.00	0.07%	0.10%
Servicer (1% of outstanding principal balance of the pool)	6,037,444.42	1.00%	1.44%
Total recurring cost	*11,166,244.42*	*1.85%*	*2.66%*
Tax reserve	31,725,000.00	5.25%	7.55%
Liquidity reserve	24,574,683.32	4.07%	5.85%
Commingled reserve	34,000,000.00	5.63%	8.10%
Total reserves	*90,299,683.32*	*14.96%*	*21.50%*

Source: NHMFC
* Fees covered by special purpose trust
** Cost of house and lot, real property tax, winner's tax, rehabilitation

Notes:
Bahay Bonds 1:
Portfolio/Issue size: P2,060,898,053.43
Size of senior notes: P1,750,000,000.00
Size of subordinated notes: P310,000,000.00

Bahay Bonds 2:
Portfolio/Issue size: P603,744,442.46
Size of senior notes A (retail): P300,000,000.00
Size of senior notes B (institutional): P120,000,000.00
Size of subordinated notes: P180,000,000.00

Keeping the momentum: What needs to be done

The NHMFC can take the lead in the development of the secondary mortgage market for residential mortgages. Following are the needed interventions for the NHMFC to function effectively:

First, the corporation should be recapitalized and provided with enough funds as seed capital to perform its duties. These may be sourced from:

- External sources. These may include HDMF and the Department of Budget and Management, and the International Finance Corporation or other multilateral agencies.
- Internal sources. These may originate through a recapitalization as may be mandated via a charter amendment or by law or through investment participation of the three pension funds (SSS, GSIS, HDMF) or other private entities (which should be provided with no or less interest to funders, no or less taxes, and no or less dividends).

Table 3. Sample calculation of extraction rate *Bahay Bonds 1*

Item	Amount	
Portfolio size	2,060,898,053.43	100%
Junior bonds	310,898,053.43	15.09%
Expenses*	318,447,220.70	15.45%
Net proceeds	1,431,552,779.30	69.46%
Extraction rate	Net proceeds / Portfolio size	69.46%

* Financial advisory fee, rating fee, underwriting fee, legal fee, tax reserve, liquidity reserve, commingled reserve, etc.
Source: NHMFC

Second, improve leverage and extraction rate by adopting the one-stop-shop concept for SMI operations through the following provisions:

- Exemption of the NHMFC from the Securities and Exchange Commission's registration and reporting requirements and fees.
- Tax exemption for investor's yield or income from any low-cost or socialized housing-related ABS issued by the NHMFC or through a special purpose entity under the Securitization Act.
- Reactivation of the NHMFC guarantee (under its original charter).[4]
- Strengthening of the NHMFC charter through an amendment to include, among others, allowing the corporation to securitize housing-related receivables/assets aside from just mortgages. NHMFC should also be allowed to accept equity participation from other government financial institutions through conversion of existing obligations to equity/subscription to unissued shares of stock of the corporation. In addition, provide NHMFC the capability to do mortgage insurance.
- Supporting the development of standardized forms and documents for all housing programs in the country. The creation of standardized forms will simplify the process of getting housing loans (for the borrowers); streamline the review and due diligence process for such loans (for all lending/housing finance institutions); ensure the quality of the mortgages/housing receivables (for the regulatory agencies); and facilitate the eventual securitization of these housing loan receivables into investment-grade, housing-backed securities.[5]

For further information, please contact

The Research Information Staff
Philippine Institute for Development Studies
NEDA sa Makati Building, 106 Amorsolo Street, Legaspi Village, 1229 Makati City
Telephone Nos: (63-2) 894-2584 and 893-5705
Fax Nos: (63-2) 893-9589 and 816-1091
E-mail: mballesteros@mail.pids.gov.ph; publications@pids.gov.ph

The *Policy Notes* series is available online at http://www.pids.gov.ph. Reentered as second class mail at the Business Mail Service Office under Permit No. PS-570-04 NCR. Valid until December 31, 2013.

The standardized documentation for each issue reduces the time required for document preparation and negotiation therefore reducing transaction costs.

The development of the domestic secondary and capital market institutions is imperative in the face of the ASEAN financial integration by 2015. The financial services subsectors identified for liberalization by 2015 include the insurance, banking, and capital markets. International financial institutions would likely undertake these financial services if domestic financial institutions would remain uncompetitive.

References

Ballesteros, M. and D. Dulay. 2013. Feasibility of mortgage-backed securitization for the underserved housing market in the Philippines. PIDS Discussion Paper No. 2013-43. Makati City: Philippine Institute for Development Studies.

Bustos, F. Jr. 2013. Why should the housing industry look forward to asset-backed securitization? Presented at the SHDA and CREBA National Developers Conventions, September 26, 2013, Fairmont Hotel, Makati City, Philippines.

Limlingan, V. 2000. Securitization for the housing industry. In F. Bustos, Presentation at the SHDA and CREBA National Developers Conventions, September 26, 2013, Fairmont Hotel, Makati City, Philippines.

---

[4] It is proposed that the activation of the NHMFC guarantee capacity be initially limited to P10–P20 billion a year (after an initial infusion of additional capital of at least P20 billion). This amount will allow for a P20 billion–P40 billion of new housing per year (assuming two issuances in a year). The cap on the sovereign guarantee (a proposed self-imposed limit) for NHMFC issuances also limits the contingent liability exposure of the national government to a manageable and fixed level while at the same time, forces the NHMFC to perform with utmost due diligence and fiscal prudence.

[5] Through the standardization of both product structure, i.e., (1) for individual housing loan borrowers and (2) for community loans, and by documentation, the program provides a platform for the government housing agencies, developers, and banks to conveniently convert their illiquid mortgage portfolios into liquid MBS/ABS.