# Details of JHF Business

# **Funding**

JHF's major funding sources are mortgage-backed securities ("MBS") and straight bonds with general mortgage ("SB").

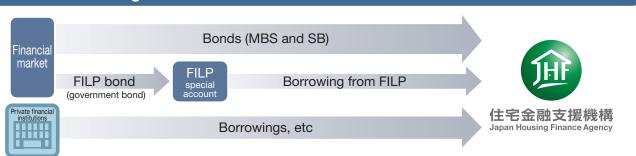
JHF procures funding required for operations such as the securitization support business mainly from the financial market by issuance of MBS and SB.

In addition, implementation of fundraising by syndicat-

ed loans etc. still continues.

JHF limits use of borrowings from Fiscal Investment and Loan Program (FILP) to loans for recovery from disasters requiring emergency measures.

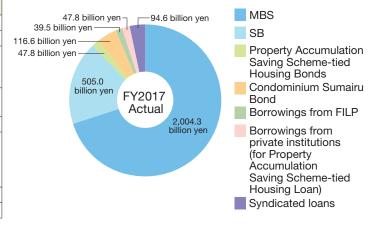
# **Overview of funding**



# Breakdown of funding

The majority of funds are procured by issuance of MBS and SB.

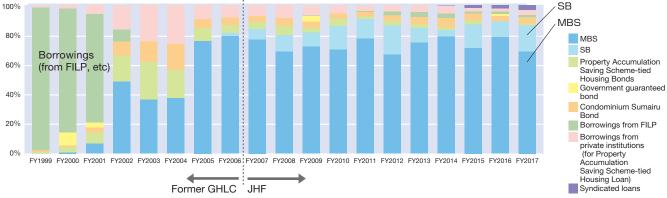
		Results of FY2017
Bonds	MBS	2,004.3 billion yen
	SB	505.0 billion yen
	Property Accumulation Savings Scheme-tied Housing Bonds	47.8 billion yen
	Condominium Sumairu Bond	116.6 billion yen
Borrowings	From FLIP	39.5 billion yen
	From private institutions (for Property Accumulation Saving Scheme-tiedHous- ing Loan)	47.8 billion yen
	Syndicated loans	94.6 billion yen
Total		2,855.6 billion yen



## Trend of funding sources

JHF shifted its main business from direct loans of the former Government Housing Loan Corporation (GHLC) to Securitization Support Business aimed to support provision of mortgages with fixed interest rate throughout the

loan duration by private financial institutions. Due to this change, main funding sources also has shifted from borrowings from FILP to funding from the financial market by issuance of MBS and SB.



# Product features of MBS and SB

	MBS	SB
Collateral	Housing loans *1	General mortgage *2
Rating at time of issuance *3	S&P: AAA R&I: AAA	S&P: A+ R&I: AA+
Redemption methods	Monthly pass-through redemption *4	Bullet payment on maturity date
BIS risk weight *5	10% (Standardized approach)	
Eligible collateral security under the requirements of the Bank of Japan	Eligible	
Large exposure restrictions *6	Out of target	
Amount paid (issuance price)	100 yen paid per 100 yen face value (issued at par)	

<sup>\*</sup>as of May 8, 2018

- \*1. MBS entrusts housing loans "Flat 35" purchased by JHF as collateral at each issuance.
- \*2. SB is a general mortgage bond in accordance with the provision of Article 19 Paragraph 4 of the Act on the Japan Housing Finance Agency, Independent Administrative Agency, and creditors (SB investors) have the right (lien) to receive repayment of their receivables in relation to JHF assets ahead of other creditors. This lien has the second highest order of priority, after a general lien, as defined by the provision of the Civil Code (Paragraph 5 of the Article above).
- \*3. S&P: S&P Global Ratings Japan Inc.
  - R&I: Rating and Investment Information, Inc. The rating of MBS given by S&P has an identifier (sf) that indicates structured finance.
- \*4. See the following page for the monthly passthrough payment method.
- \*5. The capital adequacy ratio under the BIS regulations is obtained by dividing the stockholders' equity by risk assets. Each asset has a loanable value in accordance with the degree of risk, which is referred to as "risk weight."
- \*6. JHF falls under "a corporation that may issue bonds pursuant to a special Act, among corporations that were established pursuant to said special Act and do not have contributed funds from anyone other than the national government, a corporation and a local government set forth in that item," as set forth in the Order for Enforcement of the Banking Act as an exception for application of this Regulation.

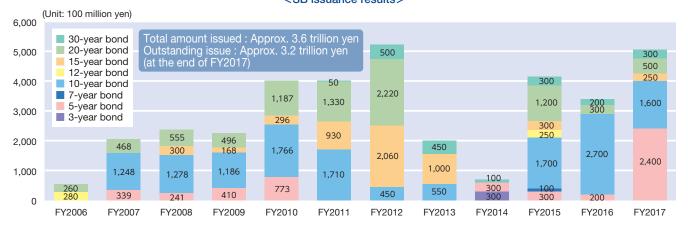
# Issuance results of MBS and SB

Monthly MBS and SB are issued to procure funds for "Flat 35" and JHF loans while S-series MBS is issued for the purpose of refinancing outstanding loans from the former GHLC business.

### <MBS issuance results>



# <SB issuance results>



# **Key Features of MBS (Monthly MBS)**

# **Asset-based Zaito Agency Bond**

- Prior to a beneficiary certificate trigger event\*, JHF pays
  the principal and interest with its credit capability, and
  when a beneficiary certificate trigger event occurs, the
  MBS is no longer a Zaito Agency Bond but converted to a
  beneficiary certificate.
- The risk weight under the Basel Capital Accords is 10% by the standard credit risk method.
- \* Beneficiary certificate trigger events
- 1. The successor of JHF Monthly MBS obligation is not determined by the act, and the dissolution of JHF is enforced by the act and JHF is dissolved by this act.
- 2. An act is enacted to designate as the successor of JHF Monthly MBS obligation a joint stock corporation (kabusiki kaisha) or a legal entity to which application of the Corporate Reorganization Act or other similar bankruptcy proceedings is legally permitted, and JHF is dissolved by such act.
- 3. An act is enacted to designate as JHF Monthly MBS obligor a joint stock corporation or a legal entity to which application of the Corporate Reorganization Act or other similar bankruptcy proceedings is legally permitted, and JHF MBS obligor becomes such legal entity.
- 4. JHF fails to fulfill its payment obligation under JHF Monthly MBS or other bond issued or assumed by JHF on the day such obligation is due and such condition is not cured within 7 days.

# Homogeneous and regionally diversified housing loan pool

- JHF purchases mortgages nationwide to create housing loan pool with highly effective regional diversification.
- JHF applies standardized criteria for purchasing mortgages from private financial institutions to create homogeneous housing loan pool.

# Nationwide mortgages Purchasing criteria Eligibility standards Eligibility standards Homogeneous housing loan pool with effective regional distribution

### JHF bears credit risk of defaulted loans

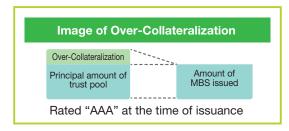
- JHF pays MBS principal and interest on delinquent loans to investors for up to three months as if the loans were current.
- JHF will terminate defaulted loans including loans delinquent for four months from the trust. Therefore, such loans will be treated as prepayments and JHF removes such defaulted loans from the trust asset and repays an amount equivalent to the outstanding principal amount of the defaulted loan multiplied by the outstanding principal amount of the MBS divided by the outstanding amount of entrusted housing loans<sup>11</sup> [Prepayment Method]<sup>12, 13</sup>.



- \*1. The outstanding amount of the entrusted housing loan on assumption that there is no delinquency of the entrusted housing loan
- \*2. As for S-series MBS and Monthly MBS issued by former GHLC, JHF maintains the soundness of the entrusted housing loan pool by replacing entrusted loans defaulted due to four-month delay and so on with equivalent housing loans. [Replacement method]
- \*3. The "cancellation method" and the "replacement method" are applicable only prior to a beneficiary trigger event.

# JHF achieves AAA rating by Over-Collateralization

- JHF receives AAA rating (the highest) from S&P and R&I at the time of issuance by setting a sufficient level of Over-Collateralization\*.
- Minimizing the associated credit risk to the lowest level, investors are eligible to focus just on interest-rate risk and prepayment risk when deciding JHF MBS investment.



\* Over-Collateralization is the amount of the total entrusted housing loan amount exceeding the amount of MBS issued, which functions as credit enhancement after a beneficiary certificate trigger event.

## Monthly payment of MBS principal and interest according to the repayment of the entrusted housing loan pool (Monthly Pass-Through Payment Method)

- JHF pays MBS principal and interest to the investors according to the repayment amount of the entrusted housing loan pool that serves as the asset backing MBS.
- In general, repayment of the principal and interest of housing loans is made every month. Thus, the Monthly payment
- of MBS principal and interest is paid monthly as well.
- Since prepayment is possible in addition to scheduled payment with housing loans, monthly payment of MBS principal and interest changes depending on the situation of prepayment of housing loans.



Image of principal and interest payment

(before a beneficiary certificate trigger event)

JHF pays the principal and interest with the credit capacity.

according to the repayment speed of the housing loan pool, which is the trust asset.

The principal and interest are paid

住宅金融支援機構

Trust assets

# **Efforts for International Business at JHF**

International business was explicitly stated in the third Medium-term Target and Medium-term Plan, therefore, JHF established Office of International Affairs in the Corporate Strategy Department in April 2017. And in April 2018, Office of International Affairs was merged with Research and Survey Department to form the Department of International Affairs and Research to reinforce collaboration between JHF and domestic and/or foreign organizations.

# Strengthening collaboration with foreign organizations

# Practical Training for Government of the Republic of the Union of Myanmar (Myanmar) and Its Related Organizations and Others

Between late July and early August 2017, targeting the staff members of the Ministry of Construction and the Ministry of Planning and Finance of Myanmar, Central Bank of Myanmar, Myanma Economic Bank, Construction and Housing Development Bank (CHDB)\*, Yangon City Development Committee and Myanmar Engineering Society, a Housing Finance Workshop was held by JICA (Japan International Cooperation Agency) where JHF also participated, and practical training and information exchange were carried out.

In February 2018, Vice President of JHF visited the CHDB in Yangon, Myanmar, and discussed the future cooperation. In addition, a Country Focused Training for Myanmar Housing Economy for Myanmar government-related organizations and others was held in Tokyo in the same month where a staff member from JHF gave lectures on creating a housing finance system.

In March 2018, JICA concluded a Japanese ODA Loan Agreement (L/A) with the government of Myanmar in the capital city of NayPyiTaw. The scope of the L/A includes Housing Finance Development Project (loan amounting to 15 billion yen), a project expected to contribute to improvement of the lives of the citizens of Myanmar and the development of the housing sector.

\*As of now, the name is changed to Construction, Housing & Infrastructure Development Bank (CHID Bank).

### <Practical Training of Housing Finance Workshop>



### <JHF's Vice President's visit to Myanmar>



# Japan-US Joint Research with Ginnie Mae and Others

In Washington D.C., United States of America (USA), the first meeting of "Aging in Place", a joint research foucusing on local residency of aged persons conducted together with the US Department of Housing and Urban Development (HUD), Ginnie Mae (Government National Mortgage Association), the Policy Research Institute for Land, Infrastructure, Transport and Tourism, and the Urban Renaissance Agency (UR), was held in February 2017 followed by a second meeting in June 2017.

These efforts were mentioned on the website of the Ministry of Foreign Affairs of Japan introducing the November 2017 Japan-USA Summit Meeting as "The two leaders shared the view that both countries will promote further cooperation in such areas as the exploration of space, health, and 'aging in place'."

The third meeting was held in Tokyo in December 2017.

In these research meetings, JHF staff members gave lectures on aging society situation in Japan and its impact on the Japanese economy, and the efforts of JHF, and also exchanged information with the attendees on the current situation of the reverse mortgage systems in Japan and in the USA.

<Lectures at the second meeting>



### <Lectures at the third meeting>



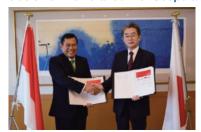
# Conclusion of Memorandum of Cooperation with the SMF of Indonesia

In July 2017, JHF concluded a Memorandum of Cooperation (MOC) on housing finance with PT Sarana Multigriya Finansial (Persero): (SMF) of the Republic of Indonesia.

SMF is a government-related financial institution established in 2005, fully capitalized by the government of the Republic of Indonesia, and is engaged in securitization support business.

In the fourth Asian Fixed Income Summit (AFIS) held by SMF in the Republic of Indonesia in September 2017, JHF staff member gave lectures.

### <Conclusion of Memorandum of Cooperation>



# <Lecture at Fourth AFIS>



# Research on overseas housing finance and dissemination of information to overseas

Communicating with international and overseas public and private organizations and attending international conferences, JHF provides information of JHF and Japanese housing finance market and contributes to facilitation of mutual and international understanding.

As one of JHF's major activities in FY2007, JHF attended the European Mortgage Federation (EMF) / European Covered Bond Council (ECBC) Energy Efficient Mortage Action Plan kickoff meeting in Rome, Italian Republic, in June 2017, and lectured on energy conservation and earthquake-resistant performance features applicable to JHF's housing loans and on Housing Performance Indication System and others in Japan.

In addition, in February 2018, the Euromoney/ECBC Asian Covered Bond Forum was held in the Republic of Singapore, and JHF staff member participated in panel discussions on market trends of covered bonds.

# < Lecture at the EMF/ECBC Energy Efficient Mortage Action Plan kickoff meeting>



# Dissemination of results of research and study with respect to Japan's housing finance Particularly in Asia to the whole world

■ International conferences overseas

April 2017 Norway EMF/ECBC Meeting
June 2017 Italy EMF/ECBC Meeting
June 2017 United States Aging in Place Research Project 2nd Meeting

September 2017 September 2017

Indonesia Indonesia-Japan Urban Development and Housing Seminar 2017
Indonesia ASMMA\*1 Annual Meeting, AFIS
Hong Kong ASIFMA\*2 Meeting
Singapore Euromoney/ECBC Meeting September 2017 February 2018

February 2018 February 2018 Myanmar Meeting with CHDB Thailand Meeting with SMC\*3

March 2018 Myanmar Myanmar-Japan Vice Ministerial Level Meeting on Infrastructure Development ■ Visit to JHF

June 2017 July 2017 Indonesia SMF President Director Indonesia SMF President Director August 2017 October 2017

Myanmar CHDB Managing Director Philippines Asian Institute of Management and Executives of Makati City Korea Korea Research Institute for Human Settlements

December 2017

International conferences and workshps in Tokyo

April 2017

JICA Workshop for Respective Countries (Myanmar)

June 2017

JICA Workshop for Respective Countries (Cambodia) August 2017 August 2017 JICA Housing Finance Workshop (Myanmar) Japan-Korea Housing and Building Conference

October 2017 JICA Thematic Workshop (Improvement and Disaster Prevention of Housing and Living Environment)

November 2017 December 2017

January 2018 February 2018

IHHWC\*\*
Aging in Place Research Project 3rd Meeting
Indonesia-Japan High Level Meeting on Infrastructure Development
JICA Workshop for Respective Countries (Myanmar)
JICA and National Graduate Institute for Policy Studies Strategic Policy Research and Innovation Program March 2018

Asian Secondary Mortgage Market Association \*2 Asia Securities Industry & Financial Markets Association

\*3 Secondary Mortgage Corporation \*4 International Housing & Home Warranty Conference

## Efforts on "Act on Promoting Entry of Japanese Business Operators into Overseas Social Capital Projects"

As the Act on Promoting Entry of Japanese Business Operators into Overseas Social Capital Projects has been promulgated,\* JHF will actively conduct a survey, study and information sharing on housing finance and in foreign countries but focusing on emerging countries and in accordance with the basic policies provided by the Minister of Land, Infrastructure, Transport and Tourism under the Act.

\*The Act on Promoting Entry of Japanese Business Operators into Overseas Social Capital Projects was promulgated on June 1, 2018. The Act shall enter into force within three months from the day of promulgation.