



CHAPTER

10

Housing

10.1

Context

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Assessing the Quality of Spending

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Recommendations to Improve the Quality of Spending



This chapter is part of the World Bank's 2020 Public Expenditure Review for Indonesia.

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Key Messages

- A** Indonesia's housing needs are vast. Projections of urban population growth highlight the housing need for 780,000 new household formations per year until 2045, while tackling an existing ownership backlog of 12.1 million units and improving millions of substandard homes.
- B** Indonesia has made progress toward its 2019 targets to deliver new houses and reduce the number of substandard houses, but progress toward the occupancy backlog is not on track.
- C** The main housing subsidy schemes used to meet the home ownership and occupancy targets—FLPP and SSB—are not efficient: the subsidies used are fiscally expensive (in terms of upfront fiscal costs and future liabilities), they benefit banks and developers rather than consumers, and crowd out the private sector.
- D** The BSPS scheme has delivered grants to the poorest 40 percent of households to improve substandard housing, but the design of the FLPP and SSB scheme are regressive, poorly targeted and prone to leakage.
- E** Housing subsidies are also not effective in meeting the SDG goal of providing inclusive, safe and adequate housing for all due to weaknesses in the quality of construction, program design and poor enforcement of program guidelines.

Summary of Recommendations

Short Term

- A** Shift funding toward more efficient, progressive, and better-targeted subsidies, while optimizing existing subsidy programs to enhance efficiency and equity;
- B** Ensure subsidized homes are of good construction quality and built in well-located areas and with access to basic services;
- C** Develop a housing micro-finance subsidy program to finance home improvements and incremental home extensions; and
- D** Develop a Housing and Real Estate Information System (HREIS) to improve the planning processes for managing affordable housing development.

Medium Term

- A** Develop alternative housing typologies that are cost-effective and meet the heterogeneous needs of consumers in urban areas;
- B** Support the development of affordable housing through a public-private partnership (PPP) framework to support access to affordable and well-located housing in urban centers;
- C** Develop rental policies as an alternative and pragmatic housing solution to home ownership; and
- D** Review and revise the regulatory framework to clearly assign a role for SNGs in providing affordable housing, while building their capacity to do so.

Further key reading

Housing Program (Part 2, chapter 2), "Indonesia Sector Infrastructure Assessment Program", World Bank, June 2018. Forthcoming

World Bank. 2019. "Time to ACT: Realizing Indonesia's Urban Potential", Part 2, Chapter 7: "Connecting and Integrating Cities: A Focus on Housing and Transport". <https://blogs.worldbank.org/eastasiapacific/time-act-realizing-indonesias-urban-potential>

World Bank and Government of Indonesia, 2015. Report: "Indonesia: A Roadmap for Housing Policy Reform." National Development Planning Agency (Bappenas).



Access to housing for all” is a key priority for the GoI. Through laws and programs, the GoI has ratified access to housing for all as a national mandate. The right to adequate housing is enshrined in the 1945 Constitution and Law No. 1/2011 on Housing and Settlements, which proclaims: “every Indonesian citizen should live in a decent and affordable settlement within a healthy, safe, harmonious, organized, integrated and sustainable environment.” The GoI has also endorsed Sustainable Development Goal (SDG) #11 to “make cities and human settlements inclusive, safe, resilient and sustainable”.

Urbanization has driven up the demand for housing. Between 2010 and 2018, Indonesia’s urban population grew by 27 million, equivalent to more than the entire population of Australia. While the pace of Indonesia’s urbanization can be considered normal over the past decade, this trend has driven up the need for housing in urban areas. With the share of the urban population expected to rise from almost 55 percent to over 70 percent by 2045, there is a need for

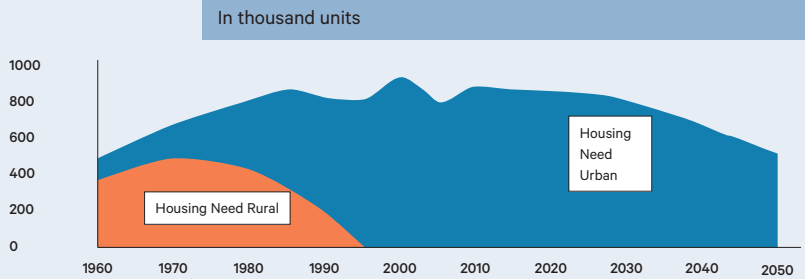
housing to meet the average 780,000 new household formations per year (Figure 10.1).²⁵⁶

Indonesia faces substantial housing needs, not just in terms of the quantity of housing units needed but especially in terms of the quality of housing stock. In 2017, 12.1 million households did not own a home (the ‘ownership backlog’)—about 1 million fewer than in 2014, but still far from the GoI’s target of 6.8 million in 2019. Of these, 6.7 million do not own, rent or lease a home (the ‘occupancy backlog’).²⁵⁷ Of greater concern, however, is the number of housing units that are considered unfit or substandard: 22 million households,²⁵⁸ or close to one-third of the population, live in housing with at least one substandard feature (e.g., housing made of mediocre building materials, a lack access to basic services, or are overcrowded).²⁵⁹ Assessed against even more stringent SDG criteria for ‘inclusive, safe, resilient and sustainable housing’, the number of houses considered substandard in Indonesia reaches 43 million households (Figure 10.2).

Housing affordability is also a key constraint in Indonesia. Only the wealthiest 20 percent of households can afford

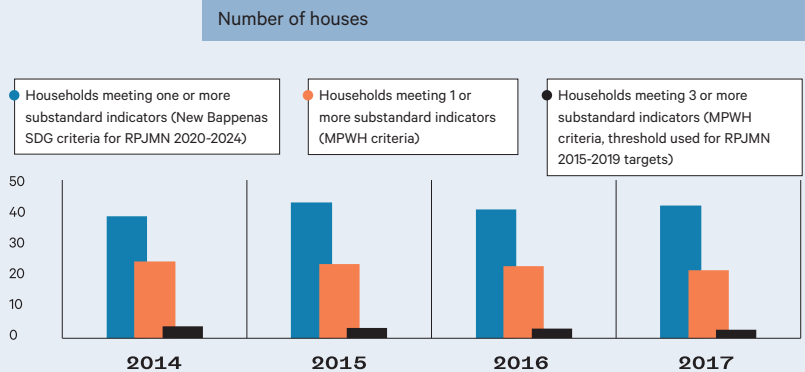
Context

FIGURE 10.1. Urban and rural new household formation, 1950-2050



Source: World Bank staff estimates based on United Nations World Population Prospects, 2018 revision.

FIGURE 10.2. Estimates of substandard housing vary, depending on the definition used



Note: According to MoPWH criteria, houses are ‘substandard’ if they meet one or more of the following criteria: unsuitable building materials for roof, walls and flooring, lack access to clean water and/or safe sanitation, have insufficient floor per capita area, and/or do not have electric lighting. In the SDG criteria which will be used by Bappenas starting 2020, more building materials are considered substandard (e.g., asbestos roofing, bamboo flooring) and higher standards for clean water and safe sanitation are used. Source: For MoPWH criteria, World Bank staff calculations from Susenas 2015-17. For SDG criteria, Bappenas data from October 2018.

²⁵⁶ Estimates based on urban and rural population projections from UN World Population Prospects data. Assumes an average household size of 3.8 persons for urban households and 4.4 persons for rural households.

²⁵⁷ This is the total number of households that do not own their home and do not rent/lease a home. It is a more realistic estimate of the number of new housing units needed compared to the ownership backlog (12.1 million as of end-2017), which does not account for preferences to rent rather than own a home.

²⁵⁸ Source: World Bank staff calculations from Susenas, March 2017.

²⁵⁹ According to World Bank calculations from Susenas (March 2017), about 5.9 million households, mostly low- and middle-income dwellers, live in overcrowded conditions. Following Health Ministerial Decree (Kepmenkes) No. 829/1999, a household is considered overcrowded if the floor area per person is less than 7.2 square meters.

housing in the formal commercial market, based on the estimated average housing cost of IDR 440 million (US\$33,000).²⁶⁰ The middle 40 percent of households can afford the same formal housing only with a government subsidy, while such housing is inaccessible to the bottom 40 percent of households.

The GoI has attempted to address these three challenges of housing quantity, quality and affordability. The National Medium-Term Development Plan (*Rencana Pembangunan Jangka Panjang Nasional*, or RPJMN) 2015-2019 envisioned the construction of adequate, safe, and affordable houses and basic infrastructure to improve the living standards of the bottom 40 percent of the population.²⁶¹ Specifically, the GoI intended to reduce the occupancy backlog from 7.6 to 5.0 million units, and reduce the number of substandard homes from 3.4 to 1.9 million in the period 2015-19. Table 10.1 summarizes these RPJMN housing targets.

Separately, the GoI launched its “One Million Houses”, or *Satu Juta Rumah*, initiative in 2015 to provide 1 million newly-constructed homes per year through public and private financing.²⁶² While the initiative primarily targets low-in-

come households or *Masyarakat Berpenghasilan Rendah* (MBR), other income groups are also eligible for government subsidies. *Satu Juta Rumah* spans the following:

1 Regulations relating to taxation, financing schemes, and land use to facilitate housing development;

2 Provision of housing for low-income households. These include simple rental flats (Rusunawa), special purpose houses (Rusus), and home improvement subsidies (*Bantuan Stimulan Perumahan Swadaya*, BSPS); and

3 Access to housing finance through credit-linked programs. The main programs (and hence the focus of this chapter) are mortgage-linked subsidies, also known as KPR (*Kredit Perumahan Rakyat*, KPR) subsidies:

Housing Loan Liquidity Facility (*Fasilitas Likuiditas Pembiayaan Perumahan*, FLPP),

Interest rate subsidy (*Subsidi Selisih Bunga*, SSB), and

Down-payment assistance (*Bantuan Pembiayaan Perumahan Berbasis Tabungan*, BP2BT).

The GoI also provides down-payment assistance in the form of grants (**Subsidi Bantuan Uang Muka, SBUM**), which can be used in combination with FLPP and SSB. Table 10.2 describes the main housing subsidy programs managed by the central government.

To reduce the fiscal burden of housing subsidies and promote home ownership, the GoI also passed Law No. 2/2016 on the Housing Provident Fund (*Tabungan Perumahan Rakyat*, or Tapera). Tapera aims to provide long-term housing finance for low-income households through mandatory payroll deductions and is thus expected to reduce the burden on public finance over time. Before Tapera can be implemented, however, the product design and income target segmentation need to be developed and agreed upon, while avoiding overlap with other housing finance products. Getting these aspects right is crucial to Tapera's success (see Box 10.1).

TABLE 10.1. Progress on RPJMN housing targets has been slow but steady

Numbers denote millions of households	2014 Baseline	2015	2016	2017	2019 WB Projection	2019 Target
Ownership (<i>kepemilikan</i>) backlog	13.5**	11.7	11.9	12.1	12.5	6.8
Occupancy (<i>penghunian</i>) backlog (total number of households less(i) households that own their home and less (ii) households that rent/lease a home)	7.6**	6.2	6.1	5.9	5.7	5
Substandard homes: Households in 3 or more of seven substandard categories	3.4*	3.3	3.3	2.8	2.2	1.9

Note: Numbers marked with * have been cited from RPJMN 2015-2019 Mid-Term Review; however, World Bank calculations from Susenas data show 3.9 million households were substandard in 2014. Numbers marked with ** indicates data from secondary MoPWH sources. Other indicators have been calculated using MoPWH method for RPJMN 2015-2019 targets.

Source: Data from Susenas 2015-17, World Bank staff analysis using criteria outlined in Technical Guidance for Substandard Housing Data Collection 2016, the MoPWH Directorate of Self-Built Housing.

TABLE 10.2. Main GoI housing subsidy programs

Program & Year Started	Description
BSPS (2006)	Grants for home improvement or self-construction for eligible low-income (MBR) households. Grants are in the amount of IDR 15 to 30 million per household. BSPS mostly operates in rural, rather than in urban areas, and operates a community-driven development model using facilitators.
*FLPP (2011)	Provides concessional funding to lenders who provide mortgages at fixed interest rates to consumers at 5 percent per annum for 20 years. Liquidity is 90 percent funded by the GoI (at 0.5 percent cost of fund) and 10 percent by participating banks. The 90 percent capital funding ratio was reduced to 75 percent in August 2018.
*SSB (2015)	Interest rate subsidy that buys down the mortgage market rate to 5 percent, which is fixed for the life of the loan. Unlike FLPP, capital funding for SSB is the responsibility of participating lenders.
SBUM (2015)	Down payment assistance program (of IDR 4 million) used in conjunction with FLPP and SSB to lower the down payment.
*BP2BT (2018)	Mortgage-linked down payment assistance with progressive assistance amount of a maximum of IDR 40 million. Unlike FLPP and SSB where the interest rate is fixed at 5 percent, participating banks in BP2BT have the flexibility to set the interest rate and must use 100 percent own capital to fund the mortgage.

Note: *) Denotes mortgage-linked (KPR) subsidy.

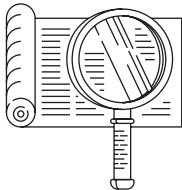
Source: MoPWH

²⁶⁰ World Bank and Government of Indonesia, 2015. Report: “Indonesia: A Roadmap for Housing Policy Reform.” National Development Planning Agency (Bappenas).

²⁶¹ Republic of Indonesia. RPJMN 2015-2019, 2014. Page 6-96. <https://www.bappenas.go.id/id/data-dan-informasi-utama/dokumen-perencanaan-dan-pelaksanaan/dokumen-rencana-pembangunan-nasional/rpjm-2015-2019/>

²⁶² This target is not directly linked to the RPJMN targets concerning quantitative housing need. In theory, if all newly-constructed homes reached their intended recipients (low-income households), then adding 1 million homes per year would exceed the estimated new household formation rate by around 25 percent and reduce the occupancy backlog.

“Only the wealthiest 20 percent of households can afford housing in the formal commercial market, based on the estimated average housing cost of IDR 440 million (US\$33,000)”



BOX 10.1. Tapera – From Big vision to Implementation

Law No. 2/2016 on the Housing Provident Fund (Tapera) will institute mandatory payroll deductions from all salaried workers with the objective of providing long-term financing for housing, with the intention to serve low-income households. The proposed contribution is 2.5 percent of monthly payroll for employers and 0.5 percent for employees. Non-salaried workers earning more than the minimum wage will also be able to contribute, on a voluntary basis.

In its initial seven years of operation, Tapera will be focused on civil servants and employees of SOEs due in part to opposition from employers' associations. This will limit Tapera housing finance funding and reach and will likely cause APBN funding to continue for the housing subsidy, albeit at a reduced level, in the short to medium term. On the other hand, given that the FLPP program will be merged with Tapera in 2021 (as both have the same

objective of expanding access to affordable housing through liquidity funding), Tapera will benefit from FLPP recycled liquidity funding of approximately IDR 2 trillion per year.

For implementation of Tapera, the housing finance product design will need to take the following into consideration:

1. Targeting: Focus on serving income segments that are not served by the private sector (income at 70th percentile and below).

2. Product Design: Develop progressive, economically-efficient, market-friendly products that avoid crowding out the private sector.

3. Potential Overlap: Avoid overlap and develop clear segmentation between Tapera and potential housing products offered by existing pension systems, especially BPJS Employment (Perumahan) (Table 10.3).

TABLE 10.3. Target segments served by Tapera and other pension systems

	Tapera	BPJS Employment (Perumahan)	PT Taspen	PT Asabri
Civil servants	X	Should join latest by 2029 per SJSN law	X	Not Applicable
Military/police	X			X
SOE employees	X	X	Not Applicable	Not Applicable
Private employees	Expected to join in year 7 of operation	X		
Informal workers	Not Applicable	X		

Assessing the Quality of Spending

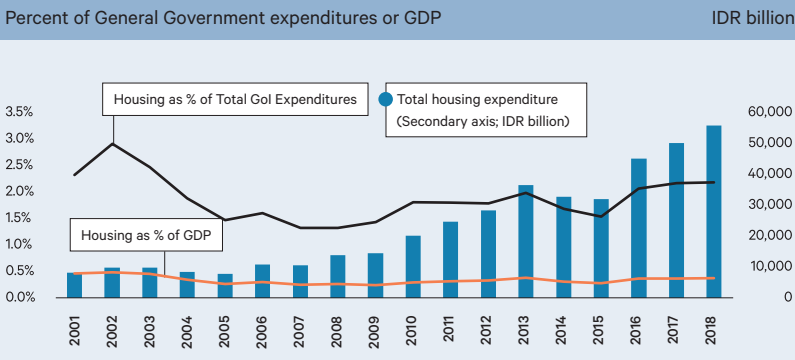
10.2

A

Overall Trends: Is Spending Adequate?

- A Overall Trends: Is Spending Adequate?
- B How Efficient Is Public Spending in the Sector?
- C How Effective Is Public Spending in the Sector?

FIGURE 10.3. Public spending on housing has increased significantly since 2011

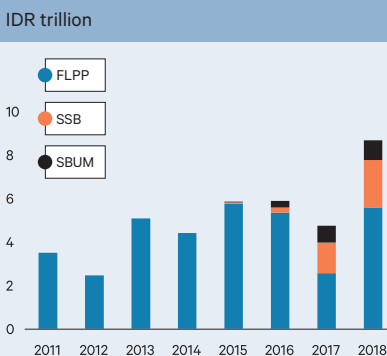


Note: Total housing expenditure is defined as the net present value of Central Government expenditures on the main subsidy programs (FLPP and SSB), as well as spending on housing and public facilities (including BSPS). At the subnational level, only spending on housing construction is included. Due to limitations in data availability, subnational data for 2015-16 use budgeted expenditures, whereas 2017-18 subnational data are estimates.
Source: World Bank staff calculations using data from the MoF and the MoPWH.

Total public spending on housing has increased in absolute terms over the past decade. Overall housing expenditure of the central and SNGs was estimated at IDR 55.8 trillion in 2018, equivalent to 2.2 percent of total expenditures (Figure 10.3). This represents an increase of 12.4 percent annually on average in nominal terms since 2011, in large part due to the introduction and expansion of several housing subsidy programs (see discussion below). Nonetheless, total public expenditures on housing have remained constant as a share of GDP (0.4 percent) over the past two decades.

FIGURE 10.4.

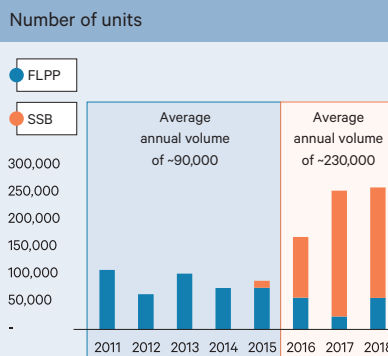
Spending on housing subsidies has increased since 2015...



Source: MoPWH, World Bank staff calculations.

FIGURE 10.5.

...in line with expansion in the annual average volume of mortgage subsidies, which more than doubled in recent years



Source: MoPWH, World Bank staff calculations.

The increase in overall housing expenditures is largely due to the introduction and expansion of housing subsidy programs in recent years. Looking at the upfront fiscal costs alone, government expenditure on the main housing subsidy programs—FLPP, SSB and SBUM—totaled IDR 9.1 trillion in nominal terms in 2018,²⁶³ which is nearly triple the amount spent since the first full year of FLPP operations in 2011 (Figure 10.4). Although FLPP accounts for over half of these expenditures, the increase in spending on housing subsidies is primarily due to the rapid expansion of SSB and SBUM since their inception in 2015. With the introduction of SSB in 2015, the average volume of mortgage subsidies more than doubled from an average of 90,000 units over 2011-15 to 230,000 units per year over 2016-18 (Figure 10.5).

Indonesia's housing needs cannot be met by public finances alone. Addressing the quantitative housing need alone would

263 Source: World Bank staff calculations from MPWH data.

require an estimated IDR 1,005 trillion (US\$71 billion),²⁶⁴ or nearly half of total public spending. If the GoI maintains its current level of spending on housing and does not involve the private sector, it would take 26 years to close the gap,²⁶⁵ notwithstanding the additional investments needed to upgrade substandard homes. Rather than increase the amount of public finances spent on housing, efforts should be made to increase the efficiency and effectiveness of public spending to better leverage private sector investment. As the next few sections show, creating more space for private sector players would help the GoI to achieve its goal of providing housing for all.

B

How Efficient Is Public Spending in the Sector?

Higher public spending on housing has been accompanied by an increase in publicly-funded subsidized housing units. In the period 2015-17, the GoI increasingly delivered close to 1 million houses per year to fulfil the promise of *Satu Juta Rumah*. However, this achievement was largely due to a shift from private to public funding for subsidized housing. While the private sector financed 70 percent of nearly 700,000 new houses built in 2015, it only financed 35 percent of about 905,000 units built in 2017.²⁶⁶ Preliminary data suggest that the balance between private and public funding was more equal in 2018, when the GoI exceeded its target by delivering 1.1 million homes,²⁶⁷ but the data on commercially-built units have yet to be verified.

Similarly, most of the main housing subsidy programs have achieved their targets in terms of volume, except BSPS. In 2017 and 2018, the GoI delivered about 260,000 units of FLPP or SSB-subsidized housing, exceeding the respective program targets (Figure 10.6). SBUM similarly has achieved its target since 2016. In contrast, BSPS only achieved about half of its targeted volume in 2017 and 2018, but this is in part due to significantly ambitious targets in these years (Figure 10.7). It is also partly due

²⁶⁴ Assuming each new home costs an average of IDR 150 million (US\$11,200) per unit.

²⁶⁵ The GoI spends about IDR 38 trillion each year on housing and public facilities, including construction of new homes.

²⁶⁶ As reported to the press by MPWH Director General of Housing Provision Khalawi Abdul Hamid. Detikcom, Oct 22. Accessed Dec 15, 2018. <https://finance.detik.com/properti/d-4267636/ini-biang-kerok-program-sejuta-rumah-tak-pernah-capai-target>

²⁶⁷ As reported to the press by Public Works Minister Basuki Hadimuljono. Tempo Dec 8. Accessed Dec 17, 2018. <https://bisnis.tempo.co/read/1153510/menteri-pupr-program-sejuta-rumah-capai-target-bulan-lalu/full&view=ok>.



FIGURE 10.6.

FLPP and SSB programs exceeded the target volume in 2017-18...

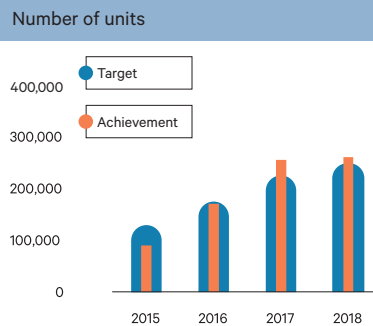
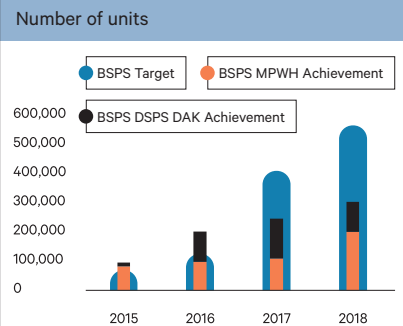


FIGURE 10.7.

...but not BSPS, which only met half of the targeted volume



Source: MoPWH Housing Provision Planning Directorate, World Bank staff analysis.

to the fact that BSPS mostly operates in rural areas, whereas most substandard homes are located in urban areas, particularly in slums. However, it is a positive development that since 2015 the central government has started to decentralize the implementation of BSPS through the Specific Purpose Fund (*Dana Alokasi Khusus*, or DAK) for housing, thus helping volumes move closer to the program target.

While these mortgage subsidies have helped the GoI to achieve its quantitative targets, they are expensive and unsustainable in the longer term, creating long-term liabilities and interest rate risks. Both FLPP and SSB have high per unit costs of IDR 59 to 61 million (in net present value

terms) per subsidized unit (Figure 10.10, see Annex 10.1 for calculations). Multiplied by the average number of subsidized units per year (about 230,000), this amounts to about IDR 14 trillion, or IDR 1.3 trillion per year over the life of a 20-year loan. As a result, while the direct fiscal costs have increased only moderately over the years (Figure 10.4), the resulting total present value of subsidy costs in 2018 reached an estimated IDR 17 trillion—double the upfront fiscal cost and a tenfold increase from 2011 (Figure 10.5).

This significant increase is due to a combination of two developments related to SSB. First, as mentioned earlier, the introduction of SSB in 2015 led the average annual volume of mortgage subsidies to more than

double. Second, SSB generates large future liabilities for the GoI throughout the life of the loan (up to a maximum of 20 years). It is estimated that SSB loan origination over 2015-19 has created about IDR 30 trillion in future liabilities for the GoI (see last paragraph of Annex 10-1 for calculations), not including infrastructure costs. Furthermore, the GoI is also exposed to interest rate volatility risk, which is caused by the fact that the GoI bears the risk of the differential between the market interest rate and the 5 percent fixed interest rate.

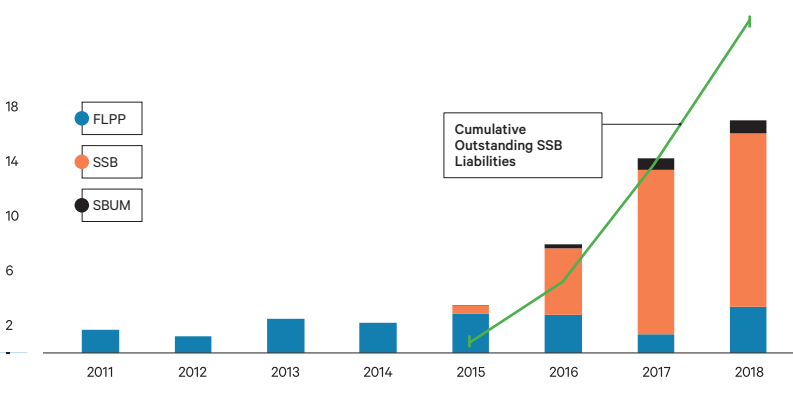
A more efficient subsidy product would help to assist low-income households, while lowering the risk to public finances. BP2BT, the GoI's newest housing subsidy scheme launched in September 2018 in partnership with the World Bank, is one such alternative. Contrary to FLPP and SSB, BP2BT provides one-time down-payment assistance to low-income households, future economic liabilities and long-term administrative costs. On average, commercial lenders would finance 70 percent of the property value, while the GoI would cover about 28 percent in down-payment assistance and beneficiaries would cover about 2 percent. The product targets lower-income consumers and has a progressive design, with higher assistance for lower-income consumers.

Figure 10.9 and Figure 10.10 illustrate how BP2BT is a more efficient subsidy than FLPP and SSB. For a property valued at IDR 150 million, BP2BT would provide consumers with an average down-payment assistance of IDR 38 million²⁶⁸ in the initial year. Since BP2BT does not incur future liabilities, the total cost to the GoI is the same in net present value terms (IDR 38 million). In contrast, FLPP is an expensive program, incurring IDR 111 million in the initial year of loan origination, and about IDR 61 million in net present value (NPV) terms throughout the life of the loan, including SBUM (see Annex 10.1 for more detailed calculations). SSB incurs lower costs to the GoI than FLPP and BP2BT in Year 1 since it only covers the difference between the market and subsidized interest rate, but then incurs annual liabilities that amount to about IDR 59 million in NPV terms. These numbers are sensitive to fluctuations in the benchmark market rate (for SSB) and costs of funds (for FLPP and SBB).

Aside from their high per unit costs, FLPP and SSB crowd out the private sector, while also failing to offer a clear exit strategy for the GoI. Both FLPP and SSB offer a subsidized interest rate of 5 percent for eligible households—far lower than private banks' interest rates, which start at around 7-9 percent for the first 3 to 5 years

FIGURE 10.8. SSB created a high net present value of future liabilities

IDR trillion (present value terms)



Source: MoPWH, World Bank staff calculations.

FIGURE 10.9. BP2BT incurs lower costs than FLPP in the initial year...

Year 1 upfront fiscal costs per unit (IDR million)

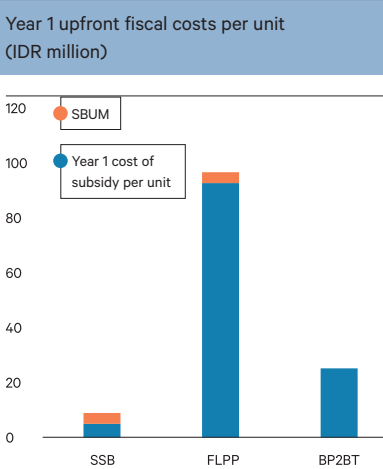
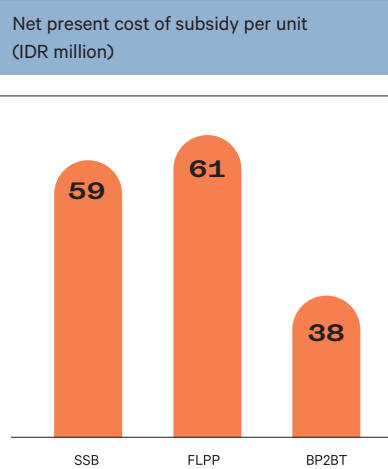


FIGURE 10.10. ...and does not incur further future liabilities, unlike SSB and FLPP

Net present cost of subsidy per unit (IDR million)



Note: SBUM is offered as additional down payment assistance (IDR 4 million) for SSB and FLPP. NPV refers to net costs of subsidy to the government accounting for all future cash flows at a discount rate of 8.17 percent. These estimates assume a Loan to Value ratio of 95 percent, property value of IDR 150 million, SBUM assistance of IDR 4 million, customer monthly payment of IDR 0.83 million, loan tenor of 240 months, SSB market benchmark mortgage rate of 10.3 percent as per assumptions shown in the Annex 10-1, GoI-provided capital of 75 percent of loan principal
Source: Authors' estimates based on MoPWH data.

²⁶⁸ Assistance amount for BP2BT varies depending on income.

before converting to a floating rate of 12 to 14 percent (Figure 10.11). This makes it impossible for commercial banks to compete and crowds them out of the market for middle-income salaried workers. In addition, the low fixed interest rate obligates the GoI to continue subsidizing the loan for its entire life (up to a maximum of 20 years) and offers no clear exit strategy for disengaging.

In contrast, BP2BT has a market interest rate, crowding in the private mortgage sector through increased lender profitability and securitization. The BP2BT credit-linked subsidy product being developed by the GoI and the World Bank capitalizes on the private mortgage market to deliver more loans at a lower cost to the GoI. For IDR 1 trillion of funding, the BP2BT program has the capacity to dispense about 26,000 units. This is 50 percent more than the amount that can be served by either the FLPP and SSB programs at about 17,000 units on a comparative economic basis (Figure 10.12).

“Aside from their high per unit costs, FLPP and SSB crowd out the private sector, while also failing to offer a clear exit strategy for the GoI”

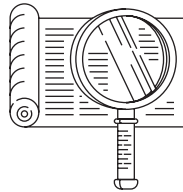
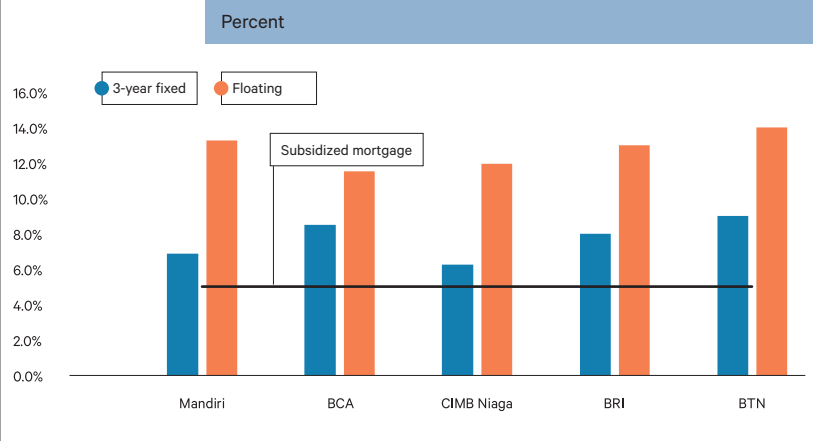


FIGURE 10.11.

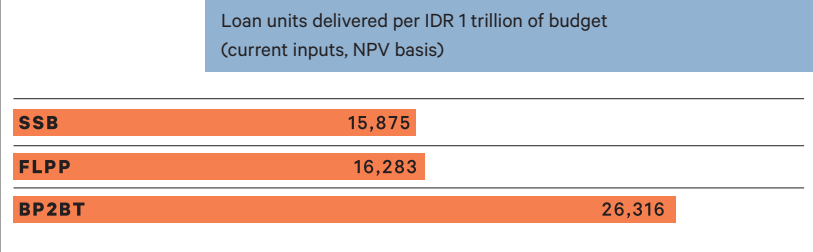
Both FLPP and SSB crowd out the private sector by offering a lower interest rate



Source: Information collected from various banks by World Bank staff, Nov 2018.

FIGURE 10.12.

BP2BT has the potential to deliver more units for every IDR 1 trillion



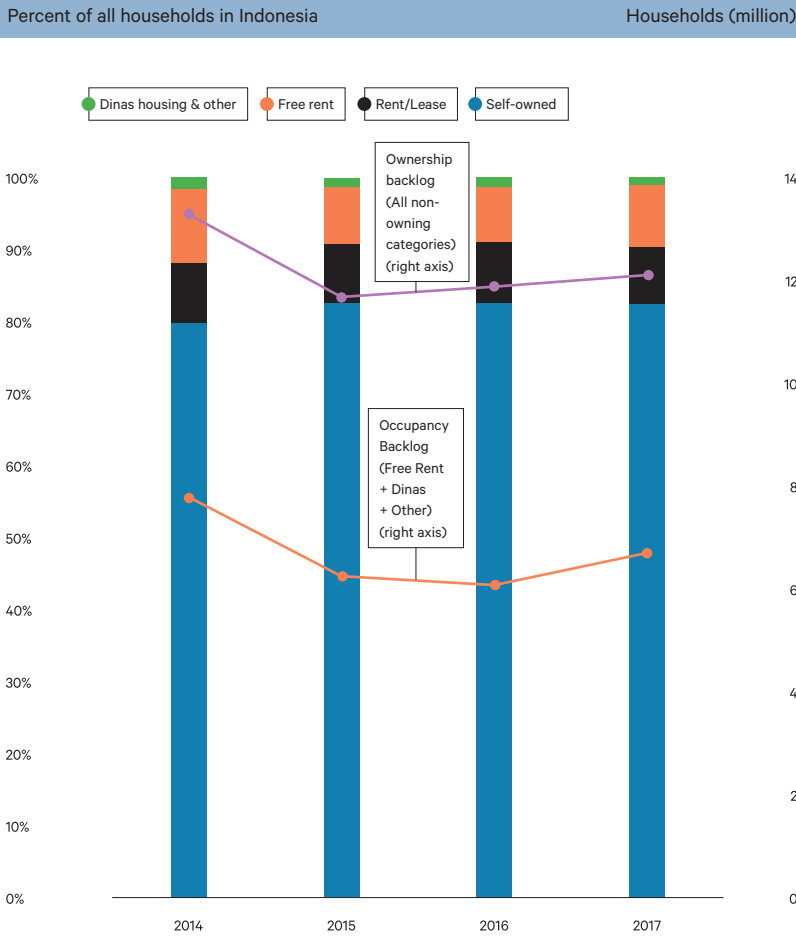
Source: World Bank staff estimates based on MoPWH data.

C How Effective Is Public Spending in the Sector?

To what extent has public spending contributed toward the GoI’s goal of housing for all Indonesians? This section evaluates the effectiveness of public spending on housing, focusing on KPR subsidy programs. Critical issues related to leveraging, livability, equity and affordability are considered



FIGURE 10.13. Progress in reducing the occupancy backlog and the number of substandard homes has been slow



Source: Susenas 2014-17. Note: The occupancy backlog is the sum of households who 'free-rent' their residence or reside in Dinas/other' housing.



C.1

Has public spending helped the GoI to achieve the RPJMN targets?

Despite mostly meeting these targets for public housing construction and subsidies, progress in reducing the occupancy backlog and the number of substandard homes has been slow. Although the number of households that live in homes that are classified as 'free-rent', Dinas housing, and 'other' declined from 7.6 million in 2014 to 6.1 million in 2016,²⁶⁹ it increased again to 6.7 million households as of end-2017 as the share of 'free-renting' households increased. The number of substandard homes has declined from 3.4 million to 2.8 million, but this is according to the broader definition of households meeting three or more substandard indicators. As shown in Figure 10.2, 22 to 43 million homes can still be considered inadequate if assessed against higher standards.

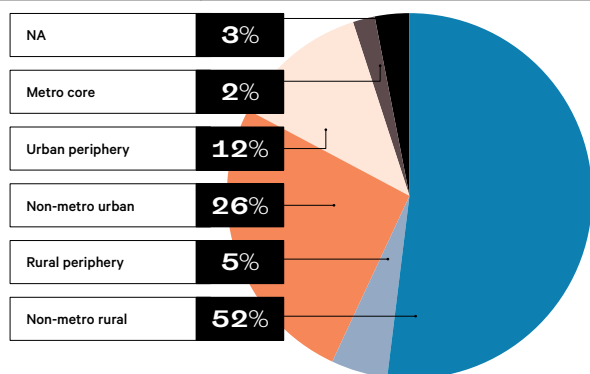
Progress on reducing the housing backlog can be accelerated if government program design can be extended to include different housing typologies, and if rentals can be an acceptable form of affordable housing rather than focusing narrowly on the goal of home ownership. Currently, both FLPP and SSB finance new developer-built units exclusively, leaving out other forms of home ownership, such as the purchase of existing properties and owner-driven construction. Ninety-nine percent of FLPP and SSB subsidies are for new landed houses, neglecting purchase or rent of existing houses, low-rise vertical housing types such as duplexes and townhouses, and rental flats. Moreover, landed house prices are at a lower price point than consumer aspirations, are too small for many families, and are usually built far away from city centers. In the longer term, it is unclear if this type of subsidized house will achieve the same level of home price appreciation for homeowners, given their lower quality and distant location compared with the market home price appreciation norm.

²⁶⁹ These are responses to the National Socioeconomic Survey (Susenas) question on ownership status. 'Free-rent' could include both squatters and households who are living rent-free with the permission of the owner. 'Dinas' refers to civil servants living in housing provided by the government as a benefit of holding office.

C.2

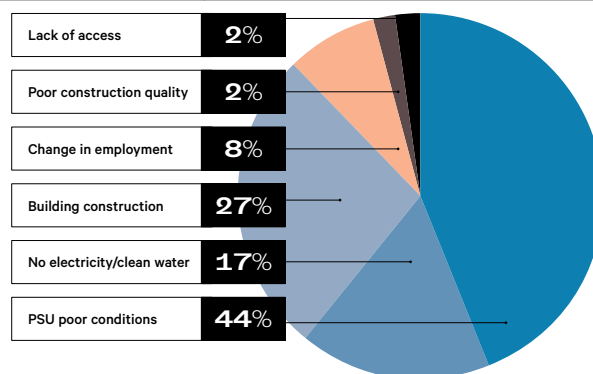
Has public spending helped the GoI to achieve the RPJMN targets?

FIGURE 10.14. Half of all subsidized housing is located in rural areas...



Source: World Bank staff calculations from MoPWH data.

FIGURE 10.15. ... and 92 percent of reasons for vacancy is poor quality



Source: MoPWH DG of Evaluation Unit.

Subsidized housing units tend to be poorly located and fail to meet the demand for housing in urban areas. Although urban areas have the greatest housing need, 57 percent of FLPP-subsidized housing units were located in rural areas in 2017 (Figure 10.6),²⁷⁰ an increase from 36 percent in 2016. In Medan, 88 percent of subsidized units for 2016 and 2017 were located 10 kilometers or more from the city center and in Subaraya and Bandung, the percentage was as high as 99 and 98 percent, respectively.

While land may be more affordable further from urban centers, poorly located housing may result in higher long-term expenses for beneficiaries and for the GoI. This is due to associated costs from trunk infrastructure, distance to economic centers, increases in commuting time, congestion, and a lack of home price appreciation. In

addition, studies have shown that poorly located housing, with relatively low access to public services and jobs, is associated with lower inter-generational economic mobility.²⁷¹

Moreover, the inferior quality of subsidized housing units leads to high vacancy rates, perpetuating the already high number of homes that are considered substandard. The primary reason for vacancy was poor basic infrastructure conditions (44 percent), followed by faulty building construction (27 percent), and a lack of electricity and clean water (17 percent) (Figure 10.7). This is further confirmed by an assessment undertaken in 2018 by the Evaluation Directorate of the Directorate General of Housing Finance, which shows that 55.4 percent of developer-built subsidized units do not meet the minimum construction

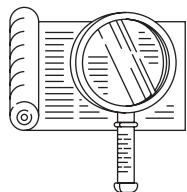
standards and infrastructure requirements as stipulated in the KPR subsidy regulations.

In short, the poor quality of subsidized homes does not help the GoI to meet its goal of ensuring “housing for all”. Government funds are being spent on housing units that do not provide beneficiaries with a long-term solution to their housing needs. Households that live in inadequate units will contribute to an increase in the qualitative housing deficit, while the distant location from urban areas and poor infrastructure may depreciate their home value. Increased household spending on upgrades and repairs to correct poor construction quality reduces the product’s affordability and creates a liability for the beneficiaries. These factors lower overall livability, and result in homes that are not safe, adequate, or affordable.

²⁷⁰ Ministry of Public Works and Housing FLPP data for 2016 and 2017. World Bank analysis.

²⁷¹ Chetty et al., 2015.

“The poor quality of subsidized homes does not help the GoI to meet its goal of ensuring “housing for all””



C.3 To what extent are subsidy schemes effectively leveraging private sector finance to deliver affordable and livable housing?

The poor quality of housing is, in part, exacerbated by the fact that subsidized housing developers are generally fragmented, localized and small in scale. In 2016, about 80 percent of developers participating in FLPP built 30 percent of the FLPP units, at an average of about six units per developer. These small developers do not have the economies of scale necessary to produce good quality housing, as they lack access to skilled construction workers and project managers, good quality construction materials, and technology and finance. In addition, they may not be as concerned with reputational risk as larger-scale developers.

In addition, lenders and developers that participate in FLPP and SSB face limited risks, contributing to moral hazard. Lenders participating in FLPP receive a minimum net interest margin (NIM) of

about 1.5 percent and an internal rate of return of 8.2 percent.²⁷² Furthermore, they are generally protected against borrower default through buy-back guarantees (during the first one to three years of the loan), and with a mortgage guarantee (after the buy-back guarantee period). Likewise, developers receive a 20 to 30 percent margin on subsidized housing projects. In the case of beneficiary default during the buy-back guarantee period, units can be refurbished and resold, sometimes at a higher price. Lenders and developers therefore do not have much ‘skin in the game’, which contributes to issues of poor housing construction quality, non-compliance of residency requirements, and targeting. In short, FLPP and SSB appear to benefit lenders and developers rather than consumers.



C.4 To what extent does public spending promote equality in access to housing subsidies and grants?

BSPS home improvement grants are relatively effective in targeting low-income (MBR) Indonesian households, as per its stated intention. Sixty-five percent of BSPS beneficiaries are from the poorest 4 deciles of household consumption, i.e., the poorest 40 percent of households.²⁷³

Contrary to their objective of promoting equal access to housing, FLPP and SSB are regressive schemes that benefit higher-income earners more than the targeted low-income group (MBR). This is due to two reasons:

1 There is significant vertical inequality across the subsidy programs.

Beneficiaries of the BSPS program at the bottom 2 deciles receive a subsidy of IDR 15-30 million, while beneficiaries of the FLPP and SSB in income deciles of 3-9 receive a subsidy of IDR 40-100 million. The majority of FLPP and SSB beneficiaries received subsidies at an NPV of up to IDR 61 million, which is two to four times that of BSPS beneficiaries (Figure 10.16, right panel). Moreover, the GoI is currently preparing the launch of FLPP ASN—an extended FLPP program designed for civil servants (the ASN segment)—who are in income deciles 7-9. The subsidy would range from IDR 80-160 million on a NPV basis, thus further exacerbating vertical inequality.

2 More subsidies go to those who purchase more highly-valued properties, thus benefiting higher-income earners.

The per unit subsidy cost for a landed house peaks at around IDR 60 million, while multi-story units with higher property value peak around IDR 135 million. In other words, higher-income earners who buy more expensive properties receive larger subsidies from FLPP and SSB.

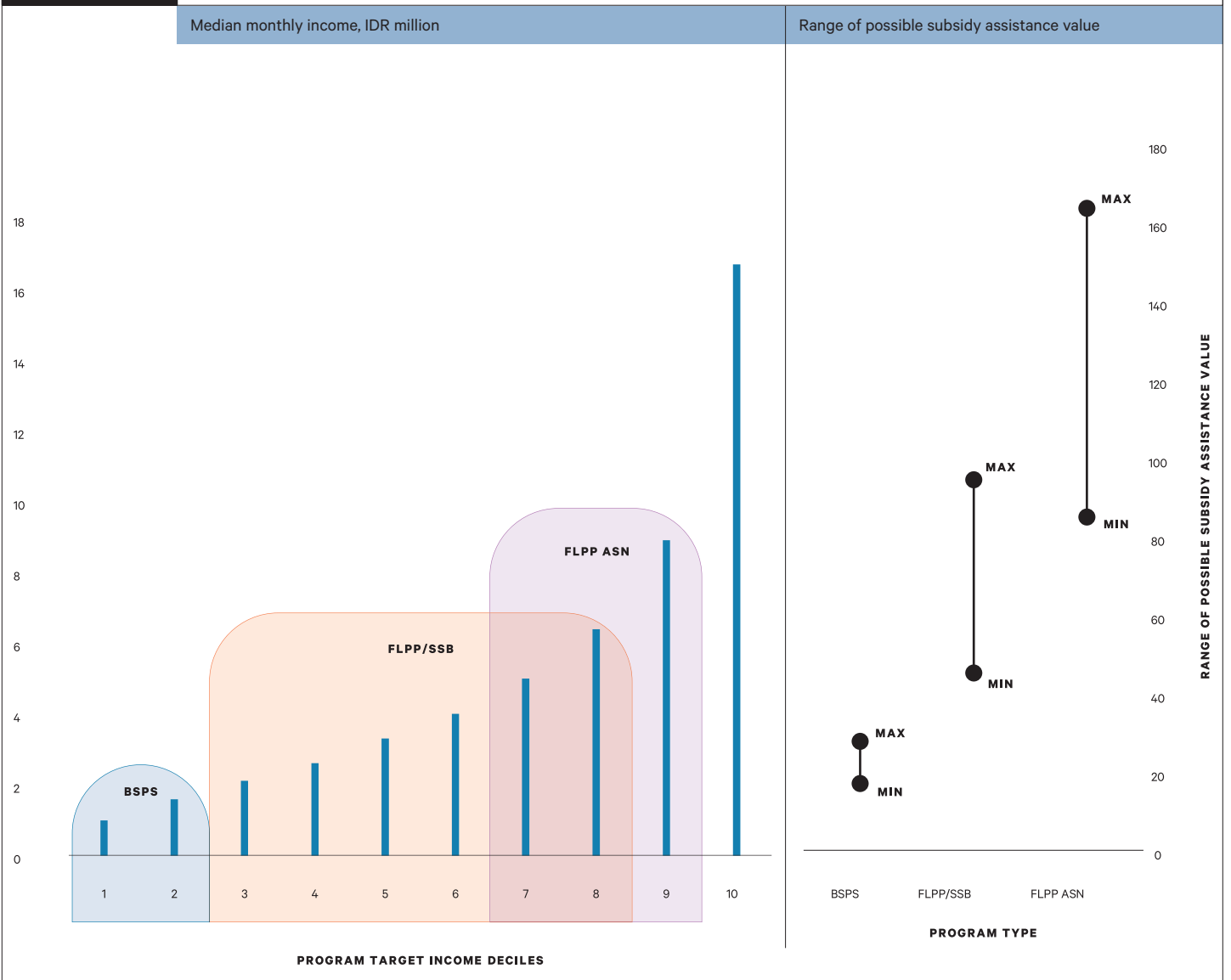
In summary, using the “Basic Income” eligibility criterion masks the actual household income of beneficiaries, allowing for the highest-income earners to benefit from government subsidies that are intended for the MBR. The GoI needs to clearly define the MBR segment and provide housing subsidies only to that segment.

²⁷³ Source: MPWH Laporan Pemantauan dan Evaluasi Rumah Swadaya, 2018.



FIGURE 10.16.

Although FLPP and SSB are supposed to target low-income households, in practice middle- and higher-income groups receive more benefits due to poor targeting and the regressive design of the subsidy



Source: Susenas 2017, MoPWH, World Bank staff calculations.

Source: Susenas 2017, MoPWH, World Bank staff calculations.

Recommendations to Improve *the* Quality of Spending

- A *Short Term*
- B *Medium Term*



As a principle, government subsidies should be used to intervene where the market is unable to reach, ideally focusing on lower-income households and where risk is higher than what can be borne by the private sector. Current trends work in the opposite direction, providing larger and deeper subsidies for higher-income segments, and crowding out the private sector. The upcoming RPJMN 2020-2024 is an opportunity to strengthen the sustainability of public spending on housing, better leverage private sector resources to meet housing gaps, and ultimately fulfill SDG goals, while supporting housing provisioning for all Indonesians.

This section provides short- and medium-term recommendations to help the GoI to meet its goal of providing housing for all Indonesians efficiently and effectively. Ideally, housing policy should promote efficiency, equity, transparency, and help to leverage private/household resources to promote innovation and competition.



Short Term

First, the GoI should shift public funding toward more efficient, progressive, and better-targeted subsidies. As illustrated earlier, shifting public funding toward more progressive subsidy schemes such as BP2BT would help to improve the efficiency and effectiveness of spending.

Existing subsidy programs can be further optimized to ensure per-unit cost efficiency and equity. The GoI has already committed to phase out of SSB in 2020, while reducing its FLPP liquidity contribution from 90 to 75 percent of the loan has begun in 2019. To further optimize FLPP, one or a combination of the following measures could be considered:

- 1 Further reduce the GoI’s liquidity contribution (from the current 75 percent of the loan);
- 2 Increase the interest rate at loan origination or on a step-up basis in line with beneficiaries’ capacity-to-pay; and
- 3 Leverage SMF capacity to tap capital market funding for blended liquidity support.

One major constraint to implementing these recommendations is the political nature of affordable housing provision in Indonesia, as in many other countries. The provision of affordable housing can become highly politicized, leading targeting and budgeting decisions to move with election cycles, and negatively impacting the executing agencies’ ability to implement housing programs. Associating housing programs with election cycles also hinders their ability to achieve long-term efficiency through monitoring and evaluation (M&E), and improvement. Politics can also influence the measurement of a program’s success, as performance indicators place more weight on a numeric achievement in lieu of SDG measures such as construction quality, safety, adequacy, or livability. However, several countries have managed to establish long-term national affordable housing policies and strategies and implement them in a consistent manner. Singapore’s public housing pro-



gram, for instance, has been lauded as one of the world’s best practices and the long-term planning nature of the program is among the key drivers of success.

Second, the GoI should also ensure that subsidized homes are of good construction quality and are built in well-located areas. To do so, the MoPWH should consider:

- 1 developing spatial suitability tools and guidelines for subsidized housing, including location screening with hazard mapping, to ensure well-located housing development and to protect beneficiaries from investing in poorly located projects that can strain their social and economic livelihoods;
- 2 developing a robust M&E system using geo-tagging technologies to track quality and take actions to address non-compliance of quality standards; and
- 3 promoting the development of a nationwide developer certification and scoring system in partnership with real estate associations and the MoPWH’s Directorate General of Construction Development (Bina Konstruksi) to disengage poorly performing developers, while incentivizing quality developers.

Currently, the lack of a strong M&E system limits the implementation and long-term sustainability of housing programs. Audits are conducted by BPKP and BPK, the internal GoI and external auditors, respectively, but do not focus on the quality, effectiveness, and efficiency of spending. This limits accountability beyond volume of developers and mortgage providers. Compliance enforcement is not systematized, increasing the likelihood of poor construction

and infrastructure from developers and lenders, as well as the voiding of residency compliance requirements of consumers. Finally, a strong consumer complaints system is also lacking, limiting consumers’ ability to voice issues related to their subsidized homes.

Third, in the short term, the GoI can also develop a Housing Micro-Finance (HMF) subsidy program to finance home improvements and incremental home extensions. HMF consists of small, unsecured loans offered for relatively short terms and in succession to support the “incremental building practices” of low-income populations.²⁷⁴ There is currently no formal HMF market in Indonesia, despite a sizeable need for home improvement reflected by the urban qualitative housing deficit: about 22 million households in income deciles 1 to 8 live in substandard housing. The plethora of microfinance providers notwithstanding, the market for home improvement financing is currently underserved (Figure 10.18). Furthermore, grants received from the BSPS home improvement program are generally only adequate to complete the minimum upgrade or re-construction work, and additional HMF funding would help to fully complete the home upgrade/construction in an adequate manner. Meeting this need could have a significant impact on the well-being of households in this target segment.

To build and scale an HMF product, lender commitment combined with a well-designed government support program comprising financial and non-financial assistance are key. To achieve scale, the product design and operational process should be well structured, while necessary checks and balances must also be in place. Finally, in the short term, the GoI can improve the planning processes for affordable

housing development by developing and maintaining a Housing and Real Estate Information System.

Planning for affordable housing is a key step in producing safe, adequate and affordable housing. The RPJMN 2020-2024 can take two main actions to improve the planning process for affordable housing development at the national and local levels. Specifically, the GoI can: (i) use the Housing and Real Estate Information System (HREIS) to expand access to housing data; and (ii) leverage spatial planning tools to plan for affordable housing.

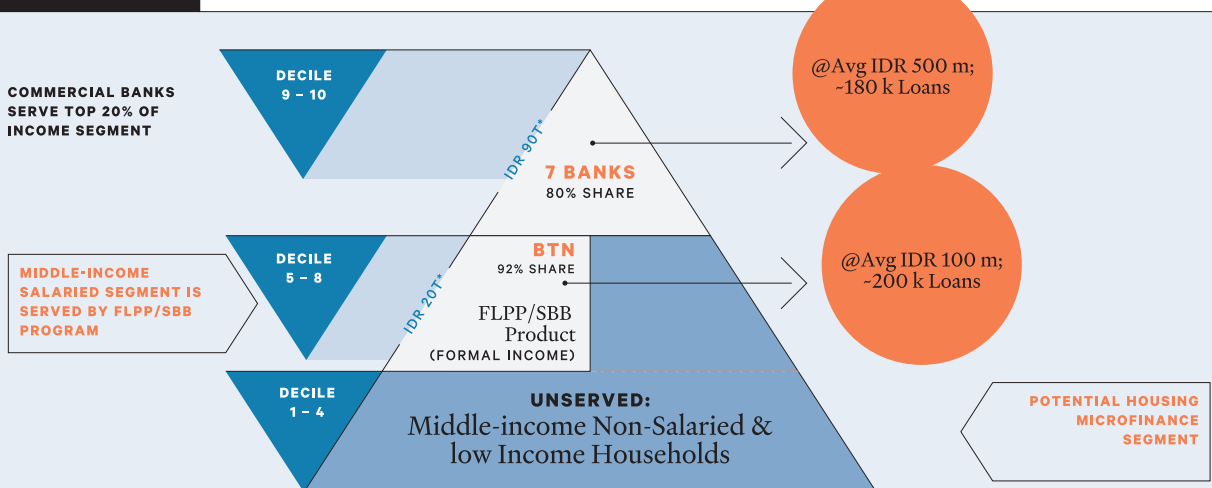
1 Use the Housing and Real Estate Information System (HREIS) to expand access to housing data.

The GoI can accelerate evidence-based housing policy reform, planning and development, while actively engaging private investment in affordable housing, by using the Housing and Real Estate Information System (HREIS) platform (see Box 10.2).

2 Leverage spatial planning tools to plan for affordable housing.

A myriad of technologies can also be leveraged to enhance spatial planning and develop subsidized housing in well-located urban areas. The MoPWH should empower SNGs to make use of the appropriate spatial planning tools throughout the housing development process. One example is the Suitability Tool recently developed by the World Bank City Planning Labs project in collaboration with the Ministry of Agrarian Affairs and Spatial Planning (*Agraria dan Tata Ruang*, “ATR”), which has been tested in the municipalities of Semarang and Denpasar. The tool could evaluate the potential of undeveloped land and identify optimal locations for afford-

FIGURE 10.17. Gaps in housing provision options for the bottom of the pyramid



Source: World Bank team.

*Mortgage Loan Origination of ~IDR 110 trillion

274 Habitat for Humanity, 2018.

able housing based on proximity to services, population density, and land price and availability. The housing tool would also provide SNGs with a more precise ability to approve construction permits based on location guidelines, including proximity to basic services and natural risk areas.

BOX 10.2.

The Housing and Real Estate Information System (HREIS)

The Housing and Real Estate Information System (HREIS), which will soon be developed as part of the World Bank’s National Affordable Housing Program, can serve as a depository of reliable, up-to-date data and analyses. Through the HREIS, the definition of key metrics such as housing backlog, sub-standard housing, and affordability can be fine-tuned. The platform can also include a geographic information system (GIS) for analyses of housing backlog, need, and supply gaps by geographical locations and consumer income segmentation. The following indicators can be considered as part of the HREIS platform:

- 1 Housing Quantitative Deficit.
- 2 Housing Sub-standard/Qualitative Deficit.
- 3 Housing Over-crowded Ratio.
- 4 Housing Affordability Index: Housing cost (benchmarked as installment amount or rental) plus other housing related expenditures as a percentage of total household expenditures) to assess housing affordability by micro-markets.
- 5 Housing and Transportation Affordability index: Similar to the above but including transportation cost. Example: <https://htaindex.cnt.org/>

6 Housing Location: Precise geo-coded location of subsidized units to assess their proximity to urban areas. Trend analysis of average/median distance of subsidized housing to urban centers.

7 Housing Quality: Percentage of subsidized units that meet minimum construction quality standards.

8 Subsidy Cost Efficiency: Per-unit cost of different housing subsidy programs.

9 Targeting: Demographic and financial information of consumers to ensure efficient subsidy targeting.

10 Housing need gap: Housing demand vs. housing supply.

A more exact understanding of housing need and supply gaps would enable the GoI to significantly improve planning and decision-making for policy and program development, as well as fiscal budget allocation. It can strengthen SNGs’ land-use planning and permitting processes, increase the efficiency of affordable housing policies, and expedite private sector investment in proper locations. It would also assist the private sector in its process of identifying and planning for investment in the housing sector in real time. Finally, the greater public will be able to access housing and real estate-related data, analyses, and sector indicators.

*A
Medium
Term*

In the medium term, the GoI should consider developing alternative housing typologies that are cost-effective and meet the heterogeneous needs of consumers.

Currently, nearly 100 percent of FLPP/SSB subsidies are landed houses located away from city centers and fail to fulfill consumers’ needs and aspirations. Expanding the range of housing types eligible for subsidy would enable households to find a home that fulfills their needs, decrease land cost per unit, and encourage the creation of sustainable communities as per SDG 11. Increasing the variety of housing types to include me-

dium- and large-scale multifamily options, such as duplexes, townhouses, fourplexes, and high-rises, as well as in mixed-income, mixed-use complexes, would lower land costs per unit and lead to more compact and inclusive urban development.

Specifically, the MoPWH should:

- 1 Test and pilot new low-cost, innovative housing typologies and construction methodologies that meet consumer demand with key developers;
- 2 Consider alternative pricing methodologies based on alternative housing typologies; and
- 3 Integrate learnings into KPR subsidy regulations for implementation.

The GoI could also support the development of a public-private partnerships (PPPs) for affordable housing framework to support access to affordable housing in urban centers. One of the main drivers of poorly-located subsidized housing is the high cost of land in well-located ur-

ban areas. PPPs could leverage underutilized urban land to create affordable housing. A systematic process of identifying affordable land in well-located areas that may belong to SOEs, SNGs, and/or *waqf*²⁷⁵ is a good starting point for PPP pilot projects. Technical assistance should be provided by central to SNGs to develop feasible PPP models for mixed-income, affordable-housing projects, while the MoF-led PPP unit and/or a MoP-WH-led grant system could provide funding to SNGs for project implementation. Integrating affordable housing as a part of the GoI’s current infrastructure strategic planning and land development by crowding in affordable housing in Transit-Oriented Development (TOD) projects is another option for producing well-located housing. Affordable housing can be required as part of TOD projects in return for incentives, such as lower land and tax costs, reduced parking, expedited permitting, and/or density bonuses. Without affordable housing as a component of infrastructure development, low-income housing would certainly be segregated and the opportunity for shared prosperity and inclusivity would go unrealized.

²⁷⁵ *Waqf* is a charitable endowment made under Islamic law

The MoPWH should develop rental policies as an alternative and pragmatic housing solution to home ownership. Rental housing meets the critical needs of specific consumer segments, providing flexibility and mobility to migrant workers, addressing housing affordability for young families and low-income households, and meeting the needs of elderly individuals who no longer have a need for large homes. Having a mix of housing tenure options not only creates a more stable housing market but also supports a more flexible and dynamic workforce. In addition, it can help create balance in a housing market given the risk of speculative bubbles if there are no alternatives to home ownership.

Specifically, the MoPWH should consider ways to:

- 1 Conduct a comprehensive rental study and develop a rental roadmap to assess rental market demand, supply, challenges and opportunities, as well as institutional, financial, and fiscal capabilities;
- 2 Develop a set of recommendations to expand the rental sector; and
- 3 Assess feasibility and opportunities to subsidize the demand and supply sides for the rental sector by the GoI, such as rental vouchers for consumers and carefully designed tax incentives for developers.

Improving coordination and collaboration across different housing stakeholders at the central and subnational government levels is crucial in implementing all of these recommendations successfully. Currently, institutional coordination among national housing stakeholders (Bappenas, the MoF, the MoHA, and the MoPWH) lacks efficient arrangements, contributing to delays in program planning, funding and implementation. Moreover, despite decentralization efforts, the division of authority for housing development between

central and SNGs remains unclear.²⁷⁶ Even after the enactment of a new regulation clarifying housing provision as a responsibility of SNGs,²⁷⁷ many SNGs do not perceive this goal as a development priority, and hence do not allocate sufficient budget for this purpose. The central government continues to implement most housing policies and programs. The role of SNGs in housing provision has been contained to the issuance of construction permits (*Izin Mendirikan Bangunan*, IMB) and occupancy certificates (*Sertifikat Lain Fungsi*, SLF), but significant improvements are much needed to enhance the speed, technical effectiveness and coverage of these services. Delays in issuing permits for constructing affordable housing are common,²⁷⁸ and only 10 percent of SNGs have the capacity (resources and know-how) to issue SLFs. In addition, SNGs have widely varying levels of fiscal capacity and are dependent on national line ministries such as the MoPWH for 70 to 85 percent of funding for affordable housing. SNGs also have insufficient institutional capacity to develop and implement urban plans, housing programs, and data management.

Central government could therefore review and revise regulations to assign a clear role to SNGs in providing affordable housing, while building their capacity to do so. An in-depth review of the adequacy and effectiveness of relevant decentralization regulations and fiscal transfers needs to take place so that SNGs can have a stronger role in addressing housing needs in their respective regions. Through Law No. 23/2014, SNGs are currently only mandated to manage the housing for post-disaster and relocation, while the responsibility to manage housing for low-income households is fully held by the central government. It is important to shift the mandate of affordable housing more toward SNGs in line with the principles of decentralization, while building their capacity. The central government should, in parallel, come up with a structured capacity-building plan for SNGs that includes hands-on train-

ing and working mechanisms for land-use planning and development and data management. The central government could build in a capacity-building program in the housing DAK, which already uses the BSPS guidelines, to enhance program long-term sustainability and minimize dependency on community facilitators, who currently play a role in ensuring that the guidelines are met. Once SNGs have better technical capacity and a robust M&E system, more DAK funding can be used to implement the BSPS program in the future. In addition, SNGs should develop city-specific programs to increase affordable housing, such as developing an affordable housing plan, reserving public or foreclosed properties for affordable and mixed-income housing development, analyzing the existing plot size and floor-area ratio regulations, accelerating effectiveness of construction permit and occupancy certificate issuance for affordable housing developments, and designating inclusionary zoning areas following the necessary economic analyses.

In summary, the GoI's consistent commitment to the "Housing for All" policy is commendable. However, more efforts need to be made to ensure that the majority of subsidized housing is built to serve the more critical and burgeoning need in urban areas. Furthermore, the design and targeting of housing subsidy programs needs to be optimized to enhance efficiency and to support households with the most need, rather than benefiting banks and developers. Overlaps between existing housing support programs should also be addressed. More stringent monitoring of the construction quality of subsidized housing is critical in ensuring that the GoI can provide safe, inclusive and adequate homes to all Indonesians. Finally, encouraging more collaboration across the housing stakeholders' value chain and, in particular, paying attention to not crowding out the private sector, will be critical in ensuring that the "Housing for All" target can be achieved in Indonesia.

²⁷⁶ RPJMN 2004-2009 Evaluation Report. Bappenas, 2009.

²⁷⁷ Government Regulation No. 38/2007 on Division of Government Affairs between the Government, Provincial, and Local Government of Regency and Municipality.

²⁷⁸ These delays can cost developers as much as 20 percent of the total building cost over 12 months (Bank Indonesia 2017), discouraging private investment in the development of affordable housing. The GoI's 13th economic policy package, launched in 2016, planned to reduce the number of permits required for constructing affordable housing and lower the costs, but implementation has been slow and has not yet yielded the desired results. See Chapter 7 of "Time to ACT: Leveraging Indonesia's Urban Potential" (World Bank, forthcoming, 2019) for a more detailed discussion.

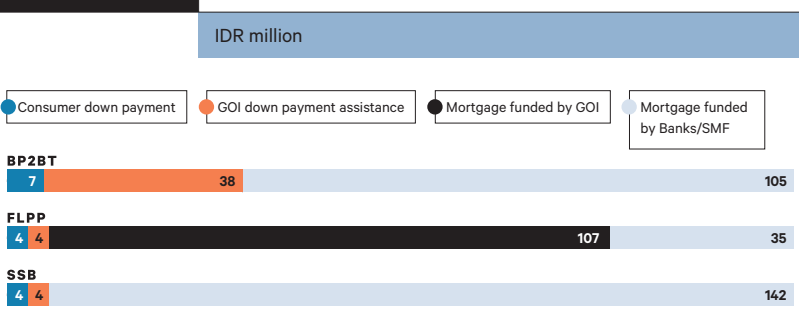
Annex 10-1

Summary of main mortgage subsidy mechanisms, FLPP & SSB

The FLPP subsidy covers 75 percent of loan capital at a cost of fund of 0.5 percent for the participating bank. The consumer interest rate is fixed at 5 percent for the life of the loan. This means that, for a subsidized property of IDR 150 million, FLPP costs the GoI IDR 111 million in Year 1.²⁷⁹ In net present value terms, this amounts to IDR 57 million. Adding the down payment assistance of IDR 4 million, FLPP costs the GoI about IDR 61 million per subsidized unit, or about 41 percent of the initial home price.

For SSB, the GoI subsidizes the difference between an agreed-upon market rate and the subsidized rate of 5 percent. Assuming a market rate of 10.3 percent,²⁸⁰ the initial fiscal cost to the GoI in Year 1 is IDR 5.6 million for a similar property valued at IDR 150 million. However, the GoI must continue to pay an additional IDR 5.6 million annually throughout the remaining life of the loan. With a maximum loan tenure of 20 years, this means that the total cost is about IDR 112 million. In net present value terms, this amounts to IDR 59 million per subsidized unit including the SBUM down-payment assistance of IDR 4 million.²⁸¹

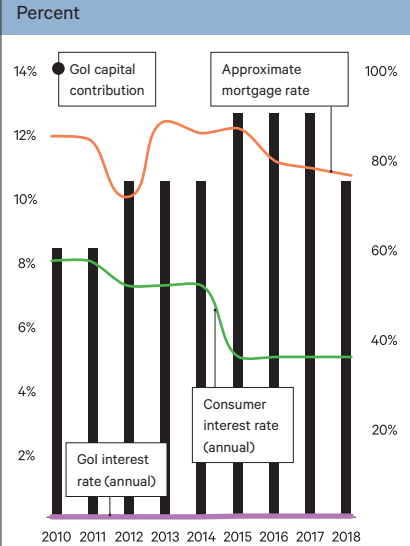
FIGURE 10.18. Breakdown of funds for home purchase by subsidy product



Note: NPV refers to the net costs of subsidy to the government accounting for all future cash flows at a discount rate of 8.17 percent. Key assumptions: Gross household income of IDR 5 million, 20-year loan tenure, SBI 1-year rate plus 5 percent. Source: Authors.

FIGURE 10.19.

FLPP historical subsidy policy rates



Note: Market mortgage rate estimated based on the SSB benchmarking model: Bank Indonesia Certificate (12-month) rate plus 5 percentage points. In years where the 12-month rate was not available, it was estimated based on average historical spread between the 12 month and the closest available rate. Source: MoPWH, Bank Indonesia.

Calculation of historical future liabilities for FLPP and SSB

A FLPP

The FLPP scheme provides homebuyers with a 5 percent interest rate for a mortgage of up to 20 years and allows a down payment as low as zero. With the availability of down-payment assistance from SBUM, typical down payments have been around 5 percent of the property value including assistance. As of April 2019, the MoPWH lends 75 percent of the loan capital to the implementing bank at 0.5 percent interest, with the remaining 25 percent provided at 4.45 percent by PT Sarana Multigriya Finansial (PT SMF), the state-owned housing finance lender.²⁸² The implementing bank then on-lends to the customer, taking a spread over the weighted average cost of funds. These parameters have been adjusted several times since the launch of the program in 2010. Figure 10.20 summarizes the changes in key lending parameters over the life of the program.

The 75 percent of loan principal provided by the MoPWH is not considered a direct budget expenditure, as it is eventual-

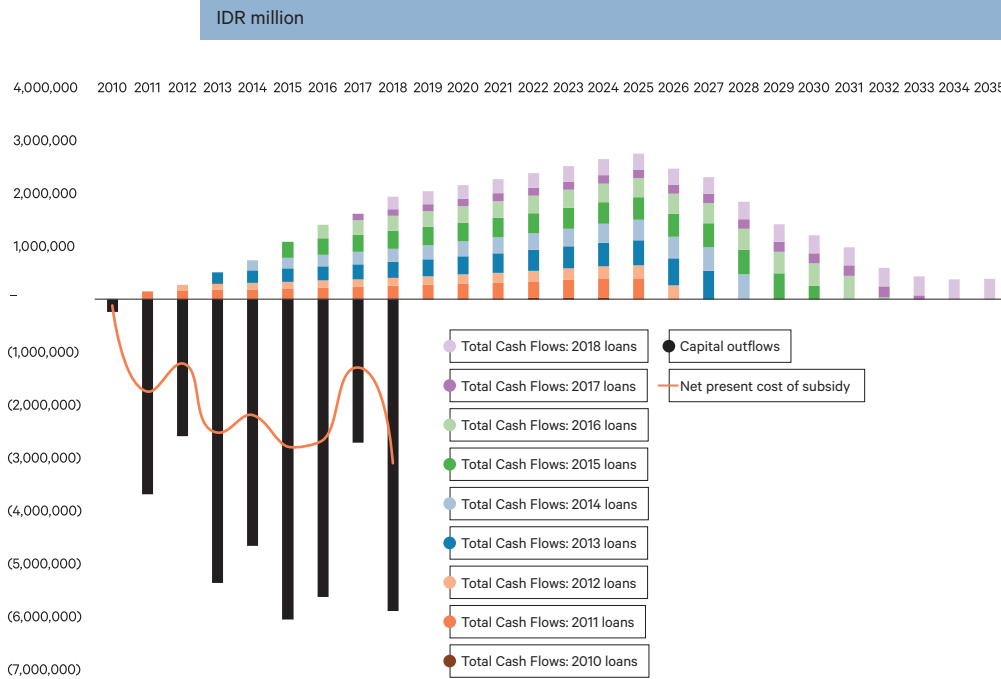
²⁷⁹ Key assumptions: Property value of IDR 130 million; consumer down-payment of IDR 2 million, SBUM down payment assistance of IDR 4 million, loan of IDR 123 million. Discount rate is assumed to be the 20-year SUN rate, i.e., 8.17 percent, and the loan tenure is 20 years.

²⁸⁰ This is the sum of the SBI one-year benchmark rate of 5.3 percent plus a lender margin of 5 percent.

²⁸¹ The present value of 112 million, discounted at 8.2 percent over the 20-year life of the loan.

²⁸² MoPWH.

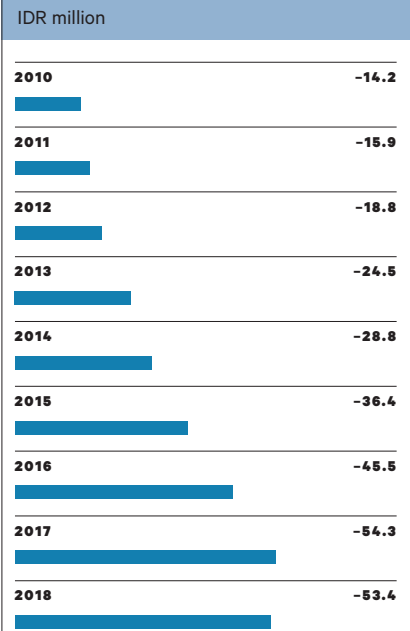
FIGURE 10.20. Breakdown of funds for home purchase by subsidy product



Source: Estimates based on historical program parameters and loan volume.

FIGURE 10.21.

FLPP net present cost per unit (2010-18)



Source: World Bank staff calculations based on MoPWH data.

ly returned in full to a revolving fund to be re-lent. However, the 0.5 percent interest earned is a fraction of what it would cost the GoI to raise the same amount through other means. In present value terms, the cost to the MoPWH amounts to about 50 percent of the principal for a 20-year loan under current conditions excluding SBUM expenditures.

Accounting for these costs in fiscal terms involves projecting the cash flows of loans issued in each year and discounting them to their present value equivalent in that year. Estimated cash flows for the loans issued under the FLPP program from 2010 to 2018 are illustrated in Figure 10.20.

Using this present value in year-of-issue method, the net fiscal cost of FLPP loans issued from 2010 to 2018 is over IDR 17.6 trillion, or an average of about IDR 2 trillion for 64,000 units per year. The resulting implication for cost efficiency by year is summarized in Figure 10.21.

B SSB

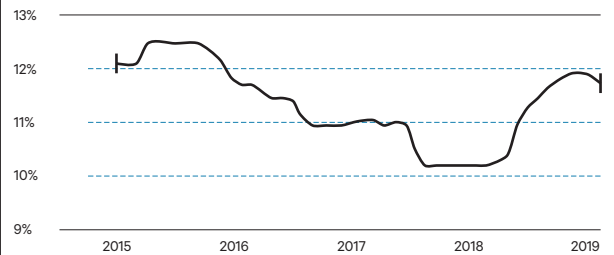
As described above, the SSB mechanism requires the implementing bank to put forward 100 percent of loan capital but pays the difference between: (i) the consumer's payments of an amortization at 5 percent; and (ii) a second amortization of the same loan at a benchmark market rate (currently

the Bank Indonesia 12-month Certificate rate plus 5 percent). This payment gap is recalculated and paid on a monthly basis throughout the loan period. Figure 10.22 shows the fluctuations in the benchmark rate used to calculate these payments to the implementing bank since the program launched in 2015.

Using these historical rates and an assumption of an 11.5 percent benchmark for payments made after February 2019, we project monthly payments for the life of each loan and discount them to the year of issue to arrive at the net present cost of the subsidy for each year (Figure 10.24).

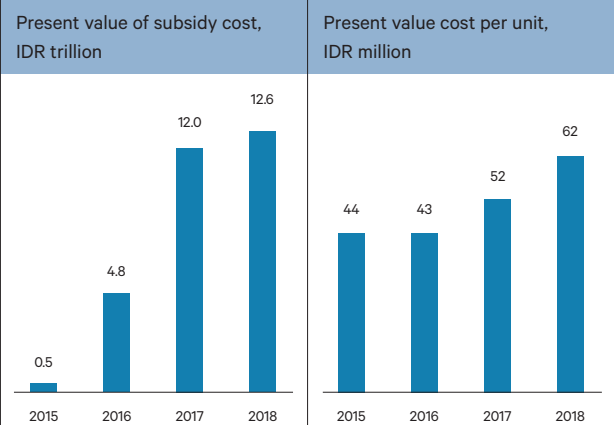
The net fiscal cost for the period 2015-18 using the present value in year-of-issue method amounts to nearly IDR 30 trillion, or an average of IDR 7.5 trillion for 140,000 units per year. These numbers are sensitive to fluctuations in the benchmark rate going forward. For example, an increase in the average monthly benchmark from 11.5 to 12.5 percent results in a cost increase of IDR 3.8 trillion over the repayment period of the same existing loans. Conversely, a decrease of 1 percent would save the GoI about IDR 3.7 trillion. This exposure to future interest rate fluctuations is a significant contingent liability for the GoI, considering the benchmark has been as low as 10.26 and as high as 12.5 percent during the four years of the program's life to date (a period of relative economic stability).

FIGURE 10.22. Historical SSB market benchmark used for payment calculation (monthly)



Note: These are actual historical figures.
Source: MoPWH, SSB working unit (Satker).

FIGURE 10.23. Net present cost of interest gap payments for SSB loans issued in 2015-18



Source: World Bank staff calculations based on MoPWH data.