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INNOVATIVE FINANCING FOR DEVELOPMENT AND GROWTH: INFRASTRUCTURE ASSET SECURITIZATION OF AIRPORTS, SEAPORTS, AND ELECTRICITY IN FOCUS

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Abstract

Infrastructure development in electricity, energy and connectivity sectors is one of the strategic initiatives that became the main priority of President Joko Widodo's government in 2015-2019. One of the innovative financing for infrastructure development is through asset securitization. The basic objective of asset securitization is to transform fixed cash flows generated by physical assets of the infrastructure SOEs to a financial instruments that can be traded by investors in the capital market. This paper has been developed as the first step to build a framework as well as reference analysis for the Government to consider asset securitization as a strategic initiative in infrastructure financing. The paper reviews governance structure, selection of a more suitable investment model, gradual and monitored Improvement, and better investment-related policies which include regulatory neutrality, better benchmark pricing, broad base investors, and more liquid secondary market.

1. Introduction

Infrastructure development in electricity, energy and connectivity sectors is one of the strategic initiatives that became the main priority of President Joko Widodo's government in 2015-2019. The primary objective of the initiative is to accelerate the economic growth and to maintain its sustainability. Based on the RPJMN (National Medium-Term Development Plan) 2015-2019, the Government requires IDR 4.797 trillion to achieve the infrastructure development target. Although State Budget has been deployed profusely to meet this priority needs, the financing gap between the infrastructure development budget and the total need of strategic infrastructure investment is estimated at IDR 500 trillion. Given the state budget deficit limit as governed by the law, state owned enterprises (SOEs) and private sectors are expected to address this gap.

SOEs have committed to support the Government to achieve its infrastructure development target. Out of IDR 686.8 trillion of SOEs' total capital expenditure which consists of a number of pipeline projects over the period 2015-2019, more than 80 percent or amounting to IDR 534.4 trillion have been allocated for infrastructure projects. This is equivalent to 76 infrastructure projects out of 164 projects in the pipeline. In order to address the large infrastructure financing gap, apart from internal funding, SOEs plan to raise funds externally. A total of IDR 150.5 trillion from public offerings

of equities and debts and asset securitization are expected to be absorbed by investors. Until now, there are IDR 11 trillion of shares, IDR 65 trillion of debts in the forms of medium term notes (MTNs) and bonds, and IDR 6 trillion of asset-backed securities in the market. These numbers are expected to increase continuously.

Asset-backed securities have the smallest amount compared to other instruments, however, they have considerable development potential. This is due to the potential benefits of securitization schemes for SOEs, primarily in relation to the potential ability of these instruments to maximize the utilization of the cash flow from their existing physical assets. The basic objective of asset securitization is to transform fixed cash flows generated by physical assets of the infrastructure SOEs to a financial instruments that can be traded by investors in the capital market. With its unique characteristic, asset securitization is expected to benefit both Infrastructure SOEs and investors.

In 2017, there are two infrastructure asset securitizations issued: from PT Jasa Marga with the underlying asset in the form of toll road revenues, and from PT Indonesia Power with the underlying asset in the form of cash flow from the electricity off-take contract. There are many lessons that can be learnt from these first two infrastructure asset securitizations, in particular if the application of asset securitization can benefit infrastructure development in Indonesia. Going forward, the Government considers the need for an integrated strategy to further develop securitization scheme to address the infrastructure financing gap. Fiscal Policy Agency (BKF) has developed this paper as the first step to build the national strategy as well as reference analysis for the Government to consider asset securitization as a strategic initiative in infrastructure financing. The rest of the paper is organized as follows. Section 2 provides background information about asset securitization and the structure of KIK EBA (Collective Investment Contract Asset Backed Securities or CIC ABS). Section 3 layouts theoretical and conceptual framework in examining the effectiveness of the two current infrastructure asset securitization done by those SOEs in 2017. Section 4 analyzes the financial assets potential from Infrastructure SOEs. Section 5 examines the issues and challenges involved for issuers, investors and policy makers. The final section of this paper concludes and provides recommendations.

2. Definition, Characteristics, Structure, and Legal Basis of Asset Securitization in Indonesia

2.1. Definition

Based on the Presidential Regulation No. 1 Year 2008 concerning Amendment to Presidential Regulation No. 19 Year 2005 concerning Secondary Housing Finance, securitization is the transformation of non-liquid assets into liquid assets by purchasing financial assets from an original

creditor and the issuance of asset backed securities. It may be worth noting that several Indonesian companies have done securitization since 1996, albeit they were cross-border securitization due to lack of regulations and domestic instruments. The three major securitization transactions in 1996-1997 were the automobile receivables securitization of PT Astra Sedaya Finance (\$200 million), the revolving securitization program for auto receivables of PT Bank Bira (\$60 million) and the motorcycle receivables securitization of PT Putra Surya Multidana (\$177.6 million). In 2006, there were also the securitizations of existing and future receivables from the sale of coal produced by PT Kaltim Prima Coal (KPC) and PT Arutmin Indonesia amounting to \$600 million. These deals illustrated there were appetite from companies (not just SOEs) to do securitization transactions, which then may improve the securitization market in Indonesia.

What is included in the definition of financial assets is essentially all financial assets that generate potential cash flows. According to BAPEPAM-LK Regulation No.IX.K.1, financial assets may be in the forms of claims arising from commercial paper, credit card bills, claims arising at a later date, lending of credit including house or apartment mortgages, debt securities guaranteed by the Government, increased credit facility (credit enhancement)/cash flows, and equivalent financial assets and other financial assets related to the financial asset.

2.2. Characteristics

Based on such definition, thus the asset securitization process has four basic characteristics: (1) serve to liquidate assets that are not or less liquid, (2) the asset is considered as receivables, (3) sale outright of such assets by the asset owner to a KIK/issuer, and (4) KIK/issuer securitizes assets to become ABS. Furthermore, there are implications of the above characteristics. Specifically for points 3 of the sale outright, the implications are as follows:

1. In accounting, the financial assets that become EBA's portfolios are excluded from the originator's balance sheet (true sale). The financial assets are derecognized from the original creditor's balance, so securitization transactions are often called off-balance sheet financing.
2. Investor protection against the risk of creditor's bankruptcy (bankruptcy remoteness). It is a safeguard for investors where the financial assets which becomes the underlying of EBA cannot be subject to public confiscation as a result of any bankruptcy statement.
3. Financial assets are entirely the rights of investors (perfection of security interest). Through the implementation of legal binding, assets that become the underlying securitization transaction will become the rights of investors entirely and cannot be claimed by others.

The four characteristics of asset securitization implies that it is basically a sale and purchase transaction so that one of the main requirements is the existence of the object of sale and purchase in the form of goods/objects or services. According to Article 511 of the Indonesia Civil Code, the

financial assets that becomes the underlying of asset securitization fall under the category of "movable objects because of the provisions of the law". Examples of movable objects based on the provisions of the law under that article are (a) the use of proceeds and the rights of use of movable objects; (b) the rights of the promised interests; (c) billings or receivables; (d) shares or shares in trade alliance, etc. According to Subekti (2003), government bonds are included in the example of movable objects due to the provisions of the law.

2.3. Structure and Price Formation

The basic structure of asset securitization in Indonesia as illustrated in Figure 1 consists of (1) funds invested into KIK EBA, (2) funds plus investment proceeds paid by KIK EBA to investors, (3) KIK EBA issued by Original Creditor with the amount and tenor approved by the investor with proof of outright sale of the financial asset, (4) sale proceeds of the financial assets are submitted to the Original Creditor, (5) collection and delivery of cash flow to KIK EBA based on their classes, and (6) distribution of cash flows to investors by KIK EBA.

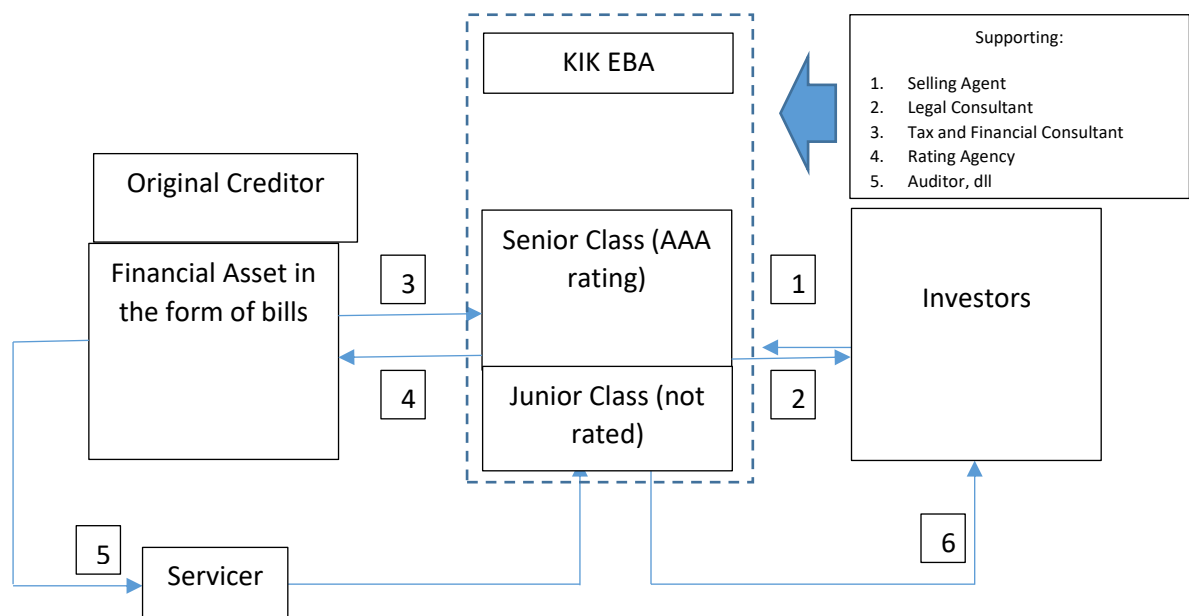


Figure 1. KIK EBA Basic Structure

Source: BKF (processed from PT Mandiri Manajemen Investasi)

Based on the above structure, it can be seen that there are subclasses for KIK EBA such as senior and junior. This is the implication of KIK EBA structure that has subordinate order. The subordination of the EBA classes in a KIK is influenced by the quality of KIK EBA itself which also affects its price. According to the Provision 1.e. of BAPEPAM-LK Regulation No.IX.K.1, the credit improvement facility/cash flows is a mean to improve the quality of collective investment portfolio

with regard to payment to EBA holders, to include: subordination of specific EBA classes against other EBA classes in respect to the same KIK, letter of credit (L/C), guarantee fund, allowance for doubtful accounts, insurance, guarantee on interest rate, guarantee on the availability of liquidity at maturity, warranty on tax payment, and option or "swap" on the interest rate or on foreign currency exchange rate.

The most common example of subordination is to divide the KIK into two classes namely the EBA A (senior) class and EBA B (junior) class. The senior class gets priority for investment funds payments and investment returns whereas the junior class gets priority for allocation of losses. The senior class is rated by an independent rating agency while the junior class is not rated and not listed in the stock exchange. Based on the Financial Services Authority regulation, the senior class must consist of at least 90 percent of the total KIK.

With characteristics and structures as above, KIK EBA may have a lower risk than the original creditor, and can potentially has a rating that is higher than the originator. For example, KIK EBA Mandiri JSMR01 has AAA rating while PT Jasa Marga has AA rating. This is due to the strong cash flows of the Jagorawi toll roads and the securitization of only IDR 2 trillion or around IDR 400 billion per year. This amount is only part of the Jagorawi total toll cash flows of IDR 700 billion per year, so the risk of fluctuations is minimal. In addition, KIK EBA is also assessed based on the Jagorawi toll revenue only (single project entity). The Jagorawi toll predictability is higher than the predictability of PT Jasa Marga's revenue as a whole (consolidated), where there are other toll roads with weaker cash flow than the Jagorawi, thus KIK EBA's rating is higher than PT Jasa Marga.

2.4. History and Legal Basis

The development of asset securitization in Indonesia began in 2003 where the Capital Market Supervisory Agency and Financial Institution (BAPEPAM-LK) launched the Regulation No.IX.K.1 concerning securitization using the Collective Investment Contract scheme. However, KIK EBA did not automatically issued after it has been accommodated under this BAPEPAM-LK regulation. In order to encourage the securitization process, the Government established PT Sarana Multigriya Finansial (SMF) in 2005 as a housing financing company. After the establishment of the SMF, a KIK EBA with the underlying of housing sector financial asset was issued and listed on the Stock Exchange in 2009. In addition to these two regulations, asset securitization also subjects to the law concerning the sale and purchase and material which is the Civil Code (KUHPer).

Asset securitization does not have any legal basis at the level of law. In 2005, the law concerning securitization was briefly discussed by the Government c.q. Ministry of Justice and Human Rights. However, this discussion did not extend to the discussion in the DPR RI (Republic of Indonesia Legislative) because it was (and still is) not listed in the National Legislation Program. Due

to the absence of a strong and integrated legal umbrella, the asset securitization has not been widely utilized in Indonesia. Judging from the small size of EBA instruments, it seems that corporates are still focusing on conventional fundraising such as bank loans, bonds issuance, and equity public offerings. Since its first issuance in 2009, securitization in Indonesia has only occurred 12 times. Prior to 2016, the transaction was based on one type of financial asset only, which is the home ownership credit (KPR) with one originator which was PT Bank BTN. Then in 2016 PT Bank Mandiri became an originator and in 2017 there was securitization outside KPR which is in the toll road infrastructure sector.

3. Theoretical and Conceptual Framework

The positive impact of investment in infrastructure on long-run economic growth is empirically supported, for example, by Canning and Pedroni (2008). As an economy-wide production function, infrastructure affects growth through at least four transmission channels: i.e., private sector productivity enhancement; private capital formation, displacement, and durability; investment adjustment cost reduction; and, demand for and supply of health and education services creation (Dissou and Didic, 2013). For Indonesia case, by using a DSGE model simulation Sahminan et al. (2016) show that one per cent increase in government spending in infrastructure leads to 0.05 per cent increase in output growth. However, infrastructure must not depend on government spending. Capital markets must play a significant role in infrastructure financing, especially through financial innovation (Chen, 2002).

There are many forms of financing innovation for infrastructure such as infrastructure debt fund (Annamalai and Hari, 2016, Khandelwal and Khanapuri, 2015), project bonds (Hutchison et al., 2016), and infrastructure private equity. Currently, Indonesia has taken an action in infrastructure financing through asset securitization for infrastructure financing in 2017. Securitization is a process of liquidity transformation of future cash flows from a diversified pool of illiquid existing assets into tradable debt obligations (Jobst, 2006). Historically, securitization has been existed since the twelfth century (Buchanan and Choudry, 2014). Some research relates securitization with financial crises (Battaglia et al., 2014), bank lending and monetary policy transmission (Ben Salah and Fedhila, 2014), shareholders' wealth (Fang et al., 2009), and banking risks (Kara et al., 2016). Meanwhile, regulatory and governance of securitization have been discussed in Jobst (2005) and Fan et al. (2004).

Frame and White (2004) argue that practical research can analyze factors behind financial innovation such as underlying technologies, macroeconomic and environmental conditions, regulation, taxes, demand for and supply of innovations, and profitability as well as social welfare. To this end, this paper focuses on five factors: i.e. yields, investors, use of proceeds, regulation and taxes.

3.1. Potential Benefits

a) *The Benefits of KIK EBA Investment compared to other Financial Instruments*

With its unique structure and characteristics described above, there are many basic benefits that can be taken for financial sector SOEs by investing in infrastructure KIK EBA. The first benefit is the existence of transparency in KIK EBA's investment. As an instrument that enables the process of direct claims upon financial assets that become underlying transactions through the submission of sales documents from the originators to KIK, investors are able to know for sure the collectability of this instrument. This is the comparative advantage of KIK EBA which based on a single project entity and not consolidated like other conventional financial instruments. These characteristics provides clarity or transparency over which cash flows are plotted for investors.

The second benefit is the risk that tends to be lower. Because it is based on a particular type of bill that is in fact a bill that generates a stable and trending cash flows, the asset securitization scheme allows the risk of default of the instrument (the KIK EBA) very small. This low risk of default can even reach a level which is lower than the issuer's risk. For example is the KIK EBA Mandiri JSMR01 which has *idAAA* rating or higher than PT Jasa Marga rating of *idAA*. Besides the low risk, investors also acquired full rights upon cash flows that are plotted by KIK EBA, including if the originator experienced bankruptcy (bankruptcy remoteness). Given the true sale characteristic of the originator to KIK EBA, when the originator went bankrupt, the financial assets that become the underlying of KIK EBA will remain to be the KIK EBA investor rights. These assets are separated from the list of assets that become the subject to the rights of stakeholders such as lenders and shareholders in the case of bankruptcy.

Finally, KIK EBA enables rapid return on investment. For example, KIK EBA Mandiri JSMR01 uses straight-line amortization method (20 percent per year) on principal and investment returns. However, this is less favorable for financial investors who have a long-term investment horizon because it will lead to reinvestment risk.

b) *The Benefits for Infrastructure SOEs.*

The ultimate benefit of asset securitization is that it can help accelerate infrastructure investment. The financing is an intermediate objective. The ultimate goal is more infrastructure. However, with its unique structure and characteristics, there are several other benefits that can be derived from the implementation of asset securitization by SOEs especially those that are engaged in infrastructure development area. The asset securitization scheme may help the SOEs to expand and accelerate their businesses. The first benefit is to provide additional source of financing for SOEs, on top of bond borrowing or bank borrowing. Other benefit is that its impact on the SOE balance-

sheet is contained (this is not a liability of the SOE). As a reference, the *Global Infrastructure Hub* (GIH) emphasized the need to understand the objectives of extracting value of the SOEs, whether it is used to maximize the balance sheet impact of SOEs, to maximize the value of financial assets that they have (financing for new infrastructure asset), to attract private capital investment or other objectives. Different objectives leads to different instruments option (whether using project finance/conventional corporate bonds or monetization).

The second benefit is to optimize the capital potential of the fixed assets and ongoing commercial projects to increase investment capacity. Infrastructure SOEs have many physical assets that generate stable and even rising operating profits. Assets that are not bound to any third parties such as banks or creditors have potential to be securitized to improve SOEs profitability, primarily through accelerated development of new infrastructure assets.

The third benefit is the huge investment potential of infrastructure SOE in the midst of incessant Government programs to accelerate infrastructure development. Bigger investment capacity is needed to accelerate infrastructure development momentum.

The fourth benefit is to obtain financing amid the high risks of several projects assigned by Government. As the arms' length of the Government, SOEs can be assigned to implement high-risk development projects that have low financial and economic feasibility. With low financial and economic feasibility, it will be difficult for infrastructure SOEs to raise financing from external parties for those projects, even through conventional methods. Therefore, innovative financing alternatives are needed to build or improve gearing ratios of these high-risk projects.

The fifth benefit is that asset securitization is a good alternative for state-owned enterprises with financing constraints in their internal capital resources, in particular for those that have already reached their leverage limit. Ranging from investment potential and assignment of existing infrastructure development, it can be seen that the internal financing capacity of SOE is uneven. A number of SOEs have weak financial postures that require external sources of financing. SOEs with weak balance sheets and/or losses should not use securitization. Otherwise the money raised will be used to pay back debt and support operating expenses. It will not result in new infrastructure.

The last but not least benefit is that there are potential financial investors funds (especially pension funds and insurance companies) that could allocate their fund for infrastructure. As a marketable securities and low risk characteristics, KIK EBA can potentially be able to absorb those financial investor funds. The infrastructure SOEs should explore the potential of this demand side. This could ultimately help to develop capital markets and to foster the use of long-term savings for financing infrastructure assets.

3.2. Potential Risks

Those benefits above may be limited if the proceeds from securitization are used for non-profitable investments because this potentially replaces good cash flow with poor cash flow. This would lead to a weakening of the SOEs balance-sheet and could become a fiscal risk if the SOE eventually needs to be recapitalized. As soon as an SOE securitizes a profitable project and uses that money for a non-profitable project they have destroyed value in the SOE. As the SOE shareholder, this loss will eventually be realized by the Government through lower dividends or the need for a capital injection. The Government cannot use SOEs to develop unprofitable projects for free. The government will ultimately end up paying one way or another. Some risks of securitization that must be closely assessed are:

a) Risk on remaining cash flows

If some financial assets are securitized, SOEs need to consider the remaining cash flows in their balance sheets. The remaining cash flows should be able to, at least, cover operational costs and other matters related to business continuity. It is also important to make sure that SOEs still have the ability to create profits with the remaining cash flows.

b) Risk on less state revenue

For the government, the securitization of future revenue of SOEs may also potentially reduce the state revenue from taxes or non-taxes e.g. future dividend due to the declined remaining cash flows or profit. However, this risk can be minimalized if the Government can make sure that the proceeds from the securitization are invested back into new infrastructure projects. The positive economic impacts of the new projects in the future potentially lead to an increase in the state revenue.

c) Risk on less optimal return on investment

Besides considering the going concern of the business, one of the most important parts of asset securitization is the use of proceeds from the asset securitization. The proceeds of asset securitization must be invested in a good project with sufficient investment returns bigger than the opportunity cost of selling old project cash flows.

However, as stated above, since not all projects have financial feasibility, so Infrastructure SOEs must be more careful in choosing the project in order to maintain financial condition of Infrastructure SOEs from declining. Therefore, for green field projects or projects assigned by the Government, if it is going to be financed by using asset securitization proceeds, the project must

have an estimated rate of return that is at least equal to the cost of finance or the expected rate of return of the cash-flow being securitized. Infrastructure SOEs also need to identify and implement risk mitigation efforts so that the risk of project failure from any reasons can be minimized.

4. Financial Assets Potential of the Main Infrastructure SOEs

There is a huge potential for asset securitization by Infrastructure SOEs in Indonesia. This can be seen from the large ownership of the main Infrastructure SOEs towards a number of commercial assets which generate stable and growing cash flows. The Jagorawi toll road is one example of a highly mature infrastructure asset in terms of high margin on operating revenues, low operating expenses, and cash flows stability in the last five years. From this point on, the infrastructure SOEs with potential financial assets for securitization are called Main Infrastructure SOEs in this paper.

a) Cash flows from toll revenues by PT Jasa Marga

This paper will take a prime example of securitization structure with the underlying of rights to collect toll road revenues which is the "KIK EBA Mandiri JSMR01" which has been listed on BEI (Indonesia Stock Exchange) on September 8, 2017, since this is the first Indonesia's infrastructure asset securitization. KIK EBA Mandiri JSMR01 has the underlying asset in the form of future cash flows on the Jakarta-Bogor-Ciawi (JAGORAWI) toll road. This cash flow is then converted into financial asset in the form of bill by establishing guarantees of debt and receivable called "right to collect on toll road revenues".

The Jagorawi toll road has an average historical revenue of IDR 700 billion per year for the last five years with a fairly high growth trend per year. The operating profit margin from 2012-2016 of the Jagorawi toll road is also higher than PT Jasa Marga's total margin of 40.9 percent. In addition, the growth of operational expenses of the Jagorawi toll is also very low at an average of 6.3 percent per year from 2012 to 2016.

The structure of KIK EBA Mandiri JSMR01 as can be seen in Figure 2 are as follows: (1) investment fund transfer from investors to KIK EBA Mandiri JSMR01, (2) funds added with investment proceeds paid by KIK EBA Mandiri JSMR01 to investors, (3) KIK EBA was issued by PT Jasa Marga as the originator with the amount and tenor approved by the investors with a proof of true sale upon the rights to collect the Jagorawi toll road revenues; (4) proceeds from financial assets sales to PT Jasa Marga, (5) collection and submission of cash flows to KIK EBA Mandiri JSMR01 based on its classes, and (6) distribution of cash flows to investors by KIK EBA Mandiri JSMR01.

Since the rights to collect is a noninterest bearing of future cash flows (for the next 5 years), then when point (1) is amounting to IDR 2 trillion, point (4) is submitted in the amount of IDR 2 trillion minus a certain discount rate. This discount is calculated by the discount factor in the form of a

quarterly interest with an annual investment yield (coupon) of 176 basis points above the 5 year SUN (Government Bond) coupon. The margin of this discount is the interest income for investors and paid to investors on a quarterly basis. The amortization of investment fund (the principal payment) is done by straight-line amortization method of 20 percent per year.

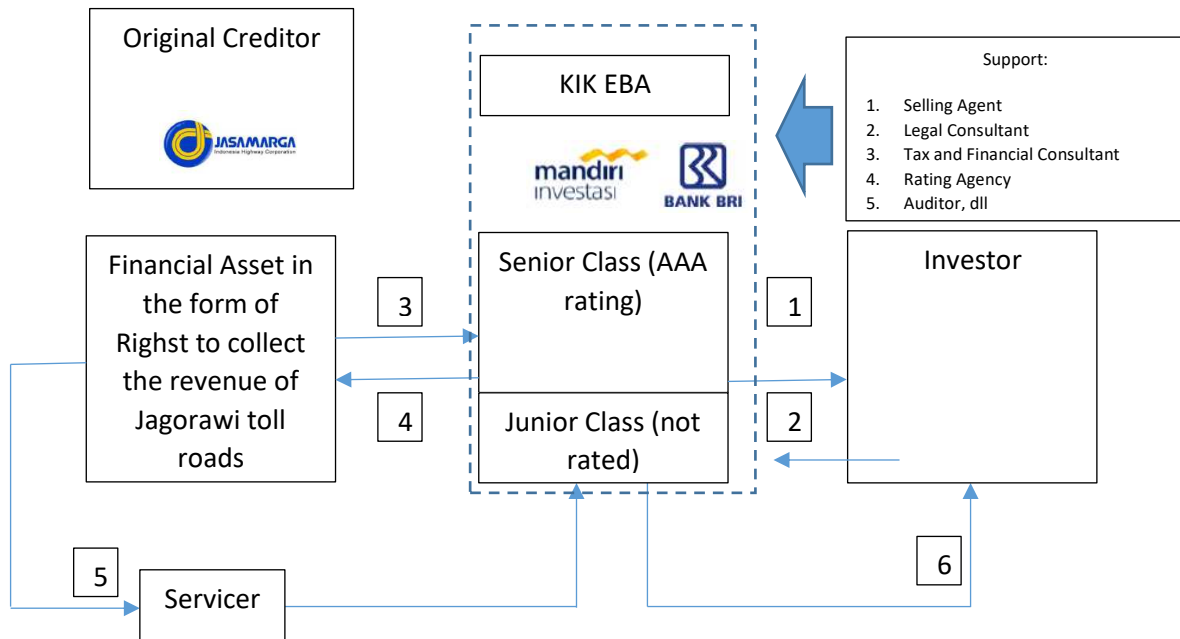


Figure 2 KIK EBA Mandiri JSMR01 Structure
Source: PT Mandiri Manajemen Investasi

b) Class flows based on passengers and aircraft movement managed by PT Angkasa Pura II

PT Tangkas Pura II is the SOE engaged in airport services with business areas in Western Indonesia. There are 13 airports operated by PT Angkasa Pura II which consist of major airports such as Soekarno-Hatta and Kuala Namu. PT Angkasa Pura II historically has 4 (four) stable and positive cash flows. The cash flows is derived from passenger service charges (PSC), landing services fees, concession fees, and room rental revenues. Some of these cash flows, such as concession fees and landing fees are dollar-linked. Others are in local currency. When viewed from the breakdown of total operating income as can be seen in Figure 3, the revenue from passenger movement or aeronautical services such as PSC and landing services fees hold dominant shares of 61 percent, while the revenue from non-aeronautical services such as concession fees and room rental hold a portion of 39 percent.

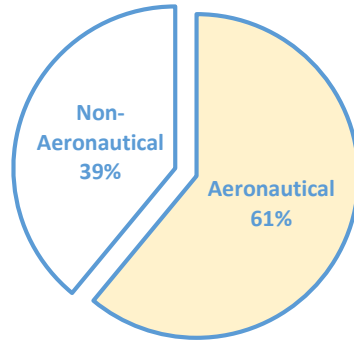


Figure 3. PT Angkasa Pura II Revenue Structure
Source: Ministry of SOE, processed

The largest proportion of aeronautical services is the PSC. Besides holding the largest proportion of its operating income, the PSC also generates steady and growing flows of funds for PT Angkasa Pura II. This can be seen from the stable revenue of PSC that tend to increase from the year of 2013 amounting to IDR 2.043 trillion until 2016 amounting to IDR 2.89 trillion or an average of IDR 2.332 trillion per year as can be seen in Figure 4. From the growth side, PSC has increased rapidly from 4.5 percent (year on year) in 2014 to 27.9 percent (year on year) in 2016. The increased growth of PSC in 2016 is in line with the increase in tariffs. In the next 2017, PSC revenue is expected to increase with the full operation of Terminal 3 Ultimate.

In addition to PSC, landing services fees, concession fees, and room rental revenues also demonstrate great securitization potential with average cash flows of IDR 601.5 trillion, IDR 826.75 trillion, and IDR 0.354 trillion per year respectively during the year of 2013-2016. Even if these four types of cash flows were only securitized by 50%, PT Angkasa Pura II will still earn around IDR 1.5 trillion.

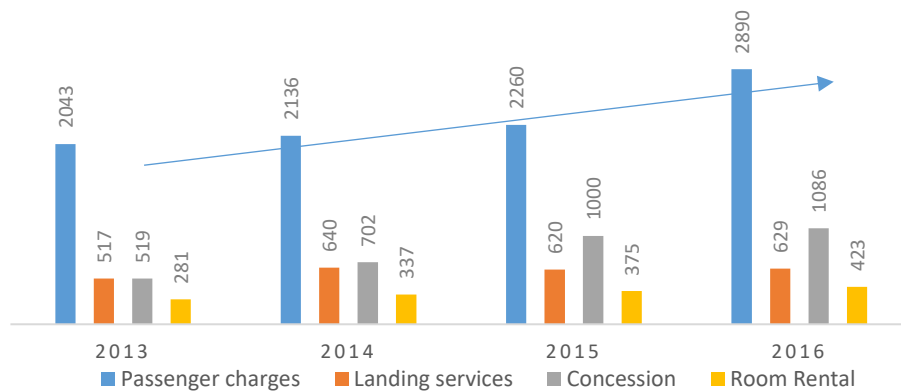


Figure 4. PT Angkasa Pura 2013 – 2016 (in IDR Billion) Cash Flow Trends
Source: Ministry of SOEs, processed

Apart from the historical data of these four cash flows, the huge growth potential is also supported by fundamental data such as passenger and aircraft movement that are stable with a growing trend. As can be seen in the Figure 5 and Figure 6, the four year compounded annual growth rate (CAGR) of the two indicators each are 10.2 and 13.2 percent, respectively, both for domestic and international routes. The largest growth mainly occurred in the year of 2016 where each recorded annual growth of 12.9 and 15.9 percent respectively.

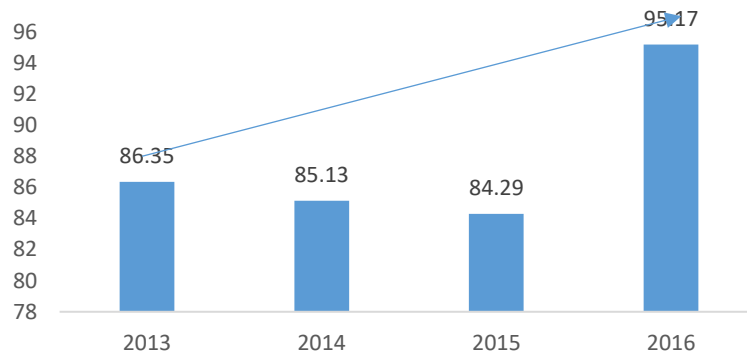


Figure 5. Passenger Movement (in million) 2013 – 2016
Source: Ministry of SOE, processed

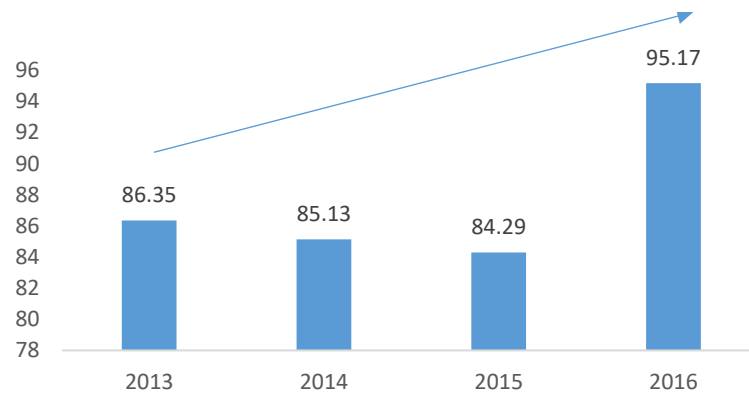


Figure 6. Aircraft Movement (in million) 2013-2016
Source: Ministry of SOE, processed

Besides PT Angkasa Pura II, the other PT Angkasa Pura also has securitization potential which can be further explored, for example for areas that have airports with quite a number of tourists and domestic as well as international flight routes such as Bali. This cash flows securitization structure will be the same as the securitization structure of rights to collect of PT Jasa Marga's toll road revenues.

c) *Cash flows at mature seaports managed by PT Pelabuhan Indonesia II*

PT Pelindo II is an SOE engaging in the development and operation of ports together with PT Pelindo I, III, and IV of which have different business areas. PT Pelindo II currently operates ports in 10 provinces and therefore has 12 branches and 15 subsidiaries. The main business of PT Pelindo II in operating ports is ship services, cargo services, and other services. Details of each type of the services are as presented in Table 1 below.

Table 1. PT Pelindo II Business Type

	Ship Services	Cargo Services	Other Services
Definition	Service related to vessel guidance during anchored	Service related to loading and unloading goods	Supporting services provided by PT Pelindo II
Example of Services	<ul style="list-style-type: none"> • Anchorage services • Mooring services • Pilotage services • Towage services • Water services 	<ul style="list-style-type: none"> • Public berth • Storage warehouse • Storage yard • Private berth 	<ul style="list-style-type: none"> • Maintenance of vessel equipment • Rental of land, building, water and electricity

Source: PT Pelindo II, processed.

One of the ports of PT Pelindo II that covers the international market is Tanjung Priok. In addition, PT Pelindo II is also the hub of 62 percent of international containers which enter Indonesia. PT Pelindo II's potential assets to be securitized are activities in the port terminal because these are the main source of company revenues so far. The terminal provides revenue for the port by loading and unloading cargo or container of goods. The activity volume of this loading and unloading of cargo or container of goods is in line with the performance of domestic economic growth and infrastructure readiness of the terminal. With PT Pelindo II's revenues of IDR 8.26 trillion as shown in Figure 7, the amount that can be securitized per annum by PT Pelindo II from activities at port terminals is assumed to be around 50 percent or around IDR 3 trillion. In addition to strong cash flows, in general PT Pelindo II's revenue also grew by 15.9 percent (year on year) in 2016 with CAGR of 13.3 percent from 2012 to 2016.

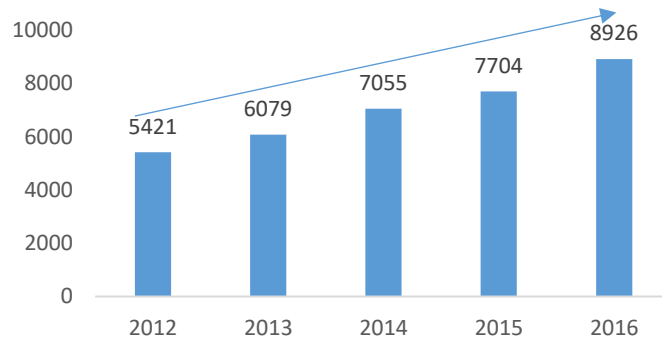


Figure 7. Revenue Trend of PT Pelindo II 2012-2016 (in IDR billion)

Source: PT Pelindo II, processed

Other than the potential in terms of its stable cash flows in the main revenue, PT Pelindo II also has the potential to absorb foreign investors' funds since most of its revenue components are denominated in foreign currencies such as the US dollar (note that this is the same as for Angkasa Pura). The foreign investors' major interests in financing instruments issued by PT Pelindo II with foreign currencies denomination can be shown in the amount of subscription to global bonds which was issued by PT Pelindo II on May 5, 2012 with a volume of USD 1.6 billion or equivalent to around IDR 20 trillion. Similar to PT Angkasa Pura II, this cash flow securitization structure will be similar to the securitization structure of the rights to collect on PT Jasa Marga's toll road revenues.

d) Cash Flows owned by PT Perusahaan Listrik Negara

PT PLN is an SOE for the production, transmission, and distribution of electricity in Indonesia. PT PLN has some potential cash flow for securitization. One of the potential cash flows is the securitization of PT PLN's business receivables from certain customers such as (a) electricity sales to industrial customer group of (I3) amounting to IDR 4.5 trillion per month, and (b) electricity sales to industrial customer group of (I4) amounting to IDR 1.2 trillion per month. The scheme of this type of securitization which according to Figure 8 are (1) and (2) where Investors provide funding to PT PLN by using I3 and I4 electricity sales receivables between PT PLN and customers as their underlying transactions, (3) and (4) PT PLN obtains payments from customers which are used to settle interest and loan principal repayment to investors on maturity.

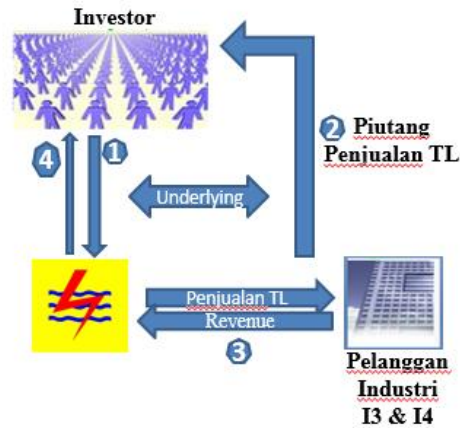


Figure 8. Securitization on Electric Power Sales towards Specific Customers of PT PLN
Source: PT PLN

As an illustration, revenues from electricity distribution on the island of Bali alone, with customers of 1.2 million people, the revenue for PT PLN is IDR 5.5 trillion per year with collection period for up to 25 days. With this large amount, if partially securitized, say only 50 percent, then PT PLN can obtain roughly IDR 8 trillion of fresh funds from the result of the securitization for 5 (five) years. Furthermore, the potential cash flow is revenue securitization from electricity power sales from the Independent Power Producer (IPP) to PT PLN, whereby subsidiaries of PT PLN (Persero) become minority shareholders in the IPP. The schemes for the securitization of this type of cash flows as illustrated on Figure 9 are (1) PLN subsidiary cooperates with other parties to form a SPV (in this case KIK EBA), (2) and (3) Investors provide funding to SPV by using receivables of electric power sales based on PPA between SPV and PLN as their underlying transactions, (4) and (5) SPV receives periodic payments from PLN that is used to pay interest and loan principal repayments on maturity to investors.

As an illustration, the revenue generated by PT PLN's subsidiary the PT Indonesia Power (PT IP) from one power plant which is the Suralaya PLTU (Coal-Steam Power Station) is IDR 18.7 trillion per year. The Suralaya PLTU operated in 1985 (refurbishment already done in 2012). The Suralaya PLTU is the largest power station in ASEAN with 20 percent electricity supply nationally. The estimated revenues from the Suralaya PLTU reached up to IDR 18.7 trillion/year with loans for the construction of fully paid projects. This PLTU is owned by PT IP, located in Cilegon, Banten on an area of 241 Ha. In the case of securitization of PLTU electricity revenues which owned by the subsidiaries of PT PLN, the amount that can be securitized is certainly very large and hence only depends on the ability of the market to absorb.

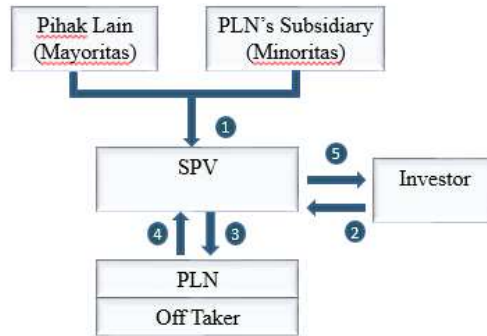


Figure 9. Securitization of Off-take Contract of PT PLN Electricity
Source: PT PLN

As of September 20, 2017, the asset securitization of PT PLN's subsidiary which is PT Indonesia Power, with an underlying asset an off-take contract of the Suralaya PLTU electricity has been officially listed on the Indonesian stock exchange. The size of KIK EBA was IDR 4 trillion, or oversubscribed by 2.7 times with total offer from investors in book building amounting to more than IDR 10 trillion. The same with KIK EBA Mandiri JSMR01, with tenor of KIK EBA Danareksa PLN1 also for 5 years.

5. Issues and Challenges for Issuers, Investors and Regulators

5.1. Issuers

a) Investment Potential and Funding Capability of Infrastructure SOEs

As mentioned above, in addition to the potential to securitize cash flow, there are a number of investment opportunities for Infrastructure SOEs to expand and to strengthen their businesses which could be considered for creative financing alternatives such as through asset securitization. In relation to infrastructure projects, several projects considered as national strategic projects are presented in Table 2 below.

In addition to the above strategic projects, basically asset securitization can also be used to fund pipeline of projects owned by other Infrastructure SOEs. For example, asset securitization proceeds of PT PLN with the underlying asset of electricity off-take contract will be used to expand the Suralaya PLTU. PT Pelindo II also plans to use the asset securitization proceeds to fund the construction of the "New Priok" port which is considered a very low risk commercial port.

Table 2. Example of National Strategic Project related to Infrastructure

No	Project/ Program	Related Regulation	SOE	Sector
1	Fast Track Program Phase I (10.000 MW Phase I)	Presidential Regulation (Perpres) No.71/2006 jo. Perpres 59/2009 jo. Perpres 47/2011 jo. Perpres 45/2014 jo. Perpres 193/2014, Perpres 91/2007 and PMK No. 44/2008	PT PLN (Persero)	Electricity
2	Fast Track Program Phase II (10.000 MW Phase II)	Perpres No. 194/2014 jo. Perpres No. 4/2010 and PMK No. 173/2014	PT PLN (Persero)	Electricity
3	35,000 MW	Perpres No. 4/2016 and PMK No. 130/2016	PT PLN (Persero)	Electricity
4	Trans Sumatera Toll Roads	Perpres No. 117/2015 jo. Perpres 100/2014, PMK No. 253/2015, and PMK No. 168/2016	PT Hutama Karya (Persero)	Toll Roads
5	Light Rail Transit Jabodetabek	Perpres No. 65/2016 jo. Perpres No. 98/2015	PT KAI & PT Adhi Karya	Railway
6	Light Rail Transit Palembang	Perpres No. 55/2016 jo. Perpres No. 116/2015	PT Waskita Karya	Railway
7	Construction of Refineries	Perpres No. 146/2015	PT Pertamina	Oil and gas
8	Construction of Kijing Terminal in Pontianak, Sorong Port, and Inland Waterways Cikarang-Bekasi-Laut	Perpres No. 3/2016	PT Pelindo II	Port

Source: Directorate General Budget Financing and Risk Management, Ministry of Finance, the Republic of Indonesia.

In contrast, some segments of the national strategic projects such as Trans-Sumatra Toll Roads have high risks associated with financial and economic feasibility or reflected in the economic rate of return indicators. For these kind of projects which even difficult to raise external funds, there is a need to encourage related Infrastructure SOEs to develop other financing alternatives such as asset securitization. If a project is not financially feasible, the only solution is for the government to provide a subsidy. If securitization is used for non-profitable investments, this would immediately destroy value from their balance-sheet. The government will still end up paying the amount of the subsidy through capital injections or lower dividends. All projects have to be fully funded before they can attract finance. Projects have to be paid for one way or another.

b) SOE Funding Capacity

In addition to four factors already mentioned above, the financing capacity of existing state-owned enterprises is also an important factor to consider before undertaking asset securitization. Asset securitization is prioritized for SOEs that have limitations in terms of financing capacity. This

limitation is primarily reflected in the ability of SOE to pay the costs associated with external fundraising, such as bank loan interest expenses.

Table 3. The Capacity to Generate Financing for Certain SOEs in 2016

In IDR Billion	Hutama Karya	Waskita Karya	Adhi Karya	Wijaya Karya	Housing Development
<i>Total Assets</i>	24,012	61,425	20,095	31,097	31,233
<i>Total Liabilities</i>	16,466	44,652	14,653	18,598	20,437
<i>Total Debt</i>	5,924	25,464	4,022	6,748	6,048
<i>Total Equity</i>	7,546	16,773	5,442	12,499	10,796
<i>EBITDA</i>	780	3,386	928	1,949	2,215
<i>Interest Expense</i>	162	983	258	435	409
<i>Debt-to-Equity Ratio</i>	0,79	1,52	0,74	0,54	0,56
<i>Debt-to-EBITDA Ratio</i>	7.60	7.52	4.33	3.46	2.73
<i>Financial Covenant</i>	-	Debt/Equity \leq 3	Debt/Equity \leq 3.5	-	Debt/Equity \leq 3.5

Source: Directorate General Risk Management and Financing, Ministry of Finance the Republic of Indonesia.

Table 3 shows the financial condition of some infrastructure SOEs that can be used as a consideration to see its ability to increase debt. Some ratios that are useful for analyzing external financing capabilities and whether or not securitization of assets can be implemented are Debt to Equity and Debt to EBITDA. Debt to Equity ratio shows the ability of SOEs to increase the amount of debt, whereas Debt to EBITDA shows the ability of SOEs to pay the debt using their business investment proceeds. While most Infrastructure Works of SOEs have relatively good Debt to Equity ratios, the Debt to EBITDA ratios show different indications. For example, for PT Hutama Karya and PT Waskita Karya, their Debt to EBITDA are already very high. PT Hutama Karya has a Debt to EBITDA of 7.6 which means it takes about 8 years to repay its existing debt, as well as PT Waskita Karya.

These poor ratios make the ratings of both SOEs to be low and even difficult to achieve investment grade rating, which generally requires this ratio to range from 5 to 6. In terms of rating, asset securitization can be an alternative for external financing of PT Hutama Karya and PT Waskita Karya. This is because the rating of KIK EBA is higher than the both SOEs, so that securitization will lower their cost of funds compared to if both SOEs use more conventional financing instruments. However, the high Debt to EBITDA raises other implications, namely the sensitivity of PT Hutama Karya and PT Waskita Karya financial condition towards cost. This has led to the need for careful and in-depth evaluation of the cash flows that can be securitized of these two state-owned enterprises, in light of the relatively low level of profits amidst already large existing liabilities. Although the assignment from the Government is quite large to these SOEs, some of these ratios should also be

well considered for Infrastructure SOEs that will implement the securitization to fulfill their assignments.

5.2. Investors

a) *Potential Funds to be Mobilized.*

Considering the amount of funds needed and time required to build infrastructure, it is certain that the Infrastructure SOE requires a large amount of fund to grow its business. These long-term development projects should be an investment target for investors with long-life liabilities as well. Pension funds in many countries hold a large share of their assets in infrastructure assets. They are keen on investing in infrastructure because of its long-term nature and because it has provided good return at reasonably low risk. Unfortunately, in the case of the Jasa Marga EBA, the average maturity is only 5 years. This is because demand was mostly from banks while pension fund and insurance companies' demand was limited as showed by Figure 10.

As the largest lender in Indonesia with asset size of more than 30 percent of GDP, banking may be an alternative financing source for infrastructure SOEs. However, while it is dominated by third party funds in the form of short term deposits (less than one year), banking in Indonesia is also restricted to invest in long term investment, among others due to the existence of capital charge and legal lending limit regulations such as the single borrower limit.

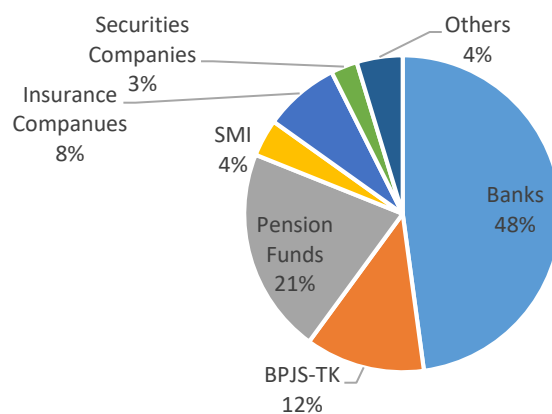


Figure 10. The Investors of JSMR01
Source: Danareksa Investment Management

Unlike banking, however, pension funds and insurance have a large long-term investment appetite. Therefore, with Indonesia's demographic profile surplus, pension and insurance funds have appropriate age obligation with infrastructure investment including the long tenor KIK EBA. In addition, with the newly established system of social security provision that is integrated and

mandatory through Government Regulation Number 19 of 2016, pension and insurance funds in Indonesia will still grow rapidly in the coming years so it is potential to become an alternative investor outside the banking system.

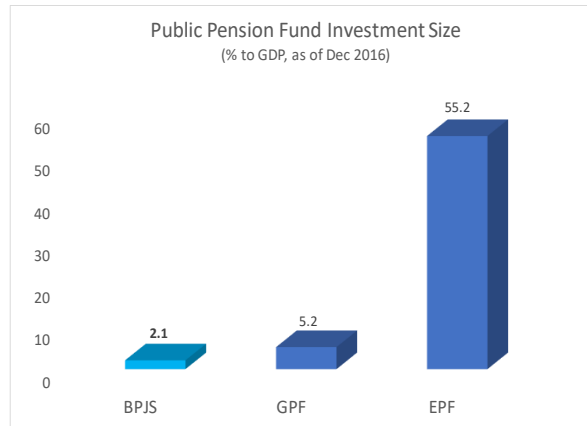


Figure 11. Pension Funds in Several Countries
Source: BPJS, EPF Malaysia, GPF Thailand

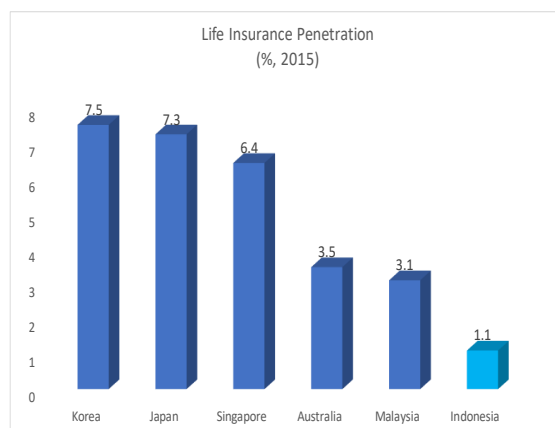


Figure 12. Life Insurance in Several Countries
Source: OECD

As can be seen in Figure 11, Indonesia has a very low total amount of public sector pension funds' assets compared to other countries in the region. The amount of assets managed by BPJS Indonesia is only 2.1 percent to GDP, lower than Thai GPF of 5.2 percent and the Malaysian EPF which also included in the world's top ten with assets of 55.2 percent of GDP. The same development occurred in life insurance as shown in figure 12. Penetration of public sector life insurance in Indonesia is only amounted to 1.1 percent of GDP, lower than Malaysia at 3.1 percent.

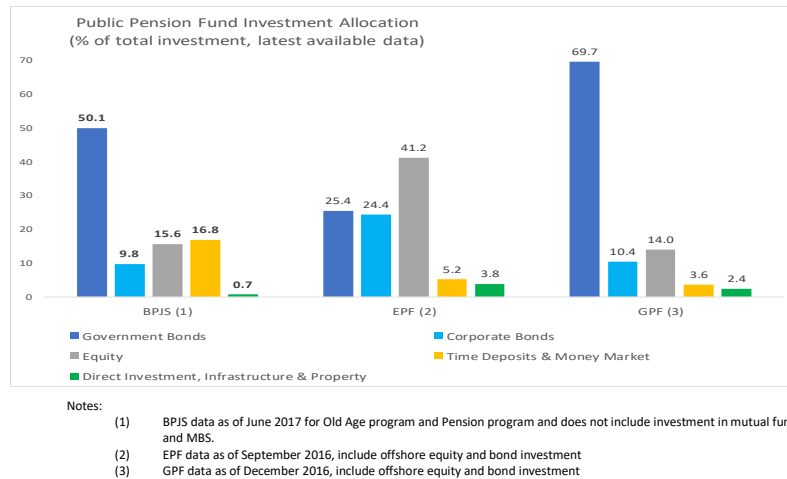


Figure 13. The Allocation of Public Pension Fund Assets in Several Countries
Source: OJK, EPF Malaysia, GPF Thailand

The same opportunity can also be seen from the information on the investment allocation given in Figure 13. Figure 14 illustrates that the allocation of public sector pension funds in Indonesia is still too much focused on investment instruments that are naturally incompatible with the long-term liabilities. About 16.8 percent of BPJS managed funds are placed on time deposits and money market instruments. This portion is very large when compared to the EPF Malaysia and GPF Thailand where the allocation of time deposits and money market instruments are only 5.2 and 3.6 percent respectively. A reallocation of about 10 percent is an opportunity for pension funds to get profitable investments such as Infrastructure KIK EBA.

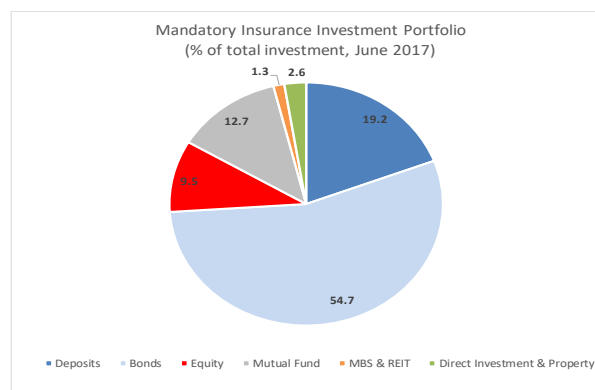


Figure 14. The Allocation of Public Sector Life Insurance Asset in Indonesia
Source: OJK (PT ASABRI, PT Taspen, PT Jasa Raharja)

Excessive allocation in time deposits is also experienced by public sector life insurance in Indonesia. As much as 19.2 percent of the funds is placed in time deposits, this amount is quite

dominant, especially when compared with placements in stock and mutual fund market which amounted to only 9.5 and 12.7 percent respectively.

In addition to the growing size and large long-term investment allocation space, the opportunity is also evident from the expected yield on KIK EBA instruments that are better than time deposits. Since 2015, time deposits have tended to decline along with the decline in Bank Indonesia reference interest rates. The spread between the 12-month time deposit rate and KIK EBA which was assumed to be 176 bps above the 5-year SUN yield has also decreases, even now the KIK EBA coupon is higher than the 12-month time deposit rate. This can be further explored in Figure 15 where since the second quarter of 2015, the spread between KIK EBA which is assumed to be 176 bps above 5-year SUN with money market rates such as 12-month time deposits is always positive. For example in June 2017, KIK EBA's coupon assumption reached 8.43 percent, greater than the 12-month deposit rate of 7.05 percent. Looking ahead, with expectations of still large room of BI monetary easing, deposit rates are still in a downward trend, although they will not be large. This should encourage investors such as pension funds and insurance to invest their funds in instruments that have better returns such as KIK EBA.

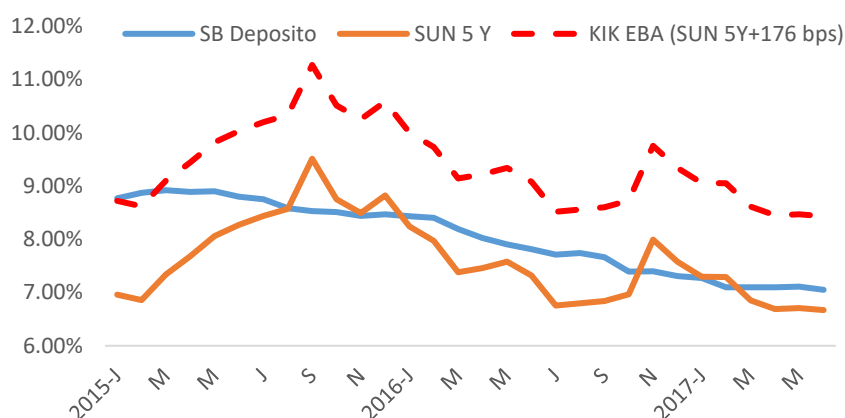


Figure 15. The Comparison Assumption of 12-month deposit rate and KIK EBA

Source: SEKI, Bloomberg, processed

b) *Challenges when Investing in KIK EBA*

Based on interviews conducted by the Fiscal Policy Agency with several selling agents of KIK EBA Mandiri JSMR01 and Danareksa IP PLN (DIPP) 1, investors and other institutions such as PT Danareksa Sekuritas, PT Mandiri Sekuritas, Sumitomo Mitsui Banking Corporation (SMBC), Standard Chartered Bank, Global Infrastructure Hub, Standard & Poor's, and BPJS Employment, as well as a study conducted by PT Indonesia Stock Exchange regarding Asset Backed Securities with underlying

asset such as motor vehicle financing receivables in Indonesia (2015) have obtained the view that in general there are challenges for investors to invest in KIK EBA namely:

Financial sector regulation

There are several regulations that reduce the flexibility of investment allocation. First, POJK No. 1/POJK.05/2016 concerning Investment of State Securities for Non-Bank Financial Services Institution. This regulation requires 30 percent from the total investment of pension funds and 50 percent for BPJS to be placed in Government bonds. In the subsequent period of 2016, there was a relaxation in this rule where the SOEs' bonds or equivalent can be a pool of assets which is included into the mandatory investment. However, for KIK EBA infrastructure SOE, a confirmation letter from OJK is required for each transaction to be recorded.

Furthermore, there is a capping policy for KIK EBA which is a maximum of 20 percent of the total issuance per issuer as required by Government Regulation number 55 year 2015 concerning Labor Social Security Asset Management. In this Regulation, the capping for investment portion of KIK EBA is different from corporate bonds that allows up to 50 percent even though the characteristics of the two are similar. Such difference and restriction minimize the space of flexibility to invest in KIK EBA infrastructure.

Taxation

According to Law Number 36 Year 2008 concerning Income Tax, there is an indication of unequal level of playing field between KIK EBA and other investment instruments, such as mutual funds. Tax imposed on mutual fund investors is 5 percent but for EBA investors is 15 percent although the form of the mutual fund is also KIK EBA.

The risk of yield fluctuation of KIK EBA

As the yield of KIK EBA fluctuates in line with the yield of SUN (Government Bond) benchmark, there is a risk of decrease in the cash flow paid by KIK EBA to investors. Therefore, it is necessary to think of a scheme that can be packaged so the fluctuation of cash flow to investors can be minimized.

Resistance of the banking originator to securitize because it will lower their assets or credit level

With the targets mentioned in the Indonesian Banking Architecture (API) which requires banks to increase the number of assets, the securitization is seen as a discouragement because it implies a decline in the number of banking assets. Therefore, policy discretion is required such as entering EBA purchase by banking (such as cross-financing) in order to increase banking LDR (Loan to Deposit Ratio).

The legal basis for securitization needs to be strengthened

In the absence of legislation concerning securitization, although there are other sufficient legal foundations, investor confidence to invest in KIK EBA is not yet optimal. There needs to be a legal umbrella in the securitization process, so there is a need to develop a Securitization Law in order to have higher regulation rather than OJK regulation. In addition, the legal basis for tax-related securitization also needs to be strengthened:

- Value-added Tax on Sales on Account Receivables (Factoring Services)

The VAT Law of Article 4A (3.d) excludes financial services as a type of service that is subject to VAT, including financing services in the form of factoring. It is necessary to affirm that the transfer of accounts receivable in EBA based on KIK-EBA is the submission of factoring services, although KIK EBA is not classified as a Financing Company.

- Income Tax upon Discount

The sales of electricity invoice account receivables are carried out under the discounted cash flow method so that the discounts are potentially considered as income for KIK EBA which is taxable based on the Article 23 of Income Tax at a rate of 15 percent. KIK EBA represents the interests of investors, so that tax imposition upon the discount to KIK EBA is basically also tax imposition to investors. If the Investors were also taxed upon their interest income from the KIK EBA certificate then double taxation will occur.

- Income Tax on interest/ income from KIK EBA certificate

Fixed Cash Flow KIK EBA is treated as a fixed income EBA in the form of interest in the same manner as the income received from Bond that is subject to withholding tax, so that the investor will be subject to 15% PPh upon the yield paid by KIK EBA. (DG TAX Decree No. KEP-147 / PJ/ 003 concerning Income Tax upon Income Received or Obtained by KIK EBA and its Investors). Interest payments are treated similarly to bonds return which is subject to withholding of Income Tax under PP (Government Regulation) No. 6 of 2002 and this is borne by the investor.

In the two KIK EBA Mandiri JSMR01 and DIP1, due to the unclear tax treatment as mentioned above, the Director General of Taxes issued a letter confirming the tax treatment and administration. Due to the absence of relevant regulations, this letter of affirmation is required for every KIK EBA transaction.

Lack of socialization

The socialization of EBA is considered to be lacking and has not gone well. The most important thing for pension funds is that EBA can provide a safe investment with a return above pension fund

investments target (e.g. 10 percent). Some representatives of the Pension Fund have treated EBA investments like bond investments, but are still less familiar due to lack of socialization.

The absence of instruments to conduct hedging liquidity

Although most representatives of pension funds conveyed that they conduct the hold to maturity strategy, the secondary market of KIK EBA remains an eligible investment criteria for most investors, including domestic investors. Although the rate of yield is generally quite interesting, there is a concern that it cannot be hedged in terms of liquidity. Therefore, initiatives such as in the Government bonds market may be needed (where certain banks serve as "primary dealer" are required to actively trade SUNs on a daily basis). With a liquid secondary market, according to foreign investors, it can also attract foreign funds.

Sovereign guarantees

There are two different views on the need for sovereign guarantees. For some foreign investors, sovereign guarantees are required to ensure there is a party held accountable in the event of force majeure or mismanagement towards physical asset and demand of the physical asset. This is because some foreign investors consider this cash flow still has a certain degree of uncertainty, in contrast to secured and fixed bonds. On the other hand, some foreign investors also view that as long as the cash flow has a stable and growing track record, no guarantee is required. This happens for example on KIK EBA Mandiri JSMR01 and DIPP1 which have been published, both of these instruments have idAAA rating even without any Government guarantee.

5.3. Regulators

a) Demand side: Better investment allocation policy related to long-term financial asset investment, including KIK EBA

Investment allocation policy in the form of capping for each instrument is very influential on institutional investor investment pattern such as pension funds and insurance. With the current policy as shown in Table 4, there is less flexibility to invest in long-term financial instruments. Therefore, a review of this policy is required. Studies and lessons learned from the experiences of the following countries support the fact that the investment allocation policy review cannot be explored in vacuum, but must consider the governance system of these financial institutions in general.

Table 4. Investment Allocation Rule of BPJS Employment

Investment Instrument	Maximum Allocation (% total)
Time Deposit, Government Bonds (SUN), Treasury Bills (SPN)	100
Corporate bonds, share, mutual funds, municipal bond	50
KIK EBA, KIK DIRE	20
REPO, Direct Investment	5
Property	10

Source: BPJS Employment

There are two models of pension funds investment allocation policies that are commonly known in the world. First is the flexible policy model, without limiting or encouraging the allocation of investments to specific asset classes. This model is applied by developed countries, one of them is Canada. In principle, this model leads to the importance of the overall good governance aspect over asset class. The basic principles of this model are:

Governance

In terms of governance, the preferred principle is the independence of accountability, transparency, and professionalism. The integrity of management is also important. Some other governance component is the need for effective hierarchy in decision making. Based on ILO compilations, a decision-making level is required, starting from (i) a national social security protection coordination body that is tasked with formulating national-level policies and macro-level monitoring; (ii) Government agency which responsible for determining policy issues at the macro level, finalization of legislation (in the case of BPJS PP legislation), overall financial supervision (not operational day to day basis), and general oversight, followed by (iii) social security board which oversees the implementation of social security schemes as well as their investments, identifies policy issues, formulates proposals for reform and development, defines investment policy, represents the interests of workers, employers, and beneficiaries. Finally, at the micro level, there is a board under the CEO that administers the operational policies.

OJK regulation concerning BPJS supervision, namely POJK Number 5/POJK.05/2013, has granted necessary authority to the board such as the authority to investigate, request information, and supervise investment. In addition, BPJS has also been required to disclose information to the public where this is a very important aspect. However, there are areas that need improvement such as (i) written investment policy statement, (ii) explanation on the implementation of investment policy, (iii) clear procedure for the dismissal of investment manager, and (iv) reasonable investment yield target compared with other pension funds of similar types.

Administration

Administration prioritizes the interest of the member of pensions, the use of modern technology and the communication and education quality.

Investment

Investment target and mandate of pension funds should be clear in the long term. The investment strategy must be based on an in-depth knowledge concerning different types of investments. Investments do not merely consider large returns, but also the need of risk and liability management.

Plan Design and Funding

Planning is undertaken with reasonable assumption, risk sharing and prudent deficit and surplus management as well as stable membership with sufficient levels of contribution and demographic profile that is under control.

Regulation or Public Policy Environment

Pension fund gains public trust from a strong historical track record and intense communication with regulators or governments. Both of these matters have disqualified the need for regulators or the Government to apply overly restrictive (prescriptive) investment regulation. The portion of regulator or Government is only as a supervisor and regulator, while the pension fund manager is directed to implement good and strong governance.

Organization and People

All principles must be accompanied by competitive benefit schemes so to maintain high-performance culture and the professionalism and integrity of its human resources. Because it focuses on systems and human resources that are already good with regard to the above aspects rather than rigid rules, that flexible model is called an "expert" or "principle-based" model.

Furthermore, there are also investment models based on asset classes in some developing countries, for example Malaysia. Early in its development, Malaysia adopted a strict investment allocation strategy as applied by Indonesia today. This model is called "traditional model" which is applied to pension fund that have not been reformed and still have not gained trust of the government and large private sector.

The traditional model characteristic means the existence of detailed legislative requirement which are less flexible in dealing with external dynamics that happen, such as related to industry and risk aspects, focusing on regulatory compliance, often resulting in too narrow regulatory objectives.

Even in some cases the objectives were deviated from the Government's original objectives in regulating this institution, which is to protect the members of the pension fund. This is very different from previous investment models that were more flexible and provide more discretion to investment panel with aspect notes such as good governance, independence, integrity, and professionalism are already in place.

The weakness of the legislative requirement can also be seen in BPJS in Indonesia where the investment allocation rules as shown in Table 4 which, if it is going to be revised, requires coordination at national, cross-ministerial level and approved by the president because the form of the rule is government regulation. With a rigid rule, this model is often referred to as the "black letter model". Its rigid character is actually intended to reduce arbitrary decisions or abuse of power due to the large delegation of investment decisions to investment panels.

In choosing which models is appropriate, it should fully consider two important things. The first is the gradual change towards the most effective and efficient model of helping the pension fund to achieve its goals. It should be noted that successful public sector pension fund institutions such as Canada do not reach this achievement without going through the stages of development first.

The first phase of development is the "pre-reform entity" in which pension fund is part of the Government with very low diversification rates, even as much as 100 percent are placed on non-marketable debentures, as well as ineffective and inefficient planning administration. The next phase of development is "Laying a solid foundation" where there are reform strategies that have been formulated, stakeholder agreements to reform, increased confidence of Government and private sector, also significant administrative errors. Next, the third phase, "independent, professional entity with strong governance". In this phase, independent governance has been implemented. In addition, investments are already diversified, increased HR capabilities in investment, good planning administration, and the ability to attract competent professionals. In the case of EPF, it has an independent investment panel that determines and approves investment activities in line with existing guidelines, policies on risk control and asset allocation. EPF's annual target is to reach rate of return above inflation plus 2%. The last phase or current phase is "mature, sophisticated entity" where there is a mature governance model, highly diversified investment, sophisticated internal investment team, highly professional planning administration, and the ability to attract competent professionals at the global level.

Furthermore, factors to be considered are the coherence with the entire pension system, including the system of accumulation and payout. In a country like Australia, pension fund institutions are divided into two major types: pension funds that manage industry funds and retail funds. It also divides both with different investment patterns. Industry funds are very much likely to

have a large capacity to invest in sophisticated and even illiquid instruments such as real sector projects including large infrastructure. In contrast to the industry fund, retail fund have a more conservative investment pattern due to lower appetite and capacity of sophisticated investments.

By comparison, in Indonesia, most are paid by employers, making it closer to the characteristics of the Australian fund industry. As shown in Table 5, the employer's contribution is 10.24 to 11.74 percent while the worker is only 4 percent.

Table 5. Contribution of Social Security in Indonesia

Social Security	Employer (Income percentage)	Worker (Income percentage)
Health Insurance	4	1
Death Benefit	0.3	-
Occupational accident Insurance	0.24 – 1.74	-
Old-age benefit	3.7	2
Pension Fund	2	1
Total Benefits	10.24 – 11.74	4

Source: Apindo

Most importantly, with the small size of pension funds and insurance in Indonesia, a policy to increase the size is needed. The most feasible thing to do is to increase coverage ratio which is the coverage linked to GDP per capita and level of public pension. Governments cannot continue to pay pensions with limited fiscal capacity, thus providing support in a minimum possible manner with benefits that should be explored optimally. It also needs to limit the early withdrawal possibilities for contributors in pension funds because this forces pension funds to put more of their assets into liquid short-term assets, rather than long-term assets such as infrastructure. The last alternative is tax incentive. Providing tax incentives, although often referred to as solution, has not yet been concluded as a solution. Some studies suggest not to provide tax incentives because they only have implications for reallocation rather than increasing their own pension size or coverage.

b) Supply Side: Provides incentives for infrastructure state-owned enterprise that undertakes securitization and recycling.

There are two main parts of the supply-side policy, namely (1) encouraging the infrastructure SOEs to conduct asset securitization, and, most importantly, (2) encouraging the infrastructure SOEs to invest asset securitization proceeds into new infrastructure development to be re-securitized and so forth (recycling concept).

This recycling concept is similar to the one conducted in Australia which is the Asset Recycling Initiatives (ARI, see the box), which was applied for several years and recycled some non-core

infrastructure assets for the development of new infrastructure assets. The ARI comes with incentives from the central government as much as 15 percent from the sale of the non-core infrastructure assets. Herewith, ARI will be discussed more deeply.

A Public Policy Aspect at ARI Australia

APBN (State Budget) policy to increase the role of the private sector in infrastructure financing

- The Federal Government of Australia in 2015 launched a program called Asset Recycling Initiatives (ARI) which aims to accelerate infrastructure development by the state government amid the financing constraint.
- The main reason for implementing this initiative is that most infrastructure assets are owned by state government and state-owned enterprises, not federal government. Therefore, ARI is proclaimed by the federal government to influence state government to accelerate infrastructure development.
- Besides that, in Australia, the private sector that engaged in infrastructure is quite advanced so the Federal Government is quite confident about the success of this initiative. In NSW for example, their electricity sector is very mature so the demand for leasing from this infrastructure assets sector is quite high. This is proven by the successful reinvestment of two electricity infrastructure assets such as Ausgrid and Transgrid. This reason also causes the initiative to be in the form of reinvestment rather than securitization of infrastructure cash flows. The private sector has the capability to take over management and operational risks.
- Specifically, through this initiative, the Australian Treasury influences the state governments by rewarding cash backs for those who reinvest their infrastructure assets into the construction of new assets.
- The amount of cash back that can be accessed is 5 billion Australian dollars with a first-come-first-serve system. Giving cash back is done in 2 stages. These funds come from tax revenues.
- The proposed reinvestment scheme is the lease (99-year lease) of infrastructure assets to obtain upfront cash. Upfront cash will be used to build new infrastructure assets. Despite reinvesting through leasing, ARI is seen to lead to privatization so that a number of states are reluctant to it, such as Queensland.
- The types of infrastructure assets that can access reinvestment funds are those of economic infrastructure with certain criteria, which have been stipulated by the Federal Government of Australia. The criteria includes but not limited to infrastructure that has substantial economic benefits (because it will have a positive effect on Federal Government tax revenue as well). This criterion is established and implemented by Infrastructure Australia, an independent institute of infrastructure projects appraiser established by the Federal Government.
- Examples of rejected assets to access reinvestment proceeds are infrastructure projects which partly financed by Federal Government and those with the nature of project expansion only (e.g. the extension of toll road concessions).
- The Federal Government is aware of the impact risk towards the state government's balance. Mitigation of this risk is left to each state.

Strategy for the implementation of infrastructure reinvestment by the state of NSW

- NSW is one of the states in Australia that has participated in ARI so its perspective and experience can be used as a reference for SOEs in Indonesia if it were to utilize similar initiatives. The main reason for NSW participation is the political momentum in the form of cash back offers and the fact that the private sector engaged in infrastructure in NSW is quite mature.

- NSW participation in the ARI program is set out in the National Partnership Agreement on Asset Recycling document.
- To date, there are approximately 15 billion Australian dollars being invested in new infrastructure projects out of a total of 26 billion Australian dollars. There are several constraints as to why there are still unallocated reinvestment funds, among them is the land acquisition for the green field project.
- An important factor for the successful implementation of this program is to carefully measure the economic value of the infrastructure projects to be reinvested. Financial benefits from renting or selling infrastructure assets must be higher than operating it themselves. The criteria of sales value include the selling price plus its return in the form of new infrastructure development.
- The NSW government does not restrict the private sector that can buy assets to be reinvested. One of the tenant infrastructure assets in NSW, for example, for the port in Newcastle, is a foreign operator from China.
- Regarding the risk of public service delivery as social element of the reinvested infrastructure assets, the NSW Government mitigates it by determining some requirements on the leasing agreement at the outset between its parties and the lessor. This is part of the NSW government regulation related to the implementation of this ARI.
- In choosing assets, the NSW Government is concerned with several matters such as industry maturity (NSW's most mature infrastructure industry is Transportation which becomes the target of reinvestment allocation of 70 percent, followed by roads and light rail transportation), the eligibility of the lessor to operate the infrastructure assets, as well as avoiding highly-regulated infrastructure assets such as those prices regulated by government.

Restart Fund

- In order to help ensure that the reinvestment process is done according to commercial standards, the NSW is assisted by an independent agency established by NSW Government which is Infrastructure NSW (INSW). INSW is coordinating with Infrastructure Australia to provide recommendations to the NSW Government regarding project eligibility. INSW is also mandated to conduct and oversee the receipt of asset leases proceeds and disbursement for new projects. For this purpose, a special "Restart NSW Infrastructure Fund" account is established for the ARI program.

Looking at the case of Australia, we can draw some lessons that can be considered to be implemented for public policy related to asset securitization which has 2 elements, i.e. fiscal and monetary incentives. In the case of Australia, a "cash back" of 15 percent represents the momentum for all states to conduct asset recycling. However, the incentive was paid from one level of government (central) to another (state). Thus the Australian government didn't spend any extra money.

With similar logic and background, the proposal of such incentives shall be considered to encourage SOEs to do so. While 15 percent of total proceeds seems large and not feasible due to fiscal deficit restriction on state budget, monetary incentives is the alternative. However, the Government should not pay SOEs to do securitization. SOEs should do securitization when it is the best way to finance a project.

The monetary incentives may be in the form of (1) tax deductions for discounted cash flows, and (2) incentives from costs of issuing. KIK EBA as can be seen in the earlier chapter involves a lot of parties, for example starting from the arranger, selling agent, legal counsel, tax and financial counsel, rating agency, auditor, business advisor, to Indonesia Stock Exchange. All of them apply fees at the time of large issuance. According to the findings of interviews with various infrastructure SOE sources, this can discourage issuers because in addition to the large cost, they also need to allocate internal resources as well to ensure the governance of this type of issuance. Therefore, it is important to be given incentives.

Tax incentives for the cost of issuance may also be considered, but shall be linked with the obligation to place the securitization proceeds into new projects that are predetermined by the Government (e.g. included in the PSN and have positive returns), which then the utilization is stated and reported clearly. This requirement is important to make sure that taxes should only be adjusted to ensure securitization competes on a level playing field with other forms of finance. SOEs need to pay the same amount of tax, regardless of what finance mechanisms is used. Securitization should not be given preferential status through tax incentives.

Beyond monetary incentives, more soft incentives such as incentives from management aspect for SOE should also be applied. Currently, the Government has encouraged KPI-based PMN. This needs to be continue and opened for the widening possibilities specifically for asset securitization and use for new assets.

c) Fiscal Incentives for Instruments

There are several models of fiscal incentives for new financial instruments such as SUKUK (Shariah Bonds) in Malaysia. The main rationale for SUKUK is that it has potential as an alternative financing instrument. But since it is a relatively new instrument, it requires a lot of investment in business process. As can be seen in Figure 16, there are some incentives provided by regulators related to SUKUK market development in Malaysia.

Examples of incentives provided by the regulators in terms of Sukuk:

- ❑ Tax-neutral framework
- ❑ Tax deductions of issuance expenses on qualified Islamic securities
- ❑ Profit paid or credited to non-resident in respect of RM denominated sukuk (exclude convertible loan stock) approved by the SC is exempt from income tax
- ❑ The company as the Issuer/Originator that established the SPV is also given deduction on the cost of issuance of the sukuk incurred by SPV

Bond/Sukuk market development thrusts promoted by the regulators:

1. Rationalization of the issuance process
2. The establishment of a reliable and efficient benchmark yield curve
3. Widening the issuer and investor base
4. Improving liquidity in the secondary market
5. Facilitating the introduction of risk management instruments

Figure 16. Example of Government Incentives for SUKUK Market in Malaysia

Source: EPF Presentation to MoF Indonesia 2016

From the above example, none of them have been applied in Indonesia in relation to KIK EBA. Therefore, some alternatives may be considered. Furthermore, for investor convenience, it is necessary to implement:

Regulatory neutrality

First, in relation to investment capping (PP), in order for KIK EBA and corporate bonds have the same maximum allocation of total investment. Second, the minimum allocation (POJK 1) to include KIK EBA issued by Infrastructure SOE to enter asset class which equivalent to SOE bonds. Third, tax neutrality. Currently, the income tax for KIK EBA returns to be paid by investors is 20 percent. For NBFi, this income tax has been waived, as well as less tariff for insurance. However, for other investors, the income tax is still treated 20 percent, which is greater than the tax on other investment returns on the capital market such as mutual funds, although the investment of the mutual fund is also in the form of KIK EBA. This issue needs attention because it makes KIK EBA less attractive compared to other instruments.

Better benchmark pricing of KIK EBA

KIK EBA as described in the earlier chapter has a unique pricing method with two subclass assets with 90 percent composition of minimum fixed assets and the remainder are fixed assets. In

order for investors to be well informed, a price benchmark or center of data is needed so that it can be a reference for investors in monitoring their investment.

Increasing investor base

At the moment, according to the issuance experience of KIK EBA Mandiri JSMR01 and Danareksa IP DIPP1, most investors were banks. In the future, natural investors of EBA such as pension funds and insurance are expected to dominate more. Continuous socialization and education need to be done so that KIK EBA can be recognized by more investor circles so that the market and price discovery are also more efficient and reasonable.

Increasing liquidity in the secondary market

Although most investors, primarily pension funds and insurances implement a hold-to-maturity strategy for KIK EBA investments and corporate bonds, it is necessary to consider liquidity of these two instruments in the secondary market as one pre-cautious tool for investor liquidity management in general. In order to improve this liquidity, there are two things that can be applied. First, include highly-rated issues of KIK EBA as one of the eligible instruments for repo with central bank. Currently, according to SE BI (Bank of Indonesia Circular Letter), central bank repos are only allowed with financial assets in the form of SUN only. While in other countries, such as the Philippines, Malaysia and Thailand, the criteria for financial assets are expanded to include the highest rated corporate bonds as well.

Furthermore, to improve the liquidity of the secondary market, it is necessary to apply a mandatory system of special trading for bonds with good rating including KIK EBA that was issued by Infrastructure SOE. Learning from the strategy to increase the liquidity in secondary market of SUN, stipulation of mandatory trading through the establishment of primary dealers can effectively improve liquidity and attract large investor base including foreign investors.

Facilitate risk control instruments

Furthermore, it is important to facilitate other risk control beyond liquidity such as interest rate and exchange rate. Both are important to attract funds from foreign investors whose appetite are still high against foreign currency denominated instruments. The current hedging instrument is already endorsed by the hedging obligations applied by BI through PBI (Bank of Indonesia Regulation).

6. Conclusion and Action Required Streamlining

To work towards addressing all issues mentioned above, policy directions aiming to encourage asset securitization at the national level are summarized in Table 6.

Table 6. Policy Recommendation to Encourage Asset Securitization at the National Level

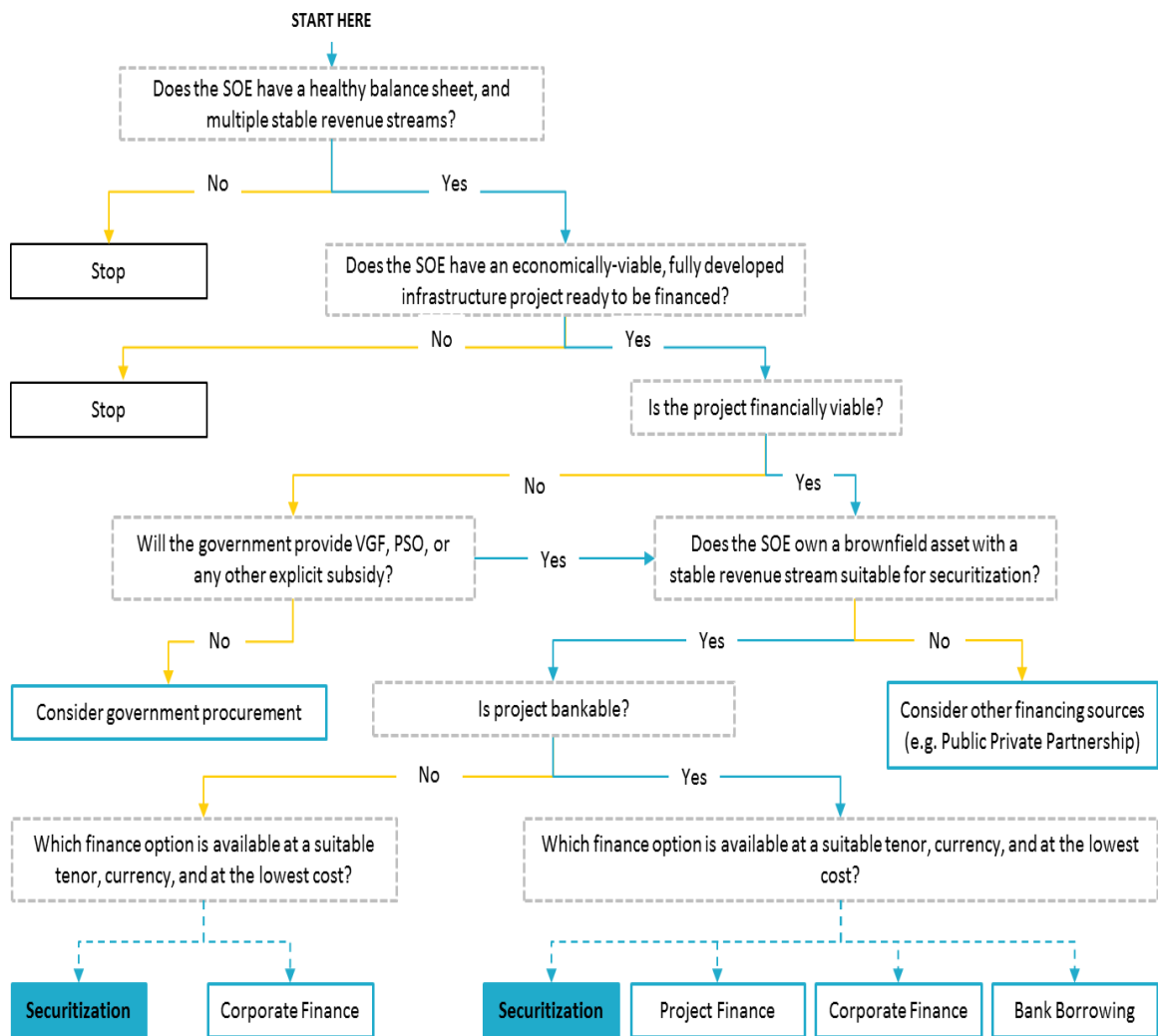
Demand Side	Supply Side
<p><u>Investment allocation with better method</u></p> <ol style="list-style-type: none"> a. Governance structure is improved by disclosing clear investment policy information and credible and independent investment panel b. The selection of a more suitable investment model: black letter or expert? c. Gradual and monitored Improvement d. Better investment-related policies, proposing: <ul style="list-style-type: none"> • Regulatory neutrality (PP capping neutrality, tax neutrality, POJK 1 neutrality) • Better benchmark pricing • Broad base investors • More liquid Secondary Market • Available risk control instruments 	<p><u>The goals must be two parts</u> which are (1) encouraging infrastructure SOEs to conduct asset securitization and (2) encouraging infrastructure SOEs to invest asset securitization proceeds into new infrastructure development for re-securitized and further on (recycling concept)</p> <p><u>Incentive-based</u></p> <ul style="list-style-type: none"> • The monetary incentives may be (1) tax deductions for discounted cash flow, and (2) incentives for issuing costs • Beyond monetary incentives, softer incentives such as incentives from management side for SOEs can be applied (Entering KPI criteria for PMN approval) <p><u>Intensive socialization</u> (SE/ Circular Letter of Ministry of SOEs such as on hedging socialization)</p>
<p><u>Establishment of task force at the national level</u></p>	

These policy initiatives must be developed and implemented through an integrated national framework in order to make coordination across institutions work effectively and have strong influence. Asset recycling scheme, particularly asset securitization, involves a lot of parties ranging from regulators to practitioners. For this reason, there is a need to establish a taskforce with a specific key performance indicators (KPI) to push this initiative to be successful. For example, in Australia, projects for securitization are determined by its type.

This Task force is proposed to consist of several institutions such as the Ministry of Finance, the Ministry of SOEs, the Coordinating Ministry of Economic Affairs, the Ministry of Manpower, the Financial Services Authority, Bank Indonesia, and several SOE lead as the originator namely Jasa Marga, PLN, Angkasa Pura II and Pelindo II, and from the investor side such as BPJS. This taskforce needs to be established in the near future to leverage the momentum of KIK EBA development which is currently relatively good. This taskforce may be under *Forum Komunikasi Pembiayaan Pembangunan melalui Pasar Keuangan (FK-PPPK)*.

The taskforce needs to properly explore the feasibility to expand the asset recycling scheme such as criteria for the eligible projects, monitoring the use of securitization proceeds, regulatory supports, as well as tax and non-tax incentives. The projects are also assessed independently by a third party. The criteria for the eligible projects need to be done at the national level by accommodating the interests of many parties. In addition, securitization should only be used to finance fully developed economically viable projects and by SOEs with a healthy balance sheet. The recommended securitization decision process is described in Figure 17.

To make the recycling concept work properly, it needs a clear framework to promote the channeling of the proceeds to build new fixed assets. Tax and non-tax incentives must be linked with the use of securitization proceeds. The incentives must be only given to those who utilize the securitization proceeds to build new fixed assets. This requires a clear and efficient monitoring mechanism. The Directorate General of Budget Financing and Risk Management, Ministry of Finance, must be also involved in the securitization process of SOEs.



Definitions

Economic viability means that the expected benefits to society are greater than the expected costs.

Financial viability means that the expected revenues cover the expected costs plus a return on investment (c.10% in IDR).

Bankability means that investors are willing to bear the risks associated with the revenues and costs at the expected rate of return on investment.

Figure 17. Securitization decision process
Source: AIPEG

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