

Unlocking green bonds in Indonesia: a guide for issuers, regulators and investors



The opportunity to grow the green bond market in Indonesia

Indonesia is the fourth most populous country in the world and one of the fastest growing emerging markets. Led by President Joko Widodo, the government is in the process of expanding its green infrastructure to achieve positive environmental and economic benefits.

It aims to deliver USD400bn worth of new public-works projects in the transportation, energy, water and waste sectors over five years. Many of these will also be critical to meeting its Paris Agreement targets. The state budget will cover 63% of this investment but the remainder must come from development partners and the capital markets.¹

Indonesia has a number of positive features underpinning its capital markets compared to many emerging economies – it has a large and active bond market, a growing corporate bond market, supportive bond market regulation and large ambitions for green infrastructure.

Meanwhile, international investors are seeking both green investments and higher yield.

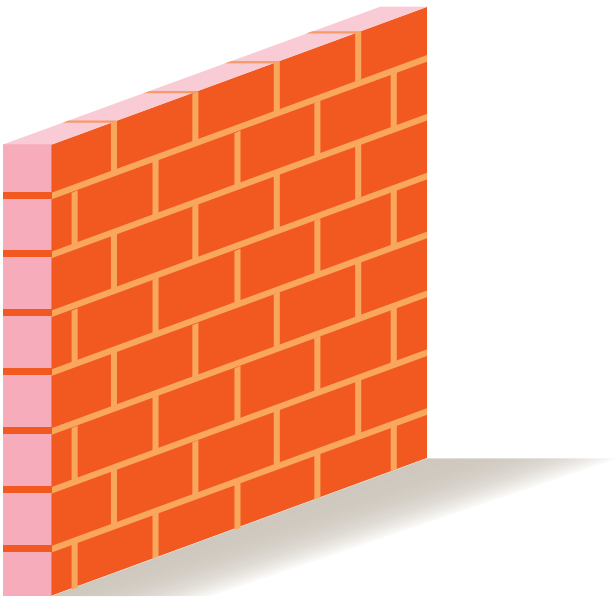
Green bonds from Indonesian issuers could suit both of these requirements making green bonds a key tool to accessing international and private sector capital. There are, however, some barriers to market growth – some specific to Indonesia and others relevant to emerging economies around the world.

This guide provides practical information on overcome some of the main hurdles to international green bond issuance. The solutions explored, while supportive to issuers, are applicable to a much wider range of stakeholders – particularly government and multilateral stakeholders. At this early stage of the market, issuers will require external support to catalyse the market.

It follows on from the Climate Bond Initiative's other publications - the Green Infrastructure Investment Opportunities (GIIO) Indonesia report, released in 2018, and the GIIO Indonesia Update Report 2019. These reports provide investors, issuers and policy-makers with a pipeline of green infrastructure investments in Indonesia as well as specific case studies of green projects and their potential green finance mechanisms. The reports have served to generate interest and enthusiasm around green bonds and green infrastructure in Indonesia.

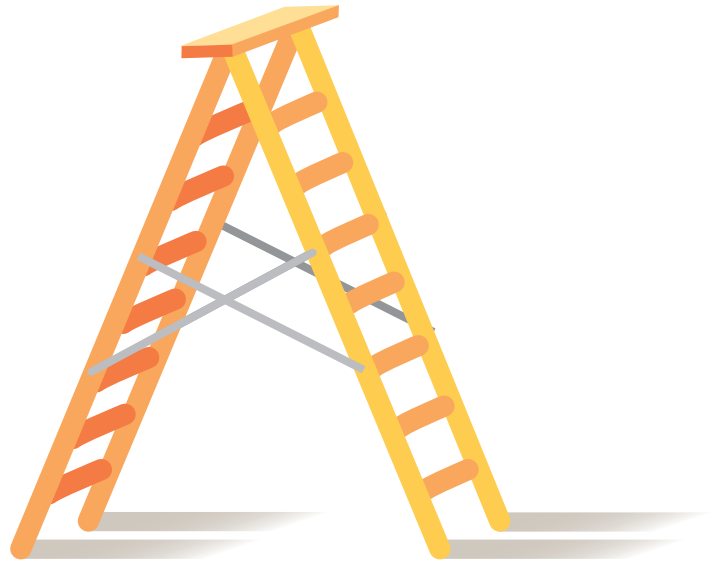
Leveraging this moment, there is an opportunity to support the growth of the green bond and address some of the obstacles in issuing green bonds to non-Indonesia investors. This report aims to assess some of the primary barriers and solutions for Indonesian investors to access international investors.

Barriers



- Currency hedging cost
- Currency hedging perceived complexity
- Market liquidity
- Credit ratings
- Policy & Regulations
- Bankable green projects
- Market awareness

Solutions



Government

- Green bond subsidies and support
- Fixed tax rates
- Reduced red tape
- Use of other legal frameworks
- Green mandates for government pension schemes
- Credit enhancement, guarantees and other support

MDBs

- Subsidies to reduce FX hedging
- Long-daed FX options
- Credit enhancements or other guarantees

Investors

- Request green bonds
- Implement green finance targets

Stock exchanges/ market infrastructure

- Reduce listing fees

Indonesia finance and green finance context

Indonesia's bond market currently stands at approximately USD270.5bn outstanding for local currency bonds and USD119bn for foreign currency bonds.² This has been growing steadily over the past decade.

In the local currency bond market, the Indonesian central government, local governments, and the central bank account for 80% of issuance. In the foreign currency bond market, the Indonesian government plays a less dominant role, accounting for under 60% of issuance. Corporates including both public and private companies, banks and other financial institutions, represent 38% of the total.

The corporate bond market, despite recent growth, remains highly concentrated with the largest 30 deals accounting for 70% of the market, with banking and finance sectors dominating other sectors (see Appendix 1).

Green bonds

In December 2017,³ Financial Services Authority (OJK) put in place regulation⁴ for the issuance and terms of green bonds. This has had a positive impact in Indonesia and triggered the emergence of a small green bond market comprising four deals to date, including one corporate bond issued domestically.

The Regulation stipulates 11 activities eligible to be financed through green bonds (See Appendix 1, page 12) and is largely in line with the Green Bond Principles (GBP) with regards to the segregation of proceeds, regular reporting and the review of all bonds by an independent third party. It provides additional regulatory strength to the GBP, as the holders of the bonds can ask for the repurchase of the bond by the issuer or request an increase in the coupon rate in the case of failure to meet the green objectives. This provides an incentive for the issuer to comply with the stated use of proceeds.

One departure from international best practice is that the regulation allows for up to 30% of the bond to be used to fund general corporate purposes or other projects. This differs from the GBP, Climate Bonds Standard and other market standards where all bond proceeds (less transaction costs) must be used to fund green projects/activities/assets.

Indonesia's green bond issuance reached USD2.7bn as of April 2019, making it the largest source of issuance among ASEAN countries, accounting for 39% of total ASEAN issuance. The USD1.25bn green sukuk from the Republic of Indonesia issued in March 2018 made the country the 5th nation globally to have placed a green sovereign issue and the first sovereign to use the sukuk format.

Green bonds can be used to close the infrastructure investment gap

Indonesia offers an attractive market for foreign fixed income investors with few barriers for international investor participation – i.e. there is:

- no requirement for foreign investor registration
- no restrictions for foreign investors to purchase bonds issued locally
- no quotas on foreign involvement in the local debt markets,
- no significant limits on foreign investors holdings of individual issues.

As such, it is easy for foreign funds, either impact, green or conventional funds, to purchase green bonds issued by Indonesian issuers.

On the supply side, there are no restrictions on the ability of Indonesian issuers to issue non-rupiah bonds, allowing green bonds to be issued in foreign currency locally as well as in Indonesian Rupiah (IDR). This offers a favourable context for the issuance of green bonds to rise in Indonesia and their purchase by foreign investors.

List of Indonesian green bonds⁵

Issuer	Amount issued	Issue date	Maturity (year)	External reviewer	Use of proceeds
Republic of Indonesia	USD 750m	2019	5.5	CICERO	Energy, Buildings, Transport, Waste, Land Use, Adaptation and Resilience
	USD 1.25bn	2018	5.0		
PT Sarana Multi Infrastruktur	IDR 500bn (USD 50m)	2018	5.0	CICERO	Energy, Transport, Water, Waste, Land Use
Star Energy	USD 580m	2018	15.0	Carbon Trust	Energy
TLFF I Pte Ltd	USD 95m	2018	15.0	Vigeo Eiris	Land Use

Spotlight on Green Sukuk

Indonesia as a driver of Islamic finance

The emergence of Islamic finance as a special segment of the bond market is a promising development for attracting new interest from investors investing according to Shariah principles.

A sukuk is an interest-free bond that generates returns to investors without infringing the principles of Islamic law (Shariah).

The green sukuk (green Islamic bond) is a new climate finance instrument that has the potential to channel the USD2tn Islamic finance market toward funding of green and sustainable investment projects.⁶ The underlying principles of two instruments are well-aligned given that both instrument raise funds for a specific purpose and both have

environmental, ethical and social principles/ aims at their core. Shariah principles include “environmental stewardship”, such as the protection of air, water and land, as well as other ecosystems.⁷

Globally, Indonesia ranks as the fourth largest sukuk market, after Malaysia, Saudi Arabia and the UAE. In ASEAN, Malaysia is the largest market for green Islamic securities to date. Indonesia represents a relatively small share of the market, but it has been a global pioneer with the first sovereign green sukuk.

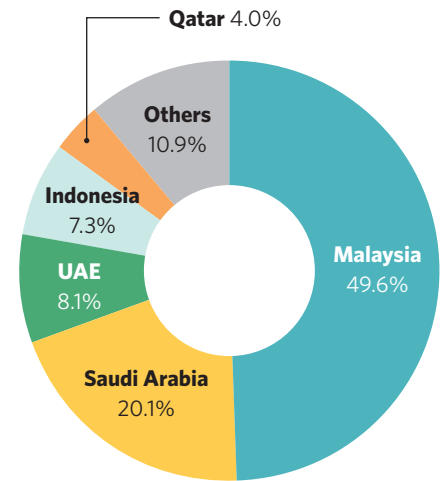
Interventions to grow green sukuk

The barriers identified for the emergence of a green sukuk market include “a lack of knowledge at the issuer and investor levels about the process and benefits of such issuances; perceptions about complexity and pricing; lack of a framework, lack of consensus among government agencies on policy coordination, lack of bankable green projects, etc.”⁸

As a demonstration of the potential for investor participation, a Green Sukuk Programme has been announced by Clarmondial, Amanie Advisors and Cenergi SEA, an investment fund that is a subsidiary of Khazanah Nasional Berhad, an investment fund owned by the government of Malaysia, with a focus on South East Asia, starting with smaller, renewable energy and energy efficiency projects in Malaysia.

Indonesia could consider launching its own Sovereign Green Fund with a focus on mid-sized green sukuk. It would potentially be able to attract capital from external

Global Sukuk outstanding by domicile as at end March 2019



parties, including the Green Climate Fund, and support the emergence of its own green sukuk market.

In Malaysia, the World Bank has helped address these issues and grow green sukuk by: identifying the complementarity between Malaysia’s SRI sukuk guidelines and Green Bond Principles to enable potential issuers to issue green sukuk in the absence of national green bond guidelines; providing guidance on eligible green projects; advising on the role of external reviews and facilitating the participation of local institutions to provide external reviews at low cost; identifying potential issuers for demonstration issuances and helping the first issuers navigate government policies and follow international best practices.⁹

Indonesian sovereign green sukuk

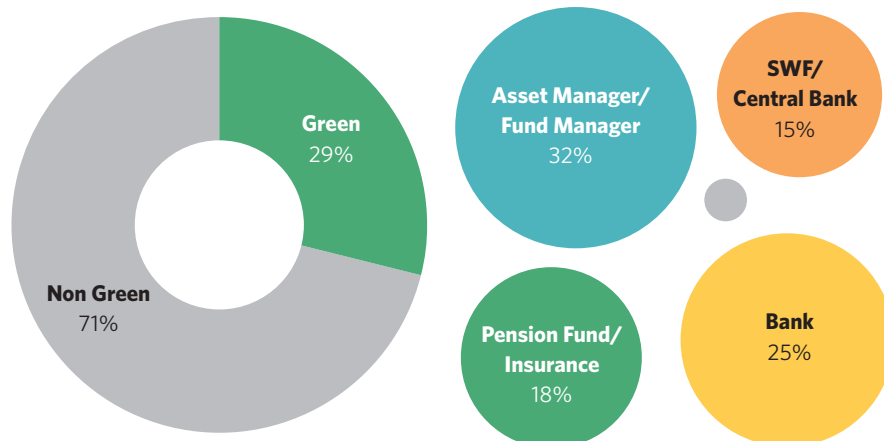
Indonesia issued its first sovereign green sukuk in 2018 for USD1.25bn and in 2019 for USD750m.

It reportedly reached as much as 29% more investors, compared to a normal sukuk issuance.

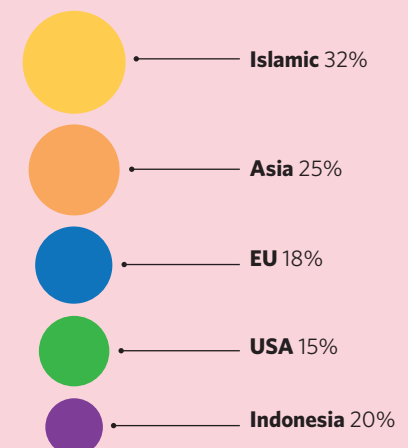
When the deals were listed on Nasdaq Dubai, the total value of sukuk listed globally reached USD63.1bn (Feb-2019).

This demonstrates the opportunity for Indonesia Islamic finance to tap into the Middle East market. Looking at the allocation of the Indonesian issuance, there is evidence that it is able to access a diversified pool of investors, by geographies and by type.

Allocation of distribution, based on type of investor



Allocation of distribution, based on geography



Barriers to growth in the Indonesian bond market

Many of the barriers to growth in the Indonesian market are not specific to green bonds and relate to all types of bonds. Our proposition, however, is that the solutions focus on green bonds in order to preference financial flows to green assets and projects.

1. The perceived complexity of currency hedging

To meet growing infrastructure requirements in Indonesia, foreign sources of capital will be required. Some investors require issuers to compensate for currency risk through the use of foreign exchange hedging tools which are often difficult to arrange.

Currency risk pertains to exchange rate fluctuations that affect the value of an investment or, in the case of a bond issuer, alter the cost of bond repayments.

Most international investors have preferred currencies such as USD, EUR and JPY over the IDR, as it is perceived as a volatile currency. Accordingly, Indonesian issuers issuance in foreign currency typically needs an accompanying intervention to mitigate currency risk.

For international investors with an appetite for locally issued green bonds in IDR, the limited availability of foreign exchange (FX) derivatives for investors looking to hedge the "tail risk" of their investment is a challenge to the development of an active bond market, including a green bond market. In Indonesia, the maximum maturities available for FX hedging, is up to five years for cross-currency swaps and up to one year for forwards. Often, the main issue is the liquidity that dealers are willing to offer. Some issuers may have limited access to dealers, depending on their banking relationships.

With the domestic markets enjoying a lot of liquidity, market practitioners report that the local markets tend to under-price the credit risk of fixed income securities, leading to local issuers achieving funding costs well inside their natural credit curve. As such, when swapping an IDR exposure into a USD or EUR exposure, the resulting spread of the USD or EUR Libor curve is too low for investors to accept such risk. Conversely, for an offshore investor to accept to offer a cross-currency swap, the extra spread that the investor requires to accept the credit risk results in a domestic funding cost that is higher than in local markets. In addition, foreign investors may have a different view on the credit risk of quasi-government entities, thus resulting in their expectation of the credit spread required for lending

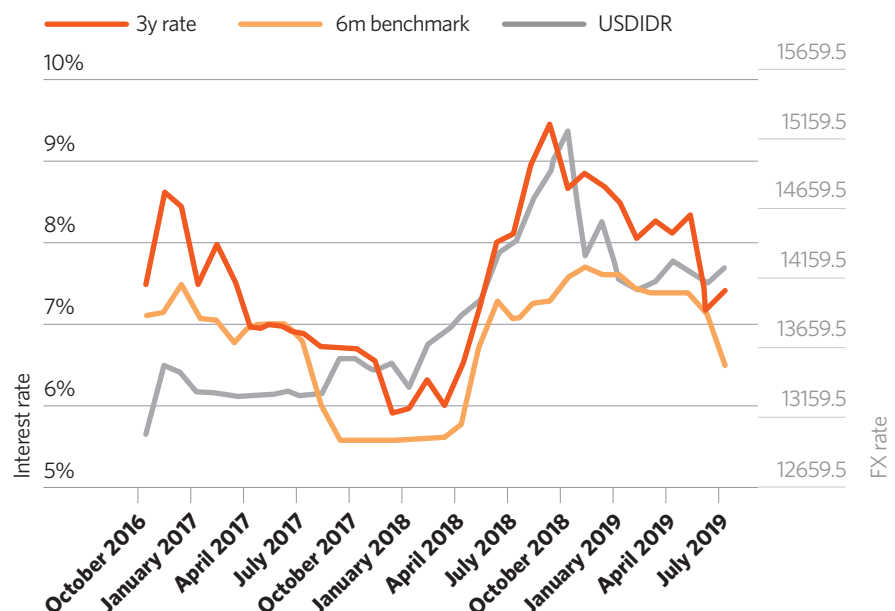
making such hedge unaffordable in local currency (e.g. municipalities are treated as government risk locally, yet foreign investors may require an extra spread to compensate for the risk of a default).

While issuers may be able to access the domestic liquidity initially, the market may become saturated, with local banks limited in their ability to provide credit lines or counterparty risk to hedgers, given the size of the infrastructure program for the country. Accessing international capital will become critical, if this becomes a reality.

To manage their FX exposure, corporate treasurers will look to hedge both the FX and the interest rate risks. Hedging tools include FX forwards¹⁰ and cross-currency swaps.¹¹ While useful, such tools are costly and can be very difficult to arrange for a number of reasons:

- **Collateral** - most hedging contracts require the buyer to post collateral regularly against the fluctuations of the market. For volatile emerging market currencies, the collateral required is often too high, particularly for corporates with low credit ratings, due to the perceived creditworthiness of the entity.
- **Interest rate differentials in different currencies:** The cost of hedging currency exposure is related to the interest-rate differential between the one currency and another. This spread can fluctuate, causing hedging costs to be sometimes unpredictable. IDR rates have, however, been quite stable and low (cost of the hedge ~4-5% per annum) which is
- **Transaction costs:** traders will take a margin on the rate differential, which will depend on the volume of transactions that they can do. An active, liquid market (EUR, USD, JPY) will tend to have lower transaction costs than illiquid markets (IDR).
- **Illiquidity for long-dated maturities:** Trading volumes for long-dated instruments are usually small for many emerging market currencies including IDR - this illiquidity means that prices are not certain or even available for large transactions.
- **Liability costs:** the FX hedging may create some unrealized liabilities, so the ability to enforce a credit claim will determine whether a bank is willing to extend credit to a bond issuer
- **Counterparty credit risk:** in under-developed markets, international banks are unwilling to extend credit risk to corporations, making it harder for them to hedge their FX risk
- **Credit Support Annex (CSA) agreements** are required for tenors longer than 1 year. This can be challenging to put in place for issuers with low credit ratings

Indonesian interest and FX rates from 2016 to 2019



2. Market liquidity

Liquidity allows for more accurate and consistent pricing of new bonds in the primary market. The publication of reference prices supports the transparency of a bond market and help Debt Capital Market teams within banks to have better pricing information and be able to benchmark new transactions against existing ones.

Bonds markets within emerging markets are often characterised by few new transactions, very low trading volumes and low liquidity. For example, in December 2018, USD92bn worth of local currency IDR corporate and government bonds were traded. This compares to USD150bn worth of Thai bonds (THB) in Thailand and USD2.5trn of JPY bonds.

The Indonesian market for debt securities and sukus is relatively illiquid due to its over-the-counter (OTC) nature and small overall size. The largest 30 corporate bonds represent 74% of the total domestic bonds outstanding. Only a small fraction of the total amount of bonds outstanding trades in the secondary market for both conventional debt securities and sukuk, including green bonds and green sukuk. This makes price discovery more challenging than in more mature markets.

If a green bond market has high liquidity in secondary markets, this will have a positive impact on the development of the market as a whole, as the pricing of new bonds in the primary market will become easier.

3. Cost of green bonds for small issuers

Issuing green bonds of smaller sizes (< \$100m) incurs costs that are relatively too high, compared to loan financing. Some costs are relevant to all types of bonds – e.g. obtaining a credit rating, drafting a bond prospectus and legal fees while others relate specifically to green bonds – e.g. obtaining a second opinion and green certification.

A green bond issuer must bear the additional costs and expenses of a review on the proceeds by an independent third party. These costs are insignificant for large transactions (>USD300m) but can be a barrier for smaller transactions.

Sector	Key risk/ barriers
Hydro (large)	<ul style="list-style-type: none"> Land acquisition is difficult and ownership unclear There are conflicting claims on land permits
Hydro (small)	<ul style="list-style-type: none"> Limits on foreign ownership (1-10MW can have a maximum of 49% foreign ownership) 30% minimum equity is difficult for small developers to meet No take-or-pay provision makes them less bankable
Bioenergy	<ul style="list-style-type: none"> Permissions and licensing for land, water and environment are problematic Difficulties in coordination between PLN and regional authorities
Municipal WTE	<ul style="list-style-type: none"> Difficult to obtain land permits Upfront expenses of surveys and preparatory work is high
Solar energy	<ul style="list-style-type: none"> Difficulties with land acquisition Access to grid is slow and difficult Limited local expertise to deploy technology Tariffs
Wind Energy	<ul style="list-style-type: none"> Upfront costs are high Regulatory framework is not established Access to grid is slow and difficult

4. Low credit ratings

A poor credit profile rating makes it difficult to attract project financing. While an issuer may have a good local credit rating, foreign issuers rely on international ratings to make their investment decisions, as it offers a basis for comparison across bonds from various geographies. An international credit rating is often much lower than a local rating, due to additional risks (convertibility, currency exchange, etc.). This results in, for many domestic issuers, an inability to issue a green bond as investors require a certain level of credit enhancement, which can be difficult to obtain.

5. Bankable green projects

To raise capital through issuing a green bond, an issuer needs to have bankable green projects so that an investor can make investment decisions based on their risk exposure, and risk-return profiles of the underlying projects. However, a wide range of current green projects such as water, pollution control, land use, natural resource management, and climate change adaptation are considered not bankable due to the low profitability and cash flows, and the lack of a track record.

Insufficient bankability of green projects is a barrier for project developers (i.e. potential green bond issuers) to raise capital to finance their projects, including through issuing green bonds.

A green bond is a tool to raise finance for a green project but it is not a tool to improve the bankability of a green project, or to attract investors when there is no bankable green project. Some bankability issues related to sectors.

6. Market Awareness

A critical barrier for all emerging markets including Indonesia is the lack of awareness and local knowledge of green bonds. This will inevitably change and grow as transactions increase but in the initial stages it presents a 'chicken and egg' situation. Potential advisers and service providers are reluctant to invest in the capacity needed to verify/structure/advise on green bonds while issuers have limited access to low cost local service providers who are able to give them advice on green bonds. This can prevent new deals from coming to market.

Credit profile determinants

- absence of track record by the project sponsor
- absence of demonstrable performance of the technology
- absence of an independent credit rating (international or domestic)
- A lack of assets to secure the project
- subordination of the payment to bondholders, relative to other stakeholders in the project
- The inability to own the land, on which the project is build (relevant for sukuk in particular)
- mismatch of currency between income (e.g. IDR) and borrowing (e.g. USD)
- risk of default on the income guaranteeing the income
- An imperfect FX and interest rate hedge (e.g. due to long dated borrowing)
- Execution risk on a project
- The uncertainty surrounding some parameters for calculating the investment return

Roadmap for Indonesia – Solutions to growing the green bond market



GOVERNMENT AND REGULATORS

Establish a green bond subsidy scheme in Indonesia

To reduce costs and support the growth of green bonds, green bond subsidy schemes have emerged through HKMA in Hong Kong and MAS in Singapore. These schemes cover the cost of external review up to a maximum amount. They typically are inexpensive and do not require any support from a multilateral development bank (MDB), although this is an option.

A similar scheme for Indonesia that is focused on smaller issuance sizes would help to reduce the cost barrier for Indonesian issuers and have wider benefits for the market as a whole. A scheme that enables smaller bond sizes to market may serve to attract a wider range of issuer types to the market, providing more diversification to global bond investors and may make the Indonesian green bond market more attractive to investors.

Fix tax rates for green projects at project inception

A policy fixing the tax rate at the start of a project for specific, long-term green projects would make the calculation of the profitability of such project more certain, reducing the uncertainty that varying tax rates represent over the life of the project.

Reduce red tape

FX transactions typically need to be documented. One solution is that requirements to document FX transactions are simplified or cancelled for green bond investors, thus facilitating the attractiveness of such instruments for investors.

A mechanism allowing specific green bond funds (institutional investors) to pre-register with the regulators in order to avoid the requirement to report on FX transactions could facilitate the attractiveness of the Indonesian green bond market for this type of investors. This should be accompanied by compliance with regulatory constraints and the stability of the financial markets.

For example, regulation on geothermal energy projects has recently led to a public private partnership with feed-in tariffs that are fixed in USD, rather than IDR, to the project manager. This has resulted in the dramatic lowering of risks for that kind of project. Although it puts the burden on PLN to become exposed to the foreign exchange risk of such tariffs, it is greatly supportive of more green projects and could lead to further green bond issuance.

Recognition of other legal frameworks

Allowing the recognition of foreign law (e.g. English Law) for green bonds issued in Indonesia would increase the recognition by offshore investors and increase the participation of foreign investors into domestic green bonds. This is a common approach in Singapore or Hong Kong, for example, where issuers can easily access international investors. Another option would be to create a special economic zone where international courts are recognised (e.g. Abu Dhabi Capital Markets).

Credit enhancement from government or IFIs

There is some help available through the Infrastructure Financing Fund operated through PT SMI and PT IIF for debt and equity financing of infrastructure, including feasibility studies, financing schemes, advice on incentives, fiscal support and regulatory reforms.

Supporting long term bankable green projects

In collaboration with development banks and agencies, the Indonesian government can enhance the bankability of green projects by identifying strategic green projects linked to climate and providing them with subsidies, guarantees or first loss capital. The government can also establish a dedicated blended finance institution, linking national policies to sector development strategies and investment plans, and leverage public funding to mobilise private capital.

At the regional level, the ASEAN Catalytic Green Finance Facility has been launched by Southeast Asian governments, the Asian Development Bank (ADB), and development financiers. The USD1bn facility aims to catalyse private capital by mitigating risks through innovative finance structures, supporting sovereign green infrastructure projects such as sustainable transport, clean energy, and resilient water systems.¹²

Building on this facility, the Indonesian government can build up its own bankable green project pipelines suitable for its national development strategy and climate change/environment commitment, and to mobilise private capital to finance these projects.

Provide political risk guarantees through the Indonesian Infrastructure Guarantee Fund (IIGF)

IIGF's guarantees are intended to guarantee the political risk of both central and local government as a contract agency to provide certainty and comfort for investors. These guarantees are designed to:

- mitigate risks that are difficult for the private sector to handle;
- increase transparency, clarity and assurance in the process of guarantee issuance; improve the bankability of the project;
- extend loan maturities (which may result in more competitive bid pricing); and
- prepare contracts based on the common best practice, as opposed to a government-bias contract.

To reduce policy and regulatory uncertainty, IIGF can grant guarantees to green infrastructure projects, as long as these projects comply with the eligibility requirements of IIGF. Eligible projects include but are not limited to: drinking water; electricity; health; energy conservation; public housing; renewable energy; waste; waste water integrated management system and transportation. Since 2016, IIGF has guaranteed 18 projects, including toll roads, hydropower plant, drinking water transmission, marine cable communication system and fibre optic communication system. It appears that guarantees issued by IIGF are only provided in particular infrastructure projects, notably those that are perhaps highly strategic in nature. Green infrastructure projects are likely to be considered as eligible under the IIGF.



ISSUERS

Encourage retail investment and retail products

Allowing greater access to green bonds by retail investors may serve to develop a more liquid market for such instruments.

This could be done by reserving a portion of a new bond issuance to retail investors and reducing the lot size. The lot size is the minimum size needed to trade a bond and is larger than \$250,000 making it too large for retail investor participation. Facilitating retail investment in green bonds or green sukuk would increase accessibility and greatly support the emergence of a more stable and more diversified green bond market.

Government issuers such as government agencies and state-owned enterprises could demonstrate this as a proof of concept for private financial institutions or private sector projects to follow in the future.

There is also some room for innovation. The launch of green short-term deposits by local commercial banks has proven to receive a great interest from the clients of banks, as in the case of Yes Bank in India. This is an attractive financing solution for any commercial bank.

Use Komodo bond format

Komodo bonds are bonds issued outside Indonesia, settled in foreign currency but denominated in Indonesian Rupiah. The Indonesian state-run toll road operator Jasa Marga was the first to issue a Komodo Bond in London in December 2018. They raised IDR 4 trillion with a coupon of 7.5 percent and maturity rate of three year. The issuance was better than forecasted as it was oversubscribed by around four times.

Case Study:

PR Jasa Marga IDR4trillion (USD280m) 3-year term bonds.

The state-owned toll road operator issued in December 2017 a first global Rupiah bond on the London Stock Exchange. In 2018, PR Wijaya Karya (Persero) Tbk issued an IDR5.4trillion offshore bond (USD405m) with a coupon of 7.7%. The issuance was reportedly oversubscribed by more than two times.



MULTILATERAL DEVELOPMENT BANKS

Subsidies to reduce costs of FX hedging

MDBs could play an important role in the market by reducing the cost of capital for issuers. As FX hedging may result in being a substantial cost for issuers and therefore a barrier to issuance, a subsidy could be created to support this additional cost and facilitate the access by domestic issuers of hedging solutions for green bonds.

Creation of long-dated FX options by MDBs

In theory, the creation of long-dated FX options that are directly linked to green bonds would contribute to greater interest on behalf of international investors. However, in practice the price of such option is usually much larger than what the hedger is willing to pay for. This could be made available by an MDB (like the ADB, IFC, or the TCX Fund), although the availability of cross currency swaps or non-deliverable forward instruments to hedge market risk (as opposed to "tail risk") would already answer most needs from investors.

The Livelihoods and Food Security Multi-Donor Trust Fund

is a program for microfinance borrowers to access that made funds available to subsidize the interest rate levels of the local currency loans, in order to bring the interest rate down to the Central Bank interest rate cap and make it attractive to foreign investors to lend in kyat. In 2016, the facility was launched and became vastly oversubscribed with \$200 million of orders. A second round was launched in 2019.

Case Study: Credit Guarantee and Investment Facility (CGIF)

CGIF was established by the ten members ASEAN together with the People's Republic of China, Japan, Republic of Korea and Asian Development Bank (ADB). It is a key component of the Asian Bond Markets Initiative (ABMI) of the ASEAN+3 cooperation and has been established to promote economic development, stability and resilience of financial markets in the region. The main function of CGIF is to provide

A landmark blended finance model is the Tropical Landscape Finance Facility (TLFF). It issued a USD95m sustainability bond with a project preparation and blended finance partnership with UN Environment, the World Agroforestry Centre that enabled private capital from ADM Capital and BNP Paribas.⁵⁹

The availability of hedging mechanisms depends on the size of the transaction and the credit profile of the parties to the hedging instrument. One strategy to develop the market is to find mechanisms to extend the availability of FX instruments for green bonds to longer maturities and the availability of FX options. This can be achieved through the intervention of MDBs, such as the Asian Development Bank (ADB), IFC or others.

The TCX Fund, for example, can offer longer-dated hedging instruments, where the local market is limited.

Blended finance - Credit enhancement or guarantee mechanisms for green transactions

Full or partial guarantees can increase the credit quality of an issuer and support issuance in different ways. Enhanced credit ratings can:

- Make ISDA agreements easier to negotiate
- Reduce construction risk
- Reduce borrowing costs
- Achieve better international credit ratings

Global MDBs could help to catalyse the local green bond market by providing credit enhancement in the form of guarantees or the taking of first loss.

There is some support available locally through the Infrastructure Financing Fund operated through PT SMI and PT IIF for debt and equity financing of infrastructure, including feasibility studies, financing schemes, advice on incentives, fiscal support and regulatory reforms



INVESTORS

Ask for green bonds

This may take place through the signing of joint statements such as the Green Bonds Pledge or more directly through reverse enquiries.

A reverse enquiry is when an investor asks a bond issuer to issue a specific bond so that the investor can establish a long bond position in that borrower. It creates a window for institutional investors to obtain the issuance of a green securities directly to that investor. This has the effect of reducing the transaction costs for both parties in the transaction.

Implement green finance mandates, targets aspirations

Investors around the world have been instrumental in driving the demand for green bonds and other green investments. This has been achieved, in part, by putting green targets, aspirations or mandates in place to buy green investment products.

Barclays was one of the first investors to do this, committing to invest GBP1bn in green bonds in 2014. This was later extended to Gbp2bn commitment.¹³ An array of green and ESG funds exist all over the world with specific mandates to buy green product.

Government pension schemes in Indonesia could be first movers in this regard, committing to buying green bonds or similar products and laying the groundwork for other investors in Indonesia.

lending and repo transactions for green bonds (within certain acceptable prudential limits), the effect would be to unlock such securities and increase their liquidity, relative to other bonds in the market and making them more attractive to investors. Their price discovery would thus be also made easier.

Allowing insurance companies and pension funds to engage in repo transactions for green bonds and green sukuk would make it easier for such investors to participate in this category of instruments. This could increase liquidity of green bonds and make them more attractive compared to conventional bonds.

In the Central Bank's monetary policy toolkit, green bonds can be given preferential treatment, such as being accepted as collateral for repo transactions.

When accessing liquidity at the Central Bank, green bonds can be allowed to be accepted (possibly subject to a minimum credit rating threshold), rendering them more attractive for insurance companies and banks.

Reduce credit rating requirements and guarantors for green bonds

One possible solution is that the requirement of a credit rating and a guarantor for any public issue is waived for green bond and green sukuk. This would only be relevant for qualified institutional investors, so as to maintain the level of protection that currently exists in the Indonesian bond market.

This would result in reducing the costs of issuance for green debt securities and green sukuk, while maintaining the requirement safeguard for retail investors.

The downside risk is that this may reduce the credibility of the market. To reduce this risk, the requirement could be waived for qualified institutional investors only (many of whom have an internal methodology to calculate risk) and that this is waived only in the short term while the market is gaining traction.

fee may be charged, the annual listing fee could be reduced for green bonds and green sukuk, so as to support their issuance.

A decision on behalf of IDX to reduce listing fees for green bonds could serve to increase green bond/sukuk listings and for IDX to be viewed as a hub for green finance in the region.

Create a special green segment of the Indonesia Bond Pricing Agency (IBPA)

To respond to the relative illiquidity of Indonesian bonds or sukuk, the creation of a special segment of IBPA for green bonds and green sukuk would increase the price transparency of green instruments and make them more easily accessible to investors. Developing a more active secondary market for green bonds and green sukuk would also help develop price discovery and facilitate secondary trading of such bonds and sukuk.



CENTRAL BANKS AND FINANCIAL MARKET REGULATORS

Preferential treatment for green bonds - repo transactions, collaterals and central bank liquidity

Currently, insurance companies and pension funds are prohibited¹⁴ from engaging in repo transactions. This is detrimental to the market liquidity as repo transactions have a tendency to increase the liquidity of the bond markets.

If investors with a buy-and-hold bias, such as pension funds and insurance companies, could be allowed to engage in securities



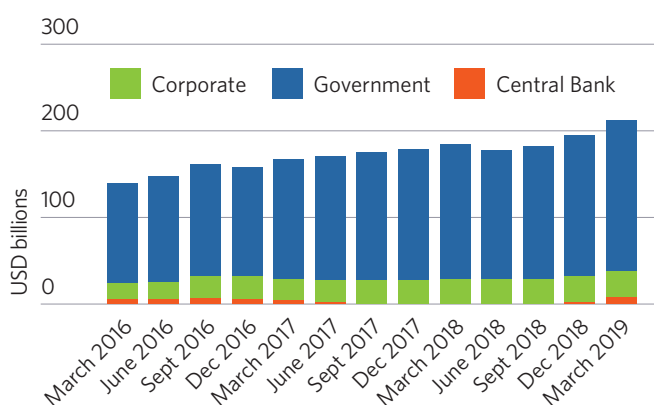
STOCK EXCHANGES AND OTHER MARKET INFRASTRUCTURE

Reduced listing fees for green transactions

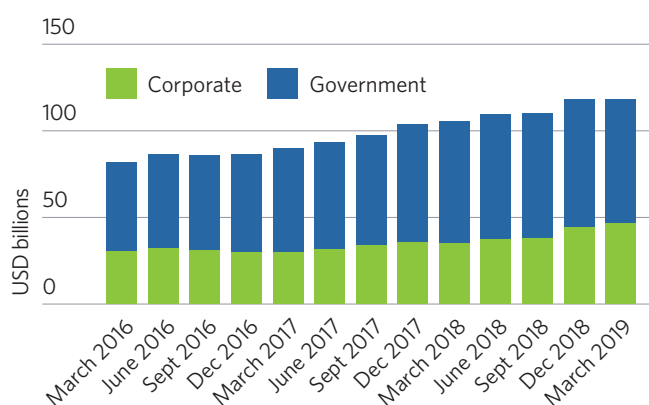
A reduction in listing fees, or even an exemption of the listing fee altogether, for green bonds and green sukuk may result in a greater acceptance of such instruments by issuers. Alternatively, while the initial listing

Appendix 1

Size of Local Currency Bond Market (IDR)



FCY Bonds Outstanding (IDR)



The largest 30 deals make up 70% of the corporate bond market - banking and finance dominate the sector split.

Issuers	Outstanding Amount		State Owned	Listed Company	Type of Industry
	LCY Bonds (IDR billion)	LCY Bonds (USD billion)			
1. Indonesia Eximbank	36,627	2.58	Yes	No	Banking
2. Perusahaan Listrik Negara	26,987	1.90	Yes	No	Energy
3. Sarana Multi Infrastruktur	22,441	1.58	Yes	No	Finance
4. Bank Rakyat Indonesia	20,990	1.48	Yes	Yes	Banking
5. Bank Tabungan Negara	19,847	1.40	Yes	Yes	Banking
6. Indosat	17,645	1.24	No	Yes	Telecommunications
7. Bank Pan Indonesia	15,427	1.09	No	Yes	Banking
8. Sarana Multigriya Finansial	14,923	1.05	Yes	No	Finance
9. Bank Mandiri	14,000	0.99	Yes	Yes	Banking
10. Waskita Karya	13,707	0.97	Yes	Yes	Building Construction
11. Adira Dinamika Multifinance	9,947	0.70	No	Yes	Finance
12. Federal International Finance	9,616	0.68	No	No	Finance
13. Telekomunikasi Indonesia	8,995	0.63	Yes	Yes	Telecommunications
14. Bank CIMB Niaga	8,271	0.58	No	Yes	Banking
15. Pupuk Indonesia	7,945	0.56	Yes	No	Chemical Manufacturing
16. Permodalan Nasional Madani	7,746	0.55	Yes	No	Finance
17. Semen Indonesia	7,078	0.50	Yes	Yes	Cement Manufacturing
18. Bank Maybank Indonesia	7,066	0.50	No	Yes	Banking
19. Perum Pegadaian	6,851	0.48	Yes	No	Finance
20. Hutama Karya	6,825	0.48	Yes	No	Nonbuilding Construction
21. Astra Sedaya Finance	6,125	0.43	No	No	Finance
22. Medco-Energi Internasional	5,578	0.39	No	Yes	Petroleum and Natural
23. XL Axiata	5,162	0.36	No	Yes	Gas Telecommunications
24. Mandiri Tunas Finance	5,130	0.36	No	No	Finance
25. Adhi Karya	4,527	0.32	Yes	Yes	Building Construction
26. BFI Finance Indonesia	4,414	0.31	No	Yes	Finance
27. Maybank Indonesia Finance	4,350	0.31	No	No	Finance
28. Bank Pembangunan Daerah Jawa Barat Dan Banten	4,252	0.30	Yes	Yes	Banking
29. Tower Bersama Infrastructure	3,616	0.25	No	Yes	Telecommunications Infrastructure Provider
30. Bank Permata	3,360	0.24	No	Yes	Banking
Total Top 30 LCY Corporate Issuers	329,448	23.21			
Total LCY Corporate Bonds	437,544	30.82			
Top 30 as % of Total LCY Corporate Bonds	75.3%	75.3%			

IDR = Indonesian rupiah, LCY = local currency, USD = United States dollar. Notes: 1. Data as of 30 September 2019. 2. State-owned firms are defined as those in which the government has more than a 50% ownership stake. Source: AsianBondsOnline calculations based on Indonesia Stock Exchange data.

OJK regulation:

1. Renewable energy,
2. Energy efficiency,
3. Pollution prevention and control,
4. Natural resource management and sustainable land use,
5. Biodiversity conservation,
6. Environmentally friendly transportation,
7. Sustainable water and waste water management,
8. Climate change adaptation,
9. Eco-efficient products,
10. Environmentally friendly buildings in line with national, regional and international standards, and
11. Other activities with some benefits on the environment.

Endnotes

1. Oxford Business Group (OBG), 2017. The Report: Indonesia 2018.
2. <https://asianbondsonline.adb.org/economy/?economy=ID>
3. Data Source: Climate Bonds Initiative Green Bond Database
4. Peraturan OJK No. 60/POJK. 04/2017
5. Ibid.
6. The World Bank (2019). Helping Malaysia Develop the Green Sukuk Market: Facilitating Sustainable Financing - Case Study. <http://documents.worldbank.org/curated/en/586751546962364924/Helping-Malaysia-Develop-the-Green-Sukuk-Market-Facilitating-Sustainable-Financing-Case-Study>
7. Ibid.

8. The World Bank (2019). Helping Malaysia Develop the Green Sukuk Market : Facilitating Sustainable Financing - Case Study. <http://documents.worldbank.org/curated/en/586751546962364924/Helping-Malaysia-Develop-the-Green-Sukuk-Market-Facilitating-Sustainable-Financing-Case-Study>
9. Ibid.
10. A forward currency contract is a customised agreement between two parties that the foreign currency will be converted to the domestic currency at a fixed rate on a future date.
11. A form of an agreement between two parties to exchange interest payments and principal denominated in two different

currencies. Interest payments are exchanged at fixed intervals during the life of the agreement. Cross-currency swaps are highly customizable and can include variable, fixed interest rates, or both.
12. The facility will mobilize a total of \$1 billion including \$75 million from the ASEAN Infrastructure Fund (AIF), \$300 million from ADB, €300 million (\$336 million) from KfW, €150 million from the European Investment Bank, and €150 million from Agence Française de Développement. <https://www.adb.org/news/new-facility-mobilize-1-billion-asean-green-infrastructure>
13. <https://home.barclays/news/2018/06/green-shoots/>
14. KMK No. 424/KMK.06/2003

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