

Asian Infrastructure Project Bonds: Attracting Foreign Investors

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I. Introduction

This initiative started in October 2015. ASIFMA put together a working group to discuss with its members what could be done in Asia to help facilitate private sector funding of infrastructure projects via capital markets and through project bonds or other adequate instruments. Infrastructure has emerged as a distinct, fast growing asset class over the past years.

Project bonds need to be approached as a separate fixed income asset class – with its own unique characteristics although they should not be seen as “alternative investments” as this can set the return expectations unrealistically and can inhibit the growth of the project bond market. Project bonds might be less liquid, more suitable for private placements etc. and therefore need to be approached differently to Government, Corporate Bonds, Bank Sub-debt, Covered Bonds etc. by all parties - investors, promoters, stakeholders and regulators. As an instrument to match conservative long term investors and well developed projects – there needs to be a conducive environment for bonds (a functioning bond market of sorts) as well as a conducive environment specific to the asset class. It also needs an eco-system of credible support institutions; bond arrangers, trustees, rating agencies, independent engineers, consultants, agents. In order to develop project bonds as a “safe” asset class, each stakeholder will have to play a key role to develop the market, otherwise a single default – especially at the start - could have a huge impact on the whole asset class for investors in the future. While this paper focuses on attracting foreign investors, “creating domestic project bond investors” is also very important as there is a need to build large pools of indigenous long term savings through domestic insurance and pension funds as well as to make bonds attractive for foreign investors in tandem.

A developed market for project bonds in Asia would offer some significant benefits for the financing of infrastructure projects, including:

Significant additional investor liquidity

The infrastructure investment need in Asia is estimated to be \$8 trillion between 2010 and 2020, which is beyond the funding capabilities of host-governments, multi-lateral institutions and the banks whom presently operate as project finance lenders in the region. Project bonds would help to provide an additional source of liquidity for projects, either by funding greenfield projects or more likely, by providing a refinancing option for projects after construction, thereby enabling bank lenders and/or governments / multilateral institutions to recycle their capital into new projects.

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Diversity in the funding sources available to projects in Asia

To date, debt funding for infrastructure projects in Asia has tended to be funded directly by governments or by a combination of loans advanced by multi-lateral institutions and commercial bank debt lenders. The regulatory capital burden on banks is increasing, particularly for illiquid assets like infrastructure projects and many of the traditional project finance lenders are retreating from non-core markets. Project bonds represent a valuable, diverse source of additional liquidity.

The possibility for greater stability in the capital structure for infrastructure projects

Project bonds also offer longer tenors than many banks can generally provide, including tenors that may match the length of the concession period. By minimising or avoiding the refinancing risk inherent in 'mini-perm' structures (where debt maturities are significantly shorter than the concession period for the relevant asset), project bonds provide significant stability to the capital structure for the relevant project. If provided in local currencies and fixed rates as well besides long term – project bonds help “derisk” projects by eliminating the currency mismatch, refinancing and interest rate risks although this may pose challenges if a large amount of domestic long term savings is not available.

Project bonds may take various forms, ranging from private placements through to fully public bond issuances. Even within these categories there are a wide variety of different structures (for example, private placements may be documented as listed issuances or under the US model form documentation for US private placements). Defining the types of project bond that would work in Asia is difficult as it is mainly untested ground for many countries, with little precedent or relevant examples to act as models, but some high level features can emerge. Set out below is a high level summary of the features foreign investors would be looking for while investing in infrastructure project bonds.

II. Infrastructure Project Bonds in Context

Defining a single type of infrastructure project bond that would work in Asia is difficult. One of the key starting points, for countries, would be to make sure the government and credit capital markets are as developed as possible (see below ANNEX A: 7 basic requirements of fixed income markets) as deep liquid markets attract foreign investors. “Risk free” assets such as government bonds should be open to foreign investors. Once foreign investors are comfortable with investing into “plain vanilla” products, they would feel more comfortable to go up the risk curve and invest into more sophisticated products such as project bonds. One cannot therefore see the development of infrastructure bonds as being removed from the development of government and corporate bond markets including a deep liquid yield curve, repo markets and futures contracts. They are inevitably linked. And therefore, should be treated similarly. Making project bonds have the same withholding tax waivers as government bonds is equally important. Today, corporate/project bonds are frequently disadvantaged against the respective risk free benchmarks for both domestic and foreign investors – a gap that needs to be narrowed.

To attract investors, the project bond’ structure would need to fulfill expectations in terms of risk, guarantee, framework, market, bond structure, credit enhancement and type of financing amongst other requirements. For investors, in order to invest and understand the country, the less risky the products the more attractive it will be, at least initially. The closer the project bond is to plain vanilla products, the more likely it will be funded. This could be bonds in USD, with a clear concession agreement, investment grade, without political or construction risk and with the

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bond taking out (at least in part) the bank/government/multi-lateral funding. Alternatively, it is also important for countries looking to build infrastructure, to consider developing a local currency Project Bond market rather than issuing USD bonds which can be pitched as an asset class just below the respective local currency Government Bonds to match the currency of the project cash flow. Investors need appropriate return benchmarks for infrastructure given the distinct nature of the asset class (e.g. lower volatility of returns, higher recoveries etc.). Project bonds should not be benchmarked against corporate bonds indexes. This currently happens due to lack of alternatives or lack of experience/knowledge.

An additional point from investors' stand point (and in addition to tax that is mentioned earlier) is that investors need appropriate return benchmarks for infrastructure given the distinct nature of the asset class (e.g. lower volatility of returns, higher recoveries etc.). Project bonds should not be benchmarked against corporate bonds indexes. This currently happens due to lack of alternatives or lack of experience/knowledge.

It seems that in Asia, some countries are more prepared than others to develop a strong project bond market. It is quite possible that we will see some infrastructure project bonds in Indonesia or China in the coming years. However, it is also possible that investors prefer other forms of financing such as infrastructure project loans or hybrid bonds which might better fit that investors' needs. Of course, not all investors are like commercial banks or sovereign wealth funds which have that flexibility, and many such as pension funds or insurers would favour capital market instruments such as project bonds. Therefore, project bonds have the capacity to bring whole series of new investors into the market who could not otherwise access it. This being said, certain institutional investors such as pension funds and insurance companies have a comparative advantage (over traditional project finance lenders) in providing longer tenor financing as they are more perfectly matching their liabilities with their assets.

An initial way to kick start the project bond market could be to package existing loans to a project that banks are already financing into a bond that could be issued in order to refinance those deals and take them off the bank's or multilateral institution's balance sheet. This could start with an existing strong and mature project with stable revenue stream and proper features. The capital freed up from the balance sheet could then be reinvested in other projects and the cycle of banks/institutions taking the initial political/construction risk could restart with the capital markets coming in later as take out financing to allow long term investors to enter such as insurance, pension funds, SWFs after the project is stable, mature and less risky. However, this might be challenging as banks may be reluctant to give up good projects if refinancing clauses are not embedded in the initial financing arrangements and might not want to offer good project to the capital markets, unless forced by exposure or credit limits. For strong projects, another difficulty might be the tendency for the sponsor to want to raise more funds – "2nd generation funding" from future surplus free cash flows. Even if some lenders are not open to this concept, this is a very important capability as it helps sponsors recycle their capital to build more. Long term project bonds are also the only method to deliver this capability cost efficiently as an equity listing route is too expensive for sponsors. As emerging countries need more and more infrastructure, this efficient bridge to future cashflows could be pivotal.

Finally, regulators should revisit the level of capital requirements around investment in infrastructure through project bonds if they are to grow the asset class. Infrastructure is a public good and as government bonds have special treatments, there should be consideration given to provide capital relief for well-structured project bonds that have low risks in order to stimulate the funding of infrastructure otherwise the much of the projected \$8 trillion in projects needed may go unbuilt.

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III. Characteristics of bond investors and impact on project bonds in Asia

Characteristic of project bonds/ bond investors and bond markets	Consequence for potential project bond structures in Asia
<p>1. Bond investors have substantially the same ‘bankability’ requirements for infrastructure projects as bank debt lenders</p>	<p>Projects will need to meet basic standards of bankability for project finance transactions, including:</p> <ul style="list-style-type: none"> • an appropriate allocation of risks between the private and public sector that is consistent with international best practice; • an adequate investment, legal and regulatory framework, including strong and respected contractual and property rights, minimal appropriation risk, predictable government policy and regulation; and • a revenue stream that can be forecasted with some degree of accuracy and, to the extent comprised of government payments, is backed by credit-worthy entities.
<p>2. Bond investors may have difficulty with unmitigated construction risk</p>	<p>There are several factors that may make it difficult for bond investors to offer a competitive funding option for projects with (unmitigated) construction risk, including:</p> <ul style="list-style-type: none"> • Bond investors generally prefer to invest by way of a single up-front payment (although with private investors, it may be possible to obtain deferred drawings). Greenfield infrastructure projects may have long construction periods. A single, upfront advance of debt funding may result in significant negative carry for the issuer during this construction phase. Although, for example in Malaysia, greenfield projects, fully funded at financial close help to “derisk” the project further. The negative carry is a trade-off for fixing the funding cost for the life of the project – these are typically considered as part of interest during construction anyway. While higher if funding is fully available upfront – interest during construction can be pared down somewhat with well designed “permitted investments” for the disbursement account. Deferred drawings - unless provided on fixed rates agreed upon upfront - brings with it risks of significantly higher interest rates – affecting the project’s economics and risk profile. This is particularly pronounced for high interest rate countries like Indonesia and Vietnam. <p>Also, if deferred drawings are contingent in some form or another – projects can get stuck during the construction phase if funds are not fully available to address construction risks. Frequently, things do not go to plan and it is the availability of funds that actually help resolve issues during the construction phase to reach completion.</p> <ul style="list-style-type: none"> • It is relatively common during the construction phase of major projects for the project company to approach its financiers to consent to various matters, for example, variations to the proposed design of the project. Bond investors may not be suited to responding to these requests in a timely manner.

- As noted below, most bond investors may only have a mandate to invest in debt instruments with an international ‘investment grade’ rating. Due to the relatively high risks facing a project during the construction phase, it is rare that a project in the construction phase can support an investment grade rating (although over the life of the project, it may in fact be investment grade). There may be exceptions to this general rule, for example if the construction period is very short (e.g. solar farms) and the builder is a large and reputable company, well rated, reliable and with good credit support.

3. Possible mitigation of construction risk for bond investors

Many of the practical issues associated with the use of bonds in the construction phase of projects can be managed. Various possible approaches have been adopted in Europe and other markets including:

- public sector credit enhancement models, such as the PBCE which involves the EIB providing subordinated debt or letters of credit to assist liquidity in the construction phase. Procuring authorities or multi-laterals may be able to provide similar support for Asian infrastructure projects;
- private sector credit enhancement models, such as the PEBBLE structure, which involves bank debt lenders providing a subordinated debt facility but taking the primary role in responding to consent and waiver requests during the construction phase; and
- the use of a project agent which is an independent entity taking the primary role in facilitating responses from the creditors to consent and waiver requests, particularly during the construction phase.
- as a practical Asian example, MDBs (e.g. CGIF and IFC) can guarantee construction phase risks in project bonds. For example, CGIF is developing a Construction Period Guarantee Facility which allows the guarantors to be the “controlling creditor” to manage the various matters of the construction phase of the project. It is likely to be a full wrap as it appears that a partial credit enhancement product can only work within a consistent rating framework, where investors are already familiar with project bonds and their ratings. Many investors have not yet seen a project bond and will not be able to appreciate how much partial credit enhancements will be required to improve the rating.
- these practical issues do not apply to the same extent during the operating phase of an infrastructure asset and accordingly it may be that initially project bonds will be best suited to refinancing brownfield assets in Asia (that is, assets where there is no remaining political or construction risk).
- Construction risk can also be mitigated by Performance Bonds that the EPC contractor engages

4. Bonds investors need to take into account the FX risk

FX risk can have a big impact on those investments. The investor would either have to be comfortable with the currency risk or hedge that exposure through an FX product like a forward or option but the cost of

hedging would be very prohibitive as such markets are very illiquid in most countries in Asia. Alternatively, the issuer can issue in USD and swap the proceeds back into the local currency but the expensive hedging costs would then have to be borne by the issuer and would be significant. It is possible that the government could take the first loss on that exposure or guarantee an FX rate through the concession agreement or provide availability style payments partly in hard currencies to allow for foreign currency financing for local revenue projects when that is needed. Mark to Market adjustments should also be included in the concession agreement.

Obviously, the ultimate solution for FX risk is developing a large domestic investor base and domestic debt capital markets. Infrastructure assets are among the most difficult to hedge even when swap markets function well due to cash-flow based project finance lending and common need for waivers during the construction phase.

5. Bond investors may only have a mandate to invest in debt securities with an investment grade rating

In addition to the comments above, the following structural aspects may also be important:

- from a credit perspective, it will be important to ensure that project companies have recourse to the full faith and credit of the sovereign for any amounts payable under the concession agreement, particularly on termination and without the risk of significant delays associated with appropriations; and
- ratings for project bonds are likely to correlate to the credit rating for the relevant sovereign, with a higher yield to reflect the expected difference in credit rating between the sovereign and the relevant project. A high sovereign credit rating may assist to stimulate the project bond market for a particular country.
- the international rating framework does not work well for Asia's project bonds. When we consider the region's low sovereign ratings (both foreign and local currency ratings), projects with or without construction risks will struggle to be investment grade. Also one of the main reasons for private sector participation in building infrastructure is to provide relief to a government's fiscal capacity so guaranteeing bonds or FX risks related thereunder push in the opposite direction although project bonds still would provide significant relief.

As there is a negative correlation with the need for infrastructure and the sovereign ratings (higher rated countries would have sufficient infrastructure or fiscal ability to build them vs lower rated countries), developing an international scale project bond framework for Asia now may be futile. Consider Indonesia and Vietnam as examples – how likely are the projects there going to be investment grade rated, notwithstanding for example, Indonesia's ample fiscal capacity)

- also, the default rates for project finance are lower than corporate bonds. Sovereign default rates are also lower despite the notion that "all ratings are equal".

- This dilemma is core to the issue of how best to meaningfully measure the risk of a project bond. The rating agencies (both domestic and international) have a role to try to offer a more workable solution.
- developing this “safe” asset class and drawing interest from domestic investors (for some countries – there is a need to create investors) and foreign investors are the main challenges ahead.
- the competitiveness of the capital is also very important for investors and will greatly depend on the rating of the bond.

6. Project bonds may be subject to regulations relating to disclosure / the offer of securities

Securities laws in the jurisdiction in which the project is located should not unduly prevent the transmission of important financial information to potential investors (eg the provision of financial models to potential investors). Project bonds, however, cannot be pitched like a normal corporate bond with a standard offering circular and the normal subscription period – it needs a different approach – investors need to do their own due diligence.

In many nascent project bonds markets, sponsors face actual or perceived execution risk in raising their project financing through capital markets. Mitigants to this are firm underwriting by the arrangers, back-stop loan facilities etc.

7. Bond investors favour long term, stable cash-flows. Bond tenor may be very long-term by comparison to bank debt.

Long tenor debt offers significant benefits in terms of the stability of the capital structure for the project. Long term investors may have a greater focus on:

- *Revenue risk*: For projects where the private sector is bearing demand / patronage risk (eg toll road projects), investors may require government guarantees of a proportion of the revenue stream during the operating phase. It may be preferable to structure such projects (at least in part) on an ‘availability payment’ model, whereby regular payment are made by procuring authorities to the project company for performance (assessed against KPIs specified in the concession agreement), irrespective of demand for the project;
- *Inflation risk*: Over the life of a 30 year concession, inflation in operating costs is a significant risk. Procuring authorities can assist by indexing a portion of any availability payments payable to the project company (or permitting increases in user-charges to compensate for inflation);
- *Hedging exposure*: The potential mark to market exposure on a basis or currency swap over the term of a project bond can be significant – as noted above, it will be important that either the termination payments payable under concession agreements provide appropriate compensation for the costs of breaking these arrangements and that the relevant procuring authority has sufficient creditworthiness (or credit support) to make these payment obligations enforceable and bankable; or the investors are able to bear the risk or pay to hedge it appropriately. Hedging a

mismatch is the “elephant in the room”. If there is a mismatch – it needs to be considered if it is the project companies that hedge or the investors that hedge. Developing hedging capacities both ways are needed but achieving the long term hedging capacity required is a huge challenge.

8. The most liquid bond markets are in the US, UK and Europe while most bankable infrastructure projects are in Asia.

Bond investors in these markets are likely to look to invest primarily in USD, but also sterling or Euros, whereas the revenues for Asian infrastructure projects are likely to be denominated in the local currency for the relevant project. Local currency investors would not need hedging, but offshore investors would require currency hedging as they will be swapping the proceeds from the bond issuance back into the local currency. Hedging may be expensive, particularly in markets with low liquidity.

Procuring authorities may assist by:

- denominating payments under concession agreements in alternative currencies (eg where the procuring authority is paying availability payments, a proportion of them could be paid in the currency of the bond issuance);
- offering direct or indirect support to the private sector in implementing hedging, eg by entering into hedge transactions prior to financial close on behalf of the project company, to enable that hedging to be implemented over a period of time rather than all at once;
- accepting some or all of the currency risk in a project, by increasing payments under the concession agreement to compensate the project company for currency movements or permitting an increase in user-charges to offset significant changes in currency; and
- ensuring that any costs of breaking hedging prematurely are included in termination payments payable by the procuring authority under concession agreements.
- passing the FX risks to poor and weak countries may just make them poorer and weaker. Would the users/government be able to afford say a road built on LCY costs but to be repaid in USD? This would be the consequence of a USD/EUR project bond market in Asia.

9. Project bonds should be ‘securitizable’

Infrastructure project bonds should be designed in order to be potentially securitized in the future. This would give investors more confidence in investing and allow them, in the future, to combine project bonds with other instruments through securitization, to adapt their investment strategy and give investors more flexibility.

10. Project bonds should be issued in the adequate currency

Finally, this is the major question mark as hedging costs are expensive in Asia. For markets where there is a sufficient or at least a significant domestic class of investor willing to fund infrastructure projects, the project bonds could and likely should be issued in local currency. Foreign investors will then have to take on the FX risk to invest in local currency market and/or would likely be willing to take part of the equity tranche of the project in the local currency. However, for

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markets where there is not sufficient local demand to invest in bonds, it would make sense to issue the bond in foreign currency (such as USD) otherwise its unlikely to attract the foreign capital needed. Having different tranches, in local currency and USD to attract both local domestic investors and foreign investors doesn't seem to be a viable solution as it will spread the risk for investors.

Ultimately, the best long term solution is to develop the domestic institutional investor base to sufficient size and the domestic capital markets in order to support project bonds

ANNEX A: Seven Basic Requirements for Liquid Government Bond Secondary markets

Liquid Government Bond Secondary Markets: *Seven Basic Requirements*

1. Disciplined issuance and reissuance programs to support large benchmark issues
2. Liquid “classic” term repo markets that allow easy short selling of government bonds
3. Active, liquid government bond futures markets
4. A broad range of liquid OTC derivatives contracts and exchange-traded derivatives contracts
5. High-quality, efficient and cost-effective electronic price discovery, trading, clearing and settlement platforms
6. A broad, active domestic and foreign investor base (e.g., pension funds)
7. Market friendly and sound regulatory, legal, accounting and tax regimes (ex: no withholding taxes and no transaction taxes)

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